

4 National Accounts, GDP and Fishing

4.1 National Accounting

National accounts are an accounting framework used to measure the current economic activity in a country. Most of the countries in the Pacific region publish national accounts. The method used in each country is generally based on a standardised System of National Accounts (SNA) that was originally introduced by the United Nations in 1953. The SNA has since been revised and refined, and was republished most recently in 2009 (SNA 2008).¹

Typically, governments, international agencies and private corporations use national accounts to monitor developments within an economy. In particular, they are used to:

- monitor changes in economic activity;
- make cross country comparisons;
- prepare time series analysis;
- identify functional relationships; and
- determine aid eligibility and requirements.

In practice, while the methods used to construct national accounts are based upon a standardised system, different approaches may be used, and the quality of the data available can vary significantly. There may be substantial differences in the methods used by each country, so care should be exercised when making country comparisons. In several cases, as described in those chapters, the methods used within a country have changed between the various Benefish studies; hence, inter-temporal comparisons for those countries should also be approached with caution.

¹ A more comprehensive description of national accounting can be found in most macroeconomic textbooks. The supporting documentation to the System of National Accounts 2008 provides a comprehensive description of the procedures and conventions used in preparing national accounts.

While national accounts provide several measures of activity, the two indicators that are most commonly quoted are GDP and gross national income (GNI).² GDP measures the level of domestic economic activity; i.e., economic activity that took place within a country during a specified period of time. GNI is the measure of national economic activity, which includes domestic activity (GDP) plus the net return to the country from overseas investments and remittances. In the case of fishing, these returns from overseas include income from fishing access fees from non-resident fishing by foreign operators. This income is classified as “rental income”.

The three different approaches to computing the national accounts of a country are the: production approach, the income approach and the expenditure approach.

- The **production approach** views the economy from the perspective of production. The approach measures the gross output of each producer then deducts the value of the goods and services purchased from other producers and used in the production process.
- The **income approach** measures the major components of value-added: employee compensation (wages and other remuneration), operating surplus (company profits) and indirect taxes net of subsidies. The sum of these components is the value-added to GDP.
- The **expenditure approach** is based on the final use of the output produced. It sums the expenditures of the main participants in the economy: government final consumption, private final consumption, gross capital formation and net exports.

Given that all three approaches are derived from the same data, by definition, the GDP calculated by each should be identical. In practice it is often difficult to measure all elements within a country’s national accounts with equal reliability. Accordingly, there may be differences between the results generated by each approach. However, these differences are seldom significant.

² Prior to the 1993 revision of the System of National Accounts, Gross National Income was known as Gross National Product (GNP).

4.2 Important Considerations for the Fishing Sector

Gillett and Lightfoot (2001) discuss points in the SNA, which are especially important to the fishing sector, in considerable detail. Because that discussion is relevant to the present study it is provided as Appendix 2 in this book.

Several points in the appended Gillett/Lightfoot discussion deserve emphasis, as follows:

Fishing vs fisheries: The sector, according to SNA, is “fishing”, rather than the more inclusive “fisheries”. Post-harvest activities, including fish processing, are not included in the fishing sector, but rather are generally counted in manufacturing and other sectors. Both aquaculture and subsistence fishing are considered by SNA to be components of the fishing sector. Unless otherwise stated in this volume, this study follows the SNA convention, and for GDP purposes the sector is “fishing” and does not include any post-harvest activities.

Residency: The nature and extent of residency is a core concept of the SNA. It defines what shall be counted as domestic product. For goods and services to be included in the GDP of a particular country, a resident of that country must produce them. A resident is an individual or enterprise whose “centre of economic interest” is within the country. The residency concept is especially important in the several Pacific Island countries that have locally based foreign fishing vessels.

Weaknesses of the concept of GDP: GDP is an estimate of economic activity, and is seldom a precise calculation. Even though the SNA sets out fairly straightforward procedures, in practice the analyst is usually confronted with many uncertainties. Another difficulty is that GDP is an imperfect indicator of the flow of economic benefits from economic activity. This can be quite important in countries where, according to SNA, locally based foreign fishing is part of the local economy, but where a significant proportion of the profits are remitted overseas. The net effect of fishing on economic activity – the “multiplier effect” – can give more information than GDP contribution, but in practice it can be difficult to calculate.

Small GDP contribution: Although a sector's contribution to national GDP may seem small, it can be crucially important to the national economy. The country of Iceland is a good example. Iceland's economy is highly dependent on fish and fishing. Fishery products made up 40% of exports in 2007. Despite this importance, the fishing sector contributed only 7% to GDP in 2007. (Ministry of Agriculture and Fisheries, 2008) This is because many fishing-related activities are accounted for in other sectors, such as manufacturing, and much economic activity generated by fishing is attributed to other sectors, such as retail trade.

Appendix 3 contains guidelines for calculating the fishing contribution to GDP. It gives some overall considerations, general information on value-added ratios (VARs), VARs determined from 22 fishery studies in the Pacific Island region, and the VARs used in this book for 14 categories of fisheries and aquaculture.