

Information Paper No. 10

Original: English

## **Regional standardisation of coastal fisheries and aquaculture data: Institutional aspects**



## BACKGROUND INFORMATION

1. Data governance is about improving data quality and management in order to increase confidence for decision-making, reduce dispersion of efforts and redundancies in data collection, and maximise the use of the data. This is best achieved through the establishment of standards and methods for data collection, the adoption of policies and protocols for managing and sharing data, and a widespread understanding of the importance of data quality and its long-term value beyond the lifetime of projects.
2. While coastal fisheries and aquaculture data governance can be and is currently handled at the national level, the Heads of Fisheries (HoF) recognised the potential benefits of conducting the exercise at the regional level and of establishing standards for the region that are similar to the work that has been done by the Tuna Fishery Data Collection Committee (DCC) since 1995.

*‘Heads of Fisheries ... [s]uggested SPC convene a preliminary strategy meeting to **develop the Terms of Reference for a formal body** to ensure regional data standardisation and maintenance of minimum data standards that encompasses all small-scale domestic fisheries.’ [emphasis added] (10<sup>th</sup> SPC Heads of Fisheries meeting, Noumea, 14–17 March 2017 – Meeting outcomes #53).*

3. Since its first meeting (Ad Hoc Meeting on Tuna Fisheries Data Collection Forms, Brisbane, 11–14 December 1995), the Tuna Fishery DCC has proven successful in its endeavours and is now recognised as being the standard-setting entity for oceanic tuna fisheries data collection for SPC member countries. DCC adds structure to the standardisation process and offers a platform for the participation of relevant stakeholders. Some shortcomings of the DCC process – from which some lessons can be learnt (e.g. meeting frequency, decision-making procedures, high costs involved, effective participation and complexity of forms) – are planned to be addressed through the new Terms of Reference 2016–2020<sup>1</sup>.
4. Given the different focus and framework, the establishment of a Coastal Fisheries and Aquaculture Data Standardisation Committee (DSC)<sup>2</sup> would raise a number of questions to be discussed in order to define its Terms of Reference. The purpose of this paper is to provide options for discussion on the structure, mandate, membership and functioning of a potential DSC.

## ISSUES AND CONCERNS

Problems with data consistency:

5. Due to the high costs involved, data collection in coastal fisheries and aquaculture is often initiated and **conducted within the context of specific projects** with a limited life span and scope. Typically, surveys, sampling designs and forms are specifically designed to provide the

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<sup>1</sup> See <http://www.spc.int/oceanfish/en/meetingsworkshops/dcc/438-data-collection-strategy-meeting-4-6th-april-2016>.

<sup>2</sup> DSC is an arbitrary name used in this paper as a placeholder for easy reference.

information sought by project teams for their respective research and reporting needs, regardless of existing and past data collection, and of potential use of the data outside the scope and beyond the end of the project.

6. A lack of international or regional standards generates a great deal of **inconsistency in the type, format and quality of available data**. We observe the proliferation of forms, *ad hoc* databases and spreadsheets containing data with various quality, which are hardly comparable or they lack pieces of information required for use outside the context of the project. Common reference data that is required to compare or link datasets is often missing, along with a process to maintain that common reference so that it is up-to-date across databases.
7. As a result, Pacific Island countries and territories (PICTs) are often **lacking good quality data that is required to meet reporting obligations** to international bodies, such as the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Food and Agriculture Organization of the United Nations (FAO). This also affects PICTs' ability to fulfil other commitments made under multilateral environmental agreements or under international and regional 'soft law' instruments, such as strategies and guidelines, to monitor the health of aquatic ecosystems for the support of sustainable natural resources management.
8. Moreover, in the absence of standardisation, it is **hard to maintain databases on a long-term basis** and to ensure that surveyors and data entry staff members get the adequate training to avoid bias in sampling design and data by surveyors and respondents, and to ensure consistency and validation of data. Standardisation can help **link historical national data** from one project with national data in a new project in order to provide a long-term time series of standard data, which is fundamentally important for the ongoing research and monitoring of resources. Finally, one of the greatest benefits of data standardisation is the ability to do **robust science over long time scales** (e.g. before-after-control-impact (BACI)-type studies), which is critical for topics such as biosecurity and climate change.
9. The benefits of establishing a DSC for coastal fisheries and aquaculture are described above. The drawbacks are mainly associated with the **costs and logistics of meetings**. Funds would have to be secured to establish yet another committee that would have to carve its own spot in an already crowded CROP members' calendar. Both of these issues can partly be addressed by piggy-backing DSC meetings on to existing meetings as only the extra daily *per diem* would have to be paid. This issue could be discussed through the newly established stakeholder consultation platform known as Coastal Fisheries Working Group (CFWG). Another possibility is that, after an initial large meeting, the DSC only meets with a smaller, core group under a self-funding arrangement and the report of the meeting is sent out for comments before finalisation. In any case, the length and size of meetings are likely to decrease over time as the standardisation process settles down.
10. Another issue relates to the **legal framework under which the standardisation body operates**. The Tuna Fishery DCC assists countries in complying with mandatory requirements that are established by international law for highly migratory fish stocks. Although a general need for informed management decisions in coastal fisheries and aquaculture matters can be

drawn from numerous international agreements and policy documents, there are no global reporting obligations that target coastal fisheries and aquaculture, particularly where there are no direct transboundary implications. This issue is explored in Information Paper No. 11 – A framework for coastal fisheries and aquaculture data governance. The establishment of a DSC would give the Pacific Islands region the opportunity to lead the way in coastal fisheries and aquaculture data standardisation.

## POSSIBLE DISCUSSION POINTS

### Terms of reference for a DSC

11. *Reporting line:* Unlike DCC that reports to both HoF and Forum Fisheries committee (FFC), a coastal fisheries and aquaculture DSC would only report to fisheries managers at HoF meetings.
  - What should be the relationship with the newly established CFWG?
12. *Scientific guidance:* The Tuna Fishery DCC is supported by a scientific committee, which identifies what data is needed and analyses the data to make recommendations to the managers.
  - Would it be necessary to establish a separate scientific committee for coastal fisheries and aquaculture or could these tasks be performed directly by the DSC?
13. *Mandate and functions:* DSC would be responsible for defining minimum data standards and processes for coastal fisheries and aquaculture to support science, sustainable resource management and compliance with prescribed measures.
  - What specific functions should a DSC have (examples are given below)?
    - a) Proposing and defining minimum (key/critical) data fields (which would be distinct from ‘desirable, but not mandatory data’), while recognising that countries are free to consider other fields relevant to their national requirements.
    - b) Establishing and promoting reference datasets<sup>3</sup>, form fields, sampling designs, data management systems and policies to improve data quality and long-term usability of collected data.
    - c) Defining standards and process for [*indicate the type of data*].
    - d) Advising on data compatibility and duplication.
    - e) Data exchange format and protocol.
    - f) Any other relevant assignment.

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<sup>3</sup> Reference data must be as accurate as possible with bridges to other datasets. For example, species tables must refer to international taxonomic databases WoRMS, GBIF, and provide alternative codes with possible loss in accuracy (such as FAO Codes, not available at the species level for all taxons).

14. *Membership*: The Tuna Fishery DCC is composed of SPC, Forum Fisheries Agency (FFA) and invited guests.
- Who should be the members of a coastal fisheries and aquaculture DSC (examples below)?
    - a) Direct/key users of the data (e.g. national/regional scientists and fishery managers who would define the requirements/priorities for minimum data fields).
    - b) Data and IT experts from PICTs and SPC.
    - c) Partners' representatives (SPREP; other partners [please *indicate which*])
15. *Meetings*: Learning from the Tuna Fishery DCC experience (examples of suggestions on the functioning of DSC meetings below).
- DSC should meet once a year, at least initially, to expedite treatment of submissions and feedback; over time, this could be reduced to meeting every second year.
  - Meetings could have a specific focus depending on current priorities, and address other urgent issues as needed.
  - There could be one initial large meeting and then smaller meetings of self-funded core people, who would produce a report to be cleared by others not attending the meeting (procedures would have to be carefully designed to facilitate clearance).
  - Issues could be progressed between meetings through e-mail or Skype calls.
  - Decisions should ideally be taken by consensus but, in case of deadlocks, a majority decision may be considered sufficient.
  - Procedures should be established to clean up obsolete fields from data collection forms.