
Annex 2:

**Information to be contributed to FIRMS
by the FAO Fisheries Department**

The FAO Fisheries Department (with FAO-FI representing its acronym throughout FIRMS) will contribute information to FIRMS along the following lines:

1. ***Data and statistical information:***

Types and scope of information to be contributed.

Reports:

Reports developed for presentation of the state of world fishery resources to FAO members will be structured for upload and maintained in FIRMS. Links to supporting scientific documents, or to fact sheets from regional partners, will be provided.

Reports developed for presentation of stock status and trends to meetings of the FAO Regional Fisheries Bodies will be structured for upload and maintained in FIRMS. Links to supporting scientific documents, such as detailed stock assessment documents, will be provided.

Data:

FAO-FI global Capture and Fleet statistics data will be provided at public domain resolution as determined under the policies of the Fisheries Department.

FAO-FI global Tuna Nominal Catches and Tuna Atlas catch statistics aggregated from Tuna Regional Fishery Body sources will be provided at public domain resolution as determined under the policies of the Fisheries Department and agreement with the regional data providers.

Regional Catch and Effort statistics of all FAO Commissions will be provided at available public domain resolution as determined under the policies of the Fisheries Department.

These data will be available for use by FIRMS in development of summary plots and statistics elsewhere presented within the FIRMS system.

Biology, ecology, fisheries, and other information:

Species identification sheets at global scale, including GIS distribution maps, for species of interest to fisheries or marine endangered species will be provided.

Stocks, resources and fisheries inventories implemented at global and regional level will be provided with information on the performances, management and status of the fisheries and posted on FIRMS.

Regulations and management:

Information on management authorities and management of fisheries at global and regional levels as appropriate will be included in FIRMS, with links to resolutions of these bodies for easy access to details;

Basic information on each of the established Regional Fishery Bodies having a role in the monitoring or management of fishery resources will be included in FIRMS, with links to these agencies web-sites whenever they exist.

Scope of information to be contributed:

FAO-FI has mandated responsibility for:

- providing harmonised taxonomic and biologic information of global nature on the species of interest to fisheries: the criteria driving the selection of species for which fact sheets are developed are species representing globally more than 10.000 mt of catches per year, species of interest to fisheries at regional level (as expressed by FIRMS partners), and endangered species. Arrangements will be made to avoid duplication/conflict of information wherever information on species supplied at regional level may overlap with information supplied by FAO-FI. The list of species for which fact sheets currently exist, and candidate species are supplied (together with the criteria used for their inclusion) in Table 1a and 1b.
- co-ordinating in close collaboration with national and regional data providers the collation of global Capture production and global Fishing fleets statistics, Global Tuna Nominal Catches and Tuna Atlas statistical statistics evolving from regional fishery body sources, and selected regional Catch and Efforts statistics. This includes the CWP Secretariat role to coordinate the development and maintenance of all associated reference tables, classifications, definitions, statistical area maps, etc... FAO-FI will own the aforementioned data sets and the associated reference tables, classifications, definitions, statistical area maps, etc.
- reporting on the state of world fishery resources: the FAO-FI Review of the state of world fishery resources provides an harmonised synthesis by major FAO statistical fishing area, and within each area by major geographical unit, jurisdiction or resource type. Within FIRMS, FAO-FI will have control (as data owner) over information reported at levels of aggregation higher than levels considered by regional Partners for reporting, thus avoiding conflicting reporting. A preliminary list of Resource units over which FAO-FI has ownership for such global reporting is given in table 2.
- where FAO statutory bodies are instituted, reporting on the state of regional resources and/or advising on their management. A preliminary list of stocks and fisheries over which FAO-FI (through its statutory bodies) has ownership is compiled in tables 3 to 6.

Documentation and Standards to be used in the Partnership Arrangement: Sources of information will be documented, and links to electronic versions of source material will be provided when available. A link to the FI home page will be provided for detailed information not suitable for posting to FIRMS. The information to be contributed will conform to the policy guidelines for confidentiality and information release of FAO-FI and to the Information Management Policy established by the FIRMS Steering Committee.

2. ***Metadata and information management:***

Methods of collection and processing: For those sets of information (or “collections”) contributed to FIRMS, details of FI Department data collection, processing and dissemination methods are provided in standard “collections descriptions” fact sheets.

In partial summary:

the methods used for producing the Review of the state of world fishery resources include:

- sources of data: mainly published scientific literature (e.g. in scientific journals) and reports of Regional Fishery Bodies working groups, or national research centres, complemented amongst others by market information (e.g. from Globefish) and reports from FAO Representations or field projects;
- peer review processes are set-up prior to publishing. Transparency of the information is ensured through documented and cited sources.

the methods used for producing the FAO statutory bodies reports on stocks status and trends include:

- sources of data: regional statistics and ad'hoc fisheries data brought at scientific working groups;
- Transparency: scientific peer-review process followed to obtain the results, and the various public meetings of these statutory bodies at which the results, and various options for management and resource conservation, are presented and discussed. Details on these meetings and processes are available at these statutory body web-sites.

the methods used in producing the statistical catch and fleet data include:

- Statistical questionnaires returned by national statistical offices, and where officially reported national statistics are lacking or are considered unreliable, estimates made by FAI-FI based on the best information available; for tunas, bonito and billfishes, and in order to improve coverage of world tuna catch statistics, national offices sources reported to FAO are confronted and supplemented with statistics transmitted by Tuna bodies;
- National statistics are validated through analysis, exchanges with Regional Bodies, discussions at working groups, comparative intelligence, expert advice, comparisons with trade, etc.

the sources and methods used in producing species identification sheets include:

- FAO compendia such as the Species Synopsis and World Catalogues, compiling the best up-to-date information calling upon knowledgeable specialists in taxonomy, producing GIS species distribution maps from expert interpretation, as well as reliable and accurate illustrations of marine organisms for identification purposes.

Bibliographical sources: Bibliographic sources for all contributions of the FI Department are contained in the individual Fisheries Circulars, Technical papers, Reports (including field project reports), statistical yearbooks and species catalogues published by the Department. These sources reports will be included by website link on the FIRMS fact sheets, through the appropriate source links posted to FIRMS fact sheets. In addition, or when no paper publication pre-exists, major sources of information for each fact sheet will be given as part of the standard fact sheet information.

Ownership and responsibilities: the information contributed by FAO to FIRMS resides under the full responsibility of FAO-FI, with delegation at programme level. Therefore, the ownership presented as header of each species, stock, resource, or fishery fact sheet, statistical collection description, or Regional Fishery Body summary presentation will clearly include "FAO Fisheries Department" as the organization responsible for the content, and the concerned programme/FAO statutory body entities as data owners. Further, FAO-FI will be responsible of all descriptions of itself, of its statutory bodies and programme entities, including all text outlining their respective responsibilities and accomplishments wherever presented by pages linked to or referenced by FIRMS, or pages developed within FIRMS. For the specific case of the summary presentation of non FAO Regional Fishery Bodies, a joint ownership will be sought with the concerned FIRMS partners as applicable. This shall be accomplished by establishment of appropriate editorial and ownership security privileges within FIRMS. In cases where an item has joint ownership, FAO and the FIRMS Partner concerned will both clear indication of ownership on fact sheets.

Methods used in authentication and verification of information for FIRMS will identify both Fisheries Department editors and one Fisheries Department approver per each programme/statutory body entity. These actors will in sequence ensure that FIRMS fact sheets under FAO-FI responsibility will be updated and linked to the latest version of Fisheries Department documents and information as they are released. In cases of joint ownership, Fisheries Department and the concerned FIRMS partner shall have editor and approver privileges for fact sheets.

Transmission protocols and dissemination channels:

FAO-FI species catalogues, status of world fisheries reports, as well as the statutory body detailed stock assessment reports or scientific advisory reports which serve as background documentation for information published on FIRMS will be published on their respective web sites. Links to relevant sections of these reports and relevant section of texts will be added in various topics of the FIRMS fact sheets under the relevant statutory body ownership using a combination of the tools offered by the system (XML editing uploading – on-line editing). Transmission schedule is planned to be as soon as feasible following publication by the Statutory body of its reports on its web-site.

In cases no paper publication precedes the publication on a given topic in FIRMS, all elements enabling the bibliographical citation of the fact sheet will be provided in the cover page section of the fact sheet itself.

3. ***Data and information security:***

All contributions from the FI Department will be in the public domain.

4. ***Collaborative institutions:***

FAO-FI will be the overall responsible for the content contributed to FIRMS. However, it will delegate data ownership to its relevant programmes or statutory body entities as appropriate.

5. ***Additional entitlements:***

none