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Economic data in support of viable fisheries and aquaculture

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BACKGROUND

1. As fisheries resources deplete, the pressure to extract greater value from them increases. Economic analysis can play a significant role in making decisions that are more evidence-based and in identifying the most efficient and effective options for intervention into the fisheries sector. Furthermore, it can provide indications of likely impacts on groups of the population of resources and an idea of equity and sustainability, among other things.

2. While economic analytical tools are good at dealing with data poor environments, some amount of data is important for verifying analyses. Furthermore, in order for appropriate analysis to be undertaken, some studies such as value chain analyses or impact evaluations may require specific data to be collected.

3. Countries are required to report against a range of regional and international indicators such as those in the Sustainable Development Goals and New Song for Coastal Fisheries. Gathering data on each indicator can be expensive and time consuming. Reporting on these indicators, however, can highlight areas for policy interventions and may attract funding from central governments or external donors. Using all available resources to report on these indictors will require a significant effort to combine the results, although this is likely to reduce the cost in the long run.

4. Economic and socio-economic data collection is extremely broad in scope and covers both quantitative (number based) and qualitative (non-number based) data. Informal and formalised methods exist for collecting economic and social data within the region; however, they largely focus on quantitative data. The most formal being the Census and the Household Income and Expenditure Surveys (HIES), and structured surveys such as the socio-economic survey developed under PROCFish/C (SEMCoS database). At the opposite end of the scale, there are informal surveys that gather specific information about a specific site or project, but provide no data for wider applicability or analysis. Furthermore, financial data[1] is often gathered in catch surveys and is important for understanding viability of businesses such as aquaculture.

ISSUES AND CONCERNS

5. Socio-economic data requires the enumerator to interact directly with individuals and to request personal data regarding activities, earnings, expenditure and opinions. The respondents therefore potentially give up a lot of time to answer the enumerator's questions. As a result, survey fatigue in socio-economic data collection is a real risk. Survey fatigue also increases as the number of actors increases. The same communities are being asked the same – or similar – questions as a result of the proliferation of different forms, surveys and actors.

6. Survey fatigue can be reduced by limiting the scope (and therefore number of questions) of the survey, by using previous surveys and other data collection methods, and 'piggy-backing' other data collections in order to source the data that is required (e.g. fish catch data).

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[1] A sub-set of economic data.

However, this requires the ability and willingness for actors to share survey data and the ability to link different survey data.

7. The objectives of economic and socio-economic data collection are generally broader than scientific data collection; as such standardisation of surveys, which is significantly more challenging, if not impossible. However, the provision of a searchable repository of previous surveys could reduce survey fatigue in relation to economic and socio-economic surveys.

8. In order to make a searchable repository usable, a minimum set of data would be required in order to join different surveys; this may include head of household name and age, location (GPS), village name, respondent's name, etc. As this deals with sensitive personal data, anonymising of shared data is critical by way of using assigned household ID numbers and with only a limited number of individuals able to access the household ID data.

9. National data collections, which are often managed by the National Statistics Offices (NSOs), offer a lot of potential for reducing survey fatigue, providing background information and, in some cases, for providing detailed fisheries related information (see Information Paper on National Collections: IP9)

10. Qualitative data is a completely different approach to collecting and analysing data. It is generally subjective but provides context to quantitative data. Well-structured qualitative data can provide valuable insights into wider community impacts, behavioural issues, attitudes and perceptions. An understanding of this can improve the design and increase the impact of future projects. Often the questions asked in this form of data collection are open-ended and enable discussion in order to identify issues that the researcher may not have thought of prior to the collection exercise.

11. Recent progressions in data collection that are described in other papers, such as tablet-based collection, have been rolled out for national collections and are being effectively used for other economic and socio-economic surveys.

POSSIBLE DISCUSSION POINTS

- Is the development of an inventory of data sources held at SPC (including those held by other departments such as Statistics for Development Division, SDD) useful?

- Is there any value for countries by holding economic and socio-economic surveys, statistics and data at an SPC repository? This could include non-governmental organisation (NGO) surveys, country surveys and regional survey work, which are linked by using confidential identification data.

- Is a standardised economic survey useful to countries or is general guidance more useful (including those on representative sampling procedures)?

- Should a standardisation or a basic set of economic fields be included in creel, market and other catch-based surveys (as these will assist economists in analysis of the viability of a fishery)?

- What assistance (if any) is needed to collect and analyse non-numeric, qualitative data?