

**REPORT OF THE EXPERT CONSULTATION
ON THE MARKING OF FISHING GEAR**

Victoria, British Columbia, Canada
14-19 July 1991

**RAPPORT DE LA CONSULTATION D'EXPERTS
SUR LE MARQUAGE DES ENGINS DE PECHE**

Victoria, Colombie britannique, Canada
14-19 juillet 1991

**INFORME DE LA CONSULTA DE EXPERTOS
SOBRE EL MARCADO DEL EQUIPO DE PESCA**

Victoria, Columbia Británica, Canadá
14-19 de julio de 1991

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PREPARATION OF THIS DOCUMENT

This is the report of the Expert Consultation on the Marking of Fishing Gear, as approved by the participants at the conclusion of the meeting held in Victoria, British Columbia, Canada, 15-19th July 1991.

The Report is comprised of three parts. Part I contains a summary record of the discussions of various issues involved in preparing the Guidelines and Technical Specifications for the marking of fishing gear. Part II contains the Guidelines for the Application of a Standard System for the Marking of Fishing Gear. The List of Participants is given in Part III. The Appendices are presented in a supplement.

PRESENTATION DU DOCUMENT

Voici le rapport, tel qu'approuvé par les participants, de la Consultation d'experts sur le marquage des engins de pêche, qui s'est tenue à Victoria, Colombie britannique, Canada, du 14 au 19 juillet 1991.

Ce rapport est divisé en trois parties. La première est un résumé des discussions qui ont porté sur les différentes questions évoquées lors de la préparation d'un système normalisé de marquage des engins de pêche. La seconde partie comprend les directives relatives à l'application pour le marquage des engins de pêche. La liste des participants est donnée dans la troisième partie. Les appendices sont présentées dans un supplément.

PREPARACION DE ESTE DOCUMENTO

Este es el informe de la Consulta de Expertos sobre el marcado del equipo de pesca, aprobado por los participantes al final de la reunión celebrada en Victoria, Columbia Británica (Canadá), del 14 al 19 julio de 1991.

El informe comprende tres partes. La Parte I contiene un registro sumario de las discusiones de varios aspectos vinculados a la preparación de un sistema para el marcado del equipo de Pesca. La Parte II contiene las Bases de un Sistema para el marcado del equipo de pescado. La Lista de Participantes figura en la Parte III.

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ABSTRACT

The Report of the Consultation reviews the decisions taken by COFI and the interest of IMO in the establishment of a standardised system for the marking of fishing gear, which lead up to the Consultation. The various advantages of having a standard system are highlighted and the requirements that such a system should meet are listed. Comments and suggestions with regard to the lights and shapes to be displayed by fishing vessels are directed to IMO for their consideration. The Report concludes that a standardised system for the marking of fishing gear is both desirable and feasible.

The second part of the document gives guidelines for the application of a Standard System for the Marking of Fishing Gear and is formulated in such a manner that administrations can incorporate the procedures and systems into their fishing regulations. Recommendations with regard to the marking of fish aggregations devices and Artificial Reefs are given.

In the Appendices (presented in a supplement), Appendix 1 gives examples of Marks and Tags that can be used to mark fishing gear. Appendix 2 gives recommendations with regard to where the tags should be attached to the various fishing gears and Appendix 3 deals with the Rules to be observed in marking fishing gear so that its presence and extent is obvious to other seafarers.

RESUME

Le rapport révisé les décisions du Comité des pêches et l'intérêt de l'Organisation Maritime Internationale (OMI) à la création d'un système de marquage des engins de pêche développé par la Consultation. Les avantages d'un système normalisé sont énumérés. Les observations et suggestions concernant les feux et signaux prévus pour les navires devraient être soumises à l'OMI pour que celle-ci les examine. Le rapport conclut qu'un système normalisé de marquage des engins de pêche est possible et désirable.

La deuxième partie du rapport donne les directives relatives à l'application d'un système normalisé de marquage des engins de pêche et fournit les éléments de base nécessaires à la rédaction d'une législation appropriée. Des recommandations concernant le marquage des dispositifs d'attraction du poisson et des récifs artificiels sont données.

Dans les appendices (présentées dans un supplément), l'appendice 1 donne des exemples des marques et décrit les caractéristiques techniques proprement dites. L'appendice 2 donne les recommandations où les marques doivent être fixés selon le type d'engin de pêche et l'appendice 3 traite les règles du marquage des engins pour signaler leur position aux autres navigateurs.

RESUMEN

El informe de la consulta revisa la decisión del Comité de pesca y el interés de la Organización Marítima Internacional (OMI) en la creación de un sistema uniforme para el marcado del equipo de pesca. Las ventajas de un sistema uniforme acentúan y los requisitos listan. Las observaciones y sugerencias se refieren a las luces y formas utilizadas por las embarcaciones que se presentarán a la OMI para su consideración. El informe concluye que un sistema uniforme para el marcado del equipo de pesca es posible y deseable.

En la segunda parte del documento, se dan las orientaciones para la aplicación de un sistema uniforme para el marcado del equipo de pesca y estas orientaciones tienen también el objetivo de servir de base para la preparación de una legislación adecuada. También se dan recomendaciones con relación al marcado de los dispositivos de agregación de los peces y de los arrecifes artificiales.

El Apéndice 1 da ejemplos de marcas y las especificaciones técnicas concretas. El Apéndice 2 ofrece recomendaciones sobre el lugar en que deberán colocarse las distintos artes de pesca y el Apéndice 3 trata de los reglamentos del marcado del equipo de pesca para indicar la posición a los otros marinos. (Apéndices es en uno Suplemento)

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PART I
REPORT OF THE CONSULTATION

INTRODUCTION:

1. At the 18th Session of the FAO Committee on Fisheries, it was noted that for the purpose of determining ownership, no international regulations, guidelines or common practices exist for the marking of fishing gear deployed outside of national jurisdictions. Some delegations noted the problem as it related to the protection of living marine resources from entanglement in fishing nets and in the case of discarded fishing gear. It was noted that the elaboration of a standard for the marking of fishing gear would be of benefit to coastal states and recommended that further studies should be undertaken.

2. In connection with this discussion, most delegations agreed that there was also a need for a review of lights and shapes displayed by vessels engaged in fishing and certain types of fishing gear. The Committee invited the Director-General of FAO to bring this matter to the attention of the International Maritime Organization (IMO), and noted that careful consideration must be given to the costs that any changes may imply.

3. The Maritime Safety Committee (MSC) of IMO considered the request of the Director-General for a review of the regulations related to lights and shapes (Collision Regulations) at its Fifty-eighth Session, 21-25 May 1990, and, after consideration referred the issue to its Sub-Committee on Navigation which met 3-7 September 1990.

4. The Sub-Committee on Navigation decided that consideration might be given to a possible amendment of Rule 26 of the 1972 Collision Regulations and requested Members to submit comments and proposals on the need to amend Rule 26 at its next session.

5. The Sub-Committee on Navigation also noted that FAO intended to convene an Expert Consultation on the marking of fishing gear, where the identification of ownership of lost, abandoned and unattended fishing gear was to be considered. Since this issue constituted a hazard to sea mammals and birds as well as to the safety of navigation the Sub-Committee would consider recommendations resulting from the FAO Expert Consultation.

6. In order to prepare for the Expert Consultation on the marking of fishing gear, an ad-hoc Working Group was convened in Rome, 28-29 January, 1991. The Group reviewed existing international and national rules and regulations concerning the markings of fishing gear and addressed the magnitude of the problem. In this connection the working group identified:

- i) the need to mark fishing gear for the purpose of establishing ownership of the gear;
- ii) the need to mark fishing gear for the purpose of indicating its position in the sea;
- iii) the need to review, and perhaps make recommendations for changes to Rule 26 (and associated Annex II) of the Regulations for Preventing Collisions at Sea (COLREGS) for the display of lights and shapes by fishing vessels engaged in fishing.

7. The Committee on Fisheries, at its Nineteenth Session held in Rome, 8-12, April, 1991, was advised of the findings of the Working Group and that an Expert Consultation would be convened in Canada in July 1991 to develop a system for the marking of fishing gear on the basis of existing technology. The Report of the Consultation would be considered by FAO regional fisheries bodies whose comments will be taken into consideration prior to referring the standards and guidelines to IMO for issues relating to safety of navigation and subsequent discussion to the Twentieth Session of the Committee.

8. The Expert Consultation on the marking of fishing gear was held in Victoria, British Columbia, Canada 14-19 July 1991 where guidelines for a system were prepared. A number of experts participated in the Consultation and are listed in Part III of this Report. In adopting the Report, one of the participants requested his reservations with regard to the Guidelines for the Marking of Fishing Gear be noted.

THE BASIS FOR A SYSTEM FOR THE MARKING OF FISHING GEAR

9. A system for the marking of fishing gear was developed on the basis of the following requirements:
- i) a simple and inexpensive system by which marks could be easily attached to fishing gear that would not interfere with the performance of the gear, and which would permit easy identification of ownership of gear and the identification of the position of gear in the water.
 - ii) a system that was without prejudice to international conventions, national and bilateral practices.
 - iii) implementation would be at minimum cost to Governments.
 - iv) the system should benefit fishers, including safety at sea considerations, as well as contribute to responsible fishing as related to protection of the environment.
10. The Consultation discussed whether it was necessary to include all types of fishing gear in developing a system, or whether a system should only include gears that were not attached to a vessel and were therefore unattended. It was decided that all gears should be included in the system, and it was noted that the guidelines for the implementation of a system would allow Governments to select only those gears that were required to be marked in any national situation.
11. The Consultation also recognized that while there was clearly a need to develop a system for the marking of fishing gear to improve responsible fishing practices, there was equally a need for other users of the seas, lakes and rivers to examine their practices with a view to discharging their responsibilities in connection with the protection of the environment. In this connection a number of unacceptable practices were discussed which should be brought to attention of IMO.
12. During the discussion concerning the preparation of a system for the marking of fishing gear, the experts were assisted by displays of some of the available equipment for the marking of fishing gear for ownership as well as for its position in the water. It was noted that the costs of the equipment displayed ranged from simple, inexpensive technology to more advanced, yet moderately priced equipment.

MARKING OF FISHING GEAR TO DETERMINE OWNERSHIP

13. In the discussion concerning the need to mark fishing gear as a means to identify ownership of such gear, the Consultation noted that this practice is already common for some gears around the world. The practice developed from a clear need for fishers to identify their fishing gear as a means to prevent its theft and interference of the gear by other fishers. In the same way, the Consultation considered that extending this practice to the marking of other gears, in particular the establishment of an acceptable standard method of marking fishing gear for ownership, would benefit fishers in their damage claims for gear destroyed by other users of the sea. This could result in a more effective insurance cover for fishers in certain parts of the world.
14. It was further noted that the identification of fishing gear for ownership could significantly contribute to fisheries management where the amount of gear deployed by any fisher was restricted.
15. In the discussion on the effect of marking fishing gear for ownership as a means to prevent the discard of gear at sea, the Consultation noted that the removal of identification marks from gear before discarding gear overboard could be a simple task and therefore not a sufficient deterrent to stop such practices. However, if a system could be implemented requiring fishers to report the position of lost gear to a competent authority, without penalty, there would thus be little incentive for many to remove identification marks. The reporting of positions of lost gear would, however, have a significant benefit in determining the magnitude of lost gear as an environmental hazard.
16. In this connection, the Consultation noted that manufacturers of non-biodegradable fishing gear materials should be required to provide means by which their material could be identified and for which records of commercial sales of such material would enable government authorities to trace discarded gear to the purchasers of such material. In this way, the Consultation believed that the practice of discarded gear at sea would be more effectively discouraged.

17. It was further noted that Governments may wish to give attention to providing appropriate means of encouraging fishers to bring any redundant gear ashore for subsequent disposal, for instance by an incentive scheme, and thus remove any need for its discard at sea. A number of other uses of used fishing gear were recognized by the Consultation.

18. Concerning the need to maintain a register of ownership of fishing gear, the Consultation was of the opinion that Administrations needed only to consider providing a register of ownership of gear where such gear is not associated to, nor part of, a licensed or registered fishing vessel. The only additional requirement for a register would be where the amount of gear permitted by regulation is restricted. The Consultation was therefore, of the opinion that the requirement for a register was minimal and the adoption of the system for marking fishing gear would be of minimal cost to Governments.

MARKING OF GEAR TO INDICATE POSITION

19. Virtually all fishers mark their deployed gear, if not attached to the vessel, with some kind of buoy or float so as to ensure it can be relocated and retrieved and to warn other mariners of the presence of the gear. Although such markings may be required in some regions by national legislation or international agreement, there is no global standard for such marks and actual practice varies widely.

20. The Consultation took note of existing practice and the general obligation to mark anything placed in the sea that might present a hazard to other mariners. The requirements of the Convention on the Conduct of Fishing Operations in the North Atlantic (the so-called London Policing Convention), which is not actually in force, were noted as examples of how some types of gear can be marked to indicate position.

21. There was agreement that in order to protect the fishers and their gear and to warn mariners and their vessels of the presence of deployed fishing gear, a standard system of lights and shapes would be useful.

22. The Consultation also agreed that the technical specifications of such a system would need to be distributed to all mariners so that all would know and understand the marks, lights, radar reflectors and shapes that might be encountered at sea. Such information would need to be included in training programs not only for fishers but other mariners as well.

23. It was pointed out that some fishing gear that presents a surface hazard may extend for many miles and may or may not be attached to the fishing vessel from which it was deployed: in many cases the gear may be encountered by a transiting vessel when there is no fishing vessel in sight at all. Accordingly, such gear should be marked so as to indicate both its position and extent.

24. Any visible mark will indicate the position of that portion of the gear to which it is directly attached but will not necessarily indicate the extent of the gear as a whole. In fact, none of the currently employed marking techniques do much to indicate extent of gear. For example, even if a long set of gear was marked at one mile intervals with white lights (a current practice) the white lights could easily be mistaken for a number of small craft with nothing between them or a series of marks of bottom set gear with no surface connection between them, etc.. Accordingly, some more specific means were required to be devised to indicate a continuous line of surface hazard.

25. In this regard, it was agreed that the solution at night is to adopt the use of yellow lights for the marks, at suitable intervals, for such gear. The yellow is indicative of a special hazard and cautions the mariner to remain well clear. If adopted in this circumstance it would alert the mariner to be alert for similar marks in a line of gear presenting a surface hazard. In the daytime, coloured flags might serve the same purpose. Additionally, for both night and day, radar reflectors should be employed.

26. The Consultation agreed that radio beacon buoys, transponders and other more sophisticated devices might well be of significant use to the fisher, but were not likely to contribute significantly to the solution for the general mariner.

27. A further problem was noted by the Consultation in respect of vessels, such as seiners, which are hampered to a significant extent by their gear and for which the light or shape indicating the direction of deployment of the gear is essentially meaningless due to constant manoeuvring. In such cases, as noted in the COLREGS section below, an effective solution may be to extend the use of the yellow/amber lights prescribed for purse seiners to use by other similarly encumbered vessels.

28. The Consultation agreed that FAO staff should be given the task to further develop the technical details of the markings in accordance with the above discussions.

LIGHTS AND SHAPES

29. The Expert Consultation considered the issues raised in the report of the Ad Hoc Working Group, and in the guidance from COFI, as related to Rule 26 of the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS), and Annex II to the COLREGS, with respect to the lights and shapes displayed by fishing vessels engaged in fishing, to determine whether any recommendations should be made for revisions to the COLREGS.

30. The Consultation agreed that FAO should offer the comments and suggestions below to the International Maritime Organization (IMO) for their consideration. Three items for possible revision were agreed:

First, that the option of displaying a (fish) basket in lieu of two cones apexes together by vessels under 20 metres (Rule 26 (b)(ii) and Rule 26 (c)(i)) should be discontinued and all such vessels be required to display the two cones.

This recommendation is based on the perceived inconsistent interpretation of the basket shape and the lack of availability of the traditional basket in many areas of the world.

Second, that the lights provided for, on an optional basis, in Annex II for use by fishing vessels engaged in fishing in close proximity to other vessels engaged in fishing should be:

- i) made mandatory for fishing vessels over 20 metres in length;
- ii) required when fishing in sight of any other vessel (rather than just other vessels engaged in fishing).

This recommendation is based on the view of the Consultation that the display of such lights can provide useful information to all mariners in sight, not merely other nearby fishing vessels. And, since the information so displayed is useful, mariners should be able to rely on its display at all times, not just when the fisher chooses to exercise the option.

Third, that the lights provided for in Annex II for display by purse seiners should also be prescribed for use by other vessels engaged in fishing operations when those operations involve extensive alteration of course or speed, or both, and when the vessel is hampered by its gear.

This recommendation is based on the view of the Consultation that certain fishing vessels other than purse seiners (such as, for example, Danish seiners) when setting and working their gear, are severely hampered by their gear and may be manoeuvring in ways that could appear unpredictable or confusing to a non-fisher mariner.

The Consultation noted that if the above changes to COLREGS (Rule 26 (d)) and Annex II were to be made, the Title of Annex II would also need to be changed.

31. In a different vein, the Consultation discussed several other issues but recommended no other changes to COLREGS. The Consultation noted the increasing use of high power strobe lights in some regions by fishing vessels at anchor at night and not engaged in fishing, and noted that the current use of such lights is to cover the fact that a proper lookout is not being maintained (in violation of Rule 5 of the COLREGS). The Consultation was advised that the lights are required by insurance companies writing coverage on the vessels and recognized the value of the lights in drawing attention to the presence of those vessels. While noting the violation of Rule 5, the Consultation was, nevertheless, of the opinion that the practice of using strobe lights should not be discouraged.

32. The Consultation also took note of the growing use of high powered (eg. halogen) deck lights to illuminate working areas at night. Certainly such lights may often obscure the vessel's navigation lights and may also limit the ability of the watch to see beyond the loom of the lights. At first glance, this would seem to be in violation not only of Rule 26 (a) but also the practice of good seamanship. On further consideration, however, it is clear that the high power deck lights provide a major safety enhancement for fishers operating machinery and handling fishing gear on decks. Given Rule 20 (b) of the COLREGS, what is required is for vessel operators to make every attempt to shield and direct the beams of their work lights so as to confine the light to the work area, and away from the watch in the pilot house and the lookout.

33. The Consultation noted that, in the COLREGS, a single white light is prescribed for a vessel of less than seven metres, a sailing vessel and a vessel under oars, and therefore white lights should preferably not be used to mark the position of fishing gear. The Consultation agreed that consideration should be given to the use of yellow/amber lights on deployed fishing gear. Similarly, it was noted that the lights and shapes prescribed in Rule 26 (c)(ii) provide no meaningful information to approaching vessels as to the extent of fishing gear extending more than 150 metres horizontally from the fishing vessel. Indeed, such gear may extend for tens of miles and be encountered long before the deploying fishing vessel is in sight.

34. Accordingly, the Consultation agreed that there is a need for specific surface marking on deployed gear, that the standards for such marks need to be made known to the maritime community as a whole and that there is some justification for adopting yellow lights for such gear to indicate the special hazards associated with it and the need to give it a wide berth. Since the issue is marking of gear rather than vessels, however, the Consultation agreed that the standard marking should not be included in the COLREGS.

35. In this regard, concern was expressed that in some developing countries the technology to produce yellow lights instead of white might not exist at present. The Consultation noted that there would likely be some simple solutions to that problem (such as colouring the inside of existing lenses) but where the problem was intractable a phase-in period might be necessary.

CONCLUSION:

36. The system described in the guidelines for the marking of fishing gear meets the criteria established in paragraph 09 of this report and can be adopted as a system.

37. Additionally, the system will substantially contribute to the ability of member States to meet their obligations under MARPOL. The marking system should result in less gear being abandoned at sea and a greater likelihood of lost gear reporting systems being effective, potentially enhancing the ability to retrieve such gear.

PART II

**GUIDELINES FOR THE APPLICATION OF A
STANDARD SYSTEM FOR THE MARKING OF FISHING GEAR**

1. INTRODUCTION

These guidelines have been developed with regard to the format followed by the Food and Agriculture Organization for the Standard System for the Marking of Fishing Vessels. The guidelines are in two parts. The first outlines an approach to developing a standard system for the marking of fishing gear; the second provides actual technical specifications for the marks and where they should be placed on various types of gear. These guidelines are also designed to provide a basis for drafting appropriate legislation. They will provide administrators, owners and users of fishing gear with a reference and a means of providing information and guidance to the fishing community.

As with the marking of fishing vessels, it is likely, in the first instance, that the standard system and specifications for the marking of fishing gear recommended would be used on a voluntary basis.

The two main purposes of the guidelines are to:

- i) identify ownership of the fishing gear, and
- ii) identify its position.

The first requirement is more easily met since the methods of identification are technically simple and internationally approved marking systems can be readily applied. The identification of the position of the fishing gear is more complicated because of the possible conflict with other forms of position identifiers employed by other users of the seas, rivers and lakes. In some cases, International Conventions are in force regulating the use of such marks. For these reasons, some guidance is given on how conflict with other systems can be avoided.

2. GENERAL PROVISIONS**2.1 Purpose and Scope**

- 2.1.1 Fishing gear should be marked for identification of ownership and its position as an aid to fisheries management, safety of navigation and the protection of the maritime environment.
- 2.1.2 For the purpose of the standard system, fishing gear to be marked refers to any type of fishing gear or fishing implement used in any fishery.¹

2.2 Definitions

Fisheries Administration: The government body or any designated authority responsible for the management and control of fisheries and empowered to impose fishing regulations.

Owner: An owner is the person, persons or entity holding title to the fishing gear. This term may include skippers and any other persons for the time being responsible for the operation of the fishing gear in question.

2.3 Standard Marking System Objectives

The objectives of the standard system are to:

- i) provide a simple, workable, and enforceable means of identifying the ownership and position of fishing gear

¹ This does not imply that all fishing gear need necessarily be marked but only that which is considered practical and necessary.

- ii) provide a system which can be universally adopted
- iii) aid resource management systems and meet obligations of international conventions

3. THE MARKING SYSTEM

3.1 General

- 3.1.1 Fisheries Administrations should ensure that suitable marks indicating ownership are attached to all fishing gear carried on or deployed from any vessel, or used for the purpose of fishing from beaches, lakes or river banks, etc. Such a requirement should apply only where an Fisheries Administration considers it practical and necessary to the proper management of its fisheries. It may also assist in meeting its obligations under appropriate international conventions. Initially, their introduction should be without prejudice to any existing national marking system which falls within the ambit of these guidelines.
- 3.1.2 So that the marks can identify the owner of the gear, a unique identifier (marker distinguishing symbol, etc.) should be issued by the Fisheries Administration to the owner of the gear. This will be capable of being cross-referenced to the Register of Gear referred to in 3.2.3. Applications for gear marks are referred to under 4.1.
- 3.1.3 Appendix 1 (in a Supplement) describes tags and other means for the identification of ownership.
- 3.1.4 Appendix 2 (in a Supplement) indicates where the tag or mark should be fixed to the fishing gear.

3.2 Register of Marks

- 3.2.1 Marks should be of a type and design approved by the Fisheries Administration and fitted in accordance with technical specifications provided below.
- 3.2.2 The marks should be:
 - simple
 - inexpensive
 - easily manufactured having regard to locally available materials
 - easily read or deciphered
 - easily attached or bonded to the fishing gear
 - able to stay attached
 - durable
 - designed not to interfere with the operation and performance of the fishing gear and, in the case of tags, capable of accepting a variety of printed or embossed data.
- 3.2.3 Such marking may be a condition of any fishing licence and should be recorded in the form of a fishing gear register. The register should also contain details of fishing gear which is not subject to a licensing regime but is nevertheless considered by the Fisheries Administration to require marking.
- 3.2.4 The register should record as a minimum the following information:
 - type of mark
 - serial number
 - date issued
 - name and address of owner
 - type of gear (FAO Code)
 - material
 - general area of use; and
 - principal target species

3.3 Record of Gear Lost or Found

3.3.1 A record/register of fishing gear reported as being found, lost, abandoned, or otherwise disposed of² should be maintained by the Fisheries Administration. This record/register should include details of:

- type of gear
- any fishing gear marks
- the markings on the gear
- date, time, position of loss, depth of water etc.
- reason for loss (if known)
- weather conditions
- any other relevant information.

4. RESPONSIBILITIES OF OWNERS OF GEAR AND FISHERIES AUTHORITIES

4.1 Any owner wishing to use fishing gear should make application to the Fisheries Administration for the issue of an approved gear mark or for approval of the owner's own mark. In doing so, the applicant should provide the following details:

- name, address, name of boat (if relevant)
- gear type
- material
- expected area of use³
- principal target species³

4.2 Where gear is lost from a vessel, the owner of the gear concerned should immediately warn other mariners giving details of the lost gear. Skippers of foreign vessels which have lost gear while fishing in the waters of a Coastal State should be required to report to the Fisheries Administration of the Coastal State concerned. The Fisheries Administration should promulgate the details and last known position of any gear lost by the most effective local means such as navigation warnings broadcast as marine safety information eg. Coastguard as information services.

4.3 Where gear is not used from a vessel and it is lost or abandoned, details of the gear should be reported to the Fisheries Administration by the owner of the gear.

4.4 In the event that the skipper of the vessel concerned is not the owner of the lost or abandoned fishing gear, the skipper will:

- i) have the report endorsed by the owner or agent of the gear;
- ii) be considered by the administration concerned as a representative of the owner if it is impractical to meet the conditions of (i) above.

5. GEAR MANUFACTURERS

5.1 Manufacturers could be encouraged to keep registers of the type of gear or parts thereof, the materials of construction and the name and address of the customer⁴.

5.2 Retailers, if different from the manufacturer, could also be encouraged to keep customer records in the form required by the owner to report to the Fisheries Administration for the allocation of the mark.

² Includes fishing gear sold or put ashore and destroyed.

³ Gear which is not subject to a licensing regime as described in para 3.2.3 may be exempt from this requirement.

⁴ A standard form may suffice which could also be used by the owner in support of his application for the allocation of a "mark".

6. RECOVERY OF LOST OR ABANDONED FISHING GEAR

6.1 The Fisheries Administration should ensure that owners of fishing gear have adequate equipment for the recovery of gear.

6.2 In the event of the failure of the owner to recover any lost or abandoned gear, particularly if it:

- presents a hazard to navigation or surface and sub-surface vessels
- fouls reefs
- fouls spawning beds
- becomes an impediment to fishing, or
- continues to ghost fish

the Fisheries Administration should take appropriate action to recover the gear.

6.3 Fisheries Administrations should encourage the re-use of recovered gear.

7. SALVAGE OF LOST OR ABANDONED FISHING GEAR

7.1 Notwithstanding national legislation covering salvage, the following rules should apply:

- i) Fishing gear found or picked up at sea whether marked or unmarked should be delivered as soon as possible to the competent authority responsible for dealing with wrecks, including fishing gear. In some cases this may not be the Fisheries Administration, but an authority responsible for materials found at sea, for example.
- ii) The competent authority shall inform owners, national or foreign, of the gear found (if adequately marked) and arrange to restore the gear to them or their representative after the interests of the salvor have been guaranteed.
- iii) In addition to the rights of the salvor, the Fisheries Administration, in cooperation with the competent authority, may levy a fee for each piece of gear retrieved. This income may be used to offset the costs of recovery by the Fisheries Administration as set out in paragraph 6.2 above.

8. LIABILITIES

8.1 It should be an offence under national law for any person to deliberately discard or dump any gear or piece of fishing gear, whether marked or not, into the aquatic environment, except in those cases which involve force majeure or other circumstances involving the safety of the fishing vessel or its crew.

8.2 Nothing in these guidelines shall be seen as a waiver of an owner's obligations under Civil and Criminal Law in respect of claims for damage or injury to third parties resulting from gear lost or discharged.

9. PENALTIES

9.1 A Fisheries Administration may impose appropriate penalties and fines on an owner, in particular, for the following actions:

- i) deploying fishing gear for which the owner has failed to obtain a mark;
- ii) deploying fishing gear without displaying the allocated mark;
- iii) deliberate removal of a mark prior to abandoning gear⁶.
- iv) use of marks allocated to another owner or to other gear
- v) providing false declarations to Fisheries Administrations on the use or disposal of fishing gear.

⁶ The onus of proof of ownership would lie with the Fisheries Administration.

10. CONTROL

- 10.1 The owners of all fishing gear placed in the sea should be responsible for marking it with appropriate devices as illustrated in Appendix 1 (presented in a Supplement). Fisheries Administrations shall carry out inspection on a regular basis to ensure that owners mark their fishing gear in the approved manner.
- 10.2 Fisheries Administrations may allocate a mark to a company, fishermen's organization or similar entity if it can be demonstrated that the individual unit of fishing gear can be used by more than one group of users or vessels on a rotational or common pool basis. Such identification marks should be followed by an individual gear identifier and the owner shall keep a log of the location of the gear.
- 10.3 For fishing gear which is to be deployed in waters of a State for which the administration allocating the mark has no jurisdiction, the administration of the country in whose waters the gear is to be deployed may require the owners to:
- i) supply details of the mark⁶; or
 - ii) apply for a new mark.
- 10.4 In the case of motherships, the fishing gear used by catcher vessels may carry the mark of the mothership.
- 10.5 In the advent of a tag being lost, the owner should provide to the Fisheries Administration a declaration detailing the circumstances of the loss.

11. MARKING POSITION OF GEAR

- 11.1 Care should be taken that lights and shapes which indicate the position of fishing gear do not conflict with navigation marks or systems. Furthermore, due account should be taken of:
- i) the international regulations for preventing collision at sea;
 - ii) any local rules governing river, lake or coastal navigation;
 - iii) any regulations pertaining to offshore structures.
- 11.2 Pots and traps, fyke nets, stake nets, and other similar gear, should be marked with a buoy or other device at the surface to indicate its position.
- 11.3 Where practicable, all position indicators attached to fishing gear shall:
- i) be as conspicuous as possible in a clear daytime atmosphere from a distance of at least two miles at sea level;
 - ii) carry radar and light reflectors
 - iii) carry lights with characteristics which do not conflict with those of navigational marks and visible on a clear night at a distance of not less than two miles;
 - iv) fitted with fluorescent coloured flag or flags as an aid to daytime visibility.
- 11.4 Extremities of fishing gear set below the level of the sea and extending from an anchor or parent vessel, shall be marked both at its extremities and at intermediate positions. The distance between intermediate marks, and between the intermediate markers closest to the extremities and the extremity markers shall not exceed one mile. In the case of fishing gear attached to a vessel, the extremity of the gear nearer to the vessel need not carry a marker.
- 11.5 For fishing gear set within the upper two metres of the water column, and therefore a hazard to small transiting vessels shall be marked at its extremities by marker buoys carrying top marks which shall consist

⁶ Such conditions could be expected in the case of joint venture or access agreements.

of two spherical marks, one above the other no more than one metre apart. The diameter of the upper of these two marks shall be smaller but no less than half that of the lower one. The lights attached to the buoys at the extremity of the gear shall be of a different characteristic to those fitted to intermediate buoys. (See Appendix 3)(In a Supplement)

- 11.6 Suitable electronic devices such as transponders which automatically and continuously indicate their position by means of signals relayed through satellites or radio systems may be employed with the approval of Fisheries Administrations in addition to marks. However, due regard should be paid to the need and obligation of Fisheries Administrations to ensure that such devices do not conflict with other similar devices employed for navigation and search and rescue purposes.
- 11.7 In a similar manner, Fisheries Administrations must ensure that signals emitted by homing devices fitted to fishing gear do not interfere with internationally allocated radio frequencies.
- 11.8 With respect to active gear such as used in anchor seining, fly dragging and purse seining, the dahn-buoy employed shall meet the minimum specifications for buoy set out in 11.3.
- 11.9 Fisheries Administrations may permit the use of retro-reflective material to enhance visibility in poor light conditions but not to replace the need for a light.

12. FISH AGGREGATING DEVICES

- 12.1 Fisheries Administrations shall establish a system of approval for the deployment of Fish Aggregating Devices (FADs) and a register of owners. This register shall record as a minimum requirement:
- mark assigned for the identification of ownership
 - name and address of owners
 - type of FAD
 - location of allocated datum geographical position
- 12.2 Fish aggregating devices, whether drifting or anchored, are to be treated in the same way as fishing gear and carry means to identify their position by day and by night and as a minimum requirement, they shall also comply with the specifications set out in paragraph 11.3.
- 12.3 The responsibility to recover drifting FADs lies with its owner and, in the case of such FADs being constructed of bio-degradable materials, the owner retains the responsibility to recover the marker once the FAD has ceased to be a possible danger to other vessels.
- 12.4 The loss of FADs (drifting or anchored) is to be reported by the owner to the Fisheries Administration in the same manner as lost or abandoned fishing gear.
- 12.4 The Fisheries Administrations shall take appropriate action in accordance with paragraph 3.3 and 6.2 above, in the event of a lost or abandoned FAD being considered a hazard to navigation.

13. ARTIFICIAL REEFS

- 13.1 For the purpose of these guidelines, artificial reefs shall be treated in the same way as any other underwater obstruction or offshore structure in respect of safety of navigation.

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