

**RECENT INTERNATIONAL INITIATIVES
WITH IMPLICATIONS FOR FISHERY STATISTICS**

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1. INTRODUCTION

This document provides information on various developments since the 1994 Regional Workshop on Fishery Information and Statistics in Asia, at the global level which may have implications for fishery statistics, particularly as a basis for fishery management. The number of such initiatives and the high level at which they have been recommended indicated increased concern for the state of world fisheries and the need to improve current fishery management approaches. Of particular relevance to statistics, is the incorporation of the precautionary approach in the UN Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks and the FAO Code of Conduct for Responsible Fisheries which should lead to greater incentives of the nations to collect reliable fishery data.

**2. UN AGREEMENT ON STRADDLING FISH STOCKS AND HIGHLY
MIGRATORY FISH STOCKS**

The UN Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks¹ specifies clearly the roles and responsibilities for regional fishery agencies and flag states in the collection and exchange of data necessary to meet stock assessment requirements and support management objectives for straddling fish stocks and highly migratory fish stocks. Annex I of the Agreement, titled Standard Requirements for the Collection and Sharing of Data, provides an important specification of the minimum data requirements for the conservation of fish stocks. Article 48 of the Agreement specifies that the Annexes to the Agreement may be revised from time to time by states' parties based on scientific and technical considerations, hence these requirements can be amended as the need arises (Annex I of the Agreement is reproduced as an appendix to this paper).

The Agreement was adopted by the UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks at its Sixth Session on 4 August 1995, had 59 signatories. Thirty instruments of ratification or accession are required for the Agreement to come into force, and as of 23 May 1997 there were 14² (Table 1).

¹ Agreement for the implementation of the Provisions of the United Nations Convention on the Law of the Sea, 10 December 1982, Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks

² Information provided by the United Nations Division for Ocean Affairs and the Law of the Sea (DOALOS)

3. FAO COMPLIANCE AGREEMENT

In another development, twenty-five acceptances are required in order for the Agreement³ to come into force. So far ten acceptances have been received (Table 2). Under the FAO Compliance Agreement, specifically Article VI requires parties to exchange information on vessels authorized by them to fish on the high seas and obliges FAO to facilitate this information exchange. For this purpose, FAO has developed a prototype database, known as the High Seas Vessels Authorization Record (HSVAR).

In October 1995, a Circular State Letter (G/FI-24/PR) was sent to all states which had accepted the Agreement, informing them that FAO had developed a prototype database and requesting those states to provide data on vessel authorizations to facilitate testing. FAO could grant access to the prototype database to countries providing data so that feedback can be obtained from potential users. So far two states (Canada and the USA) have provided such vessel authorization data and over 600 vessel records are in the database.

4. CODE OF CONDUCT FOR RESPONSIBLE FISHERIES

The Code of Conduct for Responsible Fisheries was adopted on 31 October 1995 during the FAO Conference at its Twenty-eighth Session which also reflected particularly these concerns. The Code stressed the essential need for reliable data as a basis for effective fishery management and policy making. Paragraphs 7.4.1 - 7.4.7 deal with data gathering and management advice, and the responsibilities of States and sub-regional or regional fishery management organizations in relation to these.

Paragraph 4.1 states that FAO will monitor the application and implementation of the Code and its effects on fisheries and that all the states and relevant international organizations, whether governmental or non-governmental should actively cooperate with FAO in this effort. As part of its program of promoting implementation of the Code, FAO has proposed to potential donor countries an Inter-regional Programme of Assistance to Developing Countries. One such sub-program is concerned with Upgrading Capabilities for Reporting on Fishery Statistics and comprises three activities:

- a) Design of a generic catch and effort data collection and reporting system for use by distant water fishing nations and coastal states fishing straddling fish stocks and highly migratory fish stocks;
- b) Bringing existing statistical systems into conformity with the agreed system through a series of workshops conducted with or by regional fisheries bodies; and
- c) Establish a reporting system that will allow rapid transfer of data between countries, regional fisheries bodies and FAO.

³ Agreement to Promote Compliance with internationally Agreed Conservation and Management Measures by Fishing Vessels on the High Seas

Donor funding is being sought for the program and has already been secured for some components. Also, the FAO Fisheries Department has been requested to report to COFI and to the United Nations General Assembly on the implementation of the Code. Feedback from regional fisheries organizations such as APFIC and SEAFDEC will be an important component of this.

5. KYOTO DECLARATION AND PLAN OF ACTION

At the International Conference on the Sustainable Contribution of Fisheries to Food Security (4-9 December, Kyoto, Japan), 95 states adopted a Declaration and Plan of Action which were conveyed to the UN, FAO, UNCSD (UN Commission on Sustainable Development), the 1996 FAO World Summit, and other relevant international organizations for their consideration and endorsement. Although not binding, the Plan of Action is an agreed set of tasks, many of which are of relevance to CWP and its participating organizations. The Plan of Action is as follows:

[We, the 95 States....]... HAVE AGREED that a set of immediate actions should be taken, without prejudice to the rights and obligations of States under international law, either directly or in cooperation with other States, or through the Food and Agriculture Organization of the United Nations (FAO) in cooperation with other appropriate intergovernmental organisations and/or regional fishery management organisations or arrangements. These immediate actions are:

1. *To assess and monitor the present and future levels of global, regional and national production, supply and demand of fish and fishery products and their effects on food security, employment, consumption, income, trade and sustainability of production.*
2. *To enhance subregional and regional cooperation and establish, where it is considered appropriate, subregional and regional fishery conservation and management organizations or arrangements for straddling fish stocks and highly migratory fish stocks; and cooperate to strengthen, where necessary, existing subregional and regional fishery conservation and management organizations and arrangements in order to carry out their assigned tasks.*
3. *To conduct, within their competencies and, where appropriate, in cooperation with regional and other intergovernmental organizations, integrated assessments of fisheries in order to evaluate opportunities and strengthen the scientific basis for multispecies and ecosystem management.*
4. *To identify and exchange information on potential mechanisms to reduce excess fishing capacity and implement action on programs to reduce excess capacity, where and when appropriate, as soon as possible.*
5. *To develop, promote and facilitate the exchange of information on the use of efficient and standardized methodologies for the study of social, cultural and economic characteristics of fishing and associated activities; and, in particular, attempt to develop methods designed to permit verifiable indicators of the importance of such characteristics and their interaction and compatibility with management objectives.*

6. *To promote allocation of human and financial resources for an international program to investigate the effectiveness of multispecies management of commercial fishery resources.*

7. *To increase efforts to estimate the quantity of fish, marine mammals, sea birds, sea turtles and other sea life which are incidentally caught and discarded in fishing operations; assess the effect on the populations or species; take action to minimize waste and discards through measures including, to the extent practicable, the development and use of selective, environmentally safe and cost-effective fishing gear and techniques; and exchange information on methods and technologies to minimize waste and discards.*

8. *To promote the exchange of information amongst research institutes and other relevant entities aiming to: (i) increase opportunities for the sustainable use of unexploited or underexploited species as human food; and (ii) promote and support research activities in order to ensure improvement in scientific knowledge of existing fishery resources.*

9. *To strengthen coordination of national and international research programs aiming to simulate environmentally sound aquaculture and stocking, giving emphasis to the development of international guideline for the development and management of activities in particular on: (i) the impacts on the environment and biodiversity; (ii) the application of biotechnology; and (iii) the health of cultured stocks.*

10. *To provide and coordinate technical and financial assistance programs for developing countries, in particular low-income food-deficit countries (LIFDCs) and small island developing States and encourage cooperation between these countries, in order to achieve the contribution of fisheries to food security through, inter alia: (i) a rapid transfer of technology and know-how in enhancement in inland and marine waters; (ii) an upgrade and increase of the capabilities needed to minimize post-harvest losses; and (iii) ensuring improved control of fishing activities within areas under national jurisdiction.*

7. SUGGESTED ACTION

The purpose of this paper is to provide information on developments in international initiatives relevant to fishery statistics which have taken place since the previous Regional Workshop in 1994. The Workshop may wish to comment on the aspects of these initiatives which are relevant to Asia and the Pacific and consider their implications and how their implementation might be best promoted and monitored.

AGREEMENT FOR THE IMPLEMENTATION OF THE PROVISIONS OF THE
UNITED NATIONS CONVENTION ON THE LAW OF THE SEA
OF 10 DECEMBER 1982
RELATING TO THE CONSERVATION AND MANAGEMENT OF
STRADDLING FISH STOCKS AND HIGHLY MIGRATORY FISH STOCKS

ANNEX I
STANDARD REQUIREMENTS FOR THE COLLECTION
AND SHARING OF DATA

Article 1

General principles

1. The timely collection, compilation and analysis of data are fundamental to the effective conservation and management of straddling fish stocks and highly migratory fish stocks. To this end, data from fisheries for these stocks on the high seas and those in areas under national jurisdictions are required, and should be collected and compiled in such a way as to enable statistically meaningful analysis for the purposes of fishery resource conservation and management. These data include catch and fishing effort statistics and other fishery-related information, such as vessel-related and other data for standardizing fishing effort. Data collected should also include information on non-target and associated or dependent species. All data should be verified to ensure accuracy. Confidentiality of non-aggregated data shall be maintained. The dissemination of such data shall be subject to the terms on which they have been provided.
2. Assistance, including training as well as financial and technical assistance, shall be provided to developing States in order to build their capacity in the field of conservation and management of living marine resources. Assistance should focus on enhancing capacity to implement data collection and verification, observer programmes, data analysis and research projects supporting stock assessments. The fullest possible involvement of developing State scientists and managers in conservation and management of straddling fish stocks and highly migratory fish stocks should be promoted.

Article 2

Principles of data collection, compilation and exchange

The following general principles should be considered in defining the parameters for collection, compilation and exchange of data from fishing operations for straddling fish stocks and highly migratory fish stocks:

- (a) States should ensure that data are collected from vessels flying their flag on fishing activities according to the operational characteristics of each fishing method (e.g., each individual tow for trawl, each set for long-line and purse-seine, each school fished for pole-and-line and each day fishes for troll) and in sufficient detail to facilitate effective stock assessment;
- (b) States should ensure that fishery data are verified through an appropriate system;
- (c) States should compile fishery-related and other supporting scientific data and provide them in an agreed format and in a timely manner to the relevant subregional or regional fisheries management organization or arrangement where one exists. Otherwise, States should cooperate to exchange data either directly or through such other cooperative mechanisms as may be agreed among them;
- (d) States should agree, within the framework of subregional or regional fisheries management organizations or arrangements, or otherwise, on the specification of data and the format in which they are to be provided, in accordance with this Annex and taking into account the nature of the stocks and the fisheries for those stocks in the region. Such organizations or arrangements should request non-members or non-participants to provide data concerning relevant fishing activities by vessels flying their flag;
- (e) Such organizations or arrangements shall compile data and make them available in a timely manner and in an agreed format to all interested States under the terms and conditions established by the organization or arrangement; and
- (f) Scientists of the flag State and from relevant subregional or regional fisheries management organization or arrangement should analyze the data separately or jointly, as appropriate.

Article 3

Basic fishery data

1. States shall collect and make available to the relevant subregional or regional fisheries management organization or arrangement the following types of data in sufficient detail to facilitate effective stock assessment in accordance with agreed procedures:
 - (a) Time series of catch and effort statistics by fishery and fleet;
 - (b) total catch in number, nominal weight, or both, by species (both target and non-target) as is appropriate to each fishery. [Nominal weight is defined by the Food and Agriculture Organization of the United Nations as the live-weight equivalent of the landings];

- (c) discard statistics, including estimates where necessary, reported as number or nominal weight by species, as is appropriate to each fishery;
 - (d) effort statistics appropriate to each fishing method; and
 - (e) fishing location, date and time fished and other statistics on fishing operations as appropriate.
2. States shall also collect where appropriate and provide to the relevant subregional or regional fisheries management organization or arrangement information to support stock assessment, including:
- (a) composition of the catch according to length, weight and sex;
 - (b) other biological information supporting stock assessments, such as information on age, growth, recruitment, distribution and stock identity; and
 - (c) other relevant research, including surveys of abundance, biomass surveys, hydro-acoustic surveys, research on environmental factors affecting stock abundance, and oceanographic and ecological studies.

Article 4

Vessel data and information

1. States should collect the following types of vessel-related data for standardizing fleet composition and vessel fishing power and for converting between different measures of effort in the analysis of catch and effort data:
- (a) vessel identification, flag and port of registry;
 - (b) vessel type;
 - (c) vessel specifications (e.g., material of construction, date built, registered length, gross registered tonnage, power of main engines, hold capacity and catch storage methods); and
 - (d) fishing gear description (e.g., types, gear specifications and quantity).
2. The flag State will collect the following information:
- (a) navigation and position fixing aids;
 - (b) communication equipment and international radio call sign; and
 - (c) crew size.

Article 5

Reporting

A State shall ensure that vessels flying its flag send to its national fisheries administration and, where agreed, to the relevant subregional or regional fisheries management organization or arrangement, logbook data on catch and effort, including data on fishing operations on the high seas, at sufficiently frequent intervals to meet national requirements and regional and international obligations. Such data shall be transmitted, where necessary, by radio, telex, facsimile or satellite transmission or by other means.

Article 6

Data verification

States or, as appropriate, subregional or regional fisheries management organizations or arrangements should establish mechanisms for verifying fishery data, such as:

- (a) position verification through vessel monitoring systems;
- (b) scientific observer programmes to monitor catch, effort, catch composition (target and non-target) and other details of fishing operations;
- (c) vessel trip, landing and transshipment reports; and
- (d) port sampling.

Article 7

Data exchange

1. Data collected by flag States must be shared with other flag States and relevant coastal States through an appropriate subregional or regional fisheries management organizations or arrangements. Such organizations or arrangements shall compile data and make them available in a timely manner and in an agreed format to all interested States under the terms and conditions established by the organization or arrangement, while maintaining confidentiality of non-aggregated data, and should, to the extent feasible, develop database systems which provide efficient access to data.
2. At the global level, collection and dissemination of data should be effected through the Food and Agriculture Organization of the United Nations. Where a subregional or regional fisheries management organization or arrangement does not exist, that organization may also do the same at the subregional or regional level by arrangement with the States concerned.

Table 1. Fourteen instruments of ratification or accession to the UN Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks (as of 23 May 1997)

Country or Area	Date of Ratification/Accession
Tonga	31 July 1996
Saint Lucia	9 August 1996
United States of America	21 August 1996
Sri Lanka	24 October 1996
Samoa	25 October 1996
Fiji	12 December 1996
Norway	30 December 1996
Nauru	10 January 1997
Bahamas	16 January 1997
Senegal	30 January 1997
Solomon Islands	13 February 1997
Iceland	14 February 1997
Mauritius	25 March 1997
Micronesia	23 May 1997

Table 2. Ten acceptance to the Agreement to Promote Compliance with Internationally Agreed Conservation and Management Measures by Fishing Vessels on the High Seas (as of 23 May 1997)

Country or Area	Date of Acceptance
Canada	20 May 1994
Saint Kitts and Nevis	24 June 1994
Georgia	7 September 1994
Myanmar	8 September 1994
Sweden	25 October 1994
Madagascar	26 October 1994
Norway	28 December 1994
United States of America	19 December 1995
Argentina	24 June 1996
European Community	6 August 1996