8TH MEETING OF THE FINANCE AND ADMINISTRATION COMMITTEE (FAC)

21-23 January 2021

FAC 8 – DOC 06.2 rev1
Explanatory Note Regarding the SPRFMO Database Developments and Updates
Secretariat

1. Background

The Secretariat in presenting this document is aiming to:

a) reassure the Commission that the budget allocated to the database development for the financial years 2019-2020 (NZ$ 30,000) and 2020-2021 (NZ$ 52,000[1]) have been properly used and note the developments made possible by a voluntary contribution from the EU (Section 2.1),

b) support the draft budget for the financial year 2021-2022 (FAC8-Doc 06), concerning the database developments (Budget Item 4.5) associated with the current needs of the Organisation (Section 2.2).

c) identify necessary changes in the SPRFMO Database when considering potential adoption of amendments in current CMMs or new CMMs to be discussed at COMM9 (Section 2.3).

In relation to Item 4.5 of the Budget (Database development) the FAC is invited to

- ***Recommend*** *that the Commission approve NZ$ 30,000 for regular SPRFMO database developments as budgeted in FAC8-Doc06 and forecasted in COMM8-Report Annex 6d[2]; or,*

  o *alternatively, approve NZ$ 40,000 corresponding to regular developments and adoption of COMM9-Prop09; or,*

  o *alternatively, approve NZ$ 80,000 corresponding to regular developments and adoption of COMM9-Prop10; or,*

  o *alternatively, approve NZ$ 90,000 corresponding to regular developments and adoption of both COMM9-Prop09 and COMM9-Prop10.*

2. Database developments and updates

2.1. Database developments during financial year (FY) 2019-2020 and 2020-2021:

All modules planned for 2019-20 and 2020-21 as identified in FAC7-Doc8.2 and required by new CMMs (particularly CMM 02-2020 and CMM 18-2020) have been completed as scheduled and according to the requested technical specifications. In addition, thanks to a generous voluntary contribution from the European Union, it has also been possible to redevelop the core functionality of the SPRFMO database, which (as described in FAC6-Doc08.4 and FAC7-Doc8.2) was necessary at the latest by Financial Year 2022-23 in order to future-proof the existing infrastructure. Doing this work in parallel to the planned 2020-21 developments resulted in cost and timing efficiencies and has resulted in a much improved user interface and experience, both for the Secretariat and for users of the Public Vessel Record and the SPRFMO database web interface.

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[1] https://www.sprfmo.int/assets/2020-Annual-Meeting/Reports/Annex-6d-Budget-for-2020-21.pdf
[2] https://www.sprfmo.int/assets/2020-Annual-Meeting/Reports/Annex-6d-Budget-for-2020-21.pdf

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Financial Year	Development/Months	Dec 2019	Nov 2020
2019-20	Port Inspections module	Complete	
	Area management module upgrade	Complete	
	Observer Potting module development		Complete
2020-21	Vessel details module upgrade to show previous authorisations		Complete
	Catch allocation and trades module development		Complete
	Annual catches module upgrade to include stocks (as required by CMM 02-2020)		Complete
	Observer data module upgrade (as required by CMM 02-2020)		Complete
	Vessel images on public record (as required by CMM 02-2020)		Complete
	Squid Jigging Observer module (as required by CMM 18-2020)		Complete
	Redevelopment of core functionality of SPRFMO database		Complete

2.2. Potential database developments for financial year 2021-2022:

The Secretariat has budgeted at NZ$ 30,000 potential database developments for the financial year 2021-2022. This budget would allow the implementation of the two following upgrades to enable an improved experience for Members. A brief technical explanation on each module is provided in Annex 1.

New module development or module upgrade	Cost (NZ$)
Implementation Report module	$15 000
Dashboards	$15 000
Total Cost (NZ$)	$30 000

2.3. Database developments related to the adoption of new/amended CMMs in COMM9:

Out of the 17 proposals submitted by Members for Commission consideration, the Secretariat has preliminarily identified 2 which, if adopted, will require developments to the SPRFMO Database. The following associated costs should be considered initial estimates and are not the result of a detailed costing exercise. Further details can be found in FAC8-Doc06.3 (Estimate of additional financial impacts or influence on the Secretariat work arising from proposed Conservation and Management Measures).

1. COMM9-Prop 09 may require a Boarding and Inspections database module to support data collection
2. COMM9-Prop 10 may require an automated system in which vessels report transhipment notifications and transhipment details from the squid fishery directly into the database.

database development as per adoption of COMM9 proposed amendments	Estimates Cost (NZ$)
Boarding and Inspections database module	$10 000
Automated system for transhipment notifications and details from sea	$50 000
Total Cost (NZ$)	$60 000

Annex 1: Database developments and upgrades proposed

1) Support for Implementation Report provision by Members

Paragraph 5a of CMM 10-2020 requires Members and CNCPs to complete an annual Implementation Report based on a template (Annex 2) which is amended by the Secretariat each year as soon as practicable after the Commission meeting to incorporate obligations from new or amended CMMs adopted by the Commission. The template is provided as a Word document with questions for each obligation in each CMM, not all of which are applicable to all Members. Some Members have commented that the template is hard to complete, and very repetitive, especially where the same information is the same from year to year. The completed Implementation Reports are returned to the Secretariat and used to prepare the CMS reports, which is time consuming and labour intensive, and not easy to compare from year to year.

The proposal is to provide a mechanism for Members and CNCPs to complete their Implementation Reports through the database, with an improved user interface. It is envisaged that they would only see questions that were applicable to their fisheries (for example if a Member states that they have no vessels, they should not see questions about the details of the vessel authorisations). Note that the proposal as costed is for a very simple user interface, using Excel, and using the existing database infrastructure to load the completed spreadsheets into the database (as for fishing activity, observer, and other datasets). A more sophisticated system in which data is entered directly through the database front end is possible, but would be of the order of $60 000, even for a very simple system.

The data submitted would then be loaded directly into the database, and available for analysis either for the CMS report, for summaries, or for statistical analysis over a period of time.

2) Dashboards

The redevelopment of the core functionality of the SPRFMO database has resulted in a much-improved user interface and experience, as well as cost and time efficiencies for new developments. It is now relatively cost effective to make simple data summaries available on the database website (available to authorised users only), in the form of text or graphic "dashboards". For example (not necessarily immediately), dashboards could display:

- A graph showing the season catch to date of *Trachurus murphyi* (or another species where catches are reported on a monthly or 15-day basis) and how it compares with previous seasons and with the current catch limit.

- Time series graphs of Annual Catch over years by Member and species for selected species.

- Graphs based on Fishing Activity data showing catch (or number of unique vessels) by year (or by month) for a selected species for a particular flag or flags.

- Alerts of transhipment notifications in the *Trachurus murphyi* fishery received in the past 14 days.

- An indication of bottom fishing within 20 minute blocks (without specifying flag, any vessel identification or measure of fishing effort) as specified in Paragraph 6aiii of CMM 02-2020.

- A pie chart showing for the individual Member the season catch to date relative to their catch limit.

- A series of traffic lights showing an individual Member what data provision obligations they have for the current assessment year, and which ones have been met.