

**FOLLOW-UP BY FAO TO THE
RECOMMENDATIONS FROM THE 1994 REGIONAL WORKSHOP
ON FISHERY INFORMATION AND STATISTICS IN ASIA**

by
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The recommendations from the 1994 Regional Workshop on Fishery Information and Statistics in Asia which were addressed to FAO are reproduced from the Proceedings Report (Doc. FAO/SEAFDEC/Inf.3) in **bold font** below, with information on the follow-up presented in *italics*.

2) Regional and International Levels

2.1 FAO in cooperation with SEAFDEC should work on the standardization of the classification used for collating fishery products, production and fish trade statistics for the region.

FAO and SEAFDEC/MFRD have discussed how to improve compatibility between their respective commodity classifications, taking into account the particular requirements for the Southeast Asian region. Some SEAFDEC commodity categories (e.g. boiled fish, powdered/flaked fish) are not identified in the FAO classification or in the Harmonized Commodity Description and Coding System (HS). FAO is increasingly moving towards the HS classification while more countries report fishery production and trade statistics using this classification. There are, however, considerable shortcomings in the HS classification which include a lack of species definition for most commodities originated outside the Atlantic area and processing methods used outside Europe and the United States. It is a priority for FAO to try to have the classification modified by the World Customs Organization (WCO) so as to provide a more comprehensive and balanced description of fishery products.

2.2 In order to fully utilize the potentials of computerization, the current wide diversity of computer hardware and software used by the national agencies should be made compatible.

Moreover, compatible standard procedures and formats should be developed for reporting fishery statistical data at regional level using electronic and magnetic media. FAO/RAPA should organize such a work in cooperation with SEAFDEC.

FAO has developed a catch and effort data collection and processing system for artisanal fisheries which has been implemented in several countries. The present ARTFISH/ARTSER MS DOS version 2.0, developed by FIDI in 1994, is a general-purpose system designed to handle sample-based surveys operating with varying sampling scenarios and estimation approaches.

Its data management component (ARTFISH) caters for stratification in space and time, organization of collected data into databases of primary statistics according to the data collection schemes in use, and the derivation of total estimates for catch, fishing effort, prices and values. Its reporting component (ARTSER) operates with estimated data and provides users with consolidated tabulations, graphical presentations and interfaces with commonly used application software.

As regards submission of national data in electronic form to FAO, about 80 countries now submit fishery commodity trade statistics to FAO in electronic form on tapes together with trade statistics on agriculture and forestry commodities. These statistics are generally collected by the national customs authorities and submitted to FAO using the HS. The HS, which has now been adopted as the national commodity classification by about 150 countries, comprises a six-digit standard classification code together with a non-standard two or three-digit code which can be defined nationally to provide additional detail to the commodity description. The change to electronic submission has greatly reduced the workload for database updating, but this has been offset to some extent by the increases in data quantity and the need to correct errors in formats used.

In contrast to improving the reporting of trade statistics, submission of catch and aquaculture statistics to FAO in electronic form (i.e. ASCII or spreadsheet files on diskette as e-mail attachments, or by FTP transfer) is still negligible. Only about 10 countries are reporting these data to FAO. Moreover, FAO has requested countries in the past to use the Eurostat format, but very few use this for submission to FAO (even of the EU countries). For catch data, FAO now suggests that countries use the Eurostat format, but emphasizes that submission of data in any electronic form is strongly encouraged, provided the format is clearly specified. The advantage of specifying the Eurostat format even if it is not used is that it clearly specifies the data structure required.

Given that format, FAO is proposing¹ two additional fields to cater for the value and the currency unit. This is in order to collate value statistics for capture fishery production (as is done for aquaculture). The modified version of the Eurostat format proposed is given in the Appendix.

4. Fishery Statistical Bulletin for the South China Sea Area

4.1 The classification of fishery commodities on disposition of catch, fish processing and exports by fishery commodity should be revised as proposed by SEAFDEC/MFRD and supported by FAO.

This has not been undertaken by FAO which is adopting the HS classification (see 2.1 above). However, if the SEAFDEC Bulletin were to present statistics according to the product categories suggested by MFRD, it would be easier for FAO to make proposals to the WCO for improvements to the HS.

¹ See document APFIC: JWPFS/97/2

5. Socio-economic Statistics

5.1 Participating countries and FAO should consider the collection and publication, as soon as feasible, of data on catch value at the landing place.

As mentioned under 2.2 above, FAO plans to request data on capture fishery production value statistics from 1997 onwards. This will complement the value data already collected for aquaculture production. Catch value will be included in the suggested format for reporting in computer-readable form.

6. Aquaculture Statistics

6.1 For resource management purposes, it would be more useful and more reliable to obtain and report separate statistics on capture fisheries and aquaculture production, rather than subtracting aquaculture data from total catch to obtain capture production figures. Until this change can be made and for greater clarity, the current FAO Yearbook should be labeled as "Fishery Production Statistics Including Aquaculture", rather than "Catches and Landings".

Disaggregation of FAO's total fishery production statistics into capture fishery and aquaculture components has been completed for the period 1984-1995, and these statistics are temporarily being disseminated in the computerized dissemination package AQUACULT PC. FAO is planning to publish capture fishery statistics separately in Vol. 82 of the Yearbook of Fishery Statistics, possibly together with aquaculture production statistics. It is planned eventually to disaggregate the total fishery production statistics for the remaining period 1950-1983 and, as a first step, time series of aquaculture production statistics are also being extended to cover this period. Thus, Volume 82 of the Yearbook will carry a different name from the current one, and this will depend on what information is included.

6.2 On the criteria on units of measure for aquaculture facilities, it was recommended that "hectares" should be used for ponds and pens while "cubic meters" for cages.

Hectares are used for ponds and pens while cubic meters are used for cages. However, this has always been the case applied by FAO.

6.3 Many participating countries endorsed the proposed amalgamation of "brackishwater" and "marine" aquaculture to "coastal aquaculture" to avoid confusion and simplify statistical work.

This has been discussed within FAO and the general view is that such an amalgamation would not reduce confusion. Unlike the FAO major fishing area designations which are purely geographical, the environment classification in the FISHSTAT AQ questionnaire for aquaculture, comprising marine water, brackishwater and inland water elements, is based on salinity. This is believed to provide additional, rather than conflicting information.

- 6.4 Participating countries should make greater efforts to specify returns of aquaculture production by species and not to aggregate them into simply groups like “natantian decapods” or “cyprinidae”, as the case may be.**

FAO is starting to tackle the problem of a lack of species detail in reported aquaculture production through dialogue with countries and through a special study for African countries. In some cases countries are able to specify the species more precisely than they have been doing, but in other cases the basic data do not permit a better description.

- 6.5 The instructions for completion of the FAO questionnaire should be improved by giving more guidance on the designation of type of fisheries, on type of production by environment, and to explain that “cultured ornamental fish” should be reported as “aquaculture”, where feasible.**

FAO is currently refining the definition of aquaculture and one element of this is the development of a list of fish production practices classified as either capture fisheries (with or without stock enhancement) or aquaculture.

**FORMAT FOR FISHSTAT NS AND STATLANT A SUBMISSIONS
OF CATCH QUANTITY AND VALUE DATA**

Magnetic data

Computer tapes: Nine track with a density of 1 600 or 6 250 BPI and EBCDIC or ASCII coding, preferably unlabelled. If labelled, an end-of-file code should be included.

Floppy discs: MS-DOS formatted 3, 5" 1, 4 Mbyte discs or 5,25" 360K or 1,2 Mbyte discs.

Record format

| Byte Nos. | Item | Remarks |
|------------------|-----------------------------------|------------------------------|
| 1 to 4 | Country (ISO 3-alpha code) | e.g. FRA = France |
| 5 to 6 | Year | e.g. 90 = 1990 |
| 7 to 8 | FAO major fishing area | e.g. 27 = Northeast Atlantic |
| 9 to 15 | Division | e.g. Iva = ICES IV a |
| 16 to 18 | Species | 3-alpha identifier |
| 19 to 26 | Catch quantity | Metric tons |
| 27 to 40 | Catch value | In local currency |
| 41 to 43 | Local currency (ISO 3-alpha code) | e.g. FRF = French Franc |

Notes:

- (a) All numeric fields should be right justified with leading blanks. All alphanumeric fields should be left justified with trailing blanks.
- (b) The catch quantity is to be recorded in the live weight equivalent of the landings to the nearest metric ton.
- (c) The catch value is to be specified whole units of the local currency.
- (d) Quantities (bytes 19 to 26) of less than half a unit should be recorded as '-1'.
- (e) Unknown quantities (bytes 19 to 26) should be recorded as '-2'.