

**A CHECKLIST FOR FISHERIES RESOURCE MANAGEMENT ISSUES  
SEEN FROM THE PERSPECTIVE OF THE FAO CODE OF CONDUCT  
FOR RESPONSIBLE FISHERIES**

by

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Rome, October 1996

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**PREPARATION OF THIS DOCUMENT**

The Code of Conduct for Responsible Fisheries was approved in 1995 by the Twenty-eighth Session of the Committee on Fisheries of the Food and Agriculture Organization of the United Nations as a suitable basis for judging whether living aquatic resources are being harvested in a way which is compatible with sustainable development as discussed at the United Nations Conference on Environment and Development and with other standard norms and practices, such as laid out in the Law of the Sea and subsequent international instruments.

As published in 1995, the Code contains twelve Articles dealing with a range of technical subject matters which include Fisheries Management, Fishing Operations, Aquaculture Development, Integration of Fisheries into Coastal Area Development, Post-harvest Practices and Trade, Fisheries Research, as well as introductory Articles dealing with Objectives of the Code, Relationship with other Instruments, etc. Of immediate concern here are those provisions of the Code relating to management of fisheries. Article 7 contains the core of relevant material, but clauses of importance are to be found in a number of other Articles which have been reproduced here.

Article 4 specifies the role of FAO in the implementation and monitoring of adherence to the provisions of the Code. This document should be regarded as addressing this issue in a hopefully objective way, with minimal interpretation of the text of the Code. A provisional scoring system is provided for which conforms with practice in other areas of endeavour such as, for example, environmental impact assessment, specified in the ISO series of standards.

The question addressed here then is whether a given fishery or fishery management system is in accord with the requirements laid out under the Code. In attempting to address this question, the

document provides a series of questions developed with minimal editorial changes from the original text which can be used for an evaluation by the managers themselves or those involved in certification of a fishery as 'responsible', as defined under the Code. Other Articles and clauses of the Code may, of course, be included in such a questionnaire, and the reader is, in any case, referred to the Code for exact wording and full contents.

It is suggested that the document be used in one of two ways:

- (1) as a focus for discussion by those concerned with management of a given fishery, to be sure that the relevant issues are touched upon in designing a fisheries management system.
- (2) a check list for seeing that the fishery in question meets the requirements of the Code, which can be updated regularly to see whether progress is being made in approximating the fisheries management system currently in place to its provisions.

Provision is made in the document for summarizing relevant information after each section which could elaborate on the reasons given for the scoring assigned to that particular clause or clauses or could spell out progress made or difficulties encountered.

It is requested that a copy of the completed checklist, together with commentary, be sent to FAO, which is the repository of the Code and has the responsibility for monitoring adherence to its provisions. This should indicate the persons or institutions who were responsible for completion of the questionnaire, together with an indication of its status with respect to confidentiality.

Caddy, J.F.

A checklist for fisheries resource management issues seen from the perspective of the FAO Code of Conduct for Responsible Fisheries.

*FAO Fisheries Circular*. No. 917. Rome, FAO. 1996. 22p.

### **Abstract**

The provisions of the Code of Conduct for Responsible Fisheries, as they relate to fisheries management, are expressed in the form of questions with minimal interpretation. A system of scoring is suggested which will assist those concerned with fisheries management in evaluating the adherence of a particular fishery or fishery management system to the provisions of the Code and for monitoring progress in this respect. The document focuses particularly on Article 7, which deals with Fisheries Management *sensu strictu* but extracts from other Articles those clauses that have immediate relevance to the proper management of living aquatic resources. The document is also intended to provide a focus for discussion at fisheries management fora between those concerned with fisheries management.

## **Introduction**

The Code of Conduct for Responsible Fisheries originated at the Nineteenth Session of the FAO Committee on Fisheries (COFI) after a protracted period of negotiation, received a broad consensus

from the member States of FAO and was finally adopted by the Twenty-eighth Session of COFI. The Code is voluntary, even though certain parts of it are based on relevant rules of international law, including those reflected in the 1982 United Nations Convention on the Law of the Sea. It also includes certain provisions that may be, or are already, binding, notably the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 1993.

As noted in Article 1, Nature and Scope of the Code,

*"The Code provides principles and standards applicable to the conservation, management and development of fisheries. It also covers the capture, processing and trade of fish and fishery products, fishing operations, aquaculture, fisheries research and the integration of fisheries into coastal area management".*

The present document concentrates principally on issues related to fisheries management in the narrower sense of resource management, notably those clauses found in Article 7, Fisheries Management. Selected clauses from other Articles, i.e. Article 8, Fishing Operations, Article 10, Integration of Fisheries into Coastal Area Management, Article 11, Post-Harvest Practices and Trade, and Article 12, Fisheries Research, are also included here, where they seem of particular concern to the question of resource management, *sensu strictu*, but should also be considered separately where this seems appropriate.

The genesis of the present document comes from the general observation that the Code consists of a series of statements of principles that need to be placed in an 'operational' context in order to see what is their practical significance to fisheries managers, stakeholders in the fishery, the fishing industry in general and, progressively in recent years, the concerned public at large. As a way of rendering the implications of the Code more explicit, and at the same time testing to see how close the various fisheries management systems are to meeting its provisions, it seemed a useful idea to reformulate the provisions of the Code, where this is possible, in the form of a series of specific questions. These could, in theory at least, be asked of any particular fishery in an attempt to see how it measures up to the idealized fishery regime envisaged by the countries that agreed to the provisions in the Code.

This process has been revealing in that it has made clear how condensed is the text of the Code, in which individual clauses contain a number of ideas that, when formulated in the interrogative form, often reveal themselves as a series of questions that need to be answered in sequence. Some duplication of questions inevitably resulted from this literal translation of individual clauses, but these have been left as indicating the emphasis given to these particular points in the Code. Translating the Code into questions is to some extent subjective, and it must be stressed that the questionnaire below does not have the authority of the Code, although I believe it provides one useful way of seeing what are its implications in practical terms.

A further aspect that was inevitably emphasized by the intergovernmental process that gave rise to the Code is the high proportion of clauses that refer to State responsibility. This is, of course, a reflection of the subsidiarity of the Code to more formal instruments such as the 1982 Law of the Sea, and it is inevitable for those fisheries (identified as such in the questionnaire by an asterisk) where State responsibility cannot be easily delegated, notably those operating totally or in part on high seas, shared stocks and straddling and highly migratory fisheries, where the Code has been

harmonized with the relevant clauses of the August 1995 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. (This questionnaire does not attempt to cover the full scope of this latter Agreement, however, and *it will be necessary to delete or modify the asterisked clauses for fisheries wholly under national jurisdiction.*)

It is also clear that, for the Code to be effectively applied, it must be addressed through governments to those engaged in world fisheries at the grass-roots level, i.e. the fishing communities, fishing industry, fishers and all those considered to be covered by the term "interested parties" in the Code or, in more common parlance, the "stakeholders in the fishery". In formulating the individual clauses of the Code as questions, therefore, the questions are addressed to a more general audience, when this seemed appropriate, rather than to the "State", so that they can be hopefully answered by different levels of representation of those involved in the fisheries world.

Although the reader is urged not to confuse the questionnaire with the Code but to refer to the text of the Code to see what exactly was agreed to, an example can be provided here of the reformulation of a clause in the form of one or more questions, namely Clause 7.1.2, which reads:

*"Within areas under national jurisdiction, States should seek to identify relevant domestic parties having a legitimate interest in the use and management of fishery resources and establish arrangements for consulting them to gain their collaboration in achieving responsible fisheries".*

This has been decomposed into two separate questions, for each of which a limited multiple choice of responses has been provided:

**7.1.2 (a)** Have attempts been made to identify domestic parties having a legitimate interest in the use and management of fisheries resources?

(b) Have arrangements been made to consult these parties and gain their collaboration?

Questions have been scored in such a way that a fishery that meets these criteria in the respondent's opinion gains a 'perfect score', with the possibility recognized that, in most cases, a response intermediate between wholly positive and wholly negative will be likely.

The deficiencies of such a procedure are well recognized, since there are many pitfalls in attempting to interpret the 'correct' response to, and appropriate overall weighting for, a given question, depending on the definitions followed as well as the point of view. Some simple examples of the problem of definitions are, for example, the common phrases "conservation and management measure", "confidentiality requirements", "complete and reliable statistics", etc. The parties that agreed to the Code did not enter into questions of definition of its component terms for the obvious reason that, if they had done so, an overall agreement would have been postponed indefinitely! Commonly used meanings of the terms used are implied, but clearly different definitions of a given term exist and will influence how a particular question is answered.

The particular approach taken to translating the answers to such questions into quantitative terms is certainly debatable, and other weightings for the scores are certainly possible. It is justifiable, I believe, if only because a scoring of the questionnaire by those involved or interested in the fisheries

conservation and management process should lead to a clarification of the current situation of a given fishery. It would be particularly useful if it led to a short commentary by the respondent after each question, reflecting a general consensus on the answer to be provided and discussing its applicability in the particular circumstance of the fishery in question.

Not all Articles in the Code are well adapted to be expressed in the form of questions, and these have been omitted (e.g. 7.15, 7.4.1, 7.8) and, for the same reason, no specific questions are formulated based on Article 6 of the Code, the General Principles. This is not because these articles are not important; to the contrary, they represent in key form the 'core' of the Code and are elaborated later in more detail in the Articles that follow.

Similarly, in order to preserve objectivity, Article 5, referring to 'Special Requirements of Developing Countries' is not specifically taken as influencing the scoring in the questionnaire - it would seem better to score all fisheries in the same way - but takes "the capacity of developing countries to implement the recommendations of this Code" , referred to in Article 5, into account as and when it is decided what scoring is to be regarded as satisfying the criteria for responsible fishing, an issue which, needless to say, has not been addressed here.

The questionnaire begins with Article 7, Fisheries Management, and the assumption that a particular fishery resource, with geographical boundaries, is to be managed, and it attempts to establish whether or not issues raised in the Code of Conduct have been dealt with, totally or in part. A possible scoring for the questions is proposed which can be summed separately for each major Article. These scorings should be interpreted with caution, however, not only because of the subjective nature of the responses but also because no attempt is made to ensure that the scores reflect the relative importance of the questions or of the clauses of the Code that refer to it, nor is it inevitably the case, given the multiplicity of management systems in operation and the differing importance of the individual questions, that a lower score automatically means that one fishery is "less responsible" than another. The scoring may, however, have some value as an incentive for action and can serve as a way of comparing the performance of a given fishery management system for two or more fisheries.

## Article 7 - Fisheries Management

### 7.1 General

7.1.1 (a) Are conservation and management measures based on the best scientific evidence available? *Yes...*[1] *Some...*[½] *No...*[0]

(b) Are conservation and management measures designed to ensure the long-term sustainability of fishery resources at levels which promote the objective of optimum utilization and maintain their availability for present and future generations? *Yes...*[1] *Some...*[½] *No...*[0]

(c) Are management measures currently in effect in the fishery designed for the long-term conservation and sustainable use of fishery resources, as opposed to reasons of short-term expediency? ***Yes...***[1] ***Some...***[½] ***No...***[0]

7.1.2 (a) Have attempts been made to identify domestic parties having a (legitimate) interest in the use and management of fisheries resources? **Yes...[1] No...[0]**

(b) Have arrangements been made to consult these parties and gain their collaboration? **Yes...[1] No...[0]**

\*7.1.3 (a) Where transboundary, straddling or highly migratory fish stocks and high seas fish stocks are exploited by two or more States, do the States concerned cooperate to ensure effective conservation and management of the resources? **Yes...[1] No...[0]**

(b) Is there a formal fishery commission or arrangement to which all parties fishing belong? **Yes...[1] No...[0]**

\*7.1.4 Do States which have a real interest in the fisheries or the resource outside their national jurisdiction cooperate in the work of the relevant regional fisheries management organization or arrangement by becoming a member of such organization and arrangement and by actively participating in its work? **Yes...[1] No...[0]**

(a) Do all parties attend meetings and collect data in the specified format? **Yes...[1] No...[0]**

(b) Is the population analysis updated regularly and in cooperation by a scientific group? **Yes...[1] No...[0]**

(d) Are scientific recommendations of groups reflected in the regulations? **Yes...[1] No...[0]**

(e) Are the regulations respected by the parties concerned? **Yes...[1] No...[0]**

\*7.1.6 (a) Should representatives from relevant organizations, both governmental and non-governmental, concerned with fisheries be afforded the opportunity to take part in meetings of subregional and regional fisheries management organizations and arrangements as observers or otherwise, in accordance with the procedures of the organization or arrangement concerned? **Yes...[1] No...[0]**

(b) Subject to the procedural rules on access, are such representatives given timely access to the records and reports of such meetings? **Yes...[1] No...[0]**

7.1.7 (a) Have mechanisms been established for fisheries monitoring, surveillance, control and enforcement to ensure compliance with their conservation and management measures for the fishery in question? **Yes...[1] No...[0]**

(b) Have these measures proved effective? **Yes...[1] In part...[½] No...[0]**

7.1.8 (a) Have mechanisms been established to (identify, quantify) prevent or eliminate excess fishing capacity? **Yes...[1] No...[0]**

(b) Have these measures proved effective? **Yes...[1] In part...[½] No...[0]**

**7.1.9** Are the arrangements followed for assessment, management of the fishery and the decision-making process in general transparent?

- Assessment **Yes...**[1] **No...**[0]

- Management **Yes...**[1] **No...**[0]

- Decision-making **Yes...**[1] **No...**[0]

**7.1.10** Are the conservation and management measures adopted for management of the fishery and the related decision-making process given due publicity in order to ensure that laws, regulations and other legal rules governing their implementation are effectively disseminated? **Yes...**[1] **In part...**[½] **No...**[0]

**Comments:**

## **7.2 Management objectives**

**7.2.1** (a) Are fisheries measures based on the best scientific evidence? **Yes...**[1] **No...**[0]

(b) Are they qualified by relevant environmental and economic factors? **Yes...**[1] **No...**[0]

(c) Have formal reference point(s) based on stock size been established? **Yes...**[1] **No...**[0]

**7.2.2** Have management measures taken into account the need to avoid excess capacity and promote conditions under which the interests of fishermen, especially the small-scale, artisanal and subsistence fishery sectors, are protected, the biochemistry conserved, depleted stocks restored and adverse environmental impacts assessed and corrected?

- Is the level of excess capacity defined? **Yes...**[1] **No...**[0]

- Is excess capacity avoided? **Yes...**[1] **In part...**[½] **No...**[0]

- Do the economic conditions under which the fishery operates promote responsible fisheries? **Yes...**[1] **No...**[0]

- Are interests of small-scale, etc., fishermen accounted for? **Yes...**[1] **In part...**[½] **No...**[0]

- Has the biodiversity of aquatic ecosystems been conserved (as a result of operation of the fishery in question)? **Yes...**[1] **No...**[0]

- Have depleted stocks been allowed to recover or, where appropriate, restored? **Yes...**[1] **In part...**[½] **No...**[0]

- Have adverse environmental impacts on the stocks from human activities been assessed and, where appropriate, rectified? **Yes...**[1] **In part...**[½] **No...**[0]

- Have pollution and waste been minimized? **Yes...**[1] **In part...**[½] **No...**[0]

- Has catch by lost and abandoned gear of commercial species and other organisms been minimized? **Yes...**[1] **In part...**[½] **No...**[0]

- Have selective and environmentally-safe and cost-effective fishing methods been developed? **Yes...**[1] **No...**[0]

**7.2.3** Have the impacts of environmental factors on target species and those species associated with, dependent on, or belonging dependent on the target stocks, been assessed? **Yes...**[1] **In part...**[½] **No...**[0]

**Comments:**

### **7.3 Management framework and procedures**

**7.3.1** (a) Have the management measures developed taken into account the whole stock unit over its entire area of stock distribution? **Yes...**[1] **No...**[0]

(b) Have previously-agreed management measures established and applied in the same region been considered? **Yes...**[1] **No...**[0]

(c) Have all removals and the biological unity and other biological characteristics of the stock been considered? **Yes...**[1] **No...**[0]

(d) Has the best scientific evidence available been used to determine, *inter alia*, the area of distribution of the resource? **Yes...**[1] **No...**[0]

(e) Have all removals and the biological unity and other biological characteristics of the stock been considered? **Yes...**[1] **No...**[0]

(f) Has the area through which the species migrates during its life cycle been considered? **Yes...**[1] **No...**[0]

**\*7.3.2** In the case of a transboundary, straddling and highly migratory fish stock or high seas fish stock throughout its range, are the conservation and management measures established for such stock within the jurisdiction of the relevant States, or the appropriate subregional, regional fisheries management organizations and arrangements, compatible? **Yes...**[1] **In part...**[½] **No...**[0]

**7.3.3** Have long-term management objectives been translated into a plan or other management document (subscribed to by all interested parties)?

- Is there a plan? **Yes...**[1] **No...**[0]

- Is it subscribed to? **Yes...**[1] **No...**[0]

**\*7.3.4** Have attempts been made to foster cooperation in all matters related to:



- information gathering and exchange? **Yes...**[1] **No...**[0]
- fisheries research? **Yes...**[1] **No...**[0]
- fisheries management? **Yes...**[1] **No...**[0]
- fisheries development? **Yes...**[1] **No...**[0]

**Comments:**

## **7.4 Data gathering and management advice**

### **7.4.2 Has relevant research been carried out on:**

- the resource? **Yes...**[1] **No...**[0]
- climatic and environmental factors? **Yes...**[1] **No...**[0]
- the socio-economic context? **Yes...**[1] **No...**[0]

### **7.4.3 Has research been carried out on:**

- cost-benefits of fishing? **Yes...**[1] **No...**[0]
- alternative management strategies? **Yes...**[1] **No...**[0]

**7.4.4** Are timely and reliable statistics available on catch and fishing effort maintained in accordance with applicable international standards and practices and in sufficient detail to allow sound statistical analysis? **Yes...**[1] **No...**[0]

**7.4.5** Has sufficient knowledge of social, economic and institutional factors relevant to the fishery in question been developed through data gathering, analysis and research? **Yes...**[1] **In part...**[1/2] **No...**[0]

**7.4.6** Are fishery-related and other supporting scientific data relating to fish stocks covered by subregional or regional fisheries management organizations or arrangements compiled in an internationally agreed format and provided in a timely manner to the organization or arrangement?

- in an internationally agreed format? **Yes...**[1] **No...**[0]
- in a timely manner? **Yes...**[1] **No...**[0]

**7.4.7** With respect to the data collected for management purposes, are applicable confidentiality requirements complied with? **Yes...**[1] **No...**[0]

**Comments:**

## 7.5 Precautionary approach

7.5.1 (a) Has the precautionary approach been applied widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment? **Yes...**[1] **In part...**[½] **No...**[0]

(b) Has the absence of adequate scientific information been used as a reason for postponing or failing to take conservation and management measures? **No...**[1] **Occasionally...** [½] **Often...**[0]

7.5.2 Has there been an attempt to determine for the stock both safe targets for management +3 (Target Reference Points) and limits for exploitation (Limit Reference Points), and, at the same time, the action to be taken if they are exceeded?

- Have target reference point(s) been established? **Yes...**[1] **No...**[0]

- Have limit reference points been established? **Yes...**[1] **No...**[0]

- Have data and assessment procedures been installed measuring the position of the fishery in relation to the reference points established? **Yes...**[1] **No...**[0]

- Have management actions been agreed to in the eventuality that data sources and analyses indicate that these reference points have been exceeded? **Yes...**[1] **No...**[0]

7.5.4 (a) For new and exploratory fisheries, are procedures in place for promptly applying precautionary management measures, including catch or effort limits? **Yes...**[1] **No...**[0]

(b) Have provisions been made for the gradual development of new or exploratory fisheries while information is being collected on the impact of these fisheries, allowing an assessment of the impact of such fisheries on the long-term sustainability of the stocks? **Yes...**[1] **No...**[0]

- Have precautionary management provisions been established early on? **Yes...**[1] **No...**[0]

- Has information collection been initiated early to allow impact assessment? **Yes...**[1] **No...**[0]

7.5.5 (a) Have contingency plans been agreed to in advance on the appropriate temporary management response to serious threats to the resource as a result of overfishing or adverse environmental changes or other phenomena adversely affecting the resource? **Yes...**[1] **No...**[0]

(b) Have these emergency (temporary) responses been agreed to due to:

- natural phenomena adversely impacting the stock? **Yes...**[1] **No...**[0]

- fishing adversely impacting the stock? **Yes...**[1] **No...**[0]

**Comments:**

**7.6.1** Is the level of fishing permitted commensurate with the current state of the fishery resources?  
**Yes...**[1] **No...**[0]

**7.6.2** Are fishing vessels allowed to operate on the resource in question without specific authorization? **Yes...**[1] **No...**[0]

**7.6.3** (a) Have attempts been made to measure fleet capacity operating in the fishery? **Yes...**[1]  
**No...**[0]

(b) Have mechanisms been established where excess capacity exists to reduce capacity to levels commensurate with sustainable use of the resource? **Yes...**[1] **No...**[0]

**7.6.5** Has the fishery been regulated in such a manner that conflict among fishers using different vessels, gear and fishing methods are minimized? **Yes...**[1] **No...**[0]

**7.6.6** In the course of deciding on use, conservation and management of the resource, were relevant national laws and regulations relating to the traditional practices needs and interests of indigenous people and local fishing communities highly dependent on these resources for their livelihood taken into account? **Yes...**[1] **In part...**[1/2] **No...**[0]

**7.6.7** Have the cost-effectiveness and social impact been considered in the evaluation of alternative conservation and management measures? **Yes...**[1] **No...**[0]

**7.6.8** Are procedures in place to keep the efficacy of current conservation and management measures and their possible interactions under continuous review to revise or abolish them in the light of new information?

- Have review procedures been established? **Yes...**[1] **No...**[0]

- Does a flexible mechanism for revision of management measures exist? **Yes...**[1] **No...**[0]

**7.6.9** (a) Are appropriate measures being applied to minimize:

- waste and discards? **Yes...**[1] **No...**[0]

- catch of non-target species (both fish and non-fish species)? **Yes...**[1] **No...**[0]

- impacts on associated, dependent or endangered species? **Yes...**[1] **No...**[0]

(b) Are technical measures being taken in relation to:

- fish size? **Yes...**[1] **No...**[0]

- mesh size or gear? **Yes...**[1] **No...**[0]

- discards? **Yes...**[1] **No...**[0]

- closed seasons? **Yes...**[1] **No...**[0]

- closed areas? **Yes...**[1] **No...**[0]

- areas reserved for particular (e.g. artisanal) fisheries? **Yes...**[1] **No...**[0]

- protection of juveniles or spawners? **Yes...**[1] **No...**[0]

(c) Are suitable arrangements in place to promote, to the extent practicable, the development and use of selective, environmentally safe and cost-effective gear and techniques? **Yes...**[1] **No...**[0]

**7.6.10** Have measures been introduced to identify and protect depleted resources and those resources threatened with depletion, and to facilitate the sustained recovery of such stocks? **Yes...**[1] **No...**[0]

**Comments:**

## **7.7 Implementation**

**7.7.1** Has an effective legal and administrative framework been established at the local and national level, as appropriate, for fishery resource conservation and management? **Yes...**[1] **No...**[0]

**7.7.2** (a) Are national laws in place that provide for sanctions? **Yes...**[1] **No...**[0]

(b) Are these adequate in severity to be effective? **Yes...**[1] **No...**[0]

(c) Do sanctions affect (refusal/withdrawal/suspension) authorization to fish in the event of non-compliance with conservation and management measures in force? **Yes...**[1] **No...**[0]

**7.7.3** Are there in place:

- monitoring control and surveillance schemes? **Yes...**[1] **No...**[0]

- observer programmes? **Yes...**[1] **No...**[0]

- inspection schemes? **Yes...**[1] **No...**[0]

- vessel monitoring schemes? **Yes...**[1] **No...**[0]

**\*7.7.4** (a) Have States and subregional or regional fisheries management organizations and arrangements, as appropriate, agreed on the means by which the activities of such organizations and arrangements will be financed, bearing in mind, *inter alia*, the relative benefits derived from the fishery and the differing capacities of countries to provide financial and other contributions?

- Is the capacity of member countries to finance taken into account? **Yes...**[1] **No...**[0]

- Is there an agreement on financing? **Yes...**[1] **No...**[0]

- Is there an agreement on relative benefits? **Yes...**[1] **No...**[0]

(b) Is it possible for such organizations and arrangements to agree on an attempt to recover the costs of fisheries conservation, management and research measures (and their enforcement) that are in place? **Yes...**[1] **No...**[0] Does an Agreement on cost recovery exist? **Yes...**[1] **No...**[0]

**7.7.5** (a) Have States which are members of or participants in subregional or regional fisheries management organizations or arrangements taken steps to implement (into national legislation and practice) internationally agreed measures adopted in the framework of such organizations or arrangements which are consistent with international law? **Yes...**[1] **No...**[0]

(b) In particular, have national measures been adopted to deter the activities of vessels flying the flag of non-members or non-participants which engage in activities which undermine the effectiveness of conservation and management measures established by such organizations or arrangements? **Yes...**[1] **Some...**[½] **No...**[0]

### **Comments:**

**Score Article 7** (Maximum = 108)

(Maximum = 87 for fisheries in national waters, i.e. omitting clauses marked with \*)

## **Article 8 - Fishing Operations**

### **8.1 Duties of all States**

**8.1.1** Are States involved in the fishery ensuring that only fishing operations allowed by them are conducted within waters under their jurisdiction and that these operations are carried out in a responsible manner? **Yes...**[1] **Some...**[½] **No...**[0]

\***8.1.2** Are States involved in the fishery maintaining a record, updated at regular intervals, on all authorizations to fish issued by them? **Yes...**[1] **Some...**[½] **No...**[0]

\***8.1.3** Are States involved in the fishery maintaining, in accordance with recognized international standards and practices, statistical data, updated at regular intervals, on all fishing operations allowed by them? **Yes...**[1] **Some...**[½] **No...**[0]

**8.1.4** Are States involved in the fishery, in accordance with international law, within the framework of subregional or regional fisheries management organizations or arrangements, cooperating to establish systems for monitoring, control, surveillance and enforcement of applicable measures with respect to fishing operations and related activities in waters outside their national jurisdiction? **Yes...**[1] **Some...**[½] **No...**[0]

**8.1.7** Are education and training programmes enhancing the education and skills of fishers and, where appropriate, their professional qualifications, taking into account agreed international standards and guidelines? **Yes...**[1] **No...**[0]

**8.1.8** Are records of fishers being maintained which should, whenever possible, contain information on their service and qualifications, including certificates of competency, in accordance with their national laws? **Yes...**[1] **No...**[0]

**8.1.9** Do measures applicable in respect of masters and other officers charged with an offence relating to the operation of fishing vessels include provisions which may permit, *inter alia*, refusal, withdrawal or suspension of authorizations to serve as masters or officers of a fishing vessel? **Yes...**[1] **No...**[0]

**8.1.10** Is an attempt being made to ensure that, through education and training, all those engaged in fishing operations are given information on the most important provisions of this Code, as well as provisions of relevant international conventions and applicable environmental and other standards that are essential to ensure responsible fishing operations? **Yes...**[1] **No...**[0]

**Comments:**

## **8.2 Flag State duties**

**\*8.2.1 (a)** Are flag States maintaining records of fishing vessels entitled to fly their flag and authorized to fish, which indicate details of the vessels, their ownership and authorization to fish? **Yes...**[1] **Some...**[<sup>1</sup>/<sub>2</sub>] **No...**[0]

(b) Have such vessels have been issued with, and carry on board, a Certificate of Registry and authorization to fish? **Yes...**[1] **No...**[0]

**\*8.2.2** Are Flag States taking steps to ensure that no fishing vessels entitled to fly their flag fish on the high seas or in waters under the jurisdiction of other States unless such vessels have been issued with a Certificate of Registry and have been authorized to fish by the competent authorities? **Yes...**[1] **Some...**[<sup>1</sup>/<sub>2</sub>] **No...**[0]

**\*8.2.3** Are national fishing vessels authorized to fish on the high seas or in waters under the jurisdiction of a State other than the Flag State marked in accordance with uniform and internationally recognizable vessel marking systems such as the FAO Standard Specifications and Guidelines for Marking and Identification of Fishing Vessels? **Yes...**[1] **No...**[0]

**8.2.4** Is there national legislation requiring fishing gear to be marked, taking into account uniform and internationally recognizable gear marking systems, in order that the owner of the gear can be identified? **Yes...**[1] **No...**[0]

**\*8.2.6** Are States involved in a fishery on the high seas party to the Agreement to Promote Compliance with International Conservation and Management Measures by Vessels Fishing in the High Seas? **Yes...**[1] **Some...**[<sup>1</sup>/<sub>2</sub>] **No...**[0]

**\*8.2.7 (a)** Are Flag States taking enforcement measures in respect of fishing vessels entitled to fly their flag which have been found by them to have contravened applicable conservation and management measures, including, where appropriate, making the contravention of such measures an offence under national legislation? **Yes...**[1] **No...**[0]

(b) Are sanctions applicable in respect of violations and illegal activities adequate in severity to be effective in securing compliance and discouraging violations wherever they occur? **Yes...**[1] **No...**[0]

**Comments:**

## 8.4 Fishing operations

**8.4.2** Have States prohibited within national legislation dynamiting, poisoning and other comparable destructive fishing practices? **Yes...**[1] **Some...**[½] **No...**[0]

**\*8.4.3** (a) Is documentation required with regard to fishing operations, retained catch of fish and non-fish species and, as regards discards, the information required for stock assessment as decided by relevant management bodies, collected and forwarded systematically to those bodies?

- documentation on fishing operations **Yes...**[1] **No...**[0]

- documentation on non-fish catches **Yes...**[1] **No...**[0]

- documentation on fish catches **Yes...**[1] **No...**[0]

(b) Is such as observer and inspection scheme being established in order to promote compliance with applicable (fishery management) measures? **Yes...**[1] **No...**[0]

**8.4.4** Is the adoption of appropriate technology being promoted taking into account economic conditions for the best use and care of the retained catch? **Yes...**[1] **No...**[0]

**8.4.5** Are States and relevant groups from the fishing industry encouraging the development and implementation of technologies and operational methods that reduce discards? **Yes...**[1] **Some...**[½] **No...**[0]

**8.4.6** Are technologies, materials and operational methods being applied that minimize the loss of fishing gear and the ghost fishing effects of lost or abandoned fishing gear? **Yes...**[1] **No...**[0]

**8.4.7** Are assessments being carried out of the implications of habitat disturbance prior to the introduction on a commercial scale of new fishing gear, methods and operations? **Yes...**[1] **No...**[0]

**8.4.8** Is research being promoted on the environmental and social impacts of fishing gear and, in particular, on the impact of such gear on biodiversity and coastal fishing communities, being promoted?

- on the environmental impacts? **Yes...**[1] **No...**[0]

- on the social impacts? **Yes...**[1] **No...**[0]

- on the impact on biodiversity? **Yes...**[1] **No...**[0]

- on the impact on coastal fisheries? **Yes...**[1] **No...**[0]

*Comments:*

## 8.5 Fishing gear selectivity

**8.5.1** (a) Where practicable, is there a requirement that fishing gear, methods and practices are sufficiently selective as to minimize waste, discards, catch of non-target species - both fish and non-fish species - and impacts on associated or dependent species and that the intent of related regulations is not circumvented by technical devices and that information on new developments and requirements is made available to all fishers? *Yes...*[1] *No...*[0] Are regulatory measures being circumvented by technical devices? *Yes...*[0] *Sometimes...*[½] *No...*[1]

(b) Are fishers cooperating in the development of selective fishing gear and methods? *Yes...*[1] *Sometimes...*[½] *No...*[0]

**8.5.2** Do regulations governing the selectivity of fishing gear take into account the range of fishing gear, methods and strategies available to the industry? *Yes...*[1] *No...*[0]

**8.5.3** Are States and relevant institutions involved in the fishery collaborating in developing standard methodologies for research into fishing gear selectivity, fishing methods and strategies? *Yes...*[1] *Some...*[½] *No...*[0]

**8.5.4** Is international cooperation being encouraged with respect to research programmes for fishing gear selectivity and fishing methods and strategies, dissemination of the results of such research programmes and the transfer of technology? *Yes...*[1] *No...*[0]

*Comments:*

## 8.11 Artificial reefs and fish aggregation devices

**8.11.1** Have policies been developed for increasing stock populations and enhancing fishing opportunities through the use of artificial structures, placed with due regard to the safety of navigation? *Yes...*[1] *No...*[0]

**8.11.2** When selecting the materials to be used in the creation of artificial reefs, as well as when selecting the geographical location of such artificial reefs, have the provisions of relevant international conventions concerning the environment and safety of navigation been observed? *Yes...*[1] *No...*[0]

**8.11.3** (a) Are management systems for artificial reefs and fish aggregation devices established within the framework of coastal area management plans? *Yes...*[1] *No...*[0]

(b) Does the construction and deployment of such reefs and devices take into account the interests of fishers, including artisanal and subsistence fishers? *Yes...*[1] *No...*[0]

*Comments:*

**Score Article 8** (Maximum = 39)



(Maximum = 26 for fisheries in national waters, i.e. omitting clauses marked with \*)

## Article 10 - Integration of Fisheries into Coastal Area Management

### 10.1 Institutional framework

**10.1.1** Has an appropriate policy, legal and institutional framework been adopted in order to achieve sustainable and integrated use of living marine resources, taking into account the fragility of coastal ecosystems and the finite nature of their natural resources and the needs of coastal communities? **Yes...[1] No...[0]**

**10.1.2** In view of the multiple uses of the coastal area, are representatives of the fisheries sector and fishing communities consulted in the decision-making processes involved in other activities related to coastal area management planning and development? **Yes...[1] No...[0]**

**10.1.3** Do institutional and legal frameworks regulating the possible uses of coastal resources and their access take into account the rights of coastal fishing communities and their customary practices to the extent compatible with sustainable development? **Yes...[1] Partly...[½] No...[0]**

**10.1.4 (a)** Has the adoption of fisheries practices been promoted that avoids conflict among +.5 - bottom resource users? **Yes...[1] No...[0]**

- bottom resource users and other users of the coastal area? **Yes...[1] No...[0]**

(b) Have procedures and mechanisms been adopted which help settle these conflicts? **Yes...[1] No...[0]**

(c) Have procedures and mechanisms been established at the appropriate administrative level to settle conflicts which arise within the fisheries sector and between fisheries resource users and other users of the coastal area? **Yes...[1] No...[0]**

**Comments:**

### 10.2 Policy measures

**10.2.1** Is public awareness being created on the need for the protection and management of coastal resources

and the participation in the management process by those affected? **Yes...[1] No...[0]**

**10.2.2** Has an attempt been made to assess the economic, social and cultural value of coastal resources in order to assist decision-making on their allocation and use?

- economic **Yes...[1] No...[0]**

- social and cultural **Yes...[1] No...[0]**

**10.2.3** Have risks and uncertainties involved in the management of coastal areas been taken into account in setting policies for the management of coastal areas? **Yes...**[1] **No...**[0]

**10.2.4** In accordance with capacities, have measures been taken to establish or promote the establishment of systems to monitor the coastal environment as part of the coastal management process using physical, chemical, biological, economic and social parameters? **Yes...**[1] **In part...**[½] **No...**[0]

**10.2.5** Has multi-disciplinary research in support of coastal area management been promoted on

- environmental and biological aspects? **Yes...**[1] **No...**[0]

- economic and social aspects? **Yes...**[1] **No...**[0]

- legal and institutional aspects? **Yes...**[1] **No...**[0]

*Comments:*

## **10.3 Regional cooperation**

**10.3.1** Do States with neighbouring coastal areas cooperate with one another in:

- the sustainable use of resources? **Yes...**[1] **Some...**[½] **No...**[0]

- the conservation of the environment? **Yes...**[1] **Some...**[½] **No...**[0]

*Comments:*

*Score Article 10* (Maximum = 17)

## **Article 11 - Post-Harvest Practices and Trade**

### **11.1 Responsible fish utilization**

11.1.11 Is international domestic trade in fish and fishery products in accord with sound conservation and management practices through the identification of the origin of fish and fish products traded? **Yes...**[1] **No...**[0]

*Comments:*

### **11.2 Responsible international trade**

11.2.3 Are measures affecting international trade in fish and fishery products transparent, based, when applicable, on scientific evidence, and in accordance with internationally agreed rules? **Yes...**[1] **No...**[0]

**Comments:**

**Score Article 11 (2)**

## **Article 12 - Fisheries Research**

**12.1** Responsible fishing requires the availability of a sound scientific basis to assist fisheries managers and other interested parties in making decisions, taking into account the special needs of developing countries.

(a) Is appropriate research conducted into all aspects of fisheries, including biology, ecology, technology, environmental science, economics, social science, aquaculture and nutritional science? **Yes...**[1] **In part...**[½] **No...**[0]

(b) Are research vessel surveys of the resource and the marine environment carried out? **Annually...**[1] **Occasionally...**[½] **No...**[0]

(c) Are appropriate research and training facilities available and provisions made for staffing and institution building to conduct the necessary research, taking into account the special needs of developing countries? **Yes...**[1] **In part...**[½] **No...**[0]

**Comments:**

**12.2** Has an appropriate institutional framework been established to determine the applied research which is required and its proper use? **Yes...**[1] **No...**[0]

**12.3** (a) Are data generated by research being analysed and the results of such analyses published in a way that confidentiality is respected where appropriate? **Yes...**[1] **No...**[0]

(b) Are results of analyses being distributed in a timely and readily understandable fashion in order that the best scientific evidence be made available as a contribution to fisheries conservation, management and development? **Yes...**[1] **No...**[0]

(c) In the absence of adequate scientific information, is appropriate research being initiated in a timely fashion? **Yes...**[1] **No...**[0]

**12.4** (a) Are reliable and accurate data required to assess the status of fisheries and ecosystems - including data on bycatch, discards and waste - being collected? **Yes...**[1] **No...**[0]

(b) Are these data being provided, at an appropriate time and level of aggregation, to relevant States and subregional, regional and global fisheries organizations? **Yes...**[1] **No...**[0]

**Comments:**

**12.5** (a) Are States monitoring and assessing the state of the stocks under their jurisdiction, including the impacts of ecosystem changes resulting from fishing pressure, pollution or habitat alteration? **Yes...**[1] **No...**[0]

(b) Have they established the research capacity necessary to assess the effects of climate or environment change on fish stocks and aquatic ecosystems? **Yes...**[1] **No...**[0]

**12.6** Are States taking steps to support and strengthen national research capabilities to meet acknowledged scientific standards? **Yes...**[1] **Some...**[½] **No...**[0]

**Comments:**

**12.7** (a) Are States cooperating with relevant international organizations to encourage research in order to ensure optimum utilization of fishery resources? **Yes...**[1] **Some...**[½] **No...**[0]

(b) Are they stimulating the research required to support national policies related to fish as food? **Yes...**[1] **No...**[0]

**12.8** (a) Is research being conducted into the study and monitoring of human food supplies from aquatic sources and the environments from which they are taken to ensure that there is no adverse health impact on consumers? **Yes...**[1] **No...**[0]

(b) Are results of such research being made publicly available? **Yes...**[1] **No...**[0]

**Comments:**

**12.10** (a) Are studies on the selectivity of fishing gear, the environmental impact of fishing gear on target species and on the behaviour of target and non-target species in relation to such fishing gear being conducted as an aid for management decisions? **Yes...**[1] **No...**[0]

(b) Is an attempt being made through research to minimize non-utilized catches? **Yes...**[1] **No...**[0]

(c) Is the biodiversity of ecosystems and the aquatic habitat being safeguarded? **Yes...**[1] **No...**[0]

**12.11** (a) Before the commercial introduction of a new type of gear, is a scientific evaluation of its impact on the fisheries and ecosystems where it will be used being undertaken? **Yes...**[1] **No...**[0]

(b) Is the effect of such gear introduction monitored? **Yes...**[1] **No...**[0]

**Comments:**

**12.12** Are traditional fisheries knowledge and technologies being investigated and documented, in particular those applied to small-scale fisheries, in order to assess their application to sustainable fisheries conservation, management and development? **Yes...**[1] **No...**[0]

**12.13** (a) Is the use of research results as a basis for the setting of management objectives, reference points and performance criteria being promoted? **Yes...**[1] **No...**[0]

(b) Is research being used to help ensure adequate linkages between applied research and fisheries management? **Yes...**[1] **No...**[0]

**Comments:**

**12.14** Are States conducting scientific research activities in waters under the jurisdiction of another State, ensuring that their vessels comply with the laws and regulations of that State and international law? **Yes...**[1] **No...**[0]

**12.17** Are States, either directly or with the support of relevant international organizations, developing collaborative technical and research programmes to improve understanding of the biology, environment and status of transboundary aquatic stocks? **Yes...**[1] **Some...**[1/2] **No...**[0]

**12.18** Are States and relevant international organizations promoting and enhancing the research capacities of developing countries, *inter alia*, in the areas of data collection and analysis, information, science and technology, human resource development and provision of research facilities, in order for them to participate effectively in the conservation, management and sustainable use of living aquatic resources? **Yes...**[1] **Some...**[1/2] **No...**[0]

**Comments:**

**Score Article 12** (Maximum = 27)

**Please send to:**

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