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Step-wise guide for the implementation of international legal and
policy instruments related to deep-sea fisheries and biodiversity
conservation in the areas beyond national jurisdiction

ABNJ Deep Seas Project

Sustainable Fisheries Management and Biodiversity Conservation of Deep-sea Living
Marine Resources and Ecosystems in the Areas Beyond National Jurisdiction



GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

Step-wise guide for the implementation of international legal and policy instruments related to deep-sea fisheries and biodiversity conservation in the areas beyond national jurisdiction

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ABBREVIATIONS AND ACRONYMS

ABNJ	Areas beyond national jurisdiction	LOSC	1982 United Nations Convention on the Law of the Sea
CBD	Convention on Biological Diversity	MCS	Monitoring, control and surveillance
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources	NAFO	Northwest Atlantic Fisheries Organization
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora	NEAFC	North East Atlantic Fisheries Commission
CMM	Conservation and Management Measures	PSMA	FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing
CNCP	Cooperating non-Contracting Party	RFMO/As	Regional fisheries management organizations or arrangements
EBSA	Ecologically and Biologically Significant Marine Areas	SEAFO	South East Atlantic Fisheries Organisation
EIA	Environmental Impact Assessment	SPRFMO	South Pacific Regional Fisheries Management Organization
FAO	Food and Agriculture Organization of the United Nations	UN	United Nations
IMO	International Maritime Organization	UNFSA	United Nations Fish Stocks Agreement
IPOA-Capacity	International Plan of Action for the Management of Fishing Capacity	UNGA	United Nations General Assembly
IPOA-IUU	International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing	VME	Vulnerable marine ecosystem
IPOA-Seabirds	International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries	VMS	Vessel monitoring systems
IPOA-Sharks	International Plan of Action for the Conservation and Management of Sharks		
ITLOS	International Tribunal for the Law of the Sea		
IUU fishing	Illegal, unreported and unregulated fishing		

ABSTRACT

This step-wise guide aims to assist with the implementation of relevant international instruments pertaining to deep-sea fisheries and biodiversity conservation in areas beyond national jurisdiction, especially the high seas, into national policy and law. This guide focuses on the incorporation and transposition of international rules, standards, and recommended practices and procedures into national policy and law. It addresses the key measures for making international obligations effective at the national level and suggests possible options for integrating those measures into the national legal framework. Legislative examples are also provided to illustrate how certain provisions have been incorporated into primary or secondary legislation. The guide first addresses the establishment of a national policy, followed by a description and analysis of essential legislative provisions regarding deep-sea fisheries and the conservation of marine biological diversity in areas beyond national jurisdiction. This guide is thus relevant to policy-makers, parliamentary draftpersons, and parliamentarians.

1. INTRODUCTION

This step-wise guide aims to assist with the implementation of relevant international instruments pertaining to deep-sea fisheries and biodiversity conservation in areas beyond national jurisdiction (ABNJ), especially the high seas, into national policy and law (FAO, 2017). National implementation of these instruments is vital in order to ensure that the objectives of the international instruments described in the *FAO Review and Analysis of International Legal and Policy Instruments related to deep-sea fisheries and biodiversity conservation in ABNJ* can be achieved. This applies not only to flag states of fishing vessels, but to any state which may be engaged in the landing, transfer, transshipment or trade in deep-sea fish species.

This guide is concerned with a particular form of implementation, namely the incorporation and transposition of international rules, standards and recommended practices and procedures into national policy and law. Effective implementation into national law will usually require the adoption of both primary legislation and secondary legislation. For the purposes of the guide, primary legislation refers to the adoption of laws by the legislative organs of a state and secondary legislation refers to the adoption of rules, regulations or other instruments by way of executive action or other form of subsidiary measure. This guide is thus relevant to policy-makers, parliamentary draftspersons, and parliamentarians.

There is often no single way in which an international instrument can be implemented into national law and states will have some discretion as to the precise manner in which they incorporate their international obligations into national law. For example, whether a state adopts primary legislation or secondary legislation will depend upon the constitutional framework, prescribed legislative requirements and legal traditions of each particular state. With this in mind, the guide will focus on identifying the key measures for making international obligations effective at the national level and suggesting possible options for integrating those measures into the national legal framework. The step-wise guide will also suggest in general terms what types of provisions should be contained in primary legislation and secondary legislation and refers to select examples of legal texts of states which have legislated on the matter. However, it is up to each individual state to determine the most appropriate form and method for implementing its treaty obligations within their own domestic context.

The range of instruments relevant to deep-sea fishing and the conservation of marine biological diversity in ABNJ is broad. However, there are a number of overlaps between the instruments, which means that certain steps can implement more than one of the instruments. The steps described in this guide are considered vital in ensuring effective implementation of the international legal framework.

The step-wise implementation guide is divided into three main parts, including this introduction, in addition to concluding remarks. Part 2 deals with the establishment of a national policy in relation to deep-sea fisheries and the conservation of marine biological diversity in ABNJ. Part 3 concerns the phase where the decision has been taken by the competent national authority to legislate. This part groups and describes the main themes or components and steps in nine sections. These themes or components should be included in national policy and legislation as they are essential to the implementation of international instruments pertaining to deep-sea fisheries and biodiversity conservation in the ABNJ.

The sections of Part 3 address:

- the objectives, principles and definitions to be enshrined in the law;
- the establishment of a national record or register of fishing vessels;
- the establishment of a licensing or permitting system for fishing vessels;
- the creation of data collection and reporting obligations;
- the implementation of international obligations and standards relating to environmental impact assessment relating to deep-sea fisheries and their impacts on marine biological diversity, particularly vulnerable marine ecosystems (VMEs);
- the establishment of monitoring, control and surveillance regimes;
- the establishment of boarding and inspection schemes;
- the introduction of port state control regimes; and
- enforcement mechanisms.

Each section will identify the key steps that must be taken by states to implement the international instruments into national legislation. They will also identify other considerations for national implementation and significant trends in practice for each issue.

2. ADOPTION OF A NATIONAL POLICY ON DEEP-SEA FISHING AND THE CONSERVATION OF MARINE BIOLOGICAL DIVERSITY BEYOND NATIONAL JURISDICTION

The 2008 FAO *International Guidelines for the Management of Deep-sea Fisheries in the High Seas* (Deep-sea Fisheries Guidelines) encourage the adoption of a national policy on deep-sea fisheries. Such a policy can be an important tool for the purposes of engendering political support in favour of addressing this issue and by providing a focus for implementation at the national level. A policy helps identify issues and determine the scope of legal reforms, as well as providing guidance for planning and resource allocation. It considers the country's international obligations and whether or how such obligations are aligned with existing domestic laws, institutions and policies.

It is generally recognized that fisheries policies are most effective when elaborated in consultation with key stakeholders including fishing operators, civil society and consumers. The process thus starts with the identification of the relevant stakeholders, and of existing constraints and prospects for the development of the sector, including legal challenges and opportunities. On the basis of the problems identified, the policymakers will identify possible solutions to discuss with stakeholders having an interest in deep-sea fisheries. A top-level policy should define the goals of the sector for a medium- to long-term period, looking ahead to assure sustainability. For each goal, it should identify implementation tools, including capacity building and training, public education and awareness-raising, technical work, and revision of legislation and of the institutional set-up. Finally, it should set out responsibilities, timeframes and resources necessary for policy implementation. Ideally, the policy will represent a consensus among all relevant stakeholders. At the least, the policy should represent the official position of the government.

A national policy on deep-sea fisheries in ABNJ should cover a number of issues. Firstly, it should incorporate and endorse the objectives contained in relevant international instruments. Of particular importance are the objectives contained in the Deep-sea Fisheries Guidelines, namely the long-term conservation and sustainable use of living marine resources and preventing significant adverse impacts on vulnerable marine ecosystems (VMEs). The objective to achieve long-term conservation and sustainable use of living marine resources is also reflected in the 1995 United Nations Fish Stocks Agreement (UNFSA) (UNFSA, 1995), and in the 1995 FAO Code of Conduct for Responsible Fisheries (Code of Conduct). In addition, the policy should also incorporate other important objectives relating to the prevention of illegal, unreported and unregulated (IUU) fishing and the conservation of marine biological diversity more generally. Any policy should also endorse a precautionary approach and an ecosystems approach to tackling this problem, as required by several policy and legal instruments in this field (e.g. the Code of Conduct, UNFSA, the Convention on Biological Diversity (CBD) (CBD, 1992). While policy objectives may not themselves be legally binding, they can be used to guide decision-makers who are empowered to implement the legislation which operationalise the policy. States should ensure that the policy and related national laws that are used to regulate deep-sea fishing and its impacts on conservation of biological diversity reflect the range of objectives contained in the relevant international instruments. Secondly, the policy should highlight the actions (and respective timeframes) that are necessary to meet these objectives, including the ratification of relevant international treaties, the implementation of these instruments into national law, and public education and awareness-raising. These actions are addressed in more detail below.

National policy could also express the state's commitment to become a party to relevant international treaties. One of the first steps that states can take in ensuring adequate protection is given to deep-sea fish stocks and related ecosystems is to ratify, accede to or take appropriate or prescribed formal steps to become a party to relevant treaties, thereby demonstrating their commitment to conservation and management of fisheries resources, as well as providing the initial legal basis for the adoption of relevant measures at the national level. Therefore, where states are not yet a party to relevant treaties, they should consider taking the necessary steps within their national legal systems to ratify or accede to these instruments. This is particularly the case where relevant regional fishery bodies, in particular regional fisheries management organisations or arrangements (RFMO/As), have incorporated general international binding measures into specific regional measures. States should also commit as a matter of national policy to implement the non-binding instruments that are relevant in this field, such as the FAO Deep-sea Fisheries Guidelines, the Code of Conduct for Responsible Fisheries, the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU), the International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds), the International Plan of Action for Conservation and Management of Sharks (IPOA-Sharks), and the International Plan of Action for the Management of Fishing Capacity (IPOA-Capacity).

A national policy or supporting strategic framework should also identify a clear and realistic timeframe for introducing proposals for implementing their international commitments related to the conservation of deep-sea fish stocks and related ecosystems into national law. This may entail either the amendment of existing laws or the adoption of new laws.

States should also undertake education and awareness-raising campaigns amongst relevant stakeholders within their national jurisdiction in order to ensure sufficient support for the implementation of international instruments at the national level, as well as to encourage

compliance with national laws once they are adopted. Relevant stakeholders for this purpose include fishing vessel owners, crews, inspectors, port authorities, trade authorities, retailers, restaurateurs, and consumers. Such a campaign should highlight the vulnerability of deep-sea fish species and their habitat, thus highlighting the need for urgent action. States should also ensure widespread and adequate knowledge of relevant species and habitats so that stakeholders can take appropriate action when they encounter such species. The availability of easily-readable guides and identification manuals will be vital to ensuring the effective implementation of any regulations. Where possible, states should build on existing work being done at the international level, through RFMO/As, although it may be necessary to translate some of this information into local languages.

The national policy should also consider when non-fisheries measures may be taken in order to provide protection to threatened species. For example, steps may be taken to offer more general legal protection to a species, through conservation legislation. Alternatively, states may pursue such protection through other international bodies, such as regional seas bodies or the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (CITES, 1973). A national policy on deep-sea fishing should highlight the need for different government agencies to cooperate on achieving the aims of the policy. A starting point is to identify which government agencies may have a role in the conservation of deep-sea fish stocks and vulnerable marine ecosystems beyond national jurisdiction. The policy should then establish appropriate mechanisms to facilitate information exchange and communication between these agencies.

National policies should be periodically evaluated and updated in order to ensure that they are being implemented by relevant agencies. The evaluation process should be described in the policy itself and an agency should be identified to take the lead in reviewing the implementation of the national policy.

3. DEVELOPMENT OR ENHANCEMENT OF NATIONAL LAWS FOR DEEP-SEA FISHING AND THE CONSERVATION OF MARINE BIOLOGICAL DIVERSITY BEYOND NATIONAL JURISDICTION

The steps described in this Part are associated with each theme or main component of legislation which should be included in national policy and legislation as they are essential to the implementation of international instruments pertaining to deep-sea fisheries and biodiversity conservation in the ABNJ. These steps are part of the strategy to address the situation where a finding has been made to the effect that the national legal framework is inadequate to meet the objectives set out in the Deep-sea Fisheries Guidelines and other relevant international instruments (FAO, 2017).

3.1. Objectives, principles and definitions in the law

Objectives and principles are to be respected in the enactment of related or subsidiary legislation, as well as in the periodic development of policies or strategies. Objectives and principles are also vital to guide the interpretation and application of the law.

The relevant core objectives, principles and definitions for deep sea fishing and the conservation of biodiversity in the ABNJ are described in the Deep-sea Fisheries Guidelines and other relevant international instruments. These include:

- the long-term conservation and sustainable use of living marine resources;
- the prevention of significant adverse impacts on VMEs;
- the conservation of marine biological diversity.

In order to achieve the objectives set out in the Deep-sea Fisheries Guidelines and other relevant international instruments, states should aspire to adopt and implement:

- The precautionary and ecosystems approaches to fisheries management in conformity with the rules of international law and in a manner consistent with other international instruments; and,
- Definitions for deep-sea fisheries and IUU fishing; and,
- Measures to prevent IUU fishing.

3.1.1. Steps to be taken to set the objectives, principles and definitions in the law

National laws should clarify the objectives, principles and definitions that will guide its interpretation and implementation. The objective of the law should include the long-term conservation and sustainable use of living marine resources, the prevention of significant adverse impacts on VMEs, the prevention and combating of IUU fishing and the conservation of marine biological diversity more generally. The law should require the adoption and application of measures to achieve the objectives including the precautionary and ecosystems approaches to fisheries management. National laws should also refer to the need to: prevent, deter and eliminate IUU fishing; address overcapacity in the fishing sector; promote sustainable management of target stocks; promote the reduction and minimization of by-catch of associated and dependent species, including turtles, seabirds, sharks, and marine mammals; minimize impact of fishing operations on rare and fragile and other VMEs; protect biodiversity; and promote effective surveillance and enforcement by flag states and port states.

States that are parties to RFMO/As should also ensure that their national laws reflect the relevant objectives, principles and measures set out in their decisions or recommendations, which the state is a party to, particularly where such decisions and recommendations establish additional and specific measures.

NEAFC Recommendation 19:2014 – Recommendation on the protection of vulnerable marine ecosystems in the NEAFC Regulatory Area

Article 1 Objective of the Recommendation

1. The objective of this Recommendation is to ensure the implementation by NEAFC of effective measures to prevent significant adverse impacts of bottom fishing activities on vulnerable marine ecosystems known to occur or likely to occur in the NEAFC Regulatory Area based on the best available scientific information provided or endorsed by the International Council for the Exploration of the Sea (ICES).
2. This Recommendation takes into account NEAFC's responsibility as a regional fisheries management organisation to adopt measures in the Regulatory Area in regard to bottom fishing activities, in order to contribute to the key objectives of the UN General Assembly Resolutions on the protection of vulnerable marine ecosystems and to ensure the long-term sustainability of deep

sea fish stocks and non-target species; the rebuilding of depleted stocks and, where scientific information is uncertain, unreliable, or inadequate, conservation and management measures established consistent with the precautionary approach.

3. This Recommendation shall be without prejudice to any sovereign rights of coastal States over the continental shelf in accordance with the UN Convention on the Law of the Sea for the purpose of exploring and exploiting its natural resources, including living organisms belonging to sedentary species, such as vulnerable marine ecosystems.
4. For the purpose of this Recommendation, NEAFC will take into account the guidance provided by the FAO in the framework of the Code of Conduct for Responsible Fisheries and any other internationally agreed standards, as appropriate.

The objectives and principles section of the relevant legislation of many states already include direct or indirect references to certain objectives and principles found in international instruments on deep-sea fisheries management. For example, certain fisheries legislation refer to the over-arching objective of ensuring sustainable development and mention the elements or means for ensuring that the objective is achieved. In such cases, a review of existing legislation should determine whether the references are adequately broad or should be changed so that there is a specific or clear mention of the relevant objective or principle.

The New Zealand Fisheries Act 1996 establishes the objective and guiding principles of the legislation as follows:

8. Purpose

(1) The purpose of this Act is to provide for the utilisation of fisheries resources while ensuring sustainability.

(...)

9. Environmental Principles

All persons exercising or performing functions, duties, or powers under this Act, in relation to the utilisation of fisheries resources or ensuring sustainability, shall take into account the following environmental principles:

- (a) associated or dependent species should be maintained above a level that ensures their long-term viability;
- (b) biological diversity of the aquatic environment should be maintained;
- (c) habitat of particular significance for fisheries management should be protected.

10. Information Principles

All persons exercising or performing functions, duties, or powers under this Act, in relation to the utilisation of fisheries resources or ensuring sustainability, shall take into account the following information principles:

- (a) decisions should be based on the best available information;
- (b) decision makers should consider any uncertainty in the information available in any case;
- (c) decision makers should be cautious when information is uncertain, unreliable, or inadequate;
- (d) the absence of, or any uncertainty in, any information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of this Act.

The Cook Islands Marine Resources Act 2005

4. Principles and Measures

The Minister, or Secretary, as appropriate, when performing functions or exercising powers under this Act, shall take into account the following

(a) environmental and information principles in relation to achieving the sustainable use of fisheries and the need to adopt measures to ensure the long-term sustainability of the fish stocks -

- (i) decisions should be based on the best scientific evidence available and be designed to maintain or restore target stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors;
- (ii) the precautionary approach should be applied;
- (iii) impacts of fishing on non-target species and the marine environment should be minimised;
- (iv) biological diversity of the aquatic environment and habitat of particular significance for fisheries management should be protected;

(...)

Definitions that capture relevant key terms and issues identified at the international and regional levels should also be introduced into national legislation. For deep-sea fisheries, states should, as a minimum, include definitions of ‘deep-sea fisheries’ (or ‘bottom fisheries’), ‘vulnerable marine ecosystems’, ‘significant adverse impacts’ as contained in the Deep-sea Fisheries Guidelines. A trend in this regard can be identified in the practice of RFMO/As.

Conservation Measure 30/15 on Bottom Fishing Activities and Vulnerable Marine Ecosystems in the SEAFO Convention Area

Article 2. Use of Terms

For the purposes of this conservation measure:

- (a) ‘bottom fishing activities’ means fishing activities where the fishing gear is likely to contact the seafloor during the normal course of fishing operations;
- (b) “encounter” means an incidental catch of a VME indicator species above threshold levels as set out in Annex 6. (Any encounter with a VME indicator species or merely detecting its presence is not sufficient to identify a VME. That identification should be made on a case-by-case basis through assessment by the Scientific Committee);
- (c) “existing bottom fishing areas” means the portion of the Convention Area where bottom fishing occurred in the period 1987-July 2011 and any areas added subsequently as set out in Article 4;
- (d) “exploratory bottom fishing” means all commercial bottom fishing activities outside area closures and existing bottom fishing areas, or fisheries within existing bottom fishing areas when a new fishing method and/or strategy are attempted to be used;
- (e) “significant adverse impact” has the same meaning and characteristics as those described in paragraphs 17-20 of the FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas;
- (f) “VME indicators” are those species and indicator units included in Annex 6; and
- (g) “vulnerable marine ecosystems”, hereafter VMEs, has the same meaning and characteristics as those contained in paragraph 42 with its Annex and paragraph 43 of the FAO Guidelines for the Management of Deep-Sea Fisheries in the High Seas.

In providing new definitions, a common issue is to ensure that the law is as precise and unambiguous as possible. While the use of legal and technical terms is unavoidable, law-makers should strive, wherever possible, to draft using plain language to facilitate understanding by the regulated public, or at least of the government officials who will be implementing the law.

European Council Regulation (EC) No 734/2008 of 15 July 2008 on the Protection of Vulnerable Marine Ecosystems in the High Seas from the Adverse Impacts of Bottom Fishing Gears, Article 2 Definitions

- (a) ‘marine ecosystem’ means a dynamic complex of plant, animal and microorganism communities and their non-living environment interacting as a functional unit’;¹
- (b) ‘vulnerable marine ecosystem’ means any marine ecosystem whose integrity (i.e. ecosystem structure or function) is, according to the best scientific information available and to the principle of precaution, threatened by significant adverse impacts resulting from physical contact with bottom gears in the normal course of fishing operations, including, inter alia, reefs, seamounts, hydrothermal vents, cold water corals or cold water sponge beds. The most vulnerable ecosystems are those that are easily disturbed and in addition are very slow to recover, or may never recover;
- (c) ‘significant adverse impacts’ means impacts (evaluated individually, in combination or cumulatively) which compromise ecosystem integrity in a manner that impairs the ability of affected populations to replace themselves and that degrades the long-term natural productivity of habitats, or causes on more than a temporary basis significant loss of species richness, habitat or community types;
- (d) ‘bottom gears’ means gears deployed in the normal course of fishing operations in contact with the seabed, including bottom trawls, dredges, bottom-set gill nets, bottom-set longlines, pots and traps.

The New Zealand Fisheries Act 1996 provides definition of terms such as:

(2) In this Act,—

Ensuring sustainability means —

- (a) maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and
- (b) avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment

Utilisation means conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural well-being.

In addition, national laws may include a definition of IUU fishing which reflect elements identified in para. 3 of the IPOA-IUU. The definition should include activities:

- conducted by national or foreign vessels in waters under the jurisdiction of a state, without the permission of that state, or in contravention of its laws and regulations;
- conducted by vessels flying the flag of states that are parties to a relevant RFMO but operate in contravention of the conservation and management measures adopted by that organization and by which the states are bound, or relevant provisions of the applicable international law; or

¹ This definition is taken from Article 2 of the Convention on Biological Diversity and it therefore represents an example of harmonizing fisheries law with laws on conservation of biological diversity.

- in violation of national laws or international obligations, including those undertaken by cooperating states to a relevant RFMO.
- which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or
- undertaken in the area of competence of a relevant regional fisheries management organization which have not been reported or have been misreported, in contravention of the reporting procedures of that organization.
- in the area of application of a relevant regional fisheries management organization that are conducted by vessels without nationality, or by those flying the flag of a state not party to that organization, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organization; or
- in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with state responsibilities for the conservation of living marine resources under international law.

However, when adopting their national legislation, states may wish to adopt a more specific definition of IUU fishing that meets the requirements of that particular state. Such a definition may in particular seek to include within the scope of IUU fishing those fishing activities that may cause serious or irreparable harm to marine biological diversity in the deep-seas.

Title 50 (Wildlife and Fisheries) of the United States Code of Federal Regulations, Section 300.201, defines IUU fishing to include:

Fishing activity that has a significant adverse impact on seamounts, hydrothermal vents, cold water corals and other vulnerable marine ecosystems located beyond any national jurisdiction, for which there are no applicable conservation or management measures, including those in areas with no applicable international fishery management organization or agreement.

As per Section 2 of the **Offshore Fisheries Management Regulations 2014 (L.N. No. 18 of 2014)** of Fiji, IUU Fishing means –

(a) illegal fishing refers to activities-

- (i) conducted by a Fiji fishing vessel or foreign fishing vessel in waters under the jurisdiction of a State, without the permission of that State, or in contravention of its laws;
- (ii) conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organisation but operate in contravention of international conservation and management measures adopted by that organisation and by which the States are bound, or relevant provisions of the applicable international law; or
- (iii) conducted in violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organisation;

(b) unreported fishing refers to fishing activities-

- (i) which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws; or
- (ii) undertaken in the area of competence of a relevant regional fisheries management organisation which have not been reported or have been misreported, in contravention of the reporting procedures of that organisation;

(c) unregulated fishing refers to fishing activities-

- (i) in the area of application of a relevant regional fisheries management organisation that are conducted by vessels without nationality, or by those flying the flag of a State not party to that organisation, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organisation; or
- (ii) in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with State responsibilities for the conservation of living marine resources under international law;

Finally, it may also be helpful to include in legislation definitions of ‘fisheries resources’, ‘living marine resources’, and ‘marine biological diversity’ in light of the UN Convention on the Law of the Sea (LOS) (UNCLOS, 1982) and the CBD, if these terms have not been yet defined in national law.

3.1.2. *Other Considerations*

An important consideration in reviewing and drafting laws is ensuring that a new or revised law complements other laws (the Constitution, property laws, civil and criminal law, tax law, laws on the environment, protected areas, tourism, etc.). Carrying out an initial analysis of the existing framework will serve to map the scope of legal reforms needed including whether the preparation of a new legal instrument is needed or only amendments to existing legal instruments is necessary. Cross-checking and comparing the new or revised draft with existing applicable laws and coordinating or consulting with administrators of other laws and stakeholders are recommended.

3.1.3. *Summary*

- Specify as the objectives of the law: the long-term conservation and sustainable use of living marine resources, the prevention of significant adverse impacts on VMEs, the prevention and combating of IUU fishing and the conservation of marine biological diversity.
- Include in the law the precautionary and ecosystems approaches to fisheries management.
- Include definitions for deep-sea fisheries, and IUU fishing.
- Make appropriate references to other applicable legislation relating to deep-sea fisheries and biodiversity conservation in the ABNJ. When intending to derogate from more general rules, expressly state so.

3.2. **Establishment of a record/register of fishing vessels**

The obligation to establish a record or register of fishing vessels authorized to fish on the high seas is found in a number of legally binding instruments, as well as in some of the non-binding instruments adopted at the international level. The purpose of such a record or register is to provide key information about a vessel that flies the flag of the registering state, thereby facilitating enforcement action by the flag state or other relevant states. The establishment of a national record or register of fishing vessels in national law would simultaneously satisfy the

requirements of the Compliance Agreement (FAO Code of Conduct, 1993), UNFSA, the Code of Conduct, the IPOA-IUU, the FAO Voluntary Guidelines for Flag State Performance (Flag State Guidelines), and the Deep-sea Fisheries Guidelines. Note that the term used for instance in the UNFSA, the Compliance Agreement and IPOA-IUU, is ‘record’, whereas the International Guidelines refer to ‘register’ or ‘record’. In some states, the term ‘register’ only applies to the register maintained by the flag administration. The fisheries administration normally maintains the record of all fishing vessels authorized to fish beyond national jurisdiction. Ultimately the choice between using the terms “record” or “register” is for the state to make.

3.2.1. *Steps to be taken to establish a record/register of fishing vessels*

The establishment of a register should be done through primary legislation, although the detailed contents of the register may be specified through secondary legislation. Many states already have a register of fishing vessels. If states do not already maintain a register of fishing vessels, they should establish one as a matter of priority. Where states already have a register of fishing vessels, they should ensure that it fully implements all of the requirements of the relevant international instruments.

Seychelles, Merchant Shipping Act 1995

3. In this Act, unless the context otherwise requires —

“fishing vessel” means a vessel which is for the time being used for or in connection with fishing;

...

12. (1) The Registrar shall cause to be kept at Victoria a register, in such form as the Registrar determines, to be known as the Register of Ships.

(2) The Registrar shall cause to be entered in the Register particulars of all ships registered under this Act and such other entries as may be required by this Act to be entered in the Register.

(3) Any person may inspect the Register at any time during the hours of official attendance by the Registrar on payment of the fee (if any) which is prescribed.

...

16. (1) Where a ship, other than an exempt ship —

(a) is owned by —

(i) a person who is a qualified person; or

(ii) persons each of whom is a qualified person; and

(b) is not registered in any other country,

that owner or those owners shall apply for the registration of the ship under this Part.

(2) Where subsection (1) would apply in relation to a ship owned by a qualified person or qualified persons if it were not an exempt ship, the owner or owners of the ship may apply for registration of the ship under this Part, but that owner or those owners are not required to so apply.

(3) In this section, a reference to an “exempt ship” is a reference to a ship —

(a) that is less than 10 metres in length;

(b) that is prescribed, or belongs to a class or description of ships that is prescribed; or

(c) that is engaged in any class of navigation or trading, or used for any purpose, that is prescribed.

New Zealand, Fisheries Act 1996**103 Fishing vessels must be registered**

(1) A person must not use a fishing vessel, or any tender of that fishing vessel, to take fish, aquatic life, or seaweed for sale, in New Zealand fisheries waters, unless—

- (a) the vessel is a New Zealand ship or has been exempted under section 103A(1) from that requirement; and
- (b) the vessel is registered under this section in the Fishing Vessel Register as a fishing vessel; and
- (c) that person complies with all conditions of registration.

(2) An application to register a fishing vessel must—

- (a) be made by the operator of that fishing vessel; and
- (b) be made to the chief executive in the approved form and be accompanied by the prescribed fee (if any); and
- (c) be supported by evidence of the vessel's registration as a New Zealand ship or its exemption under section 103A(1), and any other evidence that may be specified in the approved form.

It will be necessary in national legislation to identify which vessels are subject of the duty to register. National law should contain a definition for this purpose. At a minimum, national legislation should follow the definition of fishing vessel found in the Compliance Agreement, which provides that fishing vessel means 'any vessel used or intended for use for the purposes of the commercial exploitation of living marine resources, including mother ships and any other vessels directly engaged in such fishing operations' (Article I(a)).

Whilst it is possible under some agreements to exempt smaller fishing vessels from the requirement to register, states should consider requiring registration for all vessels, if feasible, in order to have this means to contribute information on national fishing capacity, ensure better control and reduce the threats of IUU fishing. When establishing a national register, states may also choose to include vessels conducting other fishing related activities, such as transshipment or transport of fish, in their register of fishing vessels (see the Flag State Guidelines). In this case, the definition of fishing vessel would have to be broadened to encompass these types of vessels.

In order to comply with all relevant international rules and standards, the minimum details which should be contained on the register include: name of the vessel; when and where built; previous names of the vessel (where available); name and address of the registered owner of the vessel; name and address of the registered operator of the vessel; name and address of the beneficial owner of the vessel (where applicable); international radio call sign (if applicable); port of registration; characteristics of the vessel (size, tonnage, beam, power of main engine, type of vessel, type of fishing method or methods); history of the vessel (e.g. previous registrations); history of authorizations to fish. Where possible, the register should also contain a photo of the vessel, showing a side profile of the vessel. The conditions for registration should also take into account the FAO Standard Specifications and Guidelines for Marking and Identification of Fishing Vessels. States should also consider including a record of violations of fishing law and regulations alongside the fishing vessel register, in order to allow the flag state to track IUU vessels and provide relevant information to other states and international organizations where necessary. When registering a vessel, previous violations committed whilst under the registration of another state should be transferred to the record of violations in order to provide a continuous history of non-compliance.

States should put in place regulations that control the inclusion of vessels on its register where they have previously been registered by another state, but their registration has been terminated due to violations of relevant fisheries regulations. Such requirement for recording historical characteristics of the vessel is set out in inter alia the Compliance Agreement, the IPOA-IUU, and the Flag State Guidelines. Thus, national law must empower the relevant national authorities to deny the registration of a vessel, unless specific conditions are met, namely that the flag state has established that the vessel is not subject to a period of suspension of a fishing authorization by another state or the flag state has established that the vessel has not had its authorization to fish withdrawn in the previous three years. If either of these conditions apply, the flag state should only be permitted to register the vessel if the ownership of the vessel has subsequently changed and the new owner has provided sufficient evidence demonstrating that the previous owner or operator has no further legal, beneficial or financial interest in, or control of, the vessel, or, having taken into account all relevant facts, the flag State determines that flagging the vessel would not result in IUU fishing.

The motivation to require the registration of fishing vessels will be greater if a state requires the same in its broader national policy on deep-sea fishing or in a national policy on fishing capacity consistent with the objectives of the IPOA-Capacity. Particular attention should be paid to the registration of vessels that are intended to carry out deep-sea fishing and registration should only be permitted in circumstances in which it is clear that the addition of capacity will not lead to the overexploitation of deep-sea fish stocks.

To implement the provisions of the Code of Conduct (para. 8.2.2), flag states should issue a certificate of registry to all vessels on its register. Legislation will be necessary to empower a particular public authority to issue such a certificate, as well as setting out the details that must be contained on the certificate. This legislation should also impose a requirement on the vessel to carry the certificate of registration at all times.

The registration process should be transparent and registration of a fishing vessel should be a prerequisite for obtaining a license to conduct fishing. This should be specified in national legislation, but it will also require close collaboration between relevant national agencies, as registration and licensing are often dealt with in practice by different branches of government.

Where there is evidence of a serious violation of regulations relating to fisheries or the protection of marine biological diversity, states must have the option to suspend registration of a vessel. National law should therefore confer a duty on national authorities to suspend the registration of a vessel if certain conditions are met (see Flag State Guidelines). States may also consider establishing in their national law a procedure for obtaining a certificate of de-registration, when a vessel wishes to move to another register. National law should determine the relevant authority for issuing a certificate of deletion, as well as the information that must be contained in the certificate. In order to facilitate the prevention of reflagging IUU fishing vessels, the certificate of deletion should include information concerning the reasons for de-registration as well as a list of violations that may have been committed by the vessel.

Ensuring that relevant state agencies can exercise effective jurisdiction over fishing vessels flying the flag of such state is vital. This requires effective coordination among relevant national agencies. This is a matter that should be addressed through the national policy and the law, by defining in a clear and precise manner the responsibilities of each relevant body and establishing appropriate mechanisms for sharing information and if necessary mandating coordination. The law could for instance, spell out in detail in which cases or on which matters

institutional coordination should be sought; define the procedures or mechanism through which coordination can be achieved, for instance by: creating a duty to exchange information on matters of common concern, and/or request the prior consent or advice of interested government bodies; setting up joint decision-making procedures, and creating a coordination body composed of government and possibly non-governmental representatives.

New Zealand, Fisheries (Registers) Regulations 2001 (SR 2001/187) (reprint 1 October 2017)

7 Particulars to be shown in Fishing Vessel Register

The Fishing Vessel Register must contain the following particulars:

- (a) the name, postal address, email address (if any), and client number of each vessel owner and vessel operator:
- (b) the name, postal address, and email address (if any) of each person who is a notified user of a vessel under section 104 of the Act:
- (c) the name, postal address, and email address (if any) of each person who is an authorised agent under section 103(2)(c) or section 105(2)(c) of the Act:
- (d) the name of each vessel:
- (e) each vessel's registration number:
- (f) each vessel's base port and port of registry (if any):
- (g) the status of each vessel (that is, whether it is a New Zealand fishing vessel, a foreign-owned New Zealand fishing vessel, a fish carrier, or a vessel licensed under section 83 of the Act):
- (h) if a vessel is a foreign-owned New Zealand fishing vessel, fish carrier, or licensed under section 83 of the Act, the flag state and port of registry of the vessel:
- (i) the period for which each vessel is registered:
- (j) if a vessel's registration has been cancelled, the date the cancellation took effect:
- (k) if a licence has been issued under section 83 of the Act to fish using a vessel within the exclusive economic zone, whether the licence is suspended:
- (l) if a licence issued under section 83 of the Act is suspended or has been revoked, the date on which the suspension or revocation took effect.

3.2.2. *Other considerations relating to the establishment of a record/register of fishing vessels*

It will be important to ensure that the vessels targeted for “registration” or are recorded can be clearly identified. An effective register requires the use of a unique registration number for all vessels. In accordance with the 2013 amendments to the International Maritime Organization (IMO) Vessel Identification Number Scheme, flag states may use the IMO unique identifier number for relevant fishing vessels. This number would remain the same for all vessels, regardless of if they change flag. States should consider using the IMO Vessel Identification Number Scheme for the purposes of its register of fishing vessels (EU, 2017). Use of the IMO Vessel Identification Number will also support the establishment of a global record of fishing vessels under the Compliance Agreement. One of the impediments to ensuring that fishing vessels are identifiable is that the IMO Vessel Identification Number Scheme only applies to vessels 100 gross tonnes or more. When it is not possible to use the IMO Vessel Identification Number Scheme, flag states may have to explore alternatives to the use of a unique identification number, taking into account the FAO Standard Specifications and Guidelines for Marking and Identification of Fishing Vessels.

The tracking of the beneficial owner of a vessel and ensuring that this information is kept up-to-date on the register is also vital. To provide an incentive to up-date information on the register, states may consider introducing legislation that establishes an obligation to keep the information on the register up-to-date and it should create an offence for failure to do so.

Registration of ships including fishing vessels and the recording of vessels that are designated for fishing operation or authorised to fish may be the responsibilities of different government authorities with the former function normally performed by the maritime transport or shipping authority and the latter performed by a fisheries administration. It is therefore important that effective policy coordination mechanisms or complementary processes are put in place. For example, it may be necessary to ensure that no fishing vessel is entered in a fishing record or is authorised to fish (discussed below) without being registered first in a ships register or a fishing vessel record.

3.2.3. *Summary*

Steps to be taken by states in the establishment of a register/record of fishing vessels in national law:

- Define fishing vessel for the purposes of the register/record.
- Empower the relevant national authority to adopt detailed regulations on the content of a national register/record of fishing vessels.
- Empower the relevant national authority to issue a certificate of registration, suspend registration, and to issue a certificate of de-registration to relevant fishing vessels.
- Impose a duty on fishing vessel operators and owners to keep information in the register/record up-to-date.
- Specify the details to be included in the register/record.
- Specify the conditions under which registration is not permitted.
- Impose a duty on vessels, where relevant, to display IMO Vessel Identification Number or other applicable identification number.
- Ensure inter-institutional coordination and complementarity between the ships registration and vessel record processes as well as the fishing authorisation process.

3.3. **Establishment of an authorization scheme for deep-sea fishing**

Central to any fisheries legislation is the requirement to obtain authorization as a prerequisite for fishing. The purpose of an authorization scheme is to allow the flag state to control what activities are carried out by vessels flying its flag. The obligation to require authorization for vessels fishing on the high seas is contained in a number of legally binding instruments (Compliance Agreement, UNFSA), as well as in some of the non-binding instruments adopted at the international level (IPOA-IUU, Flag State Guidelines). Such a requirement is also implicit in the LOSC, which requires that flag states exercise effective jurisdiction and control over their vessels and ensure that their vessels comply with conservation and management measures - without some form of authorization, it would not be possible to meet this obligation.

3.3.1. *Steps to be taken to establish an authorization scheme for deep-sea fishing*

The obligation to require a vessel to be authorized should be contained in primary legislation. Such an obligation applies to all vessels wishing to fish on the high seas, whether or not they are conducting deep-sea fishing. Primary legislation should identify the body that is responsible for granting an authorization, as well as conferring the power on that body to impose conditions upon fishing vessels operating on the high seas. The process for obtaining an authorization should be clear and transparent. In order to obtain an authorization, a fishing vessel should be registered in the flag state in accordance with the national law provisions on registration (FAO, 2017). Legislation should also identify the factors that may be taken into account when deciding whether to grant an authorization. In this respect, environmental considerations, including the conservation of marine biological diversity and the protection of rare and fragile ecosystems, must be listed as a factor that can be taken into account by national decision-making processes in determining whether to grant a fishing authorization.

The authorization process is also important because it is through this process that states are able to impose conditions upon fishing vessels. National legislation must therefore confer a power on the flag state to impose conditions on a fishing authorization. The power to set conditions should be contained in primary legislation. The details of the authorization regime, including the nature of conditions that may be attached to an authorization and the applicable procedures, may, on the other hand, be more appropriately addressed through secondary legislation, which can be updated quickly and easily, whenever necessary.

EU Council Regulation (EC) No. 734/2008 of 15 July 2008 on the Protection of Vulnerable Marine Ecosystems in the High Seas from the Adverse Impacts of Bottom Fishing Gears

Article 3 (Special fishing permits)

1. In order to conduct [fishing activities with bottom gears in the high seas], Community fishing vessels shall have a special fishing permit.
2. The special fishing permit shall be issued in accordance with Regulation (EC) No 1627/94 and subject to the conditions established in this Regulation.

Article 4 (Conditions for issuance)

1. Applications for a special fishing permit provided for in Article 3(1) shall be accompanied by a detailed fishing plan specifying in particular:
 - (a) the intended location of the activities;
 - (b) the targeted species;
 - (c) the type of gears and the depth at which they will be deployed, and
 - (d) the configuration of the bathymetric profile of the seabed in the intended fishing grounds, where this information is not already available to the competent authorities of the Flag State concerned.

Article 5 (Conditions for validity)

1. The special fishing permit provided for in Article 3(1) shall make it explicit that fishing activities carried out under it must conform to the fishing plan submitted in accordance with Article 4(1) at all times.

2. Where circumstances beyond the control of the person responsible for the vessel operations necessitate an alteration of the submitted plans, the person responsible for the vessel's operations shall inform the competent authorities without delay, indicating the modifications intended to the original plan. The competent authorities shall examine such alterations and shall not authorise them if they entail a relocation of the activities to areas where vulnerable marine ecosystems occur or are likely to occur.
3. Failure to conform to the fishing plan provided for in Article 4(1) in circumstances other than those specified in paragraph 2 of this Article shall entail the withdrawal by the flag State of the special fishing permit issued to the fishing vessel concerned.

Korean Distant Waters Fisheries Development Act 2007 (amended on 6 January 2015)

Article 6 (Fishery Permission and Reporting)

(1) Each person who intends to engage in distant water fisheries shall obtain a permit for each fishing vessel from the Minister of Oceans and Fisheries. The foregoing shall also apply where a person intends to amend any permitted matter: Provided, that minor matters prescribed by Presidential Decree shall be reported.

(2) Notwithstanding paragraph (1), where a fishing vessel which is granted a permit for offshore fisheries under Article 41 (1) of the Fisheries Act is permitted to be engaged in fishery activities in any waters under the jurisdiction of a foreign state in accordance with an agreement on fisheries or an agreement on fisheries cooperation with a foreign state or foreigner (hereinafter referred to as "fisheries cooperation with a foreign state"), the Minister of Oceans and Fisheries may grant a permit under paragraph (1) without applying the permission standards for distant water fisheries under paragraph (8).

(3) A person who intends to obtain a permit for distant water fisheries pursuant to paragraph (1) may file an application for permission for concurrent businesses with respect to the very same fishing vessel depending on the structure and performance of such fishing vessel, as prescribed by Ordinance of the Ministry of Oceans and Fisheries.

(4) The Minister of Oceans and Fisheries shall, where granting a permit for distant water fisheries, do so by dividing the areas of fisheries operations into the Pacific, the Atlantic, and the Indian Ocean: Provided, that he/she may, depending on the type of distant water fishery, grant a permit for the Pacific, the Atlantic, and the Indian Ocean as one area of fisheries operations.

...

Article 7 (Restrictions on Permission of Ocean Fisheries)

(1) The Minister of Ocean and Fisheries may restrict permission for distant water fisheries of a ship, suspend the distant water fisheries thereof, or restrict mooring of a ship or its entry into and departure from a port in any of the following cases, when granting a permit for distant water fisheries under Article 6, or if a ship for which such permit has been granted falls under any of the following subparagraphs:

1. Where an international fisheries organization has made a resolution for preservation and management of resources;
2. Where the permit for distant water fisheries fails to meet international standards regarding fisheries in high seas;
3. Where a request for restrictions is made by a coastal state or international fisheries organization;
4. Where an international fisheries organization whose establishment is in progress has adopted a voluntary or tentative measure;
5. Where the relevant fishing vessel conducts any fisheries operation in any waters under the jurisdiction of any coastal state in which it is deemed that the said state does not grant a licence, permit, or authorization to, and monitor, supervise, and control foreign ships conducting fishery operations, in a effective manner under its fisheries-related statute;
6. Where it is necessary for managing, etc. overseas fisheries resources;

...

(2) Restrictions concerning fishing areas, the age of a vessel, etc. may be imposed on fishing vessels allocated for a new permit for distant water fisheries prescribed by Presidential Decree or for replacement of permitted fishing vessels, if necessary

Article 13 (Rules for distant water fishery operators to observe)

(1) Each operator of a distant water fisheries business and a person engaged in distant water fisheries (hereinafter referred to “an operator, etc. of a distant water fisheries business”) shall conscientiously conduct fishing operations within the permitted scope of operations and shall comply with resolutions made by international fisheries organizations for the conservation and management of resources and international standards regarding fisheries in high seas.

(2) No operator, etc. of a distant water fisheries business shall engage in any of the following activities related to serious violations in overseas waters:

1. Conducting fishing operations without any valid licence, authorization or permit, or registration issued by the state of flag or the relevant coastal state;
2. Failing to maintain such the amount of catch and detailed records thereof (including the data transmitted from fishing vessels monitoring system) as demanded by an international fisheries organization, or of falsely reporting such allowable amount of catch;
3. Conducting fisheries operations in any marine preserve established by an international fisheries organization or any coastal state, conducting fisheries operations during a prohibitive period of fisheries, or conducting fisheries operations without being allocated a catch quota or in excess of the catch quota;
4. Directly conducting fisheries operations for any resources, the fisheries operations of which are tentatively or permanently prohibited;
5. Fishing with prohibited or unauthorized fishing gear;

Many of the conditions that are attached to deep-sea fishing vessels will be similar to those attached to other vessels fishing on the high seas. Thus, conditions may relate to inter alia: the marking of fishing vessels, following the necessary international standards; marking of fishing gear; imposition of catch limit; specification of the use of particular gear; prohibition of certain fishing practices; specification of the carriage of VMS or other surveillance equipment; carrying on board observers; specification of the areas in which a vessel may carry out its fishing operations; regulation of bycatch and discards; compliance with encounter protocols; and regulation of transshipments and landings. In particular, the use of closed areas and gear restrictions are an important tool in the context of deep-sea fishing to allow states to manage the impact of fisheries on marine biological diversity and, in particular, VMEs.

The use of conditions will permit states to comply with their detailed obligations as members of the relevant RFMO/As. Where states are not a member of an RFMO/A, which has competence to regulate fishing in a particular area, the state should nevertheless ensure that it imposes conditions of its fishing vessels in order to ensure that its vessels do not undermine the objectives of the RFMO/A measures. Where there is no RFMO/A at all for a particular area, it will be necessary for the flag state to determine itself which conditions are applicable, based upon a stock assessment and an environmental assessment (see below), in cooperation with other relevant flag states.

Commission of the South Pacific Regional Fisheries Management Organisation, Conservation and management measure for Gillnets in the SPRFMO Convention Area, CMM 08-2013

1. Members shall require that vessels flying their flag prohibit the use of large - scale pelagic driftnets and all deepwater gillnets in the Convention Area.
2. Members whose flagged vessels seek to transit the Convention Area with gillnets onboard shall:
 - a) Give at least 36 hours advanced notice to the Secretariat prior to entering the Convention Area. In particular, Members shall report the expected entry and exit dates and length of gillnet carried onboard;
 - b) Ensure their vessels operate a vessel monitoring system polling once every two hours while in the Convention Area;
 - c) Submit VMS position reports to the Secretariat within 30 days of the vessel leaving the Convention Area; and
 - d) If gillnets are accidentally lost or fall overboard from the vessel, report the date, time, position (using WGS84) and length (metres) of gillnets lost to the Secretariat as soon as possible and within 48 hours of the gear being lost.

The attachment of conditions to a fishing authorization may also be an important means of achieving some of the objectives of instruments relating to the conservation of biological diversity. For example, specific conditions may relate to the prohibition/regulation of garbage disposal by fishing vessels, the prohibition of the intentional capture or taking of specified marine species, the requirement to attempt to release entangled species, such as seabird or turtles, and the obligation to report and/or retrieve lost gear. National fisheries legislation should therefore permit authorities to impose conditions on fishing authorizations related to the protection of marine biological diversity that also reflects conservation and management measures adopted by RFMOs/As (see example below).

SPRFMO, Conservation and Management Measure for minimising bycatch of seabirds in the SPRFMO Convention Area, CMM 09-2017

1. Members and Cooperating non-Contracting Parties (CNCs) shall require vessels flying their flag and using demersal longlines, to implement seabird mitigation measures, as described in Annex 1.
2. Subject to paragraph 3, Members and CNCs shall require vessels flying their flag and using trawl gear to implement seabird mitigation measures, as described in Annex 2.
3. Vessels using trawl gear that discharge no biological material shall be exempt from applying the seabird mitigation measures described in Annex 2. This provision shall be subject to periodic review or review when new information is available.
4. Use of mitigation measures detailed in this CMM are subject to safety considerations for vessels and crew in accordance with international law.
5. Members and CNCs shall implement this CMM by July 31st 2015 unless decided otherwise by the Commission based on the results of the Scientific Committee's consideration of the issue at its 2014 meeting.
6. Members and CNCs are encouraged to adopt measures aimed at ensuring that seabirds captured or entangled alive during any fishing operations in the Convention Area are released alive and in as good condition as possible. Research into the survival of released seabirds is encouraged.
11. Nothing in this measure shall affect the rights of Members and CNCs to apply additional or more stringent compatible measures to their flagged vessels conducting demersal longline or trawl fishing in the Convention Area.

In relation to deep-sea fishing, all authorizations should be subject to the condition that vessels do not carry out fishing operations in a way that causes significant damage to VMEs. In this regard, national legislation can impose particular obligations upon fishing vessels when they encounter a VME, such as to cease fishing and report the encounter, as is explicitly called for by paragraph 67 of the Deep-sea Fisheries Guidelines. Several RFMO/As have developed so called encounter protocols in response to this provision. Encounter protocols have been considered useful especially in data-poor areas, and their utilisation (determination of move on rules and specie-specific thresholds) varies from region to region (FAO, 2016). In some regions (especially data-rich areas) encounter protocols have been utilised as a secondary measure to VME closures, while in other regions (data-limited areas), encounters have been used as a primary tool to protect VMEs from bottom fishing impacts (FAO, 2016). RFMO/As measures on encounter protocols should be implemented, where relevant, into national law.

Australian Fisheries Management (International Agreements) Regulations 2009, Schedule 1:

- 13A.1 A person using a boat for bottom fishing activities in the relevant Convention Area must:
- (a) use a line marked into line segments to carry out the activities; and
 - (b) give to the CCAMLR Secretariat or flag State of the boat each day a report setting out the following information:
 - (i) the total benthos recovered during the day;
 - (ii) if the person is using the boat in a longline fishery—the number of hooks in the water at the time of reporting;
 - (iii) if the person is using the boat in a pot fishery—the number of pots in the water at the time of reporting.
- 13A.2 If a VME indicator organism is retrieved on a line segment in the relevant Convention Area, the person must:
- (a) record details about the organism; and
 - (b) remove the deployed line segment; and
 - (c) cease fishing; and
 - (d) give the CCAMLR Secretariat and the boat's Flag State the following information:
 - (i) if 10 or more VME indicator units are recovered on a single line segment—details about the recovery of 3 VME indicator units;
 - (ii) the location of the midpoint of the line segment;
 - (iii) the number of VME indicator units recovered.
- 13A.3 If the person receives written notice from the CCAMLR Secretariat that the relevant Convention Area is a risk area, the person must cease fishing.
- 13A.4 In this clause:
- line segment*** means:
- (a) for a longline—the shorter of the following:
 - (i) a section of line with 1 000 hooks;
 - (ii) a section of line 1 200 metres long; and
 - (b) for a potline—a section of line 1 200 metres long.

relevant Convention Area has the same meaning as in clause 13.

risk area means an area:

- (a) in which 10 or more VME indicator units are recovered on a single line segment; and
- (b) which has a radius of 1 nautical mile from the midpoint of the line segment on which the VME units mentioned in paragraph (a) were recovered.

VME indicator organism means any benthic organism listed in the CCAMLR VME Taxa Classification Guide.

VME indicator unit means:

- (a) 1 litre of VME indicator organisms that are able to be placed in a 10 litre container; or
- (b) 1 kilogram of VME indicator organisms that are not able to be placed in a 10 litre container.

In the absence of an agreed encounter protocol, flag states should develop their own encounter protocols taking into account good practice in this regard.

EU Council Regulation (EC) No. 734/2008 of 15 July 2008 on the Protection of Vulnerable Marine Ecosystems in the High Seas from the Adverse Impacts of Bottom Fishing Gears

Article 7 (Unforeseen encounters with vulnerable marine ecosystems)

1. Where, in the course of fishing operations, a fishing vessel encounters a vulnerable marine ecosystem, it shall immediately cease fishing, or refrain from engaging in fishing in the site concerned. It shall resume operations only when it has reached an alternative site at a minimum distance of five nautical miles from the site of the encounter within the area foreseen in its fishing plan provided for in Article 4(1).
2. If another vulnerable marine ecosystem is encountered in the alternative site referred to in paragraph 1, the vessel shall keep relocating in accordance with the rules set out in that paragraph until a site is reached where no vulnerable marine ecosystems are found.
3. The fishing vessel shall report each encounter to the competent authorities without delay, providing precise information on the nature, location, time and any other relevant circumstances of the encounter.

Australian Fisheries Management (International Agreements) Regulations 2009, Schedule 1, para. 13.2:

In the absence of site-specific or other conservation measures to prevent significant adverse impact on vulnerable marine ecosystems, a person using a boat in the relevant Convention Area for fishing must:

- (a) cease bottom fishing activities in any location in which the person encounters evidence of a vulnerable marine ecosystem in the course of fishing operations; and
- (b) report the encounter to the person's flag State.

National law must also address compliance with the authorization regime. Primary legislation must make it an offence to fish on the high seas without the appropriate authorization or in contravention of the conditions contained in an authorization. States should consider making it an offence in relation to the master, but also the registered operator and beneficial owner of the

vessel. Legislation should specify the offence and establish appropriate penalties, which are sufficiently severe in order to deter offenders.

3.3.2. *Other considerations in establishing an authorization scheme for deep-sea fishing on the high seas*

Fisheries and environmental protection may be dealt with by different government agencies. It is therefore important that effective policy coordination mechanisms are put in place. It is also important to always ensure that fisheries legislation is drafted in such a way as to respect the state's commitments under non-fisheries treaties or instruments.

There may also be a need to ensure that legal measures are coordinated. For example, if species are listed under Annex I or II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the flag state may also need to issue a CITES permit in addition to a general fisheries authorization. National legislation implementing CITES may be contained in a discrete statute that focuses on international trade in endangered species. To ensure consistency, states may consider how to integrate the requirements under CITES in relation to marine species within their general fisheries legislation. States could consider the introduction of provisions in their general fisheries legislation that make the issuance of a fishing authorization contingent upon the prior issuance of a permit under the relevant legislation implementing CITES, if a species is listed under that treaty. States could also consider designating the same body as the relevant authority for issuing general fishing authorizations and CITES permits in relation to marine species. Alternatively, states could establish a coordination procedure between relevant national authorities (e.g. fisheries department, customs, police, etc.) in order to promote consistency in the implementation of the different bodies of legislation.

Similar considerations may apply to ensuring that national fisheries legislation and policy is compatible with other environmental treaties, which seek to offer legal protection to particular species, such as the Convention on the Conservation of Migratory Species of Wild Animals or regional seas treaties.

3.3.3. *Summary*

Steps to be taken by states in the establishment of an authorization scheme for fishing vessels on the high seas:

- Imposition of a requirement for all vessels flying the flag of the state to obtain an authorization prior to carrying out any fishing activity on the high seas.
- Establishment of the factors that may be taken into account in deciding whether to issue an authorization to carry out fishing activity on the high seas, including environmental considerations.
- Inclusion of a power to impose conditions on the issuance of a high seas fishing authorization;
- Establishment of an obligation for all fishing vessels to follow encounter protocols, as part of the conditions of a high seas fishing authorization.
- Establishment of an offence for fishing without a valid authorization or for fishing in a manner that is contrary to the conditions contained in an authorization.

- Inclusion of a power to revoke an authorization under specified circumstances.
- Harmonize national legislation on fishing authorization with national legislation implementing relevant environmental treaties, such as CITES, CMS, etc.

3.4. Establishing data collection and reporting obligations

Many international instruments require states to collect data relating to the operation of fisheries. Reporting is important because it allows flag states to detect violations and it also permits the collection of information that can be used when determining catch limits and other fisheries measures. Several international instruments require information to be reported by fishing vessels, including the LOSC, the UNFSA, the Compliance Agreement, the Code of Conduct on Responsible Fisheries, and the Deep-sea Fisheries Guidelines. Many environmental instruments also call for particular information to be reported concerning the impact of fishing on marine biological diversity and ecosystems.

Issues that may require reporting include:

- catch statistics;
- bycatch and discards;
- loss or abandonment of fishing gear;
- entanglements and strikes with marine species;
- encounters with VMEs.

3.4.1. *Steps to be taken to establish data collection and reporting obligations*

To implement data collection and reporting requirements, legislation should ensure that fishing vessel operators are required by law to report certain information relating to their operations. This basic obligation could be enshrined in primary legislation, whereas the details of the reporting obligation, including the information to be reported and to which entity a report should be addressed, could be included in secondary legislation or as a condition of a fishing authorization. The precise nature and format of the information and the relevant reporting procedure should be specified in secondary legislation, which should be drafted so that the information complies with the relevant international instruments and permits the data to be shared and used in an appropriate manner (see e.g. New Zealand regulations below).

Fisheries (Reporting) Regulations 2017 (LI 2017/154), New Zealand

Reg. 8 Non-fish species or protected fish species catch reports

(1) A permit holder must provide a non-fish species or protected fish species catch report to the chief executive each time the permit holder catches (whether intentionally or not) 1 or both of the following:

- (a) a non-fish species that is specified in a circular;
- (b) a fish species that is declared to be a protected fish species by a circular.

(2) The report must record—

- (a) the species and quantities caught; and
- (b) the fishing method that resulted in the catch; and

- (c) the date, time, and location of the fishing; and
- (d) any additional information specified in a circular.

(3) The permit holder must complete and provide the report to the chief executive before the close of the day on which the permit holder becomes aware of the catch.

In the context of deep-sea fishing, reporting on encounters with VMEs is particularly important, given the lack of scientific information concerning the location and characteristics of VMEs and concerns regarding the impacts of fishing activities on VMEs. Therefore, it is vital that national law imposes an obligation for fishing vessels to report information concerning encounters with VMEs. In order to make such an obligation effective, it will be necessary to have a sufficiently robust definition in national law of what constitutes an encounter with a VME. This definition should take into account the relevant provisions of the Deep-sea Fisheries Guidelines, particularly the criteria for identifying VMEs contained in Paragraph 42 and the examples of VMEs in the Annex. In some cases, specific criteria for reporting encounters with VMEs will be found in conservation and management measures adopted by RFMO/As. Where there is no RFMO/A or where no measure has been adopted by an RFMO/A, flag states should adopt their own criteria for identifying an encounter with a VME, drawing upon the good practice that is available.

Australian Fisheries Management (International Agreements) Regulations 2009, Schedule 1:

54 Five-day Catch and Effort Reporting System

54.1 A person using a boat in the Convention Area that is required to meet the requirements of the Five-day Catch and Effort Reporting System must, at the end of each reporting period, give the flag State of the boat the following information for the reporting period:

- (a) total catch of all species caught, including by-catch species;
- (b) total days and hours fished.

54.2 The person must cease fishing if the flag State of the boat notifies the person that the fishery has been closed to the person because the person has failed to provide the information mentioned in subclause 54.1.

54.3 In this clause:

"reporting period" means the following periods:

- (a) day 1 to day 5 of a month;
- (b) day 6 to day 10 of a month;
- (c) day 11 to day 15 of a month;
- (d) day 16 to day 20 of a month;
- (e) day 21 to day 25 of a month;
- (f) day 26 to the last day of the month.

55 Ten-day Catch and Effort Reporting System

55.1 A person using a boat in the Convention Area that is required to meet the requirements of the Ten-day Catch and Effort Reporting System must, at the end of each reporting period, give the flag State of the boat the following information for the reporting period:

- (a) total catch caught;

- (b) total days and hours fished;
- (c) retained catch of all species and by-catch species;
- (d) if the boat is used for longline fishing--the number of hooks used.

55.2 In this clause:

"reporting period" means the following periods:

- (a) day 1 to day 10 of a month;
- (b) day 11 to day 20 of a month;
- (c) day 21 to the last day of the month.

56 Monthly Fine-Scale Catch and Effort Data Reporting System

56.1 A person using a boat in the Convention Area that is required to meet the requirements of the Monthly Fine-Scale Catch and Effort Data Reporting System must, at the end of each month, give the flag State of the boat the following information for the month:

- (a) if the boat is used in a trawl fishery--the information required by the Fine-Scale Catch and Effort Data for Trawl Fisheries Form (Form C1);
- (b) if the boat is used in a longline fishery--the information required by the Fine-Scale Catch and Effort Data for Longline Fisheries Form (Form C2);
- (c) if the boat is used in a pot fishery--the information required by the Fine-Scale Catch and Effort Data for Pot Fisheries Form (Form C5);
- (d) the catch, reported by species, of all target and by-catch species for the month;
- (e) the number of seabirds caught and released or killed during the month;
- (f) the number of marine mammals of each species caught and released or killed during the month.

Note: The forms mentioned in paragraphs (a), (b) and (c) could in 2014 be viewed on the CCAMLR's website (<http://www.ccamlr.org>).

56.2 The CCAMLR Executive Secretary may close a fishery in the Convention Area to boats of a flag State that have not provided the information mentioned in subclause 56.1.

57 Monthly Fine-Scale Biological Data Reporting System

57.1 A person using a boat in the Convention Area that is required to meet the requirements of the Monthly Fine-Scale Biological Data Reporting System must, at the end of each month, give the flag State of the boat the information required by the Fine-Scale Biological Data Form (Form B2) for the target and by-catch species.

Note: The Fine-Scale Biological Data Form (Form B2) could in 2014 be viewed on the CCAMLR's website (<http://www.ccamlr.org>).

...

57.3 The CCAMLR Executive Secretary may close a fishery in the Convention Area to boats of a flag State that have not provided the information mentioned in subclause 57.1.

...

58 Daily Catch and Effort Reporting System for exploratory fisheries

58.1 A person using a boat in the Convention Area that is required to meet the requirements of the Daily Catch and Effort Reporting System for exploratory fisheries must, at the end of each day, give the CCAMLR Secretariat or the flag State of the boat the following information for the day:

- (a) the total green weight for each target species and by-catch species caught if a catch limit applies to the species;
- (b) if the boat is being used in a longline fishery--the number of hooks in the water at the time of reporting;
- (c) if the boat is being used in a pot fishery--the number of pots in the water at the time of reporting.

58.2 The person must cease fishing if the flag State of the boat notifies the person that the fishery has been closed to the person because the person failed to provide the information mentioned in subclause 58.1.

It will also be necessary for national law to establish offences and penalties for failure to report required information or for falsifying the information that is provided.

3.4.2. *Other considerations for establishing data reporting obligations*

The Deep-sea Fisheries Guidelines encourage the reporting of the location and activities of vessels flying their flag as close to real-time as possible. For this purpose, it is highly desirable that electronic data collection and reporting are used and states should consider incorporating such requirements into their national legislation, at least in so far as vessels authorised to carry out deep-sea fishing are concerned. In this respect, general vessel-monitoring system data may not be sufficient to provide appropriate information concerning the deep-sea fishing operations, which may involve very short periods of time in which fishing actually takes place. Thus, vessels may be required to provide fine-scale data, which can be used to effectively monitor fishing effort. This requires the flag state to have sufficient technological expertise and equipment in order to support the collection of data.

Another issue raised by the reporting of data is the protection of commercially sensitive information and data. The information collected by fishing vessels can be extremely valuable and therefore fishing vessel operators must be reassured that any data that they provide will be stored in a secure manner, that their intellectual property rights will be protected, and that the information will only be released under specified circumstances for particular purposes. This means that flag states may have to take measures to ensure that information that is collected is shared subject to clear and transparent conditions related to sharing and usage.

3.4.3. *Summary*

Steps to be taken by states in the establishment of data collection and reporting obligations in national law:

- Establish an obligation on all relevant fishing vessels to report data, in particular regarding encounters with VMEs.
- Empower the relevant national authority to adopt detailed regulations on the content of information to be reported, including the content and format of the information.

- Establish an offence for failure to report data or for falsification of data required by national law.
- Address data confidentiality and protection of intellectual property rights relating to reported data.

3.5. Environmental impact assessment of fishing activity

Environmental Impact assessments (EIA) are a vital part of the regulatory framework that seeks to ensure that states take a precautionary and ecosystem approach to deep-sea fisheries management. This requirement is set out in the Deep-sea Fisheries Guidelines, in response to the UN General Assembly Resolution 61/105, and supported by other international instruments such as the LOSC, the UNFSA, and the CBD (FAO, 2017). In order to implement these requirements, states may consider prohibiting the authorization of deep-sea fishing activities in a particular area until an EIA has been carried out and appropriate conservation and management measures have been put in place (UN General Assembly, 2006). As far as possible, assessments should ideally be conducted cooperatively at the international level, through RFMO/As. However, where such an RFMO/A does not yet exist for a particular area or fishery, it may be necessary for the flag state to conduct its own EIA procedures in place. In such circumstances, the flag state should ideally cooperate with other states whose nationals may be fishing in the area.

More generally, EIAs can also serve to ensure that relevant biodiversity-related concerns are fully factored into decision-making related to any activities with the potential to cause substantial pollution of or significant and harmful changes in ABNJ (CBD, 1992). Impact assessment may further help in the identification of relevant stakeholders and their concerns, such as indigenous peoples and local communities that may carry out customary sustainable use activities in these areas and/or hold relevant traditional knowledge (CBD, 2004).

3.5.1. Steps to establish environmental impact assessments of fishing activities

The obligation to carry out an EIA may be specified in primary legislation, whereas the details of the EIA procedure can be contained in regulations adopted as secondary legislation. Such regulations should identify the relevant scope of the assessment, including the factors that must be assessed. They should consider implementing the relevant international instruments, particularly relevant UN General Assembly (UNGA) resolutions², the CBD voluntary guidelines for the consideration of biodiversity in environmental impact assessments and strategic environmental assessments in marine and coastal areas (CBD EIA guidelines) (CBD, 2012), and the FAO Deep-sea Fisheries Guidelines.

States may also wish to reflect Paragraph 47 of the Deep-sea Fisheries Guidelines in legislation to prevent significant adverse impacts on VMEs. The paragraph contains some information concerning the issues that should be addressed by EIA, including: the types of fishing conducted; current status of the target stock and associated species and habitats, particularly VME, including mapping of VMEs known or likely to occur in the area; potential risks to the marine environment posed by the fishery, including cumulative impacts; and proposed

² UNGA Resolutions 61/105 (2006); 64/72 (2009); 66/68 (2011); and 71/123 (2016).

mitigation and management measures. The Deep-sea Fisheries Guidelines also acknowledge that risk assessments should take into account the differing conditions prevailing in areas where deep-sea fishing is well established and in areas where deep-sea fishing has not taken place or only occurs occasionally. Thus, it is clear that an EIA is required for existing fisheries, as well as new fisheries, even though the nature of the assessment may be different. Changes in fisheries practices or to natural processes also triggers the undertaking of EIAs under the Guidelines (FAO, 2016). It is important to note that Paragraph 47 should be applied in conjunction with Paragraph 18 of the Guidelines, which provides guidance on the considerations for determining the scale and significance of an impact. These include: the intensity of the impact; the spatial extent of the impact in relation to the habitat; the vulnerability of the ecosystem in question; the ability of the ecosystem to recover and the timeframe; impacts on ecosystem function; and the timing and duration of the impact vis-à-vis the life-history stages of the species affected in relation to the habitat in question (FAO, 2009). All of these standards and EIA criteria should be elaborated in primary fisheries legislation to ensure consistency and coherence in EIA practices.

Primary legislation should provide for incremental and iterative test-based approaches to permitting activities in the marine environment, such as by allowing a particular activity at a small scale with stringent conditions for monitoring and surveillance, as per the CBD EIA guidelines. In ABNJ, the guidelines note that responsibility to prepare and approve assessments may require consensus among the proponent, flag state authorities and international organizations with functional responsibility for the activities involved, with the responsibility to monitor and ensure compliance with the EIA falling principally on the flag state. National (primary and secondary) legislation on EIA therefore needs to be revised to ensure that additional cautions are put in place in the case of marine ABNJ, as well as to establish clear mandates for authorities to liaise with relevant international organizations in this regard. In terms of assessing fishing activity, however, it is feasible to implement international obligations by inserting appropriate provisions in the relevant fisheries laws.

EU Council Regulation (EC) No. 734/2008 of 15 July 2008 on the Protection of Vulnerable Marine Ecosystems in the High Seas from the Adverse Impacts of Bottom Fishing Gears

Article 4

2. The competent authorities shall issue a special fishing permit after having carried out an assessment on the potential impacts of the vessel's intended fishing activities and concluded that such activities are not likely to have significant adverse impacts on vulnerable marine ecosystems.

3. For the purposes of the implementation of the assessment referred to in paragraph 2, the competent authorities shall rely on the best scientific and technical information available concerning the location of vulnerable marine ecosystems in the areas in which the fishing vessels concerned intend to operate. That information shall include, where available, scientific data on the basis of which the likelihood of occurrence of such ecosystems can be estimated. The assessment process shall include appropriate elements of independent scientific peer review.

4. The evaluation of the risk of significant adverse impacts on vulnerable marine ecosystems carried out under the assessment referred to in paragraph 2 shall take into account, as appropriate, differing conditions prevailing in areas where fishing activities with bottom gears are well established and in areas where fishing such activities have not taken place or only occur occasionally.

5. The competent authorities shall apply precautionary criteria in the conduct of the assessment referred to in paragraph 2. In case of doubt as to whether the adverse impacts are significant or not, they

shall consider that the likely adverse impacts resulting from the scientific advice provided are significant.

6. Where the assessment concludes that activities carried out in accordance with the submitted fishing plan might result in significant adverse impacts to vulnerable marine ecosystems, the competent authorities shall specify the assessed risks and allow applicants to amend the fishing plan to avoid them. In the absence of such amendments, the competent authorities shall refrain from issuing the requested special fishing permit.

Furthermore, both the CBD Akwé: Kon Guidelines (CBD, 2004) and the CBD EIA Guidelines (CBD, 2012) recognise that impact on biodiversity can negatively affect ecosystem services that livelihoods depend upon. Therefore, primary legislation could require the assessment of potential impacts from fishing activities in areas important for biodiversity, ecosystem services, or areas of cultural relevance (as per the Akwé: Kon Guidelines) integrated into a single process. To be consistent with biodiversity instruments, primary legislation could also require that the following biodiversity questions be addressed in the EIA study (as per the CBD EIA Guidelines):

- (a) Would the proposed activity affect the biophysical environment directly or indirectly in a manner which poses risks to threatened, endangered or declining species or may cause changes to biological or ecological processes that may affect such species?
- (b) Would the proposed activity surpass Minimum Sustainable Yield, the carrying capacity or a habitat/ecosystem, or cause significant adverse impacts as per the FAO deep-sea guidelines?
- (c) Would the activity result in changes to access to and/or rights over biological resources?

In addressing these questions, states could consider reflecting in national legislation the three levels of diversity in relation to conservation and sustainable use of biodiversity, in accordance with the CBD and its EIA guidelines, namely:

- (a) Ecosystem diversity: Would the activity, directly or indirectly, lead to serious damage or total loss of (an) ecosystem(s) resulting in a loss of ecosystem services? In considering this question, the guidelines recommend considering whether the activity would cause substantial pollution or significant and harmful changes to an area described as an ecologically or biologically significant area (EBSA) as per criteria adopted by CBD decision IX/20.
- (b) Species diversity: Would the activity cause a direct or indirect loss of a population of a species, or affect the sustainable use of these?
- (c) Genetic diversity: Would the activity result in extinction of a population of a localised endemic species, or cause a local loss of varieties of genes or genomes?

With respect to the geographical areas important for biodiversity and ecosystem services, for enhanced clarity, national law should specify areas identified as important for the maintenance

of key ecological or evolutionary processes that EIAs would be required to address. These areas include: VMEs, EBSAs, marine protected areas (MPAs), IMO's Particularly Sensitive Sea Areas (PSSAs), International Seabed Authority's Areas of Particular Environmental Interest (APEI), sacred sites, areas traditionally used by indigenous peoples and local communities, breeding, nursery, feeding, spawning grounds or ecological corridors and migratory routes, and other important areas. Areas identified as Important Bird Areas, Important Marine Mammals Areas and Key Biodiversity Areas can also provide important information for when conducting EIAs, and therefore such areas could also be referred to in national legislation.

3.5.2. *Other considerations in establishing impact assessments of fishing activities*

The CBD EIA voluntary guidelines for the consideration of biodiversity in EIAs and strategic environmental assessments in marine and coastal areas identify a series of challenges to the carrying out of assessments for open-ocean waters and deep-sea habitats, and for ABNJ, due to ecological, governance and practical differences and the general lack of knowledge about these areas (including about risk of extinction and of factors which affect the risk of extinction in these areas). The CBD guidelines note that in view of the large spatial scales involved for most marine areas, it is unlikely that important ecosystem services could be mapped on scales that are relevant to management of many activities, although predictive modelling, based on environmental factors that are known to regulate species distributions may be used for key species. Moreover, the degree of degradation of open-ocean waters and deep-sea habitats is generally not as severe as for many coastal areas, so the need to focus on protecting limited remaining areas where ecosystem services are provided is not an appropriate starting point. The CBD guidelines thus underline that scientific criteria for describing EBSAs and the FAO criteria for VMEs may provide useful reference frameworks, as noted above. To facilitate implementation and ensure governance coherence, national legislation should make reference to these types of ecological features by requiring that EIAs address potential significant adverse impacts from fishing activities in these areas.

The CBD guidelines, in addition, point out that for EIAs related to marine biodiversity in ABNJ, the question of whether a particular environmental impact study meets acceptable standards may be an issue for joint determination by the flag states as well as international organizations with functional responsibilities related to the proposed activities, with the recommendation to undertake independent scientific scrutiny of best work practices. The CBD guidelines further note that determining norms and threshold values for screening EIAs related to marine biodiversity in ABNJ is likely to be an issue for joint consideration by competent international organizations with functional responsibilities related to the proposed activities.

Furthermore, the CBD guidelines note that the assessment phase for activities affecting marine and coastal biodiversity may often need to be undertaken with incomplete data and knowledge for assessment and evaluation, so efforts should also be made to incorporate the latest work on ecosystem services and values. Predictions of impacts may be more uncertain, and there is likely less knowledge and experience available to apply in developing alternatives, as the proponent of the activity to be assessed may be based far from the site of the proposed activity, as may also be the governmental and administrative authorities of the flag state. Likewise, the necessary follow-up management, monitoring, control and surveillance recommended by an EIA may be more difficult in marine ABNJ where 'customs of practice' for EIA are less established, methodologies are less mature, and different assessment approaches may occur. The CBD guidelines recommend that where possible, information from other areas of the world

where this activity has taken place would be used to ascertain likely risk and impacts before allowing a small-scale activity to occur.

3.5.3. *Summary*

- Establish obligations to carry out EIA, with additional cautions, based on the precautionary and ecosystem approach.
- Establish mandates for national authorities to liaise with relevant international organizations on the preparation and analysis of EIAs.
- Establish the parameters of EIAs for activities in ABNJ drawing on the scientific criteria for describing EBSAs and VMEs, among others.
- Incorporate into national legislation standards and criteria contained in the FAO Deep-sea Guidelines and diverse CBD guidelines on EIAs for determining whether the activity will cause significant adverse impacts on VMEs and other areas important for biodiversity, such as EBSAs, to be fully taken into account in the decision-making process prior to authorising fishing activities in these areas.

3.6. **Establishment of monitoring, control and surveillance regimes**

Monitoring, control and surveillance (MCS) is an integral component of fisheries management, in order to: achieve the objective of long-term conservation and sustainable use of deep-sea species, including biodiversity protection; and, to ensure that individual fishing vessels comply with the conservation and management measures adopted by states, there should be effective MCS of agreed conservation and management measures.

International instruments such as the IPOA-IUU emphasize effective MCS methods based upon increased cooperation among nations. Although MCS regimes are based on common principles and goals, the design and implementation of MCS regimes need to be tailored to the characteristics and needs of each fishery. As a part of an MCS regime various separate and interlinked activities can be implemented. Some of these activities are simple and inexpensive, for example collection of information in ports, while others, such as the involvement of patrol vessels and/or surveillance aircrafts, are costly. In between these options is the use of VMS and in some cases the deployment of onboard observers.

Deep-sea fisheries, and in particular those conducted in ABNJ, would require sub-regional or regional cooperation in the conservation and management and hence also in MCS. Such cooperation may include measures to deter IUU fishing. Deep-sea fishing would involve larger fishing vessels and emphasis is thus likely to be on traditional components of MCS regimes such as observer programs, VMS, patrol vessels and surveillance aircrafts.

3.6.1. *Steps to be taken to establish monitoring, surveillance and control regimes*

MCS regimes are established in order to gather information about the fishery and at the same time to deter and to detect violations of regulations. Information gathering commonly includes details about fishing vessels, gear, the type and amount of the catch, fishing area and post-harvest activities. MCS regimes also involve the supervision of fishing activities to ensure that

national legislation, terms and conditions of authorizations and management measures are complied with.

States should establish, through primary legislation, the MCS regime that applies to fisheries including deep-sea fisheries. States must also designate in primary legislation which body or bodies are to be involved in MCS, clearly stating their mandates and responsibilities as well as cooperating mechanisms, if applicable. Primary legislation should also contain an obligation of those inspected to cooperate and provide requested information.

Norwegian Act Relating to the Management of Wild Living Resources (Marine Resources Act) of 6 June 2007

Section 44

The Directorate of Fisheries shall ensure that the persons to whom the law applies comply with provisions laid down in or under the law and with other legislation on participation in the harvesting, marketing, production, import and export of wild living marine resources, and shall be given unimpeded and direct access to vessels and shipping company offices and onshore facilities and the premises of all others who possess, transport, store, process or in other ways handle wild living marine resources.

Section 45

Any person whose activities are inspected in accordance with provisions issued in or under this Act or other legislation such as is mentioned in section 44 shall cooperate with the competent authorities during inspections.

Section 46

The Directorate of Fisheries shall be given unimpeded and direct access to vessels and shipping company offices and onshore facilities and the premises of all others who possess, transport, store, process or in other ways handle wild living marine resources.

Inspectors, both at sea and in port, have a crucial role for the success of any MCS regime. The PSMA contains an annex describing elements of a training programme, and thus indirectly sets general standards for qualified inspectors, which should be applied both for inspectors operating at sea and on land. These are the following: (i) ethics, (ii) health, safety and security issues, (iii) applicable national laws and regulations, areas of competence and conservation and management measures of relevant RFMO/As, and applicable international law, (iv) collection, evaluation and preservation of evidence, (v) general inspection procedures such as report writing and interview techniques, (vi) analysis of information, such as logbooks, electronic documentation and vessel history (name, ownership and flag State), required for the validation of information given by the master of the vessel (vii) vessel boarding and inspection, including hold inspections and calculation of vessel hold volumes, (viii) verification and validation of information related to landings, transshipments, processing and fish remaining onboard, including utilizing conversion factors for the various species and products, (ix) identification of fish species, and the measurement of length and other biological parameters, (x) identification of vessels and gear, and techniques for the inspection and measurement of gear, (xi) equipment and operation of vessel monitoring system (VMS) and other electronic tracking systems, and (xii) actions to be taken following an inspection.

The necessary qualifications and powers of inspectors should be included in primary legislation. In addition, legislation should include a provision on duties of the master and crew of a vessel to an inspector, and offences for non-compliance with such duties.

Canadian Fish Inspection Act (R.S.C., 1985, c. F-12, last amended on 12 December 2005)**Article 4(1)**

...An inspector may at any time:

- (a) enter any place or premises, or any steamship, vessel or boat, or any railway car, truck, carriage, car, aircraft or other vehicle used for the carriage or storage of fish and may open any container that he has reason to believe contains fish;
- (b) require to be produced for inspection or for the purpose of obtaining copies thereof or extracts therefrom any books, shipping bills, bills of lading or other documents or papers; and
- (c) take any samples for inspection.

Article 4(2)

No person shall obstruct, impede or refuse to admit an inspector or other person acting in execution of this Part or any regulation made thereunder and no person shall aid or assist any person in obstructing, impeding or refusing to admit such an inspector or other person.

Article 7(1)

An inspector may seize all fish, containers and other things by means of or in relation to which the inspector believes on reasonable grounds that an offence against this Part or any regulation made under it has been committed.

The development and implementation of VMS in accordance with, as appropriate, programs agreed regionally or globally, is among the MCS measures to be taken pursuant to many international instruments, for example under article 18 of UNFSA. Many RFMO/As have established regional VMS requirements. Thus, any state that is a member of one of the RFMO/As is required to implement VMS. The purpose of VMS is to provide a flag state or an RFMO/A with information on the position of fishing vessels at regular intervals, and VMS can also allow for the transmission of catch and effort data in near real time.

Primary legislation should confer a power on the relevant authority to establish that vessels are required to carry on board and using equipment to monitor and report on the vessel's activities, such as satellite-based monitoring equipment and voyage data recorders. Secondary legislation should determine to which, as appropriate, vessels, species and/or areas VMS shall apply. Details of the data, frequency of position reports and reporting formats are other examples that may be specified through secondary legislation. Detailed rules should also address what happens if there is a technical failure in the equipment and what alternative measures should be taken to report the position and activity of a vessel. Furthermore, considering the potentially commercially sensitive nature of location data returned by VMS, it is important that legislation establishes confidentiality requirements around sharing and use of such data (see, for example, Namibia's Vessel Monitoring Regulations, below).

EU Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community Control System for Ensuring Compliance with the Rules of the Common Fisheries Policy**Article 9(2)**

... a fishing vessel of 12 metres' length overall or more shall have installed on board a fully functioning device which allows that vessel to be automatically located and identified through the vessel monitoring system by transmitting position data at regular intervals...

Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the Common Fisheries Policy

1. In the event of a technical failure or non-functioning of the satellite-tracking device fitted on board a EU fishing vessel, the master or his representative shall, starting from the time that the event was detected or from the time that he was informed in accordance with paragraph 4 or Article 26(1) of this Regulation, communicate every 4 hours, to the FMC of the flag Member State the up-to-date geographical coordinates of the fishing vessel by appropriate telecommunication means. Member States shall decide on the telecommunication means to be used and indicate them on the website referred to in Article 115 of the Control Regulation.

2. The FMC of the flag Member State shall enter the geographical positions referred to in paragraph 1 into the VMS database without delay on their receipt. The manual VMS data shall be clearly distinguishable in a database from automatic messages. Where appropriate, those manual VMS data shall be transmitted without delay to coastal Member States. L 112/10 Official Journal of the European Union 30.4.2011 EN

3. Following a technical failure or non-functioning of the satellite-tracking device, an EU fishing vessel may only leave port once the satellite-tracking device fitted on board is fully functioning to the satisfaction of the competent authorities of the flag state. By derogation the FMC of the flag Member State may authorise its fishing vessels to leave the port with a nonfunctioning satellite-tracking device for its repair or replacement.

4. The competent authorities of the flag Member State or, where appropriate, of the coastal Member State shall seek to inform the master of or the person responsible for the vessel or their representative when the satellite-tracking device fitted on board a EU fishing vessel appears to be defective or not fully functioning.

Vessel Monitoring Regulations (Government Notice 65 of 2005, as amended by Government Notice 2 of 2014), Namibia

6. Confidentiality of information collected

(1) The information received and recorded by the equipment in the Fisheries Monitoring Centre must be treated as confidential and may only be revealed -

- (a) to any person who is gathering information in order to decide whether criminal proceedings must be instituted against any person;
- (b) to any prosecutor or legal representative who requires such information for the purpose of prosecuting or defending criminal proceedings;
- (c) to any person if the revealing of the information to that person is necessary to comply with any obligation of Namibia under international law;
- (d) when the revealing of such information is necessary in order to conduct search or rescue operations in relation to any vessel;
- (e) if the master of the vessel concerned gives permission for the revealing of the information concerned.

(2) A person who obtains information for a purpose referred to in subregulation (1), may only use that information for the purpose concerned and may not reveal it to any person unless such revealing is necessary for the purpose concerned.

(3) Any person who reveals or uses information contrary to the provisions of this regulation is guilty of an offence and liable to the penalty mentioned in section 52(4) of the Act.

VMS requirements should be incorporated into national legislation. Most VMS requirements of RFMO/As apply only to ABNJ, but many states also require VMS when their vessels operate within their national waters and in areas under jurisdiction of another state, i.e. everywhere their vessels operate. Within RFMO/As not all vessels are included, as VMS applies to vessels above a specific overall length (24 meters in many RFMO/As). But many states have established national schemes or bilateral arrangements that include vessel below 24 meters. For example, the EU and Norway have agreed that all vessels above 15 meters shall be monitored by VMS. States should carefully consider applying VMS at least to all vessels operating in ABNJ, as well as vessels targeting deep-sea species everywhere they operate.

In addition to VMS requirements, national legislation should institute observer programmes and require that vessels operating under their flags carry observers. The role of observer programmes, both national and those adopted through RFMO/As, in relation to the conservation and management of fish stocks is elaborated in many international instruments, among them the Code of Conduct, UNFSA and the IPOA-IUU. For example, under the heading ‘Duties of the Flag State’, Article 18 of the UNFSA establishes participation in national, sub-regional and regional observer programmes as an integral component of flag State responsibility and MCS. Further, Annex I of UNFSA notes that ‘scientific observer programmes to monitor catch, effort, catch composition (target and non-target) and other details of fishing operations’ are one of the mechanisms to be employed for verifying fishery data. The function of scientific observers under the CCAMLR’s Scheme of International Scientific Observation is also to report on any irregularities while on board the vessel and factual data on other vessels sighted in the CCAMLR area. The Northwest Atlantic Fisheries Organization (NAFO) requires all vessels to carry at least one observer. Their duties are, among other things, to monitor the vessel’s compliance with relevant conservation and management measures and when an infringement is identified, to report within 24 hours to an inspection vessel. Thus there are two functions for an observer: scientific and compliance. A long-standing debate exists over whether the addition of the compliance function impedes the observer in his/her ability to fulfil the scientific function effectively. National regulations should reflect the specific observer requirements of the respective RFMO/As to ensure compliance with regional rules.

An observer is usually a civilian employee or contractor, who is generally embarked on the fishing vessel for the duration of the fishing voyage, and observes or monitors the on-going activity. Unlike an inspector, a fisheries observer usually has no official powers in regard to offences committed by the vessel, other than to make records and reports. In some jurisdictions, their testimony may not be admissible as evidence in any legal proceedings related to a fisheries violation. It is important to distinguish an inspector from an observer under the legislation, even one fulfilling an element of the compliance function.

Primary legislation should include the power to the relevant authority to establish an observer scheme, the duties of the master and crew of fishing vessels receiving observers, and also create offences for non-compliance with such duties. Secondary legislation should determine to which, as appropriate, vessels and/or areas the observer scheme should apply; as well as details of the functions of observers, reporting etc.

The Director-General may designate a person in writing to act as an observer on vessels issued with fishing licenses in terms of this Act, shall exercise the scientific, compliance, monitoring and other functions determined by the Minister, and any person on board any vessel issued with a license or permit shall permit any observer to board and remain on such vessel for the purposes of performing his or her functions. The tasks of observers are established through subsidiary legislation, which are to ‘(a) monitor a fishing vessel's compliance with the relevant legislation; (b) record and report upon the fishing activities of the vessel and verify the position of the vessel when engaged in fishing; (c) observe and estimate catches with the view to identifying fishing composition and monitoring discards, by-catches and the taking of undersized fish; (d) record the gear type, mesh size and attachments employed by the master, (e) verify entries made into the log books in respect of species, composition, and quantities; and (f) collect fishing and effort data on a set-by-set basis, and this data shall include location, including latitude and longitude, depth, time of net on the bottom and fishing composition.’

South Africa Regulations under Marine Living Resources Act of 2 September 1998

Section 82

- (2) an observer on board a fishing vessel shall be provided with suitable food and accommodation commensurate with that of an officer.
- (3) any transport, accommodation, allowance, remuneration or similar costs incurred and payable to the observer on board the vessel, shall be borne by the license or permit holder of the vessel.
- (4) masters of fishing vessels shall ensure that all necessary co-operation is extended to observers in order for them to carry out their duties.

EU Council Regulation No 1386/2007 laying down conservation and enforcement measures

Article 30 (Obligations of the master of the vessel)

- 1. Masters of Community fishing vessels shall receive the assigned observers and cooperate with them in order to allow them to discharge their duties while on board the vessels.
- 2. The master of the vessel designated to receive an observer on board shall take all reasonable steps to facilitate the arrival and departure of the observer. While on board the observer shall be offered appropriate and adequate accommodation and working facilities.
- 3. The master of the vessel shall permit the observer to have access to the vessel's documents (fishing logbook, production logbook, capacity plan, and stowage plan) and to different parts of the vessel, including, as required, to the retained catch and catch which is intended to be discarded, in order to facilitate the discharge of the observer's duties.

Fiji Offshore Fisheries Management Regulations 2014 (L.N. No. 18 of 2014),

Part 5 – Monitoring, Control and Surveillance, Requirement for Mobile Transceiver Unit

- 31. – (1) A fishing licence or authorisation shall not be issued pursuant to the Decree unless the master, owner, operator or person chartering the fishing vessel, as the case may be, has installed on the vessel, a Mobile Transceiver Unit in accordance with specifications and procedures approved by the Director.
- (2) The Mobile Transceiver Unit installed pursuant to sub-regulation (1) shall be switched on and is operating properly at all times during the period of validity of the licence or authorisation.

...

- 32. – (1) The owner or operator of a fishing vessel licensed or authorised pursuant to the Decree shall

—

- (a) maintain the Mobile Transceiver Unit in good working order at all times during the period of validity of the licence or authorisation when the vessel is in Fiji fisheries waters, on the high seas or in waters under the jurisdiction of another State;
 - (b) not interfere with, tamper with, alter, damage, or disable the Mobile Transceiver Unit;
 - (c) not move or remove the Mobile Transceiver Unit from the original position in which such unit was installed without the prior permission of the Director;
 - (d) ensure that upon notification by the Director or officers designated by the Director that the vessel's Mobile Transceiver Unit has failed to transmit, comply with the directives of the Director or officers designated by the Director until such time the vessel's Mobile Transceiver Unit is functioning properly;
 - (e) authorise the Director to be able to monitor the vessel at all times during the period of validity of the licence or authorisation; and
 - (f) allow for the auditing and inspection of the Mobile Transceiver Unit by authorised officers or officers designated by the Director.
- (2) The permanent Secretary may suspend or cancel the licence or authorisation of any Fiji fishing vessel or foreign fishing vessel that fails to comply with this regulation.

3.6.2. *Other considerations in establishing monitoring and control regimes*

The issue with regard to designing and implementing MCS activities is their expense. Cost-effective mechanisms and inter-agency coordination can help tackle this challenge. For many governments, other law enforcement agencies such as the police or navy can play a significant supporting role in MCS regimes: in these cases, a mechanism needs to be established for fisheries administrators to call upon their police or navy counterparts as and when needed. In addition, the body with the main responsibilities for MCS is to establish and maintain links internationally to others engaged in the MCS operations. Additional challenges may be related to human resources, and access to technology and equipment.

Similarly, costs are a challenge for the establishment and running of VMS. VMS requires on-going resolution on a daily basis to ensure that the best advantage is taken of this tool. More fundamentally, the efficacy of VMS technology may be undermined by natural causes or by human intervention as some systems can simply be switched off. Proper VMS monitoring needs to be accounted for under the legislation, as analysts can identify gaps in the tracking records which would suggest that the system was switched off. In drafting the legislation, it is important to keep in mind that the reliability of VMS transmission may be compromised where the system allows transmission of catch and effort data from the fishing vessel to the fisheries monitoring center, but this information cannot be entered automatically by equipment on the vessel but requires input by the vessel operator. As a result, vessel operators can manipulate VMS to transmit false positions whilst fishing out of season, or in prohibited areas. This can be achieved by tampering with the on-board equipment which transmits the signal, cloning the on-board communications terminal so that the surrogate gives out false information, or interfering with the outgoing signal to the fisheries monitoring center or the incoming positioning signals. To this end, it is important that national legislation makes it an offence for the master of a fishing vessel or any other individual to obstruct the transmission of data or alter or falsify the data produced by VMS.

With regard to observer schemes, challenges may be faced by observers who may be on board vessels for long periods of time and so a co-operative climate is essential in order to retrieve and transmit the necessary information. Captains and crews can make it difficult for observers to perform their functions if the observers report infractions. Observers have been beaten,

bribed, kept confined to their cabin, and otherwise mistreated and misled. Observer programmes and legislation should thus include provisions treating obstruction or acts of assault against observers as serious violations and setting out the consequences, including sanctions that are commensurate in their severity with the outlawed acts such that the sanctions have a deterrent effect.

3.6.3. *Summary*

- Establish institutional mandates and cooperating mechanisms for MCS.
- Establish an obligation of those inspected to cooperate and provide requested information
- Establish the necessary qualifications and power of inspectors.
- Establish a requirement for vessels to carry on board and use equipment to monitor and report on the vessel's activities.
- Establish the power for the relevant authority to establish an observer scheme, and the duties of the master and crew of fishing vessels receiving observers as well as offences and corresponding sanctions for non-compliance and violations.

3.7. **Establishment of boarding and inspection regimes**

UNFSA calls for the implementation of national inspection schemes and sub-regional and regional schemes for cooperation in enforcement, including requirements for vessels to permit access by duly authorized inspectors from other states. Most often an inspector is a fisheries or coast guard officer of the state who is embarked on a patrol vessel, or other official platform which carries out surveillance and enforcement duties. National inspection schemes are intended to apply to all vessels and within all areas falling under the jurisdiction of a state. In their home state, inspectors generally possess powers of arrest, search and seizure for offences occurring within areas under national jurisdiction and on-board their flagged vessels including on the high seas. However, geography and cost often render it difficult, if not impossible, for flag states to carry out inspections on the high seas.

Inspection means the examination of a vessel, gear and catch for possible violations of the conservation and management measures adopted by an RFMO/A as well as possible violations of national laws. The purpose of an at-sea inspection scheme is to establish a set of agreed upon conditions governing the powers and responsibilities of parties during an inspection at-sea. The scheme is intended to provide a clear understanding of the respective roles of the vessel's crew and the boarding party during the inspection of the vessel's records, fishing equipment, and catch on board. The objective of the inspection is to verify that the vessel operators and owners are complying with international rules relating to data collection, as well as with conservation and management measures. Inspection also provides an opportunity to collect first hand, cogent and accurate evidence including interviews, documents and photographs which can be used in any future legal action that may arise as a result of the inspection. In this respect, the evidentiary value of at-sea inspections exceeds that of VMS and other MCS options.

3.7.1. Steps to be taken to establish boarding and inspection regimes

National law should empower appropriate authorities with the task of enforcing regulations by authorizing them to board and inspect vessels which are fishing on the high seas. In order to fully comply with the relevant international regulations, the power should be granted to board and inspect not only national vessels, but also stateless vessels and vessels flying the flag of another state (see UNFSA and IPOA-IUU), which is a party to UNFSA or participating in a cooperative inspection scheme under a relevant RFMO/A.

Primary legislation should include the power of inspectors to examine any fish or gear on board the vessel, require any persons on board to cooperate to facilitate the investigation, seize any relevant documents or other evidence of a suspected offence, detain the master and the vessel, and require the vessel to proceed to the nearest convenient port. Inspectors must also comply with some basic obligations when they carry out an inspection and these should also be specified in subsidiary legislation. Thus, inspectors may be empowered to use force, but such force must be restricted to what is necessary and proportionate in the situation. Primary legislation should also include provisions to ensure that their fishing vessels accept, facilitate the safe conduct of, and cooperate with the inspectors, also from other states, in the performance of their duties pursuant to reciprocal boarding and inspection schemes. Similar to the case of observers, acts of intimidation, obstruction and assault against inspectors are considered occupational hazards and have been recorded to have been committed against inspectors. Therefore, inspection regimes and legislation in particular should include provisions that considers intimidation, obstruction or acts of assault against inspectors as serious violations. These provisions should also set out the consequences for such violations including sanctions that correspond in their severity with the outlawed acts such that the sanctions have a deterrent effect.

Primary legislation must clearly distinguish between boarding and inspection within the Exclusive Economic Zone, and boarding and inspection on the high seas. For the latter, the country may align its practices with the boarding and inspection rules of an RFMO/A to which it is a member, or in accordance with a treaty (such as UNFSA) to which it is party. Having both options in legislation is practical. For example, SPRFMO currently defers to the provisions of the UNFSA (Arts 21 and 22) for its boarding and inspection procedures. In contrast, other RFMO/As like NAFO have separate procedures which specify actions that are to be taken by inspectors and the master of the inspected vessel in circumstances where there is no infringement, an infringement, or a serious infringement. Procedures that are to be employed under each scenario would obviously differ.

Namibia Marine Resources Act of 27 December 2000

Section 5

(1) A fisheries inspector may, at any time and without a warrant –

- (a) board any vessel and inspect such vessel, its fishing gear, cargo and stores, any marine resources aboard and any document or other item required to be kept under this Act, and may, for the purposes of that inspection, stop that vessel;
- (b) enter any premises, other than a dwelling house, or any vehicle, in which marine resources or any fishing gear are kept or are being transported, as the case may be, Republic of Namibia 8 Annotated Statutes Marine Resources Act 27 of 2000 and inspect the premises or vehicle, and may, for the purpose of inspecting a vehicle in which marine resources are being transported, stop that vehicle;
- (c) stop any vehicle for the purpose of carrying out a routine check for marine resources;

- (d) examine any fishing gear or object which he or she has reasonable grounds to suspect is being used or intended for use in the harvesting, handling or processing of marine resources;
- (e) question any person who, in his or her opinion, may be capable of furnishing any information which he or she may require; and
- (f) require any person employed on a vessel to assist him or her in the examination of any container, fishing gear, marine resources or document on or in such vessel in order to ascertain whether this Act has been complied with.

Mauritius Fisheries Act 2007

(1) Where a fishery control officer has reason to believe that an offence under this Act has been, is being or is about to be committed, and considers that it would be impracticable to apply for a warrant, the fishery control officer may, without a warrant –

- (a) stop, board, search and inspect –
 - (i) in Mauritius or in its maritime zones, any boat or vessel;
 - (ii) on the high seas, any Mauritian fishing boat or Mauritian fishing vessel or any fishing boat or fishing vessel flying the flag of a State party to an international agreement to which Mauritius is also a party and which provides for such stopping, boarding and searching;
- (b) stop and search any vehicle;
- (c) in the maritime zones or in Mauritius, seize –
 - (i) any vehicle, boat, vessel or structure;
 - (ii) any logbook, record, document or equipment, including any computer or any other electronic device, that may be used as evidence in any proceedings under this Act;
 - (iii) any gear;
 - (iv) any article.

Vanuatu, Fisheries Act No. 10 of 2014

109 (2) If an authorized officer has reasonable grounds to believe an offence against this Act is being or has been committed, he or she may without a warrant do any of the following:

...

- (c) follow in hot pursuit in accordance with international law and commenced within Vanuatu waters, stop, board and search outside of Vanuatu waters any foreign, and bring such vessel and all persons on board within Vanuatu waters;

...

110 Extended powers of authorized officers

1. (1) If, when following in hot pursuit according to paragraph 109(2) (c), a fishing vessel is pursued beyond the limits of Vanuatu waters, the powers conferred on authorized officers by this Act are exercisable beyond the limits of Vanuatu waters in accordance with international law.

2. (2) An authorised officer may conduct boarding and inspection beyond the limits of Vanuatu waters in accordance with prescribed requirements, for the purposes of ensuring compliance with a Scheduled Treaty, a related agreement, or other agreement to which Vanuatu is a party.

3.7.2. *Other considerations in establishing boarding and inspection regimes*

Constraints related to the costs of operating patrol vessels, in particular in high seas areas lack of qualified inspectors and inadequate information systems for the notification to flag states, distribution of inspection reports and regional information sharing may negatively impact on the effectiveness of boarding and inspection regimes. These kinds of constraints cannot be typically addressed in legislation.

Capacity building considerations for inspections for PSMA implementation which are highlighted as important for effective MCS under Part 3.6.1 of this guide are also relevant for boarding and inspections. The PSMA contains an annex describing elements of a training programme which provides a set of general standards for the training of inspectors to carry out effective boarding and inspections.

3.7.3. *Summary*

- Establish the powers (and limits to these powers) for inspectors to examine any fish or gear on board the vessel, seize any relevant documents or other evidence of a suspected offence, detain the master and the vessel, and require the vessel to proceed to the nearest convenient port.
- Distinguish between boarding and inspection undertaken in waters under national jurisdiction and the high seas.
- Establish rules for boarding and inspection to be applied on the high seas.
- Establish an offence for non-compliance with the duty to cooperate with inspectors.
- Establish a requirement for any persons on board to accept and facilitate the safe conduct of, investigations and cooperate with the inspectors, also from other states in the performance of duties pursuant to reciprocal boarding and inspection schemes, as well as provisions that outlaw acts of intimidation, obstruction and assault against inspectors with corresponding sanctions for non-compliance and violations.

3.8. **Establishment of port state control regimes**

Port state measures are another important element of a national regime for the regulation of deep-sea fishing. Obligations to take such measures are found in legally binding instruments such as UNFSA and the Compliance Agreement, but the most important one is of course the PSMA. Many RFMO/As also require port state measures to be taken by states. States are further called on to take port state measures in a series non-binding instruments, in particular the Code of Conduct and the IPOA-IUU.

The PSMA is the most recent international agreement directly related to fighting IUU fishing through the use of port state measures. The measures set out in the PSMA apply to foreign vessels engaged in fishing and fishing related activities including landing, packaging, processing, transshipping or transporting of fish that have not been previously landed at a port, as well as the provisioning of personnel, fuel, gear and other supplies at sea. Although foreign vessels are the target, a port shall ensure that measures applied to port state-flagged vessels are at least as effective as those of the agreement.

A port state shall control entry into its port by requiring vessels to provide advance information and vessels may be denied entry, inspections of vessels shall be conducted in accordance with minimum standards and vessels shall be denied the use of ports, which includes landing, transshipment, processing, packaging, refuelling, resupplying, maintenance and dry-docking, in specific circumstances, in particular if there is evidence of IUU fishing. Interagency integration and information systems are important for ensuring cooperation and coordination between fisheries agencies, port authorities and other agencies.

3.8.1. Steps to be taken to establish port state control regimes

National legislation will be necessary in order to establish a port state control regime and to implement the PSMA. Relevant fisheries laws and regulations should thus be reviewed and amended as appropriate to ensure national implementation of port state measures.

Primary legislation should include the definition of key terms, including the terms referred to in the PSMA, such as “fish”, “fishing”, “fishing related activities”, “port” and “vessel” in order to provide a common understanding and facilitate implementation. Primary legislation should also provide for the authority mandated to designate and publicise the ports that may be used by foreign vessels, and penalties for vessels that use non-designated ports and those dealing with vessels in such ports. The establishment of which ports (names) that may be used by foreign vessels should be in subsidiary legislation.

Furthermore, primary legislation should specify which authority requires information before granting entry to a vessel to its port, when such information shall be provided, and to establish which authority has the power to permit or deny entry, as well as to establish that this authority shall deny entry of vessels on an IUU vessel list of an RFMO/A and any other vessel where there is sufficient proof that it has engaged in IUU fishing or fishing related activities in support of such fishing. The PSMA provides that vessels should be able to enter ports in accordance with international law for reasons of force majeure and distress and for the port state to render assistance in the case of a danger or distress. In that regard, there should be provisions in legislation empowering the relevant national authority to allow entry into port of a vessel in a force majeure or distress situation.

The minimum information to be provided by a vessel seeking entry into a port should be established in secondary legislation. To be in conformity with the PSMA, the information shall include estimated date and time of arrival, purpose, port and date of last port call, name of the vessel, flag state, type of vessel, international radio call sign, vessel contact information, vessel owner(s), certificate of registry ID, IMO vessel identification number (if available), external ID (if available), RFMO/A ID (if available), VMS information, vessel dimensions, vessel master and nationality, relevant fishing authorisations, relevant transshipment authorisation(s), transshipment information concerning donor vessel, total catch on board and catch to be offloaded. For some of these items a more detailed description would be required, for example concerning catch there is a need to be informed about the species, product form, catch area and quantity. Where a foreign fishing vessel seeks to land a species that is listed in an appendix of CITES, legislation should make authorization to enter port conditional upon the existence of a valid permit under the relevant national legislation implementing CITES.

Subsidiary legislation should also describe special circumstances when the designated authority may allow a vessel into port, even if it is listed by an RFMO/A or there is sufficient

proof of participating in IUU fishing. Examples are for the purpose of rendering assistance to a vessel or person in danger or distress, to allow for the scrapping of the vessel, or for inspection or other enforcement actions which are as least effective as denial of port entry.

Primary legislation should also require the denial of the use of port where a vessel has entered without authorisation, if the vessel does not have a valid or applicable authorisation to engage in fishing or fishing related activities, the flag state does not respond to inquiries by the port state, there are reasonable grounds to believe that the vessel was engaged in IUU fishing unless rebutted by the vessel, and when following an inspection there are clear grounds for believing that the vessel has engaged in IUU fishing or related activities in support of such fishing.

States should establish in subsidiary legislation what is meant by use of port, i.e. landing, transshipment, processing, packaging, refuelling, resupplying, maintenance and dry-docking. Furthermore details about what constitute a valid or applicable authorisation to engage in fishing or fishing-related activities, i.e. issued by the flag state or by another state for fishing within their waters. Secondary legislation should also indicate what may constitute “reasonable grounds to believe” that the vessel was engaged in IUU engaged in IUU fishing or related activities in support of such fishing and what be valid points for the vessel in order to rebut that, for example that the vessel can establish it was acting in a manner consistent with relevant conservation and management measures.

Primary legislation should authorise port state inspectors to board and search a vessel, examine any fish or gear on board the vessel, require any persons on board to cooperate to facilitate the investigation, seize any relevant documents or other evidence of a suspected offence and detain the master and the vessel where there is sufficient evidence of an offence having been committed.

Norwegian Act Relating to the Management of Wild Living Resources (Marine Resources Act) of 6 June 2007

Section 51

Mandates the Ministry to adopt regulations concerning

- (a) prohibiting landings, transshipments and processing of catches in Norwegian ports by vessels that are not Norwegian if such vessels have taken part in fishing activities in serious contravention of a desired harvesting or fishing pattern or in serious contravention of rules for fishing activities that have been agreed with another country,
- (b) prohibiting landings, transshipments and processing of catches in Norwegian ports by vessels that are not Norwegian, if such vessels are owned or operated by a legal person that has used another vessel to take part in fishing activities in serious contravention of a desired harvesting or fishing pattern or in serious contravention of rules for fishing activities that have been agreed with another country,
- (c) prohibiting on- and offloading and the provision of port, supply and support services in Norwegian ports to and from vessels that are or become subject to prohibitions under (a) or (b) above,
- (d) prohibiting transshipment and the provision of supply and support services in Norway’s territorial waters to and from vessels that are or become subject to prohibitions under (a) or (b) above,
- (e) prohibiting the provision of supply and support services to and from vessels using a Norwegian vessel or in other ways, if the former are or become subject to prohibitions under (a) to (d),
- (f) prohibitions under (a) to (e) above applying to vessels that are included on lists of vessels that have taken part in illegal, unreported and unregulated fishing activities drawn up by fisheries management organisations.

Section 52

The Ministry may, in order to combat illegal, unreported and unregulated fishing, prohibit activities that may undermine national management measures or measures taken by regional fisheries management organisations.

3.8.2. *Other considerations in establishing port state control regimes*

The PSMA recognises challenges in particular for developing states in implementing a ports States control regime. In this regard, parties have agreed to provide assistance, pursuant to part 6 of the Agreement, in order to enhance the capacity of developing State parties to develop a legal basis and capacity for the implementation of effective port state measures. Through a series of FAO regional workshops, constraints have been identified, which include major weaknesses in the legal frameworks, lack of qualified inspectors, no adequate information system in place and poor interagency cooperation between different exercising port controls such as fisheries departments, port authorities, coastguard and police. A state that wishes to implement the PSMA should undertake a gaps analyses to identify its specific needs and plan how these needs will be addressed.

It is also important to note that the PSMA recognises that developing states may need assistance in implementing the agreement in the form of capacity building, and to this end it requires Parties, either directly or through FAO or other organisations, including RFMO/As, to assist developing countries to: “enhance their ability, in particular the least developed among them and small island developing States, to develop a legal basis and capacity for the implementation of effective port State measures” (PSMA).

3.8.3. *Summary*

- Require designation of ports for use by fishing vessels.
- Establish a mandate for the authority to require information before granting entry to a vessel to its port, and to deny entry of vessels in determined circumstances.
- Authorize port state inspectors to inspect vessels in ports.
- Establish obligations for the master and crew of inspected vessels to cooperate and not to obstruct or interfere in any way with port state inspectors in the performance of their duties.
- Empower the relevant national authority to allow entry into port of a vessel in a force majeure or distress situation.
- Establish an offence for non-compliance with port state measures procedural and substantive requirements.

3.9. Enforcement

Compliance with legislation and enforcement against violations cannot occur without a legal basis. The powers to ensure compliance and to take enforcement action must therefore be well established under the relevant legal framework.

3.9.1. Steps to be taken to establish an enforcement regime

The International Tribunal for the Law of the Sea (ITLOS) has made clear that national legislation must include enforcement mechanisms to monitor and secure compliance (ITLOS, 2015). A series of international instruments in fact require flag states to put in place (legal and administrative) mechanisms to investigate alleged violations, institute proceedings, ensure that in the case of a serious violation the vessel in question does not engage in high seas fishing until any outstanding sanctions have been complied with, and apply sanctions that are adequate in severity to be effective in securing compliance and deprive offenders of the benefits accruing from their illegal activities (UNFSA, Code of Conduct, Compliance Agreement, IPOA-IUU, Flag State Guidelines, CITES). Sanctions may include, for serious offences, refusal, suspension, or withdrawal of the authorization to fish on the high seas.

Primary legislation should therefore provide for: the appointment of authorized officers and inspectors, including recognition of and collaboration with officers and inspectors appointed by other states; powers of authorized officers and inspectors (general and specific); procedures for the exercise of powers; categorization of offences and penalties (degree of severity and principles of deterrence and proportionality); investigations; civil and criminal proceedings; and, where appropriate, administrative penalty scheme.

South Africa Marine Living Resources Act of 27 May 1998

Section 58

- (1) Any person who, subject to the provisions of subsections (2) or (3)—
 - (a) undertakes fishing or related activities in contravention of—
 - (i) a provision of section 13;
 - (ii) the conditions of any right of access, other right, licence or permit granted or issued in terms of Part 1, 2 or 3 of Chapter 3; or
 - (iii) an authorisation to undertake fishing or related activities in terms of Part 6 or 7 of Chapter 3, but excluding section 39(5); or
 - (b) Contravenes any other provision of this Act, shall be guilty of an offence and liable on conviction to a fine not exceeding two million rand, or to imprisonment for a period not exceeding five years.
- (2) Any person who contravenes—
 - (a) a provision of an international conservation and management measure inside or outside South African waters, or otherwise fails to comply with any provision of Part 7 of Chapter 3, by means of a vessel registered in the Republic; or
 - (b) the conditions imposed in a high seas fishing permit or high seas fishing vessel licence, shall be guilty of an offence and liable on conviction to a fine not exceeding three million rand.
- (3) Any person who contravenes a provision of section 39 (5), 45, 47, 48 or 49 shall be guilty of an offence and liable on conviction to a fine not exceeding five million rand.
- (4) A regulation made under this Act may provide that a person who contravenes or fails to comply with a provision thereof, shall be guilty of an offence and liable on conviction to a fine or to imprisonment for a period not exceeding two years.

3.9.2. *Other considerations in establishing an enforcement regime*

Sometimes laws fail to provide a clear extent of the powers and duties of officers in charge of law enforcement. As a result of this approach, enforcement officers operate in a situation of uncertainty, which hinders their effectiveness and undermines their legitimacy. Officers should be provided with sufficient powers, however, these powers should be exercised in an overarching framework of fairness, as the legitimacy of officials depends on the extent to which the public views them as embodying honest and fair enforcers of the rule of law. Concentration and abuse of power can be a concern, as well is the potential problem of corruption (bribery). If the same individual or office writes the rules, apprehends violators, and compounds offences, without any practical opportunity for accountability or outside review, that situation invites abuse.

Coordination can, in addition, be an issue. In situations in which different authorities play a role in law enforcement—when for example enforcement under domestic measures on CITES and on fisheries—it may be necessary to ensure that the list the activities that are prohibited under CITES national legislation and the specification that the breach of any prohibition constitutes an offence are cross-referenced or otherwise reflected in fisheries laws, as well as the nature and level of penalties which may be imposed and the procedures that must be followed. International cooperation, which is often required for deep-sea fisheries, poses additional challenges.

Setting appropriate sanctions for violations is also a challenge. Sanctions should be severe enough to act as a deterrent (resulting in a major increase in the cost of doing business for those who violate the law), but not too severe or out of proportion to the nature of the offence so that courts and other enforcement bodies, where they have such discretion, are reluctant to apply the penalty at all, allowing the crime to go unpunished. The law may also tie the amount of sanctions to the gravity of the violation and the severity of the damage caused (thus possibly including compensation for damage to the public good, and confiscation of illegal produce and equipment). Sanctions should always be consistent with relevant legislation. To ensure the continued relevance of sanctions over time, the law may provide for flexibility in setting the amount of sanctions, for example by defining classes of sanctions in the law while leaving for example amounts of fines to be defined by secondary legislation. Penalties and procedures also come into play in the event of a violation of the law. Typically, civil penalties are less harsh than criminal penalties. Civil violations are also easier for the authorities to prove: they do not require proof of intent, and the standard of proof is preponderance of the evidence. In contrast, criminal defendants are typically protected under the presumption of innocence, which must be supported by evidence that shows that an offence has been committed beyond reasonable doubt (FAO, 2005).

3.9.3. *Summary*

- Appoint authorized officers and inspectors, including recognition of and collaboration with officers and inspectors appointed by other states.
- Allocate powers of authorized officers and inspectors (general and specific).
- Specify procedures for the exercise of powers.
- Categorize offences and penalties (degree of severity and principles of deterrence and proportionality); investigations).
- Specify civil and criminal proceedings.
- Establish administrative penalty scheme or criminal sanctions, as appropriate.

4. Conclusions

This step-wise guide is aimed at assisting states in their capacities as flag, coastal, port, and market state, with the implementation of relevant international instruments pertaining to deep-sea fisheries and biodiversity conservation in ABNJ into national policy and law. National implementation of these instruments is crucial to ensure that the objectives of the international instruments described in the FAO Review and Analysis of International Legal and Policy Instruments related to deep-sea fisheries and biodiversity conservation in ABNJ (FAO, 2017) can be achieved. The guide also covers areas of legislation that address different aspects related to control of activities of the deep-sea fisheries production and value chain from catching, landing, transfer, transshipment to trade in deep-sea fish products.

This guide recommends the approaches and means for incorporating international rules, standards and recommended practices and procedures into national policy and law. The range of instruments relevant to deep-sea fishing and the conservation of marine biological diversity in ABNJ is broad. However, there are a number of overlaps between the instruments, which means that certain steps can implement more than one of the instruments.

The focus of the stepwise guide and the specific recommendations for drafting have been tailored to ensure that policy considerations and the drafting of operational provisions of legislation specifically relate to or address deep-sea fisheries. However, it must be remembered that deep-sea fisheries are only one subsector of fisheries and the deep-sea fisheries policy framework may be part of a broader fisheries management and development policy. The legal framework for deep-sea fisheries may be governed by one law that applies to all subsectors or types of fisheries. Many of the cross-cutting steps and considerations in fisheries management and regulation framework referred to in the step-wise guide such as objectives and principles, registration or records of fishing vessels, authorizations, reporting and data collection requirements, MCS, and enforcement including penalties are also relevant for other fisheries. Law review and reform to address deep-sea fisheries' operational, management and control aspects may therefore occur in the context of an overhaul of the whole national fisheries legal framework. In such context, this stepwise guide is not intended to replace a normal legislative review or gaps assessment exercise. The stepwise guide highlights what is relevant as set out in the 9 sections of Part 3 and should be addressed if deep-sea fisheries are a significant subsector for a particular State. It is a tool that may be used to ensure that the relevant legal framework - which is produced after a gaps and needs assessment of the current fisheries law is conducted - is as comprehensive as possible.

Effective implementation into national law will usually require the adoption of both primary legislation (laws enacted by legislative organs) and secondary legislation (rules and regulations enacted by the executive power). Some states may consider elements referred to in this stepwise guide³ as requiring a policy or administrative response rather than a legislative one. There is often no single way in which an international instrument can be implemented at the national level. States have discretion as to the precise manner in which they incorporate their international obligations into national law which may vary depending on the Constitutional context, the legal tradition and national drafting guidelines and practices.

³ These elements include: principles, definition of terms, and objectives enshrined into the legislation, establishment of a national record or register of fishing vessels, license/permit systems, data collection and reporting obligations, environmental impact assessments obligations, monitoring, control and surveillance, boarding and inspection, port control mechanisms, and enforcement.

REFERENCES

- CBD.** 1992. 1992 United Nations Convention on Biological Diversity.
- CBD.** 2004. *Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment regarding Developments* .
- CBD.** 2012. *Voluntary Guidelines for the Consideration of Biodiversity in Environmental Impact Assessments and Strategic Environmental Assessments in Marine and Coastal Areas*. CBD Decision XI/18.
- CITES.** 1973. 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora.
- EU.** 2017. Article 5 . *Regulation (EU) 2017/2403 of the European Parliament and of the Council of 12 December 2017 on the sustainable management of external fishing fleets, 12 December 2017*.
- FAO.** 2005. *Perspectives and guidelines on food legislation, with a new model food law*. Rome: Legislative Study.
- FAO.** 2009. *International guidelines for the management of deep-sea fisheries in the high seas*. Rome.
- FAO.** 2016. *Report of the FAO Workshop on Encounter Protocols and Impact Assessments, 5-8 May 2015*. Rome: FAO Fisheries and Aquaculture Report. No. 1178.
- FAO.** 2017. *Review and analysis of international legal and policy instruments related to deep-sea fisheries and biodiversity conservation in areas beyond national jurisdiction*. Rome: FAO.
- FAO.** 2017. *Review and analysis of international legal and policy instruments related to deep-sea fisheries and biodiversity conservation in areas beyond national jurisdiction*. Rome.
- FAO Code of Conduct.** 1993. 1993 FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas.
- ITLOS.** 2015, April 2. Request for an Advisory Opinion Submitted by The Sub-Regional Fisheries Commission (SRFC), Advisory Opinion, paragraph 138.
- PSMA.** (n.d.). *Port State Measures Agreement* .
- UN General Assembly.** 2006. paragraph 83. *Resolution 61/105*.
- UNCLOS.** 1982. 1982 United Nations Convention on the Law of the Sea.
- UNSFA.** 1995. 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. *UN Fish Stocks Agreement*.

The *Sustainable Fisheries Management and Biodiversity Conservation of Deep Sea Living Resources in Areas Beyond National Jurisdiction* Project (ABNJ Deep Seas Project for short) is a five year project supported by the Global Environment Facility, and implemented jointly by the Food and Agriculture Organization of the United Nations, and the United Nations Environment Programme. The UNEP project component is executed through the UNEP World Conservation and Monitoring Centre.

The Project is designed to enhance sustainability in the use of deep-sea living resources and biodiversity conservation in the ABNJ through the systematic application of an ecosystem approach. It brings together over 20 partners who work on deep-sea fisheries and conservation issues in the ABNJ globally. The partnership includes regional organizations responsible for the management of deep-sea fisheries, Regional Seas Programmes, the fishing industry and international organizations. The Project aims to:

- strengthen policy and legal frameworks for sustainable fisheries and biodiversity conservation in the ABNJ deep seas;
- reduce adverse impacts on VMEs and enhanced conservation and management of components of EBSAs;
- improve planning and adaptive management for deep sea fisheries in ABNJ; and
- develop and test methods for area-based planning.

The ABNJ Deep Seas Project started in September 2015 and is one of four projects under the GEF Common Oceans Programme. More information is available from www.commonoceans.org

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