35 Other Observations

35.1 Some Observations on Coastal and Offshore Fishing

This study examined fisheries production in six categories: coastal commercial, coastal subsistence, offshore locally based, offshore foreign based, freshwater and aquaculture. Several types of benefits from fisheries were studied: contribution to: GDP, exports, government revenue, employment, and nutrition. When the fishery categories are analysed in terms of types of benefits (Table 35-1), an interesting pattern emerges. A large part of the employment and nutrition benefits – the benefits that most directly affect Pacific Islanders – come from coastal fisheries; while the less tangible and more abstract benefits (contribution to GDP, to exports, and to government revenue) tend to come more from offshore fishing.

Table 35-1: Benefits by Category of Fishery

	Contribution to GDP	Contribution to Exports	Contribution to Access Fees	Contribution to Employment	Contribution to Food Supply
Coastal Commercial	About 19% of GDP across the region	Substantial in some countries but across the region much less important than locally based offshore	Zero	Large in most countries	Very large
Coastal Subsistence	About 22% across the region	Zero	Zero	Large in most countries	Very large
Offshore Locally Based	About 42% across the region	Large in countries with local fleets	Substantial in some countries	Substantial only in PNG and Fiji, but much less than coastal fisheries	Significant in countries with local fleets
Offshore Foreign Based	Zero	Zero	Large in most countries	Much less than locally based offshore	Some in countries with lots of tuna transshipment
Freshwater	About 6% across the region, most in PNG	Almost nothing except a very small amount from PNG	Zero	Only significant in larger islands of Melanesia	Only significant in larger islands of Melanesia
Aquaculture	About 7% across the region; almost all from two French territories	Most aquaculture production is exported	Zero	Large in French Polynesia and New Caledonia. Significant in only those few countries where there is an aquaculture industry	Significant amounts of tilapia in PNG, Fiji and Vanuatu, with much smaller amounts in many countries. Most aquaculture production is exported

In the fisheries production section, in Chapter 30, the fisheries production in independent Pacific Island countries, as estimated by three Benefish studies, is given for the years 1999, 2007 and 2014, and this estimated fisheries production is repeated in Figure 35-1.

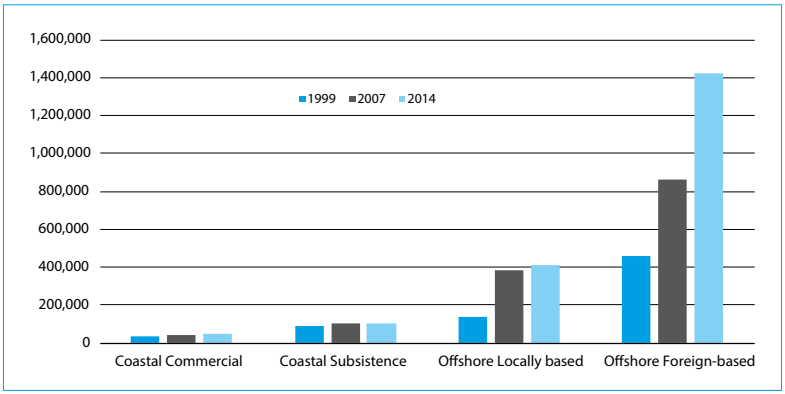

Figure 35-1: Fisheries Production by Volume of the Independent Pacific Island Countries[1] in 1999, 2007, and 2014 (mt)

The figure shows one of the most significant findings of the present study: coastal fisheries production has not increased significantly in the 15-year period 1999–2014. There are indications at the national level that this lack of increase is despite increasing fishing pressure. This is consistent with the idea that, for the region as a whole, the fish resources that support coastal fisheries are fully or over-exploited. Because the population of the region is increasing, the per capita production of fish from coastal fisheries is decreasing, by about 6.0% for the entire region over just the 2007–2014 period. This is a remarkable drop in such a short period.

In collecting information during the present Benefish Study, travel was undertaken to almost all of the Pacific Island countries and territories. The general impression was that, in many places, the effectiveness of coastal fisheries management has declined. This may have many causes, and certainly there are large differences between countries. Probable reasons include the following:

- Mostly unsuccessful attempts to use reef ranching and reef enhancement as a substitute for management.[2]
- The ineffectiveness of other interventions perceived to be easy alternatives to restrictive management (e.g. the use of alternative livelihoods).

1 The study of fish production in 1999 did not include the Pacific Island territories, hence only data from the independent countries are compared in the figure.

2 As expressed by one regional fisheries specialist, who pointed out "the futility of trying to use good aquaculture to make up for bad fisheries management".

- 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).
- Increased attention to the narrow issue of reef shark conservation at the expense of broader coastal fisheries management.
- Fisheries agency fatigue.

Foreign-based offshore fishing continues to rise, with that category of fishing responsible for almost all of the regional increase in fish catches in the 2007–2014 period (as highlighted in Chapter 30). This was mostly due to expanding purse seine catches (Williams and Terawasi 2015). The expanding catches occurred despite the introduction of the Vessel Day Scheme and the associated large increase in access fees, mostly paid by the foreign purse seine fleets. The biggest jump in access fees was between 2013 and 2014 (for countries where it was possible to get access fees for both years) even though prices for skipjack (the main target of purse seining) decreased from 2013 to 2014.

These changes taken together are a powerful argument for the effectiveness of the Vessel Day Scheme.

The catch from locally based offshore vessels increased from 1999 to 2007, but remained flat between 2007 and 2014. As explained earlier, this is not likely to reflect stagnant performance of locally based fleets, but rather the influence of a temporary El Niño shift from the west (where there are lots of locally based vessels) to the east (where there are fewer).

35.2 Some Observations on the Measurement of Fisheries Benefits

Over the period 2001–2015 one of the most striking changes in relation to measuring fisheries benefits is the reduction in the amount of fisheries information that is readily available. In the past one of the most important tools for learning what was happening in a national fisheries sector was the annual report of the government fisheries agency. These reports provided information useful not only for regional fishery researchers, but also for national fishery stakeholders, other government agencies, the media, and the general public. They also served to promote the profile of the fisheries sector and to provide some degree of accountability of the fisheries agency, including in several countries transparency of finances. For various reasons, most fisheries

agencies of the region do not currently produce a good annual report. A good annual report is taken to be one that gives accurate and concise information on the activities of the agency and on fisheries of the country, and is produced in a timely manner. In this respect, the annual report of the Marshall Islands Marine Resources Authority is exemplary. Regional and international development agencies should consider an initiative to increase the capacity of government fisheries agencies to produce good annual reports. Such reports could contain much of the information that proved very hard to access during this study.

Another feature of the measurement of fisheries benefits is that, although statistics on offshore fisheries production are getting better, estimates of coastal fisheries production appear to be getting worse. Because older coastal fisheries statistical systems are decaying and there have been few national "snapshot" surveys in recent years, there is greater use of a tonnage number generated in the increasingly distant past (referred to earlier as "inappropriate recycling of antiquated information"). To mitigate this situation, if a fisheries agency cannot afford some type of snapshot fisheries survey, consideration should be given to obtaining information from studies outside the fisheries sector: e.g. a HIES, agriculture census or national census. The key to assure relevance of those surveys to fisheries is cooperation between fisheries and statistics agencies.

In Chapter 33, on employment related to fisheries, the following was stated:

> It is clear that reliance on government statistics offices to know what fisheries-related employment information to collect and how to collect it simply does not work. Considerable knowledge of the sector is required to collect meaningful information. Government fisheries officials and fishing industry participants have an important role to play in working with statistics offices in defining terms/categories, formulating survey strategies, and scrutinising survey results.

This was written for employment information – but it is equally relevant for information on GDP, exports, and to some extent production levels (i.e. the use of HIES for obtaining fisheries production information).

Several Pacific Island countries and territories have ongoing statistical systems for coastal fisheries, and have the infrastructure in place to estimate coastal fisheries production. However, most are in varying states of dysfunction, with the credibility of estimates of production unknown. For example, during the present survey it was found that in one country the estimate of

coastal fisheries production from a recent snapshot survey was 74 times that produced by the ongoing catch survey. It would not be very difficult for a specialist in small-scale fisheries statistics to examine the existing coastal fisheries statistical systems and offer advice on the credibility of estimates produced, and suggest ways the estimates could be improved.

Surveys that produce "baseline information" were not very helpful to the present survey. In the SPC ProcFish studies, in each country a few specific places were studied and baseline information established for those places – but any production information produced could not be extrapolated to the national level. At least one attempt has been made to raise ProcFish production estimates to obtain a national production estimate (Arena et al. (2015), for Solomon Islands) – with the results likely to be erroneous. Also noteworthy is that the ProcFish baseline studies are not directly comparable to similar work conducted by the more recent SPC climate change baseline assessments. According to the survey reports, the two sets of surveys were not conducted at exactly the same location and hence further monitoring is required to determine whether observed differences are real.[3]

3 Another aspect of the ProcFish surveys is whether the work produced data useful for management by the communities. In an FAO study of fisheries management at Muaivuso a ProcFish site in Fiji, the community stated they used many sources of information to assist in the management of their fishery area, but the ProcFish results were not mentioned (Gillett 2014).