



FIRMS Steering Committee Meeting

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FIRMS Module Development – Progress Status

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Supported by a special FAO fund amounting to \$450,000 across 2004-2005, the development of the FIRMS module was launched in July 2004. 7 part time staff work on this project. The objectives to be reached at the end of 2005 are a web-based application responding to the FIRMS user requirements, managing a core data base containing inventories of stocks and fisheries as listed in Annex 2 of FIRMS partnership arrangement, and enabling partners to load or publish reports on status and trends of these fisheries or stocks.

On July 26th 2004 the FIRMS Secretariat dispatched to the technical working group a document of high level requirements for the FIRMS web-based module, for comments and feedback. Together with this document, a road map with a sequence of milestones consisting of mock-ups or tangible prototype web products was proposed in order to encourage participation and maintain momentum, as follows:

- 1 - FIRMS WEB site: general presentation, partners, contacts, news, meeting, documents, status of development, etc.
- 2 - Fact sheets presenting FIRMS partners' institutions
- 3 - Mock ups/templates of Stocks/ Fisheries/ Management System Fact sheets of Partners
- 4 - Web-based inventories of Stocks, Fisheries by Partner: flat lists queryable by Partner
- 5 - Display of Identity Sheet for each Stock or Fishery
- 6 - Query panel: simple, browser, advanced
- 7 - A tool to edit the Stocks or Fisheries object references
- 8 - A tool to generate a web-based template for a new observation (report) on a reference object
- 9 - A tool to upload an XML file onto the system and see the result in a restricted area
- 10 - Advanced interface for the management of reference objects and observations (production of XML templates, cloning of observation, all the workflow process implemented in the upload interface).

Indeed these tangible products require on one side developments on the data base content (web-site pages, inventories of stocks and fisheries, and FIRMS partners' reports), and on the other side the application programming. Partners feedback and participation, a key dimension to ownership uptake, is also required to progress on these outputs.

This report presents activities and achievements since FSC1.

1. Training:

During the intersession, two complete training sessions were organized at FAO with ICES (Bodyl Chemniz) and CCSBT (Bob Kennedy), and one introductory session to FIRMS inventories was held at the SEAFDEC headquarters in Bangkok. These sessions allowed provision of feedback and refinement of user requirements, and follow-up activities were completed successfully in close collaboration with the FIGIS/FIRMS team: CCSBT developed a Southern Bluefin Tuna Stock status report now published in FIGIS; ICES consolidated its inventories, validated the mapping between its ACFM stock status report topics and FIRMS ones, and elaborated a prototype for automated production of FIRMS xml files from word source documents; SEAFDEC developed a test inventory of shark fisheries in South Eastern Asian countries.

2. Inventories:

The inventories of Stocks and/or Fisheries referred to in Annex 2 of FIRMS partnership arrangement (IATTC, IOTC, CCSBT, ICCAT, ICES, NAFO, SEAFDEC, FAO/CECAF, /GFCM, /RECOFI, /WECAFC) were all consolidated and standardized according to the latest standards defined for FIRMS. The same process was applied to the FIRMS observer CCAMLR in the process of becoming a partner. These inventories are now being loaded into the FIGIS reference system together with a FIRMS hierarchical classification. Table 1 extracted from the FIRMS web-site presents summary statistics of these inventories.

3. Definition of requirements for the FIRMS modules

On July 26th the FIRMS Secretariat dispatched to the technical working group a document of high level requirements for the FIRMS web-based module, for comments. Feedback was received from CCAMLR, CCSBT, NAFO, and ICCAT. The document was generally accepted although qualified as not easy to digest, which explains why the promised visualization of mock-ups or prototypes was welcomed. The FIRMS Secretariat modified the requirements into a revised version (see FIRMS_FSC2/2005/4) responding notably to NAFO's valuable remarks. A sensitive aspect of this discussion concerns two alternative solutions proposed for the modeling of the stocks, resources, fisheries and management units concepts. FSC2 is requested to make a final decision on the model that FIRMS should follow (see FIRMS_FSC2/2005/6).

4. Design of the FIRMS application

Meanwhile awaiting comments on requirements from Partners, the software design work proceeded, building both on the experience gained through the development of the prototype and the need for a reliable, robust and user friendly module responding to the FIRMS requirements. Reuse of open source libraries is made as much as possible. Quality assurance specifications¹ which were formulated as part of FIGIS efforts towards qualified software components were also incorporated into the process. 14 software components were deemed necessary and a work plan has been set-up for their detailed design and development, amounting to about 200 days of development.

5. Development of FIRMS web-site

A draft FIRMS home page has been developed and is presented to the FSC2 for comments (see FIRMS_FSC2/2005/6). This home page links to fact sheets presenting FIRMS partners' institutions. It will progressively be extended with a set of pages controlling the access to the FIRMS data bases, following the ideas implemented in the newly redesigned Marine Fisheries gateway page of the FIGIS site. The services of a GUI designer will be invoked as soon as essential mock-ups covering the scope of FIRMS will be available, and FIRMS partners will have the opportunity to comment on these.

¹ can be consulted at [\\figis01\figis\development-site\build\site\code-quality.html](http://figis01\figis\development-site\build\site\code-quality.html)

6. Conclusion and future steps

The development of the FIRMS module is slightly behind schedule but the project is progressing well with all team members working hard on their respective activities. The FIRMS Secretariat is able to present to FSC2 four of the ten concrete deliverables defined in the original workplan and requires feedback from FIRMS partners in order to proceed with GUI design. It is anticipated that the development of the FIRMS module will extend until the end of 2005, and that active participation of the FIRMS partners will be increasingly requested. Additional training sessions are planned in particular for partners such as SEAFDEC which have not yet undergone the complete training session. The FIRMS Secretariat will also assist the Partners in contributing their first report to FIRMS, as part of the testing phase.

Table 1a: Progress status of the stocks of fisheries inventory of FIRMS partners

Institution Acronym	Target of the Inventory	Resources		Fisheries	
		Number	Status	Number	Status
CCSBT	Global southern Bluefin tuna fishery	1	OK	3	OK
FAO - GLOBAL	High level resources	42	OK		
FAO - CECAF	Eastern Central Atlantic marine resources and fisheries	228	OK	343	OK
FAO - GFCM	Shared stocks of interest in the Mediterranean Sea	50	OK	-	to be done
FAO - RECOFI	Red Sea and Gulf of Aden marine resources and fisheries	341	OK	165	OK
FAO - WECAF	Western and Central Atlantic marine resources and fisheries	243	In progress	289	in progress
IATTC	Tunas and tuna-like species in the eastern Pacific	15	OK	-	to be done
IATTC/SPC	Tunas and tuna-like species in the Pacific	8	OK	-	to be done
ICCAT	Tunas and tuna-like species in the Atlantic	22	OK	-	not planned
ICES	Main marine fish resources in the North Atlantic	141	OK	-	to be done
IOTC	Tunas and tuna-like species in the Indian ocean	16	OK	-	not planned
NAFO	Main marine fish resources in the Northwest Atlantic	14	OK	-	to be done
SEAFDEC	South East Asia shark fisheries	-	Not planned	42	in progress

Table 1b: Progress status of the stocks of fisheries inventory of FIRMS observers

Institution Acronym	Target of the Inventory	Resources		Fisheries	
		Number	Status	Number	Status
CCAMLR	Main marine resources and fisheries in the Antarctic Ocean	36	In progress	41	in progress
EUROSTAT	EU fisheries (socio-economic data on national fleets)	-	-	-	?
SPC	Tunas and tuna-like species in the South Pacific	14	OK	15	OK