# Strategy document

# Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels

# The way forward

(in the fight against IUU fishing)

# ACRONYMS

| | |
|---|---|
| CCAMLR | Commission for the Conservation of Antarctic Marine Living Resources |
| CLAV | Consolidated List of Authorised Vessels |
| COFI | FAO Committee on Fisheries |
| DG MARE | Directorate-General of the European Commission for Maritime Affairs and Fisheries |
| EC | European Commission |
| EU | European Union |
| EU FR | Community Fleet Register |
| FAO | Food and Agriculture Organization of the United Nations |
| FIPI | Policy, Economics and Institutions Branch (FAO, Fisheries and Aquaculture Department) |
| FIPS | Statistics and Information Branch (FAO, Fisheries and Aquaculture Department) |
| FIRO | Fishing Operations and Technology Branch (FAO, Fisheries and Aquaculture Department) |
| FLUX | Fisheries Language for Universal eXchange |
| FVF | Fishing Vessel Finder |
| GFCM | General Fisheries Commission for the Mediterranean |
| GFETW | Global Fisheries Enforcement Training Workshop |
| GRT | Gross Registered Tonnage |
| GT | Gross Tonnage |
| ICCAT | International Commission for the Conservation of Atlantic Tunas |
| IHSM | IHS Maritime |
| IMCS network | International Monitoring, Control and Surveillance Network |
| IMO | International Maritime Organization of the United Nations |
| IOTC | Indian Ocean Tuna Commission |
| IPOA-Capacity | International Plan of Action Capacity |
| IPOA-IUU | International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing |
| IUU Fishing | Illegal, Unreported and Unregulated fishing |
| LEG | Development Law Service (FAO, Legal and Ethics Office) |
| MCS | Monitoring, Control and Surveillance |
| MedFiSIS | Mediterranean Fisheries Statistics and Information System |
| NEAFC | North East Atlantic Fisheries Commission |
| PSMA | Port State Measures Agreement |
| PTF | Project Task Force |
| RFMO | Regional Fisheries Management Organization |
| SOFIA | State of World Fisheries and Aquaculture (FAO Fisheries Department Flagship publication) |
| TC | Technical Consultation |
| UN/CEFACT | United Nations Centre for Trade Facilitation and Electronic Business |
| UNGA | United Nations General Assembly |
| UVI | Unique Vessel Identifier |
| VG-FSP | Voluntary Guidelines for Flag State Performance |
| WCPFC | Western and Central Pacific Fisheries Commission |

## PREPARATION OF THIS DOCUMENT

This document was prepared to clarify several aspects of the design, development and implementation of the Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels (Global Record).

As a follow up to the Global Record Technical Consultation (TC) in 2010 and considering several international developments, the need for a detailed plan on how to proceed became clear. Building on the instructions provided by the Committee on Fisheries (COFI) in its most recent sessions, this document provides information, reflecting the current situation, and proposes the way forward for this crucial tool to fight Illegal, Unreported and Unregulated (IUU) fishing.

This document should be considered in support of COFI documents COFI/2014/4.2 and COFI/2014/Inf.12 and is intended to serve as a basis to inform COFI members and seek their views and guidance on the way forward.

## ABSTRACT

The Global Record is one of the latest international initiatives initially requested by Ministers and then taken on by the FAO Committee on Fisheries (COFI) as a necessary, urgent, cost-efficient and effective global tool (programme) to fight IUU fishing. Its aim is to increase transparency and traceability of vessels and their activities as well as fish products *´from the net to the plate´*, through information exchange and dissemination of that information in a simple and neutral manner. It presents strong synergies with other global tools to fight IUU fishing like the Port State Measures Agreement (PSMA) and the Voluntary Guidelines for Flag State Performance (VG-FSP) as well as with market-related measures, thus making it more difficult for illegal perpetrators to go undetected.

In implementing such a programme, a flexible, phased and collaborative approach is essential for it to succeed in its endeavours. Through planning the first steps and analysing the possibilities ahead, FAO proposes a way forward to advance this initiative in a timely, responsive and cost-effective manner, whilst paying due attention to the special needs of developing countries to ensure widespread participation and generate a real impact in the fight against IUU fishing. This is particularly necessary in the current global situation of scarcity of resources to support long-term programmes at the global level, where cost-effectiveness and collaboration have to be at the forefront of any such undertaking.

The Global Record programme is an integration of three components: system development, capacity development and awareness raising. The strategy detailed in this document encompasses them all, but gives priority to the design, development and implementation of the system in order to make the Global Record operational in the shortest timeframe possible. In this regard, a five year financial proposal is put forward in Appendix 4. Several major conclusions are drawn up, including the use of the IMO number as the UVI for Phase 1, the need for guidance and commitment of Member States to collaborate.

The strategy proposed in this document on the way forward is open for guidance from COFI 31.

# CONTENTS

# BACKGROUND – GLOBAL RECORD HISTORY

Initially proposed in the **2005 Rome Declaration on IUU Fishing**[1] (Ministerial Meeting on Fisheries; Rome, 12 March 2005), the programme to develop a Comprehensive Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels has been endorsed as a critical element in the global effort to prevent, deter and eliminate Illegal, Unreported and Unregulated (IUU) fishing. It has also been the subject of study by FAO on many levels and has followed a progressive path of development and advancement. The Declaration included a key recommendation[2] to "*develop a comprehensive global record of fishing vessels within FAO, including refrigerated transport vessels and supply vessels, that incorporates available information on beneficial ownership, subject to confidentiality requirements in accordance with national law*". This broad application recognized the significant role that refrigerated transport vessels and supply vessels play in facilitating IUU fishing.

After the Rome Declaration, in 2006, FAO undertook a **Feasibility Study**[3] on the Global Record which assessed the feasibility and viability of FAO undertaking the development and maintenance of a global record. The study concluded that the Global Record could be established, albeit on a step by step basis. It also pointed out the need to introduce a Unique Vessel Identifier (UVI) that would remain with the vessel over time regardless of changes in name, flag, ownership, etc.

On this basis in 2007 the 27th Session of the **Committee on Fisheries**[4] (COFI), encouraged the convening of an Expert Consultation to "*further develop the concept of a comprehensive global record of fishing vessels as described in FAO's feasibility study, mindful of the need to clarify the project's objectives, sensitivity to costs, confidentiality requirements and the need to link it to other reliable information sources such as national registers and RFMO lists".*

Consequently, in 2008 the **Expert Consultation**[5] assessed the Global Record concept and reinforced the Rome Declaration call for a broad scope. It suggested that the record should capture data on all vessels in the supply chain and that, in order to define the scope of coverage of the Global Record, it would be useful to rely on other pre-existing instruments for definitions of the key terms 'fishing', 'vessel', and 'fishing related activities'. In this regard, the definitions found in the Agreement on Port State Measures were also identified as particularly useful, noting the need to exclude recreational fishing vessels. A sense of urgency was expressed on the need for the Global Record as an essential tool to ensure effectiveness of port State measures and for this, a carefully planned phased implementation approach would be needed to ensure that priority vessels are introduced in the first instance. The Global Record could improve traceability, transparency, risk assessment and decision-making on a broad range of topics. The Expert Consultation also noted the need to assist some countries in the development of their national registries/records.

As an outcome of this, the **28th session of COFI** (2009) supported the development of the Global Record and highlighted the importance of cost-effectiveness. The Committee *"stressed the value of building on existing vessel data bases and particularly the work of RFMO/As, some of which were developing unique vessel identifier systems. A future programme of work was supported that should include assessing user needs, include the needs of developing countries, convening a broad-based Steering Committee,*

[1] The 2005 Rome Declaration on Illegal, Unreported and Unregulated Fishing adopted by the FAO Ministerial Meeting on Fisheries. Rome, 12 March 2005.
[2] Quote from declaration number 4, third paragraph.
[3] ftp://ftp.fao.org/FI/DOCUMENT/global_record/eims_272369.pdf
[4] COFI support to Global Record: http://www.fao.org/fishery/topic/166286/en
[5] ftp://ftp.fao.org/docrep/fao/010/i0149e/i0149e00.pdf

*designing and implementing a pilot project and preparing a comprehensive technical report which could lead to a Technical Consultation on the global record".*

A **Technical Consultation**[6] (TC) to Identify a Structure and Strategy for the Development and Implementation of the Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels took place at FAO headquarters, in November 2010. The TC produced a number of recommendations, particularly on the inclusion of all types of vessels, except recreational, of 10GT, 10GRT or 12m and above, operating in all areas including inland waters, subject to coastal State application, whilst recognizing the need for a phased and flexible approach. It was recommended that a Unique Vessel Identifier (UVI) be applied to all relevant vessels, giving due consideration to smaller vessels. Furthermore, the minimum information for the provision of a UVI, based on core requirements for vessels of 100GT, 100GRT or 24m and above, was specified. The need for incorporation of additional information relevant to fighting IUU fishing was noted, and the responsibility of the flag State in providing and updating Global Record information was emphasized. The TC recommended that FAO host and manage the Global Record and develop a phased implementation approach, in conjunction with member countries, keeping in mind the need to provide assistance to developing countries in this regard. The launch of the Global Record as a voluntary initiative, with information in the public domain with some restrictions, was recommended, with due consideration to be given to a legally binding agreement in the future.

At its **29th session** (2011) **COFI** agreed that IUU fishing continued to be a major global threat to the long-term sustainable management of fisheries and the maintenance of productive and healthy ecosystems. It "*reiterated its support for the Global Record as one of the useful tools to combat IUU fishing. The Committee also recognized the need for further work to refine some of the terms used in the recommendations for establishing the Global Record. The Committee recognized that the Global Record should be developed as a voluntary initiative under FAO's supervision with a need for flexibility and a phased approach to implementation. The Committee indicated that the development of the Global Record should be done in a cost-effective manner, taking advantage of existing systems and information technology (IT) platforms, where possible. To achieve efficiencies, the Committee proposed that FAO further consults with other organizations, particularly IMO, IHS-Fairplay and regional fisheries management organizations (RFMOs), as appropriate. To support the Global Record as a long-term initiative, the Committee indicated its preference for the use of FAO Regular Programme funds to the extent possible, supplemented as required, by extra-budgetary funding".*

Furthermore, the **30th Session of COFI** (2012) "*(a) reiterated its support for the Global Record's continued development by FAO, using a phased approach, with some members having concern for the need to avoid duplication, to keep it cost-effective and to ensure coordination with other existing initiatives; (b) recognized the necessity of a global unique vessel identifier (UVI), as a key component of the Global Record to identify and track vessels; (c) suggested the UVI, as a first step, be applied to vessels above 100 GRT; (d) noted the necessity for RFMOs to coordinate their vessel records with the Global Record; and (e) appreciated FAO's work to assist developing States to strengthen their national or regional vessel registries*".

[6] http://www.fao.org/docrep/013/i1938e/i1938e00.pdf

## INTRODUCTION - SETTING THE SCENE

With a growing world population and the persistent problem of hunger and malnutrition in many areas, work towards improving food security levels has become the focus of international concern[7].

Fishery resources are an important source of high quality proteins, vitamins and micronutrients, particularly for many low-income populations in rural areas and consequently their sustainable use to support food security has garnered significant attention.

Capture fisheries and aquaculture supply the world with about 158 million tonnes of fish annually[8] providing 4.3 billion people with 15% of their animal protein intake, and yet fish intake remains at lower levels in developing countries.

In addition, 10-12 percent of the world population depends on fisheries and aquaculture for their livelihoods (fishing, unloading, processing and distribution, building and maintaining fishing boats and farms). Small-scale fisheries employ more than 90 percent of the world's capture fishers, and their importance to food security, poverty alleviation and poverty prevention (through socio-economic development) is becoming increasingly appreciated[9].

In the context of variable and changing ecosystems, and despite some progress, the challenges of maintaining or restoring fisheries sustainability and stock sizes, reducing environmental impact and degradation, and improving local and global food security remain immense.

Sustainable fisheries are crucial to the development of the world's natural resources to ensure food security and nutrition for all. Sustainable fisheries management relies, among other things, on adequate control of fishing operations and enforcement of management measures put in place. International cooperation is a key factor for the long-term successful implementation of conservation and management measures, to achieve maximum sustainable yields.

## THE PROBLEM – IUU FISHING

Illegal, Unreported and Unregulated (IUU) fishing continues to be a major global threat to the long-term sustainability of fisheries and the maintenance of productive and healthy ecosystems as well as the stable socio-economic condition of many of the world's small-scale and artisanal fishing communities. In particular, poverty and food insecurity in developing countries are the result of economic and social marginalization and the use of unsustainable fishing practices impacted by IUU fishing.

IUU fishing has deleterious effects particularly in local communities by illicitly extracting fishery products from local grounds and reducing the quantity and quality of available catch for local fishers. This may lead to increased levels of malnutrition, food insecurity and even hunger in some places and great losses of jobs and revenues in others, extending its impact to the trade chain and beyond, thus negatively impacting development. IUU fishing also affects large scale fisheries, presenting unfair competition to fishers abiding by the law, and enters international markets making its way up to the consumer.

A common negative consequence of IUU fishing is the lack of consideration for working conditions, safety-at-sea and labour laws in general, as IUU fishing is often linked to indecent work and slavery as well as piracy and criminal actions like drugs smuggling and human trafficking. It also produces

[7] Fundamental FAO objectives: eradicating hunger, achieving food security and nutrition for all.
[8] FAO SOFIA 2014. State of World Fisheries and Aquaculture. http://www.fao.org/3/a-i3720e.pdf
[9] FAO SOFIA 2012. State of World Fisheries and Aquaculture. http://www.fao.org/docrep/016/i2727e/i2727e00.htm

detrimental effects on the environment since often destructive fishing gears and practices are used damaging protected grounds, catching juveniles and protected and often threatened species which are then discarded. Consequently, conservation and management measures in place are not respected leading to fish stock depletion, loss of biodiversity and damaged ecosystems, with devastating effects particularly to some of the poorest countries in the world where dependency on fisheries for food, livelihoods and revenues is high.

IUU fishing often targets species of high value often in remote areas with ineffective control measures in place. It thrives on lack of understanding of the implications, weak governance, poor traceability and lack of deterrents.

Meanwhile, despite ongoing and often successful initiatives by Monitoring, Control and Surveillance (MCS) practitioners, IUU fishing continues to have a devastating impact. A recent study indicates the losses attributed to IUU fishing are massive, worth an estimated USD10 to USD23 billion per year globally. Hence, IUU fishing continues to be a major global threat to the long-term sustainable management of fisheries, the protection of productive and healthy ecosystems for food security and the livelihood of coastal communities.

Fighting IUU fishing is therefore one of the key initiatives to improve food security and nutrition and reduce hunger and poverty.

# TOWARDS THE SOLUTION

The approach to prevent, deter and eliminate IUU fishing requires strong coordination and collaboration among different initiatives at global, regional, national and local levels and tackling all angles of the fisheries sector such as production through capture fisheries (including adaptive management measures, enhanced MCS and enforcement), refueling, transshipments, landings, processing, transport and marketing but also related aspects like labour rights, safety-at-sea and other socio-economic factors. Traceability of the vessel and its products is a key component into the fight against IUU fishing, thus the need to link all areas. By increasing coordination of efforts and collaborating at all levels, the international community will be '*closing the net*' over the IUU perpetrators. No individual initiative on its own will have the impact that a strong and coordinated collaborative global action can have by dealing with all the issues related to IUU fishing.

## International initiatives and synergies

The international community has put forward several initiatives, instruments and tools to combat IUU fishing worldwide in a cooperative way. The FAO's International Plan of Action to Fight IUU fishing (IPOA-IUU), the Port State Measures Agreement (PSMA), the Voluntary Guidelines for Flag State Performance (VG-FSP), and the EU IUU regulation[10] are some examples. Missing from all previous instruments was a specific tool to identify and track all vessels in a unique and unambiguous manner.

The Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels[11] (Global Record) is one of the latest initiatives that is being developed to fight IUU fishing. It is closely related to

[10] COUNCIL REGULATION (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, amending Regulations (EEC) No 2847/93, (EC) No 1936/2001 and (EC) No 601/2004 and repealing Regulations (EC) No 1093/94 and (EC) No 1447/1999.
[11] http://www.fao.org/fishery/global-record/en

other MCS initiatives and shows strong synergies with the PSMA and VG-FSP (see Appendix 1), mainly through dissemination of reliable information, thus increasing transparency, and providing a linkage for traceability among instruments through the Unique Vessel Identifier (UVI).

Particularly, the Global Record will become one of the major tools in implementing the PSMA since it provides the information needed by the inspecting authorities for verification and validation of vessel related information as specified in the provisions of the Agreement (further details are provided in Appendix 1).

The effectiveness of existing MCS tools is dependent upon the strength of the supporting MCS regime in the State or Regional Fisheries Management Organization (RFMO) in which they are used. Their biggest weakness, generally, is that they are applied without the benefit of a universal picture which could inform their coordinated application.

> The Global Record, due to its hub function, can provide that universal picture by making available the information which is essential to support resource prioritization decisions, sustainable fisheries management, vessel inspection programmes, surveillance programmes and investigation, among others.

Fisheries management, control and enforcement will certainly benefit from a more informed picture of the global fishing fleet and its operations which, together with an improved assessment of resources, would result in increased production and sustainable development of our fisheries.

It is envisaged that the effective synergy among instruments, tools and initiatives at global but also local, national and regional levels that will yield successes in the fight against IUU fishing.

Through awareness-raising, knowledge-sharing, as well as support to on-the-ground implementation (capacity development) and ongoing and new initiatives, FAO aims at encouraging the necessary change that will improve food security through the fight against IUU fishing.

## The Global Record

The Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels (Global Record) is a ´***one-stop-shop***´ of vessel and vessel related information that can be used to:

- ✓ identify the vessel
- ✓ describe its capacity and capability
- ✓ identify its owners and associated interests
- ✓ identify its fishing authorizations
- ✓ provide a history of non-compliance (inspections, infractions, IUU lists, etc.)
- ✓ provide information on vessels involved in transshipment and refueling operations
- ✓ provide any other relevant and available data
- ✓ provide an access point to other complementary information

## Objective

The Global Record was born as a voluntary, phased and collaborative MCS initiative which aims to fight IUU fishing globally by making relevant, certified information available on vessel identification and its operations and therefore enhancing transparency and traceability of both vessels (identity, owners, operations, history, etc.) and fish products (throughout the trade chain). The goal is to provide a reliable and rapid way to contrast vessel-related information with other sources thus enabling risk assessment by identifying/spotting fishing activities associated with illegal activities. In addition, the Global Record could also provide, among other things, a measure of the capacity of the fishing fleet.

## Approach

The Global Record Programme is being implemented taking a three way approach focusing on: 1) system development, 2) capacity development and 3) awareness raising. Various awareness raising and capacity development activities have been carried out since COFI 30 and others are being planned. However, the focus is now with the system development to create the information tool that will make relevant information available to fight IUU fishing.

A key component is the Unique Vessel Identifier (UVI), which ensures reliable and verified identification of each vessel so as to enhance traceability. The UVI will be associated to a vessel for its entire life, even when it is subject to changes of flag, ownership, name, etc. It will also serve as a link among different initiatives creating a strong synergy among them.

IUU fishing can be perpetrated by various people involved in fishing and fishing-related activities and hence, in order to be effective, the Global Record includes not only fishing vessels, but also other vessels involved in fishing operations such as refrigerated transport vessels and supply vessels. This inclusion would thus enhance transparency in transshipment operations and others such as refueling at sea.

The Global Record will help reduce IUU fishing by making important information available to a wide range of stakeholders. This information will increase traceability of the fishing fleet and fishery products, which will act as a strong deterrent to illegal perpetrators. Thus, traceability of fishing vessels, refrigerated transport vessels and supply vessels, as well as fishery products will be enhanced *´from the net to the plate´* through reliable identification of fishing vessels and inclusion of information about the origin of the fishery products in related documentation.

## Scope

The task of building a Global Record is complex as it has been estimated that there are 4.36 million[12] fishing vessels around the world. As a realistic approach, the FAO Technical Consultation held in 2010 has recommended a phased development and implementation, in 3 phases:

Phase 1: All vessels ≥ 100GT or ≥ 100GRT or ≥ 24m.

Phase 2: All vessels < 100GT or < 100GRT or < 24m but ≥ 50GT or ≥ 50GRT or ≥ 18m).

Phase 3: All other eligible vessels, notably vessels < 50GT or < 50GRT or < 18m but

≥ 10GT or ≥ 10GRT or ≥ 12m)

As indicated in SOFIA 2012, approximately 10% of the global fishing fleet consists of vessels of 12 m in length and over, meaning that the scope of the 3 phases involves around 400 000 to 450 000 fishing

[12] FAO SOFIA 2012 report; Part 1. The status of the fishing fleet: http://www.fao.org/docrep/016/i2727e/i2727e01.pdf

vessels. Phase 1 includes around 60,000 fishing vessels alone to which vessels involved in fishing-related activities (refrigerated transport vessels and supply vessels) have to be added, since the majority of them are also eligible for Phase 1.

### Nature

As stated by COFI 27, national registers are reliable information sources and thus the nature of the Global Record can be clearly defined through building the necessary relationships with national fishing fleet registers and other relevant entities in such a way that all relevant information to fight IUU fishing is made available. In this regard, national fishing fleet registers contain a national, regional and/or global identifier for all vessels together with certain vessel-related information and are usually linked to the authorizations to fish. However, national registers also contain information for vessels that may not hold a particular authorization to fish in a specific moment or period, vessels that are not operational for a particular reason (laid up, repairs, etc.) and even de-registered vessels. Moreover, countries (and regions) may hold an IUU list or black list of vessels having committed infringements of different levels.

Current and historical information for all these vessels is of great use for the objectives of the Global Record (and other international tools) and thus, a comprehensive global system, with appropriate linkages (based on the UVI) and exchanges of relevant information is foreseen. The Global Record therefore, should not be limited to a global authorized vessel list. It is a tool in which all these changes in certified information can be monitored in real-time. To this end, flag States retain full responsibility for the information provided to the Global Record, as the original sources of this information (as stated in COFI 27 and the Technical Consultation[13]). In addition, information of non-compliance could also be reported by coastal, port and market States.

> The Global Record encompasses a variety of relevant information to fight IUU fishing and thus, it is more than an authorized global list of fishing vessels.

Further relevant information would be obtained through linkages with other external systems, as described in Appendix 2, including the PSMA information system once it is in place. In this regard, it is important to make sure that the systems can interact with each other and this can be achieved through harmonization of standards and data formats (agreed at international level).

[13] "*Flag States are responsible for the provision and updating of the information, and thus, the success of the Global Record*".

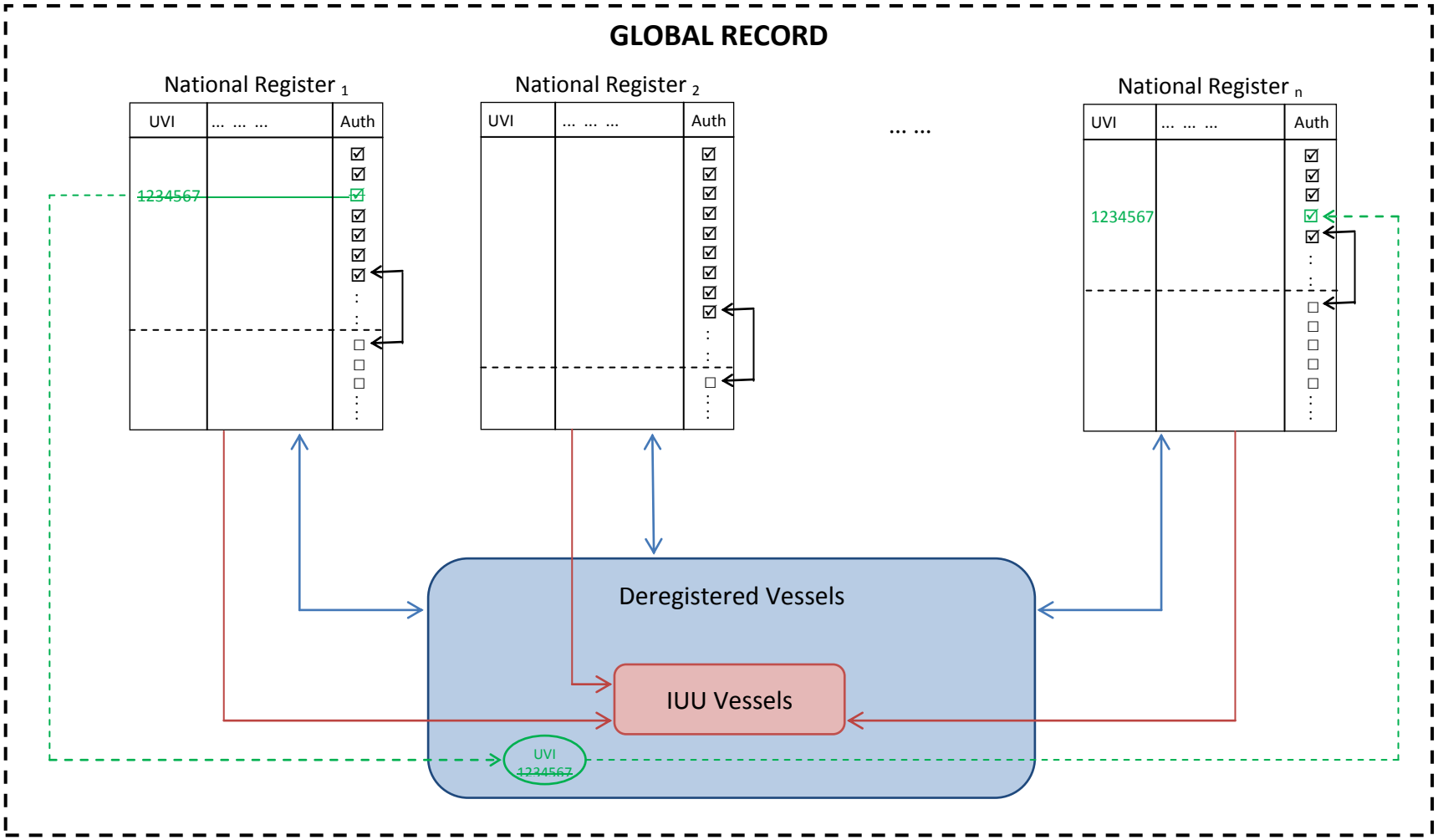



**Figure 1 - Nature of the Global Record**

*The UVI remains with the vessel for its entire lifetime, even as it moves from one flag State to another

## Benefits

Due to the intrinsic nature of IUU fishing ("illegal", "unreported" and "unregulated"), this activity is difficult to detect, assess and counteract. The international community recognizes the need for relevant and public information to identify IUU fishing which would support assessment of adequate measures to tackle it.

A fully operational Global Record Programme (and functional information system) would yield many concrete benefits such as:

1. Provide an **over-arching global picture** of the fishing fleet (its capacity, characteristics, etc.) and its operations (species, areas, periods, etc.) by filling the information gap.
2. Provide a powerful tool to prevent, deter and eradicate the Illegal, Unreported and Unregulated (IUU) fishing activities, by exposing unlawful activities through **dissemination of information**, which will act as a strong deterrent to illegal perpetrators, making it more difficult for vessels operating outside the law.
3. **Enhance transparency and traceability** of both vessels and fish products by making relevant and comprehensive information available including information on vessels involved in fishing-related activities thus providing insight on transshipment and supply operations like refueling at sea.
4. Be a central and global '***one-stop shop'*** for certified information from reliable sources where all related information is accessible, in a simple, fast (real-time) and efficient way.
5. Enhance **effective communication** and collaborative exchange of information among flag States, port States, coastal States and market States (on identification, authorization, MCS information, etc.).
6. Through the UVI which unequivocally and permanently identifies each vessel, **establish a link** across several initiatives in such a way as to '*close the net'* over illegal perpetrators (cross-checking of information from different sources).
7. Proof the **legal origin of fish products** through inclusion of UVI in all vessel certificates such as certificate of registration, catch certification documentation, landing declaration, sales notes, transport declaration, etc.
8. **Support implementation of the PSMA** through facilitating the task of inspecting authorities in verifying and validating the information provided through the provisions of the Agreement.
9. Assist in **monitoring flag State performance**.
10. Assist and inform **MCS operations** and investigations, and thus compliance with conservation and management measures in place.
11. **Prevent flag hopping** through dissemination of historical data.
12. Provide **ownership** information at global level in a step towards the identification of the beneficial ownership.
13. **Gather knowledge and raise awareness** on IUU fishing operations and help identify ways of counteracting these.
14. Provide **capacity development** to upgrade national registers and support on-the-ground implementation.
15. **Support harmonization** of procedures (data exchange, minimum requirements and definitions) at international level through use of agreed standards.

Through all these actions, the Global Record is also advancing the objectives of the Code of Conduct for Responsible Fisheries.

The **added value** of the Global Record is that relevant information will be made available at one single (central) place facilitating the retrieval of information useful to identify IUU fishing activities.

### Outcomes

All individual concrete benefits of deploying the Global Record Programme will help create an **enabling environment** for the reduction of IUU fishing, increased production through more efficient and sustainable fisheries management and ultimately improved food security and nutrition.

- **IUU fishing reduced**: through raised awareness, increased transparency and traceability, increased coordination and collaboration, dissemination to a wide range of stakeholders.
- **Improved fisheries management**: will benefit from a more informed picture of the global fishing fleet and its operations, and together with an improved assessment of resources, it will result in increased production and sustainability.
- **Enhanced food security and livelihoods** of rural populations: through increased fishery production; thus generating more supply for local communities and diminishing unfair competition among fishing operators.

Knowledge building as well as support to on-the-ground implementation will enable developing countries to develop their fisheries sector in a sustainable manner so as to support food security, improved nutrition and reduction of poverty.

## RECENT DEVELOPMENTS

Momentum has been building in recent times, both in the international community and at FAO, in response to the need for a global picture of the fishing fleet and in support of the rapid development and implementation of the Global Record as a decisive tool to fight IUU fishing.

### International support

Mention of the urgency of the international community to make the Global Record operational in the shortest timeframe has been made at several high level events:

#### Global Oceans Action Summit

In April 2014, during the **Global Oceans Action Summit for Food Security and Blue Growth** held in The Hague, the Netherlands, global leaders, ocean practitioners, business leaders, scientists, civil society and international organizations came up with answers to questions on preservation of earth's natural resources and food security among others. The fight against IUU fishing was high on the agenda and one of the conclusions was the following action of high priority as an accelerant for change: "*Accelerate the implementation of the global record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels (including a unique vessel identifier for all vessels), as well additional information on vessel activities in support of effective implementation of port State measures*".

#### United Nations General Assembly

In September 2013 the **68th United Nations General Assembly** (UNGA), through Resolution number A/RES/68/71 referring to Sustainable Fisheries, stated[14] that it "*Encourages the Food and Agriculture*

[14] in paragraph 77; Resolution on Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments.

*Organization of the United Nations, in cooperation with States, regional economic integration organizations, the International Maritime Organization and, as appropriate, regional fisheries management organizations and arrangements, to expedite efforts to develop and manage a comprehensive global record of fishing vessels, refrigerated transport vessels and supply vessels, including with a unique vessel identifier system, using the International Maritime Organization numbering system for fishing vessels above 100 gross register tonnage as a first step*".

### European Union

In 2012, the office of the **European Commissioner for Maritime Affairs and Fisheries**, which strongly supports the fight against IUU fishing, mainly through the EU IUU regulation[15], showed support to the implementation of the Global Record of Fishing Vessels[16] through the following statement: "...*we support the FAO's move for the creation of a Global Record of fishing vessel complemented by a global unique vessel identifier. This can act as a useful tool in the fight against IUU fishing*"; which was reiterated during a meeting[17] with FAO Director-General José Graziano da Silva as follows: *"the EU is fully behind the development of a global record of fishing vessels, an FAO initiative*".

Also in 2012 the **Joint Statement EU Japan on IUU fishing[18]**, issued by the European Union and the Government of Japan stated that" *IUU fishing is a global phenomenon with devastating environmental and socio-economic consequences, particularly for coastal communities in developing countries who rely on fisheries for their earnings or for nutrition".*

In 2011, a Member of the European Parliament[19] (MEP) issued a report[20] entitled "**Combating IUU fishing at global level – the role of the EU**". The report which includes the favorable opinion of the Committee on Development[21], and the favorable opinion of the Committee of Environment, Public Health and Food Safety:

a. Highlights[22] the relationship between the fight against IUU fishing and food security. It indicates that IUU fishing undermines fisheries management efforts, threatening sustainability efforts and food security in particular for coastal communities (also through social and economic impacts) and calls for urgent action against flags of convenience.

b. Makes particular remarks[23] with regards to the Global Record of Fishing Vessels: "*Fully supports the current FAO initiative to develop a Global Record of Fishing Vessels, which should be compulsory and include vessels above 10 GT as soon as possible*" and "*promote, both financially and politically, the Global Record of Fishing Vessels, which should be compulsory and include all vessels (including support vessels) above 10 GT or 12 metres as soon as possible*".

Also in 2011, the **Joint Statement EU-US on IUU fishing[24],** issued by the European Commission and the US Government, stated that "*IUU fishing is a global phenomenon with devastating environmental and*

[15] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:286:0001:0032:EN:PDF
[16] http://blogs.ec.europa.eu/damanaki/ocean-grabbing/
[17] http://www.fao.org/about/who-we-are/director-gen/faodg-news-archive/detail/en/c/164193/
[18] http://ec.europa.eu/fisheries/news_and_events/press_releases/2012/20120711/index_en.htm and http://ec.europa.eu/fisheries/news_and_events/press_releases/2012/20120711-joint-statement_en.pdf
[19] Ms. Isabella Lovin, also member of the Committee on Fisheries and the Delegation to the ACP-EU Joint Parliamentary Assembly and substitute to the Committee on Development.
[20] http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A7-2011-0362+0+DOC+PDF+V0//EN
[21] paragraph 6 of the report
[22] In paragraphs 2, 43 and page 13 (Explanatory Statement) of the report and paragraphs 5 and 9 (Com. Environment, Public Health and Food Safety).
[23] In paragraph 41 and page 15.
[24] http://www.nmfs.noaa.gov/stories/iuu/docs/statement_online_handout.pdf

*socio-economic consequences, particularly for coastal communities in developing countries who rely on fisheries for their livelihood or for protein*".

The EU, therefore, considers that international cooperation and commitment is necessary to address IUU fishing effectively. That is why the EU supports the FAO's initiative for the creation of a Global Record of fishing vessels complemented by a global Unique Vessel Identifier as effective tools for combating IUU fishing[25]. The EU is also encouraging other FAO members to support the same initiatives.

## Response to COFI 30

FAO has been working in response to individual COFI 30 requests with regards to the Global Record issue under the agenda item on IUU fishing. In this regard, the Committee (a) reiterated its support for the Global Record's continued development by FAO, using a phased approach, with some Members having concern for the need to avoid duplication, to keep it cost-effective and to ensure coordination with other existing initiatives; (b) recognized the necessity of a global Unique Vessel Identifier (UVI), as a key component of the Global Record to identify and track vessels; (c) suggested the UVI, as a first step, be applied to vessels above 100 GRT; (d) noted the necessity for RFMOs to coordinate their vessel records with the Global Record; and (e) appreciated FAO's work to assist developing States to strengthen their national or regional vessel registries.

FAO has moved forward in addressing these issues as follows:

### Cost-effective approach

The FAO Fisheries and Aquaculture Department has taken a cost-effective approach to the task of designing, developing and implementing the Global Record Programme. Since the request in 2005 (Ministerial Declaration) for the creation of a Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels, work has been carried out partially through the support of several donors such as Australia, European Union, Republic of Korea, United Kingdom and, United States of America which financed, among others, the Technical Consultation, several studies including on the Unique Vessel Identifier and Capacity Development activities. FAO is currently working on the development of the Global Record system (focusing on Phase 1), in coordination with other existing initiatives (as described in Appendix 2, section "Underlying Framework") and with very limited funds from its Regular Programme, supplemented with limited extra-budgetary funds, in order to ensure continuity at short and medium-term. However, this approach is not suitable in the long run and in order to move forward, work needs to be strengthened through provision of a financial mechanism for the long-term development and implementation of the Global Record Programme. In this regard, a new cost estimate with focus on immediate priorities is being provided (see section on "Financial mechanism" and Appendix 4).

### Unique Vessel Identifier (UVI)

With regards to the Unique Vessel Identifier (UVI), FAO has been working on ensuring a reliable UVI for fishing vessels, and consequently, co-sponsored a proposal to amend IMO Assembly Resolution A.600(15) on the IMO Ship Identification Numbering Scheme. This proposal was approved by the Maritime Safety Committee in June 2013 and adopted in December 2013 by the IMO through Assembly Resolution A.1078(28). The Scheme is thus now applicable to both merchant ships and fishing vessels of

[25] This is the opinion expressed by Maria Damanaki, European Commissioner for Maritime Affairs and Fisheries. On this point, see "Bring fishing vessels out of the shadows. The urgent need for global Record of fishing vessels and a Unique Vessel Identifier"; http://ejfoundation.org/sites/default/files/public/EU_Global_Record_briefing_low-res-version_ok.pdf

100 gross tonnage and above (i.e. Phase 1 of the Global Record), and there are already approximately 23,000 fishing vessels[26] that have been allocated an IMO number (around 40% of Phase 1). Consequently, the preconditions of using the IMO Number as the UVI for Phase 1 of the Global Record have now been met[27]. The importance of the IMO Number is that it is associated with the vessel for its entire life, even when it is subject to changes of flag, ownership, name, etc. The international community is moving into this direction and several RFMOs, (CCAMLR, ICCAT, IOTC and WCFPC) have already made provisions for the IMO Number to be compulsory for eligible vessels fishing in their convention areas. In this regard, FAO intends to use the IMO Number as the UVI and thus, the prerequisite for a vessel to enter the Global Record.

### Coordination with RFMOs

In order to efficiently fight IUU fishing at global level, RFMOs need to coordinate their efforts with the Global Record and among themselves. The aim is to increase transparency and traceability and this can be done through the exchange of relevant information currently contained in the Regional Vessel Records of each RFMO. In order to exchange information in an appropriate manner, this information has to be harmonized (according to internationally agreed standards) and the formats for data exchange are to be agreed upon. In this regard, FAO has been working closely with, and integrating ideas from, some of the most advanced regional record systems such as the European Union Community Fleet Register (EU FR) developed and maintained by DG Mare, the Consolidated List of Authorized Vessels (CLAV) which puts together the vessel records of the five tuna-RFMOs, and the North East Atlantic Fisheries Commission (NEAFC).

FAO work with DG Mare mainly focuses on the development of Business Rules Specifications to be proposed to UN/CEFACT with the aim of developing international standards for the vessel domain that would facilitate the exchange of information (see Appendix 2, section “Data Management”). NEAFC is providing technical support in the development and definition of the data modules of the Global Record, in particular for the MCS module (record of non-compliance) drawing from its extensive experience in developing an electronic Port State Control (e-PSC) system to record and exchange information on inspections at-sea and at-port, as well as sighting reports and others. Lessons from the experience of other systems like CLAV, Equasis, etc. are also being incorporated and further knowledge exchange would be very beneficial to the development and implementation of the Global Record. Furthermore some RFMOs, such as GFCM and OSPESCA, are closely following advancements with the aim of incorporating them into their current systems and others like IOTC and NEAFC have collaborated by providing sample data for the prototype demonstration.

In addition, as seen above, several RFMOs (ICCAT, IOTC, CCAMLR, WCPFC) have moved forward in recent months towards the use of the IMO number as the global UVI number. This coincides well with the plans for Phase 1 of the Global Record.

### Assistance to developing states

As previously indicated, the Global Record has been conceived as focusing simultaneously on three major areas: system development and implementation, capacity development and promotion.

[26] As reported by IHS Maritime.
[27] The globally accepted IMO numbering scheme was identified as the best suited for the Global Record, as suggested at MRAG Asia Pacific Pty Ltd (Shelley Clarke), Investigation of Unique Vessel Identifier (UVI) and Phasing Options, 26 March 2010, Document number: TC-GR/2010/Inf.5.

Regional Fisheries Management Organizations are tasked with management, conservation and protection of fish stocks within the mandate of their respective convention. For this reason, the Global Record is taking a regional approach towards implementation. However, different areas have different specificities and needs and thus the provision of capacity development has to adapt to these requirements. The regional approach also involves coordination, collaboration and partnerships with regional entities that could be sources of data for the Global Record. Particularly, the Regional Fisheries Management Organizations (RFMOs) often maintain vessel records and could be an effective channel of information towards the Global Record, which would have a role to make the information meaningful and exchangeable across different regions. For this reason, for this tool to be effective at global level the information has to be relevant, reliable and up-to-date, and be consistent and harmonized with internationally agreed standards and procedures.

In order to achieve this, vessel owners, national administrations, RFMOs and other stakeholders need to be informed of the benefits and requirements of participating in the Global Record. This is why prior to its implementation, it is necessary that the above stakeholders are made aware of the use of the Global Record to fight IUU fishing and are briefed on the procedure for a vessel to be included in the Global Record. This will facilitate participation and commitment.

Activities in these two areas have been deployed as follows:

*i. Promotional campaign*

The Global Record promotional campaign was launched in July 2012. The first newsletter on the Global Record and the UVI was circulated among a broad list of relevant stakeholders. The webpage[28] is being constantly renewed including information material (leaflets, videos, audios) and further enhancements are foreseen including the French and Spanish versions. Information is regularly posted on capacity development activities and other issues.

The Global Record team, in collaboration with colleagues and partners, both within and external to FAO, works to ensure that the Global Record as one of the major tools in fighting against IUU fishing is well publicized during relevant conferences, workshops and meetings, to raise support worldwide (for example through participation in various workshops[29]).

*ii. Capacity development*

A capacity development framework has been developed based on regional workshops and individual technical assistance to particular countries in those regions. This framework, which is already being applied in Central America and Southeast Asia, consists of:

1) Study of background material: national and regional fishing fleet registries/records;

2) Awareness-raising through circulation of FAO-developed questionnaires which target the institutional situation plus assess the national/regional fleet register/record in more detail;

[28] http://www.fao.org/fishery/global-record/en

[29] 4th Global Fisheries Enforcement Training Workshop (GFETW) organized by the International MCS Network, in February 2014 in Costa Rica; FAO/WECAFC workshop on the Implementation of the 2009 FAO Agreement on Port State Measures to prevent, deter and eliminate IUU Fishing, convened in March 2014 in Trinidad and Tobago.

3) Initial workshop to produce a regional workplan on actions needed at short and long-term (different priorities) and, at national and regional level; this includes analysis of a data matrix and a regional proposal for the Global Record;

4) Production of a gap analysis based on results from the questionnaire to ascertain readiness and detect weaknesses;

5) Harmonization workshop (data fields, definitions and codification), when required;

6) Customized implementation of recommended activities, through regional capacity-building workshops, individual technical assistance to countries and others;

7) Running pilots.

Several workshops in coordination with regional bodies have been held to further advance the national fishing vessel registers and enhance development of regional records in preparation for entering the Global Record:

- ✓ 2010. First User Needs capacity development workshop in Central America (through OSPESCA; held in Puntarenas, Costa Rica).
- ✓ 2012. Second Central America workshop on awareness raising and assessment of national/regional needs (through OSPESCA; held in San Pedro Sula, Honduras).
- ✓ 2013. First Expert workshop in Southeast Asia on awareness raising and assessment of national/regional needs (through RPOA; held in Manila, Philippines).
- ✓ 2013. Collaboration activities with the General Fisheries Commission for the Mediterranean (GFCM) to advance the region towards integration with the Global Record.

Dedicated funds are needed to adequately implement the capacity development framework in these regions and at individual country level and to expand to other regions on great need, especially West and East Africa.

In spite of the limited *ad hoc* available funding, the capacity development component has also been extensively used to prepare and facilitate the system development (learning from the experience and needs of the different regions) and to promote the initiative.

In order to support implementation of the Global Record around the world, the Programme also counts on several tools already available in FAO for providing technical assistance to countries and regions upon request. These tools, mainly consisting of the output of the FAO Project Mediterranean Fisheries Statistics and Information System (MedFiSIS GCP/INT/918/EC (2011)), include guidelines, technical manuals, national and regional software, training manuals, etc., which have been conceptualized and developed keeping in mind their possible application in different areas and situations.

## THE STRATEGIC PLAN

In understanding the importance and urgency of advancing the fight against the increasing threat of IUU fishing, FAO is proposing a strategic plan for COFI consideration in order to progress on the implementation of the Global Record programme and ensure that the Global Record system is put into operation within the shortest timeframe possible. Building on on-going successful arrangements, the plan targets several current issues and proposes options as follows:

1) Status quo
    a. Task force
    b. Preparations for COFI 31, including:
        i. Seeking guidance and raising awareness
        ii. Demonstration of a prototype system
2) The way forward
    a. Put the first version of the Global Record system into operation
    b. Consider expansion of information modules, data providers and scope
    c. Provide assistance to developing countries
    d. Establishing a financial mechanism

## Status Quo

FAO has already taken some important initial steps towards building a solid basis for the development, implementation and management of the Programme. The following lines of work were initiated to give responses to immediate requirements in view of COFI 31 and to advance the objectives of the programme:

### Task Force

In order to move forward, guide and support the Global Record programme, by drawing from a wide span of expertise necessary to design and guide an international initiative like this one, FAO has created in June 2013 a multidisciplinary interdepartmental Task Force (TF) including all the institutional and technical competences that such task would require. This team has an **advisory role** in guiding the processes involved in every aspect of the design, development and implementation of the programme from diverse angles: operations and technology, policy and economics, statistics and information, and legal aspects. These competences are guaranteed through the involvement of the following FAO branches:

- Fishing Operations and Technology Branch (FIRO) responsible for the coordination, development and implementation of the Global Rercord, including the technical staff directly engaged on the development of the programme, and expertise in IMO matters related to fishing vessels, specifically the IMO Ship Numbering Scheme;
- Policy, Economics and Institutions Branch (FIPI) pursuing application of the Code of Conduct for Responsible Fishery (CCRF), IPOA-IUU, Port State Measures Agreement (PSMA) and Voluntary Guidelines for Flag State Performance (VG-FSP), as other tools complementary to the Global Record in the fight against IUU fishing;
- Statistics and Information Branch (FIPS) responsible for the collection, compilation, validation, analysis and dissemination of reliable and up-to-date information on all aspects of world fisheries and aquaculture;
- Legal Office (LEG) responsible for the legal aspects of fisheries instruments and other legal matters of the Fisheries and Aquaculture Department.

The main focus of the TF work in recent months has been directly related to the development of the Global Record system (design, core data modules, etc.), preparation for COFI (COFI documents, prototype system and strategy document) and relationships with external organizations (including, definition and validation of Business Rules Specifications (BRS) as presented in Appendix 2, section “Data Management”). The current system design (Appendix 2, The Global Record System, Introduction and Conceptual Design) has been reached through a series of activities and analyses undertaken in support

of the task. This team is expected to continue providing guidance in critical matters of the programme in the following years.

## Preparations for COFI 31

**Strategy document**

The present document complements COFI documents COFI/2014/4.2 and COFI/2014/Inf.12. It intends to provide insight into the development and implementation of the Global Record following COFI guidance and raise awareness to attract interest and participation in the tool for it to become a collaborative and thus effective initiative. In this regard, it aims at clarifying the objectives, scope, benefits, synergies (see Appendix 1), technical details of the information system (see Appendix 2), operational aspects as well as opportunities ahead for COFI consideration. It also intends to serve as a reference for future work such as the development of International Implementation Guidelines for the Global Record.

**Prototype system**

FAO has developed, with very limited funding, a prototype of the Global Record system containing sample data from a few selected data providers[30] and demonstrating basic functionality as proof of concept for COFI's guidance on the way forward. The objective is to demonstrate the prototype during a side event at COFI 31 in order to showcase the possibilities of development of this tool as well as the benefits and potential uses.

The purpose of the prototype is to give an insight into how the Global Record portal will function, what utility it is expected to provide and to showcase the links to other systems it is being developed on, or that are complementary to it. The intention is to show how the suggested way approach could be materialized as an information system. At the same time, this will allow viewers to give their feedback to the Global Record team and provide suggestions on how the system may satisfy the requirements related to IUU fishing. The final aim is to obtain COFI guidance towards implementation of Phase 1 and beyond, as proposed in this document.

For the prototype, sample data, which touches on all the information modules as described in Appendix 2, is being considered. The main function is to showcase data dissemination as per through the future Global Record portal. Some of the features which will be demonstrated include:

- Querying and displaying vessel and vessel-related information
- Linking to external systems

It will also be possible to see an indication of how the following functionality could work in the near future:

- Flagging presence on IUU Lists for a particular vessel
- Error reporting
- Summary information

Such a demonstration of the prototype should give an indication of how the Global Record will enhance transparency and assist planning and decision-making in the global fisheries sector by providing a comprehensive global information picture on fishing vessels and vessel related activity that can be used in support of risk assessment to detect IUU fishing.

[30] IOTC, NEAFC, IHSM, Iceland, Mauritania and Spain

Official data providers, either flag State administrations or designated bodies such as RFMO/As, are encouraged to participate in the preparation of the Global Record system for Phase 1, which is planned to start immediately after COFI 31.

## The way forward

In considering the three essential components of the Global Record Programme (system development, capacity development and promotion), whilst prioritizing the system development, FAO proposes the way forward from the current status through a series of actions tackling several angles of the implementation process: (a) advancement of the prototype system into the first version of the Global Record to start implementation of Phase 1, (b) expansion of data providers and further information modules and functionality that would serve the fight against IUU fishing, and consider expansion into Phases 2 and 3, (c) provision of assistance to Members in order to advance towards a fully functioning, collaborative and useful system and (d) establishment of financial mechanisms to guarantee the long term maintenance of the programme.

### Towards Phase 1

Following COFI 31, and taking into account the guidance provided, the focus will be put on the system development as an immediate priority. In this line, the first version of the Global Record system, focusing on vessels of 100 gross tonnage and above (Phase 1), will be advanced building on the prototype version.

Appendix 2, "**The Global Record System**", proposes detailed options on the conceptual design, data management and dissemination, including initial information modules, main features and functionality, sources of data, interaction with other systems, formats, etc. Appendix 3 presents definitions for the data fields mentioned in Appendix 2, so as to provide a basis for harmonization at global level.

This first version of the Global Record system would also include clear definition of data exchange standards (possibly following expert meetings) and will be tested through a pilot phase with a few data providers. During the test, refinement of functionality will be carried out to ensure that the main users of the system in the fight against IUU fishing have their requirements satisfied and the appropriate data is made easily available to the identified audience.

In this regard, the minimum data requirements, necessary to obtain an UVI, have been defined by the Technical Consultation in 2010. Based on this, information requirements for the Global Record have been analyzed (as explained in Appendix 2) and it was determined that several major information modules are necessary for the implementation of Phase 1: core vessel information, historical details, fishing authorization and record of non-compliance. Should it be necessary, further useful data could be included in the Global Record in order to help identify IUU fishing, possibly determined through expert meetings.

Once the trial phase provides satisfactory results, the work will move towards making the system operational and publicly available as well as towards full implementation through expansion of data providers so as to provide wide coverage for Phase 1. Feedback from users will be taken into account to fine tune the portal. The target would be present an operational system at the next session of COFI in 2016.

### Expanding participation, information and scope

After completing development and start implementation of Phase 1, the focus will be put on system maintenance, enhancements and ensuring sustainability in the long term. Sustainability is guaranteed through expansion to a larger number of data providers and participation from a wide range of stakeholders (users). For this, awareness raising and capacity development are fundamental to promote participation both as data providers and users of the system.

**Participation**

At this point, all countries and regions with a fleet that classifies for Phase 1, will be encouraged to ensure that the relevant vessels have obtained an UVI (IMO number) and to send the data to the Global Record[31]. This phase is expected to take around 3-4 years, time necessary to engage member States into the data submission procedures and set up regular reporting. In this regard, and taking into account the role and full responsibility[32] of flag States in providing certified up-to-date information to the Global Record. It is recommended to develop Implementation Guidelines for the Global Record, so as to provide guidance on the rules governing the data and its transmission to the global system. The development and implementation of the Global Record is a task which requires a long-term plan and clear targets.

| Participation and commitment of COFI members will ensure the success of the Global Record. |
|---|

Additionally, FAO will continue to provide assistance to members for the development and upgrade of their systems, as indicated in a section further below.

**Information**

From the experience gained during implementation of Phase 1, feedback from users and trough consultations with experts and organizations, the initially proposed information modules of the Global Record system could be expanded and enhanced to cover other aspects that may be useful in providing indications of IUU fishing such as, for example: further MCS information, aggregated catch data, PSMA data, safety-related information, crew information, linkages with Interpol as well as other possible related areas. Also new functionality can be added following needs that will arise during the implementation phase. All this would have to be agreed upon through appropriate *fora* such as expert meetings.

**Scope**

Expansion to Phases 2 and 3 will need careful consideration due to the numbers of vessels involved (around 350,000) and the possibilities of expansion of the UVI to these size categories. The way forward will have to be considered through a targeted feasibility study (focusing on these issues) and dedicated expert meetings whilst taking into account the experience gained during Phase 1.

## Providing assistance

In line with promotional activities carried out so far and the established capacity development framework, FAO is planning several actions to continue supporting member States both through awareness raising and through provision of capacity development as follows:

[31] As reported by IHS Maritime, 23,000 fishing vessels have already been allocated an IMO number, the majority of which fall under Phase 1 size category. Taking into account that Phase 1 is estimated to include around 60,000 fishing vessels, the horizon of completing Phase 1 at global level should not be far in time.

[32] As indicated in the TC and COFI 27.

1. Awareness raising:

   1.1. Further information materials (leaflets, posters, videos, radio-communications, social networks, etc.) are envisaged in several languages in order to reach a larger audience.
   1.2. Continuously updating the Global Record website and publication of the French and Spanish versions.
   1.3. Continue producing a series of publications and newsletters on relevant news regarding the Global Record.
   1.4. Promote the inclusion of the UVI in RFMOs databases.

2. Capacity Development (regional approach):

   2.1. Workshops with regional bodies to further advance the national fishing vessel registers and enhance development of a regional record as preparation for entering the Global Record.

      2.1.1. Harmonization workshop in Central America through OSPESCA.
      2.1.2. Possible harmonization workshop in Southeast Asia through RPOA (in collaboration with SEAFDEC).
      2.1.3. Continued collaboration activities with the General Fisheries Commission for the Mediterranean (GFCM) to advance the region towards integration with the Global Record.
      2.1.4. Eastern and western Africa initial workshops (hot spots for IUU fishing).
      2.1.5. Participation in PSMA workshops to be held in South America and Western Africa during 2014-2015 in order to show how the Global Record can support implementation of the Agreement.

   2.2. Individual technical assistance to countries: some countries have already expressed interest in the national vessel registration and fleet management tools developed by FAO. The capacity development framework envisages individual assistance to countries (to upgrade national systems and training of national officers) particularly after a first phase of awareness-raising and harmonization workshops in each region.

   2.3. Assist members in making the necessary modifications to national legislation in order to accommodate the UVI.

Funds are needed to support promotion activities and adequately implement the capacity development framework in these regions and expand to other regions with great need, especially West and East Africa, preferably through a specific funding mechanism, with a defined strategy.

### Financial mechanism and Steering Committee

In the current situation of piecemeal funding, consistent and adequate development and management of the Global Record Programme cannot be guaranteed. This in turn can lead to failure in yielding the expected and much needed results driven by financial gaps and specific interests of donors which may not be in line with the objectives, strategy and steady development of this tool. Therefore, the current funding scheme is not suitable in the long run and, in order to move forward, the programme needs to be strengthened through provision of a **financial mechanism**, possibly through a multi-donor trust fund, which could guarantee the long-term development and implementation of the Global Record, based on a series of predetermined targets and tasks as defined in an agreed **long term plan** (such as the one indicated in this Strategy Document).

Some of the previous studies that were carried out[33] indicated substantial development and maintenance costs for the Global Record Programme based on a different scenario. Under changing circumstances, FAO has adapted the approach to a greater focus on developing and implementing a simplified but efficient system for Phase 1 in the next few years, through coordination with other internal and external initiatives[34] in order to avoid duplications and reduce costs. For this purpose, a **core dedicated team**, including managerial, technical and administrative skills (see Appendix 4), is

[33] Comprehensive Technical Document Identifying Options for a Structure and Strategy for the Development and Implementation of the Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels. TC-GR/2010/2. Background document for the 2010 Technical Consultation.
[34] as indicated in Appendix 2, under the section on the Underlying Framework.

urgently needed to advance the programme through provision of guidance, coordination with data providers, development and maintenance of the system and portal, etc.

As a consequence, and prioritizing the central system at this initial stage, the budget necessary for the implementation of Phase 1 is estimated to be around 500,000 to 600,000 USD per year for an initial 5 year programme (preliminary estimation provided in Appendix 4). This budget would guarantee operationalization of Phase 1, expansion of data providers, set the basis for expansion to Phase 2 and 3, and inclusion of further information modules, should they be deemed necessary. Funds for expert meetings and other types of consultation would have to be considered on a separate basis.

In this regard, a feasible and sustainable solution could be the creation of a multi-donor trust fund, based on a consortium of donors that could split the costs of the system development for the next 5 years in order to ensure that the Global Record would become operative soonest. Some donors have already come forward and shown interest in the development of this tool. The individual shared costs would be quite contained for a group of around 10 members-donors that could at a later stage become, as suggested by COFI 28, a broad-based **Steering Committee** which would guide the Global Record Programme.

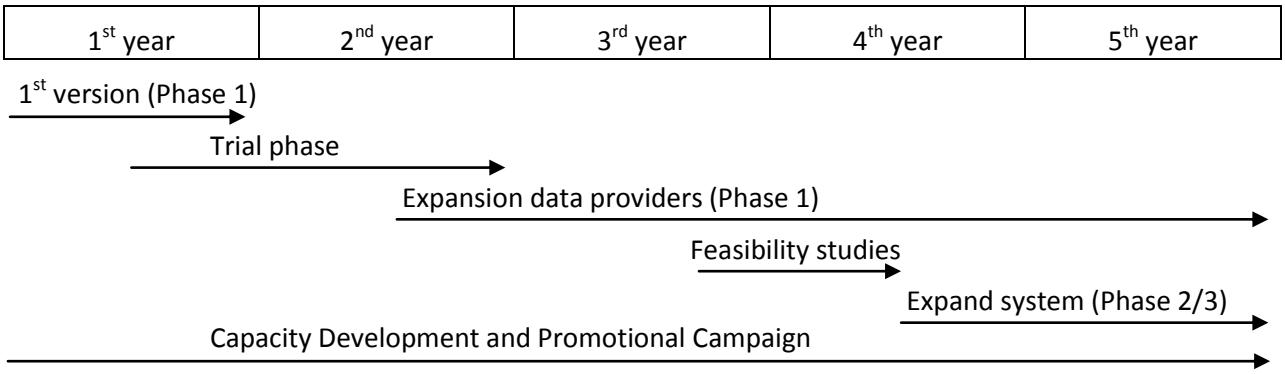
On a separate line, dedicated funds or financial mechanism would be necessary to support a coherent capacity development and awareness raising programmes, where the cost of individual regional workshops oscillates around 100,000 to 150,000 USD depending on the number of countries involved and number of participants per country (2-3 with different and complementary profiles). Cost of individual technical assistance to countries to upgrade their national register systems is highly dependent on the results of a preliminary evaluation and gap analysis that will assess the particular needs in relation to what is already available in the country.

## Medium-term outputs and timeframe

**Expected outputs in a 5 year horizon**

1. First version of the Global Record system for Phase 1, which will be operational, following COFI 2014 recommendations based on the prototype version and trial phases.
2. Guidelines and rules to regulate the participation in this worldwide initiative which must also include methods and resources to secure its future functioning and sustainability.
3. Advanced national and regional registers/records capable of providing data to the Global Record in an agreed data structure as well as standardized transmission protocols.

**Preliminary Timeframe of activities**




## The future perspective

**A global instrument**

As an initial approach, the Global Record was proposed as a voluntary, flexible, collaborative and phased initiative. In the long run, however, and to make this tool a successful initiative in the fight against IUU fishing, consideration should be taken into possibly developing a **legally binding international instrument**, as suggested by COFI and the TC, for example through an agreement that would complement the PSMA and VG-FSP. This instrument would provide the framework to define the minimum requirements for the Global Record and as an extension of this, for any national register or regional record, thus supporting a harmonization process which started with the Agreement on PSM. This process includes internationally agreed minimum requirements for States, definitions and codification systems. The minimum requirements are in line with those of the Global Record, for which the definitions agreed on the PSMA apply too. Use of the international coding system as indicated in the Annex D of the Agreement (country codes, species list, vessel types and gear types) is recommended as well as translation of any other coding system into the international. This is necessary to exchange information (and communicate/disseminate this information) and for this information to be interpreted by everyone in the same manner and hence be useful at global level (possibly in a place different from where the information was generated).

Once operational, the main success of the Global Record would be the provision of a linkage among several systems through the use of the UVI, which would not only support PSMA implementation but also market-related measures such as development of global traceability guidelines and market-access requirements (global catch documentation schemes). The inclusion of the UVI in these instruments would greatly improve traceability to prove the legal origin of the fish products.

# STAKEHOLDERS AND USERS

National administrations (registry, inspection, etc.), RFMO/As, NGOs, IGOs, and representatives of the private sector and civil society plus other stakeholders and public in general will benefit from utilizing the Global Record through the exchange and dissemination of information. They will also play an important role in providing feedback on any errors and ways of improving the system.

Collaborations are starting to be built towards a successful international initiative that will draw synergies with international, regional, national and local MCS initiatives to combat IUU fishing.

**Member States**

Member States, in assuming different roles as flag States, port States, coastal States and market States, have different responsibilities in the success of international initiatives such as the Global Record and thus are major stakeholders and users of these tools.

The repercussions of the establishment of the UVI for the Global Record are far exceeding the goal of the Global Record. National administrations could transpose resolution A.1078(28) on the IMO Ship Identification Number Scheme, into national law, making the IMO number compulsory for fishing vessels flying their flag together with the requisite to include the number in all vessel related documentation (from the certificate of registration, to safety, transshipment, catch, landing, transport, sales, etc.). As a consequence, traceability not only of vessels but also fishery products could be enhanced '*from the net to the plate*' responding to consumer demands in line with other food sectors through inclusion of information about the legality of the origin of the fishery products in the labels. This will in return, reduce opportunities for illegal perpetrators to get their products into the market, hopefully acting as a deterrent to this type of activities.

**RFMO role**

The RFMOs and other initiatives could have an important role to play in coordinating the fight against IUU fishing through the Global Record and thus, they also have an important role in its development and implementation, not only by sharing knowledge and experiences both at technical, operational and institutional levels but also as data providers[35] or "channels" for certified data from member States. In order to incorporate real-time data to the global system, and as a solution to facilitate member States´ responsibilities, RFMOs could act as channels of data especially for regions with well-organized and operational regional systems, which can arrange for their information to be facilitated to the Global Record directly. This arrangement could eliminate the burden from the member State. The RFMOs or other entity would have to be officially designated by the member States. This is the case of the EU which has indicated that the EU FR will be the only data provider of the vessel domain for the Global Record, on behalf of its members.

In addition, RFMOs will also benefit from the information provided in the Global Record in that information on foreign flagged vessels operating in their regulatory areas will be readily available.

Port, coastal and market States will use the Global Record to obtain information on foreign flagged vessels coming to their harbours, operating in their waters and importing products to their countries.

In a similar manner, RFMOs will use the Global Record to obtain information on foreign flagged vessels that operate in their convention areas, otherwise not available.

# RISKS

The Global Record is a large-scale programme and long-term initiative that requires continuous effort, collaboration commitment and financing both for the development of the system, its implementation and operation, and for the provision of capacity development as well as raising awareness. Although availability of funds is crucial for moving forward, the highest risk is with the lack of commitment and participation.

[35] As indicated by COFI 27

**Participation**

Similar initiatives have failed in the past maybe due to lack of clear **targets and benefits, timeframe, adequate support to members and real use**. This should be avoided by clearly defining the way forward and making sure that resources are available for this priority task.

Wide participation both through provision of data, making use of it for inspections and other uses such as reporting IUU fishing activities and further enhancements of the tool is also crucial to the long-term sustainability and **usefulness** of the system.

There is a high risk of lack of participation and **commitment**, mainly from flag States based in concerns related to **confidentiality** issues. In order to address this issue, the development of Implementation Guidelines for the Global Record as a collaborative exercise (through expert meetings, etc.) would provide common grounds for understanding and reach agreement that should reduce or eliminate the issues surrounding confidentiality.

Together with a well-defined plan, **support** is needed to undertake sometimes major changes such as revision of the national legislation in order to accommodate the internationally agreed requirements for the Global Record and other instruments. The lack of support may hinder the participation of some countries in front of such task.

Despite flag State responsibility in the provision of data clearly indicated by the TC and COFI, there is an urgent need for a group of countries to **champion** the initiative by coming forward and actively collaborating in its implementation and providing data. It is often the case that States are reluctant to provide data in first place, and usually expect others to make the first steps, and only when sufficient and relevant actors are on board, full participation will be engaged. (Another related risk is that the same developed countries will be providing data that is already available somewhere else and it will not be global unless we have full coverage). In this sense, participation to the Global Record should be considered as proof of commitment to combat IUU fishing.

A voluntary initiative such as this can yield successes if usefulness of the tool is proved[36]. However, relevant data is needed to prove its usefulness and hence the need for a champion. Scarce participation will go in detriment of the success of the tool as other similar initiatives have experienced. In the long run, there is a risk of losing focus and interest if the initiative remains voluntary and does not make the shift to a properly regulated **binding instrument**.

In every situation, full commitment of COFI members is necessary to make it a success.

**Financial**

There are two aspects to the financial risk: lack of consistent funds to operationalize the system and lack of sufficient funds to provide assistance to member States.

The greater risk is encountering difficulty in setting a financial mechanism which would foster development and implementation as previously indicated.

On the other hand, national and regional vessel registers need support to enter the Global Record and the task is considerable, particularly for least developed countries in certain regions such as East and West Africa.

[36] A similar initiative, the Equasis system, experienced a wide interest from members only after operationalization of the system and start engaging participation and thus proving to be useful for the specific objective it was built for.

The programme has so far received very positive responses specifically from the different regions it has approached (Central America, Mediterranean and Southeast Asia) but also from the international community; however a more consistent financing is necessary to maintain a continuous, comprehensive and coordinated action to properly respond to regional and national needs and further develop the Global Record.

## WINDOW OF OPPORTUNITY

The Global Record is gaining momentum at international level as seen through the calls for support from different actors. The newly agreed Voluntary Guidelines for Flag State Performance and the successes being collected by the Port State Measures Agreement create the adequate international scenery to form strong synergies with these and other initiatives and have a greater impact. The opportunity should be taken for the Global Record to be advanced to the same stage as these other initiatives and ensure that they move ahead in a complementary fashion. This is also the right moment to make new partnerships and enhance collaboration for a fruitful outcome.

Taking advantage of the fact that several RFMOs are already introducing the IMO number as the UVI and that some are also providing data to the Global Record for the prototype system, thus paving the way forward, this could be an opportune moment to expedite implementation.

Contributions to support capacity building and awareness raising and wide participation of FAO Members are crucial at this point to ensure effective implementation of the Global Record at national, regional and global levels. In this regards, FAO is seeking collaborations and potential additional sources of funds for these activities while ensuring consistent support across regions and the continuous development of the system.

## CONCLUSIONS

The Global Record is positioned as one of the major tools in the international fight against IUU fishing through information sharing and increased transparency and traceability of vessels and fish products, as well as for the synergic effect of the linkage it establishes with other complementary instruments, such as the PSMA and the VG-FSP. It would be strategically positive to be able to advance Global Record objectives of progressing with Phase 1 (as instructed by COFI) in a short time frame in order to prove its usefulness. For this, full commitment and support by members is required, both in terms of participation through the provision of data and by financing the next crucial steps of the programme to make the system operational. Therefore, it is recommended that:

- COFI notes the developments in satisfying the prerequisite for the use of the IMO number as Global Record UVI for Phase 1.
- COFI supports strategic view for the Global Record as detailed in this document and provides guidance on the way forward, particularly with regards to Implementation Guidelines, Financial Mechanism and expert meetings.
- Commitment of COFI members to collaborate and come forward as champions for the trial phase and as data providers.
- Several donors to come forward to support the crucial next phase of system implementation (5 years).

# APPENDIX 1: SYNERGIES WITH INTERNATIONAL INSTRUMENTS

The Global Record is a global information tool, in line with the IPOA-IUU, that supports and creates strong synergies with other international initiatives to fight IUU fishing, particularly the Port States Measures Agreement (PSMA), the Voluntary Guidelines for Flag State Performance (VG-FSP) and market-related measures such as catch documentation schemes.

## Port State Measures Agreement

The information made available through the Global Record will support implementation of the Port State Measures Agreement by providing certified, up-to-date information on the vessel (fishing or non-fishing vessel in support of fishing activities) identification and characteristics, fishing authorizations and history of non-compliance. Particularly, this information would be crucial for the port State inspector to verify and validate information obtained through the provisions of the Agreement. The information collected and distributed through the Global Record should be that of relevance for the identification of IUU fishing activities and therefore form the basis of a risk analysis to be carried out prior to accepting port access.

The Global Record (in synergy with the PSMA) provides thus a cost-effective solution, particularly for port State inspectors of developing countries (taking into account the special requirements of developing countries), but not only (industry, civil society, etc.).

Specifically, the Global Record supports and is referred to the following provisions of the Agreement:

- Article 1 – Use of Terms: the term “vessel” refers to “fishing” or “fishing related activity” which clearly includes transshipment, transport and supply operations, information on all of which is provided for in the Global Record.
- Article 3 - Application to foreign fishing vessels: the Global Record provides information on foreign fishing vessels (otherwise not available), in a simple and fast way through this “one-stop-shop”, thus avoiding further research into unknown data sources of doubtful reliability.
- Article 4 - Coastal State sovereign right to deny entry to its ports by foreign fishing vessels (same as above).
- Article 6 – Cooperation and exchange of information: the Global Record is the neutral channel to support the necessary exchange of information among “Parties” (flag States, port States, coastal States, market States, regional economic integration organization...) but not only with due regard to confidentiality requirements.
- Article 8 – Advance request of port entry; Annex A: most information required in this annex (data fields 6-20/1 including the IMO number) as a minimum standard is available in the Global Record and can be used as a means for verifying its validity.
- Article 9 – Port entry, authorization or denial: in order to determine whether a vessel has engaged in IUU fishing activities, and decide whether to authorize or deny entry based on sufficient proof or inclusion on IUU lists (paragraphs 1 and 4), information available in the Global Record may be crucial.
- Article 11 –Use of ports: authorizations to engage in fishing or fishing related activities by flag State, coastal State or RFMO can be verified through the Global Record (paragraph 1.a,b,c).
- Article 12 – Levels and priorities for inspection: in order to determine in advance which vessels to inspect (according to paragraph 3) by comparing the information provided through Annex A against the Global Record (risk analysis, to decide whether to inspect or not).

- Article 13 – Conduct of inspections; Annex B: paragraphs a, c and h specifically refer to information available through the Global Record (vessel identification, owner, authorization, IUU evidence). Inspectors shall examine (paragraph 2.c: vessel, fish, gears, documentation), verify and validate this information (against a reliable source).
- Article 14 – Results of inspections; Annex C; Article 15 – Transmittal of inspection results; Article 16 – Electronic exchange of information; Annex D; and Article 20 – Role of Flag States: data fields 11-28 (including the IMO number) of Annex C are available in the Global Record allowing linkage with the information provided in the report of the inspection. Other information contained in Annex C such as data fields 1-9 and, particularly 37 and 38 when referring to non-compliance events, would be essential information to be shared by the port State, through the Global Record, to support identification (through risk analysis) of IUU fishing activities by other port States (visited by the vessel). The exchange of information could be done through the Global Record as a "multilateral and intergovernmental" initiative/mechanism relevant to the Agreement and preferably coordinated by FAO (as per Article 16, paragraph 2) which is consistent with Annex D. The Global Record is fully compliant with the international coding systems indicated in paragraph d of Annex D and encourages harmonization/standardization of the codes following the provisions of this Annex. Publicity of the actions taken in accordance with the provisions of the Agreement (Annex D paragraph b) is carried out by the Global Record through dissemination of results of inspections referring non-compliance issues. This could also apply to article 20 paragraph 5 (report on actions taken against IUU vessels).
- Article 17 – Training of inspectors; Annex E: the Global Record provides support necessary for the training of inspectors through capacity development activities and also through provision of relevant information as referred to in Annex E, particularly paragraph 6 (vessel history) essential for the validation of the information.
- Article 18 – Port State actions following inspection; and Article 19 - Information on recourse in the port State: Article 18 paragraph 1.a provide for prompt notification when clear grounds of IUU fishing are detected and article 19 paragraph 1 requests parties to maintain relevant information available to the public. All of this can be achieved through sharing relevant information through the Global Record.

As conclusion, the Global Record is a major tool[37] in supporting the implementation of the provisions of the Agreement through facilitating the necessary information to base decisions.

## Flag State Performance

The flag State has a primary responsibility to effectively exercise jurisdiction and control over vessels flying its flag (paragraph 2 (d) of the VG-FSP) (and nationals) carrying out fishing and fishing related activities in maritime areas beyond national jurisdiction (paragraph 3) and to exchange information with other member States (paragraph 2 (j)) in order to fight against IUU fishing.

The flag State is particularly responsible for carrying out proper registration procedures (paragraph 11) that are accessible and transparent (paragraph 12) and for the maintenance of records (paragraph 15), thus for keeping an adequate and electronic register of (fishing) vessels, for the verification of vessel records and their history, for refusing registration to vessels registered in another State, for refusing registration of vessels with a history of non-compliance (para. 13), etc. These actions aim at preventing

[37] As concluded by the Global Record Expert Consultation in 2008.

flag hopping, an activity often carried out by IUU perpetrators and which the Global Record aims at reducing.

In addition, flag States have to ensure that vessels flying its flag are authorized (para. 8, 14, 15 and 19 and Annex 1) and implement practical and effective MCS (para. 22 and Annex 2), control regimes (paragraph 20) and enforcement regimes (para. 21) (including sanctions, evidence gathering, etc.).

The IPOA-IUU clearly specifies in its paragraph 47 (also VG-FSP Annex 1, paragraph 10), that in order to grant an authorization to a vessel, this has to have a "unique, internationally recognized identification number, wherever possible, that enables it to be identified regardless of changes in registration or name over time". This identifier is the Global Record UVI or IMO number. Moreover, in IPOA-IUU paragraph 24 (or VG-FSP Annex 2 paragraphs 2 and 9) comprehensive and effective MCS regimes include maintenance of records of vessels, owners and operators as well as of MCS data with due regard to confidentiality matters.

In this regard, the Global Record provides information where to verify vessel records and history (registration and ownership) as well as history of non-compliance that can be very useful for the flag State to take decisions on registration, licensing and monitoring.

Cooperation among States to fight IUU fishing is therefore crucial (i.e., managing capacity and fishing effort, catch limits and output controls; paragraph 9), mainly through the exchange of information regarding the activities of the flag State vessels in maritime areas of the coastal State or in ports of the port State as well as through coordination of joint control and enforcement efforts.

The Global Record can act as the channel for the information exchange (such as flagging, de-registering, licensing, history of non-compliance) through a neutral and transparent process (information publicly available; paragraph 44 (b) subject to confidentiality requirements) involving the UVI as the linkage throughout different information systems as well as the use of some of the standards and measures embedded in the VG-FSP (paragraph 10: minimum information requirements; paragraph 16: international standards and requirements) which are included in the Global Record.

National authorities from flag State, port State, coastal State, and market States will find usefulness in using this tool as an effective compliance tool. At the same time, the flag State regularly updates national vessel registers and records which is beneficial for the Global Record in order to have accurate and relevant data available.

The Global Record can also have a role in providing support to developing States for the upgrade of their national registration systems and the enhancement their abilities as flag States (implement practical and effective MCS).

### Market-related Measures

With regards to the market-related measures to fight IUU fishing, the Global Record and more specifically the UVI, can provide for the traceability of fish products throughout the market chain through the inclusion of the UVI (IMO number) in all related documentation (vessel registration, licensing and monitoring, transshipment declaration, landing declaration, sales notes, transport certificates, etc.).

Traceability of fish products is the ability to identify and trace the history, application or location of a fish product by means of recorded identification through specified stage(s) of production, processing and

distribution as well as the creation and maintenance of records needed to determine the immediate previous sources and the immediate subsequent recipients of these products.

Traceability is based upon a unique identifier, data gathering and management, and data communication (with due regard to international/traceability standards). All these principles can be supported through the use of the UVI in vessel-related and fish products related documentation (eco-labelling, catch documentation schemes, etc.) to prevent IUU products from entering the trade cycle. Vessel registration, licensing and monitoring are part of the traceability system.

The ability to trace and authenticate a food product is of major concern to the food industry for various reasons. The requirements on origin control (i.e. eco-labelling) play an important role to ensure the ability of tracing the product back to its source and proving its legality. Traceability is part of the initiative in the commitment of the certified fisheries, and it requests the purchase and selling of seafood products that can be traced back to its origin.

The traceability chain has to be complete in order to trace the history of a product by means of unique identification procedures and at every level of the supply chain. The UVI could act as linkage throughout the whole process.

It is the responsibility of market States to make sure that traceability standards are followed. The international community seems to be moving towards a Global Catch Documentation Scheme (CDS) following some very successful experiences like the Catch Certification Scheme (CCS) of the EU IUU regulation.

# APPENDIX 2: THE GLOBAL RECORD SYSTEM

## Introduction and Conceptual Design

The Global Record, as indicated before, is a global repository, thus database and associated information system, of vessels which engage in fishing or fishing-related activity. It comprises only **certified, up-to-date vessel records** by the authorities deemed to be responsible for the information, and with which a formal agreement on data exchange and dissemination would be required.

As design of the Global Record system follows the guidance of the Global Record Task Force (TF), as described above in the section on "Project Task Force". The main recommendations of the TF, with regards to system development, may be summarised as follows:

- **Development of the Global Record system**, keeping in mind the need for collaboration with other initiatives to reduce duplication of work and to increase cost-effectiveness;
- **Development of a working prototype**, demonstrating the most important functions that the final Global Record system could have and providing insight into envisaged development steps in terms of technical, operational and financial aspects, to be presented to COFI 2014;
- Definition and validation of **Business Rules Specifications (BRS) and Requirements Specifications Mapping (RSM)** documents through a project in collaboration with the European Commission (EC), particularly DG-MARE, to ensure that the Global Record views and requirements are represented in the standardisation of vessel information at a global level.

Key international players, including the EC's DG-MARE, NEAFC and some national administrations have shown interest in supporting the Global Record and collaborating in its development from the very beginning. Through their cooperation, they help shape the Global Record from their experience in different areas and ensure that a comprehensive view is taken into consideration.

The key data component of the Global Record system is the **Unique Vessel Identifier** (UVI); all data sent to the Global Record must belong to a vessel which has been attributed an official UVI. The initial **information modules** being requested are grouped as follows:

- UVI and Core vessel information;
- Historical Details information;
- Authorisation information;
- Record of Non-Compliance information.

This information may be further extended as the system becomes operational and experience is gained in the uses of the information and further potential user requirements.

**Data Collection** for the Global Record will entail the transmission of data from authorised data providers on a regular basis via secure channels; the Global Record will not include any data retrieved independently from public sources. The procedure for this data collection is projected to be flexible enough to ensure that various systems built on different technologies will be able to send data, and developing countries, with limited access to high-tech systems or a stable internet connection, will find no difficulty in acting as data providers. However, in order to maintain the integrity and quality of all data received, data standards will be set, following international agreements and best practices.

**Data Dissemination** by the Global Record system will be through an information portal on a vessel-by-vessel basis, and should be to a great extent of free and open access to all users, whilst taking into consideration due confidentiality of data. A single value per data item per vessel will be displayed, in a

neutral arrangement, to reduce subjectivity and allow a rapid and unequivocal ascertainment of vessel and vessel-related information.

In carrying out the system development of the Global Record, and in order not to duplicate efforts, FAO is currently working towards a cost-effective solution, in coordination with other existing in-house initiatives, as well as external systems. An information system is being developed around an existing framework of vessel-related information within FAO, the **Vessel Record Management Framework** (VRMF). Links with systems with relevant vessel-related data will be established; for example a link to the Equasis database of cargo vessels will provide information on this category, as an initial approach, to include refrigerated transport vessels and supply vessels. Other distinct systems, such as the FAO Fishing Vessel Finder (FVF) or data provider systems, will provide further information for a vessel which may not always be directly within the scope of the Global Record but relevant to the user.

It is expected that the Global Record could become operational in the very near future, provided that availability of funds can be secured and that the participation and commitment of the FAO Member States and all relevant Regional Bodies be effective.

### Underlying Framework

An in-depth analysis was carried out to evaluate the possibility of building the Global Record on an **existing system**, given previous concerns on cost-effectiveness and duplication of effort, whilst taking into consideration its corporate status and the probability that it will become a normative application which many other systems will regard as a reference tool for their operation.

The analysis was based on several considerations and commitments that both at system design level as well as technical, which included: availability of qualified resources; avoiding unnecessary work; timeframe constraints; immediate, short and long-term requirements; present and future (foreseen) interaction with other systems and applications; and maintenance and sustainability.

It was decided to base the Global Record on the **Vessel Record Management Framework** (VRMF), an in-house framework with a wide range of functionality and the possibility of creating multiple portals to provide different interfaces and levels of access to the shared database and framework. Currently, the VRMF is the basis of several systems, each of which is built with a different role and objective, such as:

- High Seas Vessel Authorisation Record (HSVAR) developed under the Compliance Agreement;
- Fishing Vessel Finder (FVF), as described in Page 46;
- Consolidated List of Tuna Vessels (CLAV).

The Global Record system is positioned as the **hub of a future complex system**, based on, and closely linked to, the underlying framework, as shown in Figure 2 which follows.

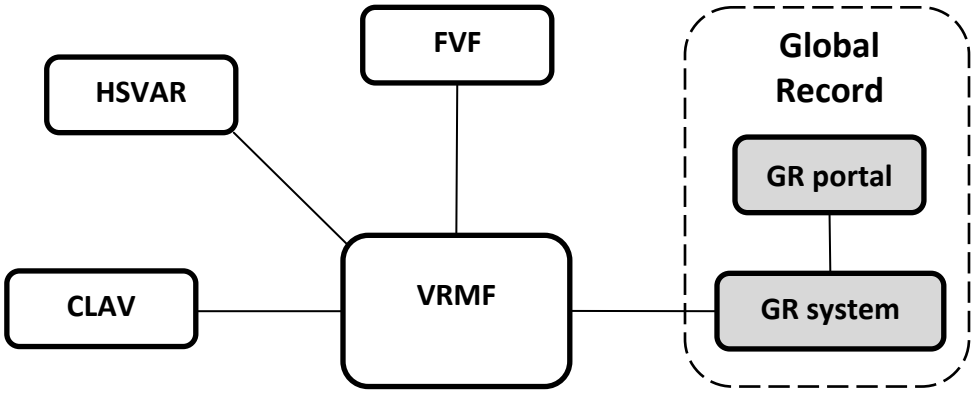



**Figure 2 – Vessel Record Management Framework**

An ample **review** of the data model and the related functionality of the VRMF was needed due to the initial design, the varying functionality and multiple access rights, the connections and links to other systems already established, as well as the made-to-measure data definitions and formats and the codification system in use of the VRMF.

The VRMF provides **different levels of access** and allows different sets of data to be public or private as the case may be, but all Global Record data will be considered as restricted within the database. Thus, Global Record data stored will be kept separate from the remainder of the information within the VRMF and will only be viewable through the Global Record system, and not any other portal, to guarantee data consistency and safeguard the purpose for which the data providers facilitate the provision of certified information to the Global Record.

The underlying structure of the VRMF, specifically the database and the engine, is in place and has been **thoroughly tested** over a long period of time and implemented through a number of portals. The Global Record is taking advantage of what is already available and the **flexible structure** of the VRMF framework is being adapted to suit the needs of the Global Record, as it developed in phased manner, to ensure that all requirements are satisfied.

## Data Management

### Information Modules

In analysing the data requirements for the Global Record, it was reiterated that a set of **core information items** for a vessel would be at the centre of the data model and various other modules would be added on, in phases, to provide information related to vessel activity and possible involvement in IUU fishing. This follows the approach indicated in the Technical Consultation of 2010 (TC), whereby the core vessel information "is at the heart of the Global Record" and, according to Recommendation 6, "... **associated information** be provided for the Global Record over time which are relevant and add value to the core purpose of fighting IUU fishing...", as shown in Figure 3 that follows.

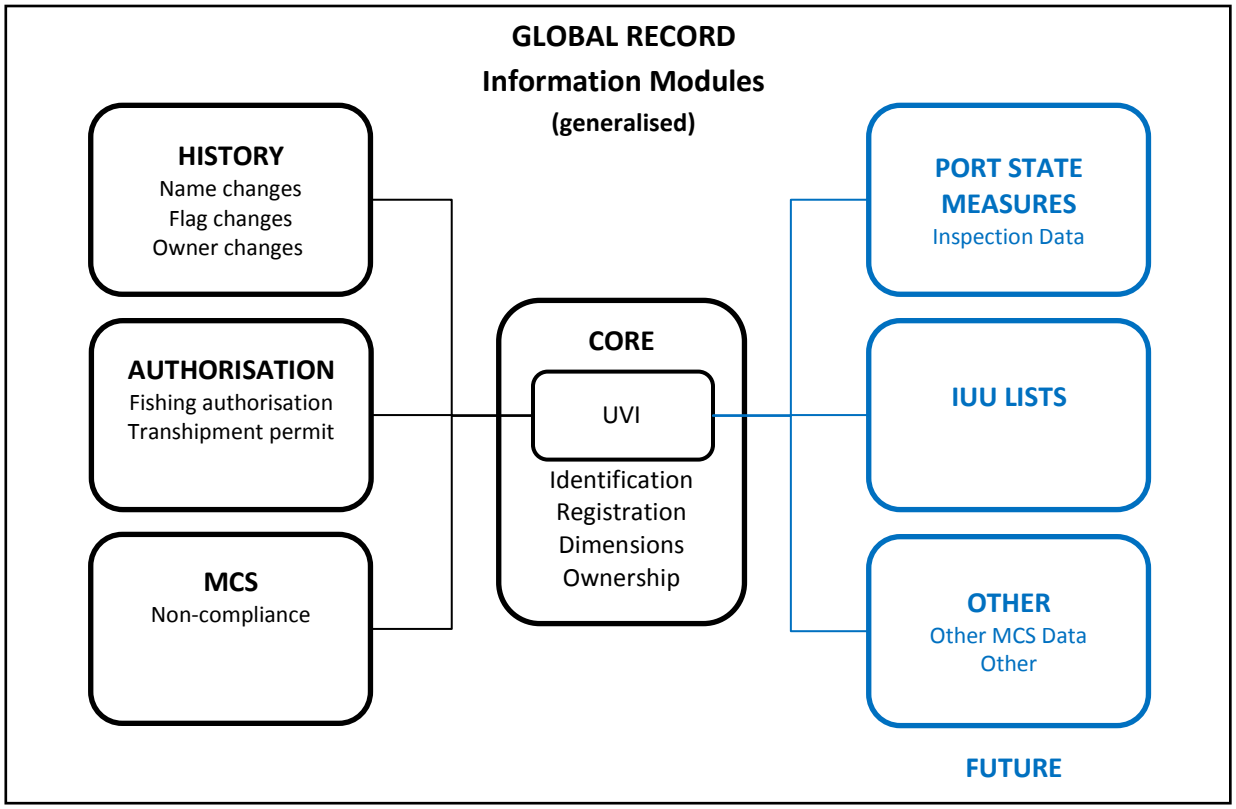



**Figure 3 - Global Record Information Modules (generalised)**

At this initial phase, apart from the UVI and Core information, which is related to vessel identification, characteristics and ownership, attention has been put on three information modules, namely:

- Historical Details
- Authorisation
- Record of Non-Compliance

The Core vessel information module contains only a single record per vessel, but each of the other related modules allows for multiple occurrences per vessel, as it may be the case that a vessel has various authorisations for different fishing activity, or has been found to have committed infringements on multiple occasions, and so on. For each information module, the Global Record will also record the **data provider's identity** and the **date of receipt**.

The reason for inclusion of such information (history, authorisation and non-compliance) is the awareness that vessel identification alone cannot provide a clear indication of the vessels' potential illegitimacy. In addition, it is useful to gain some **insight into the linkage** of various information modules from the start and to show the potential of using such an approach for the Global Record. The UVI, however, will remain "a key component of the Global Record to identify and track vessels", as described in the report of COFI 2012, and will provide the link between all the information modules, each of which will refer to a particular vessel using its UVI.

Once the Global Record begins data collection and becomes operational, the above-mentioned information modules might be refined and further information modules will probably be added. The

qualified users of the system will also be able to give further ideas as to what information would be useful to add to the Global Record and how to manage it.

### *Core*

In deciding on the fields for the Core information modules, a methodology was applied whereby the Core Information Requirements for obtaining a UVI, as defined by the TC, were contrasted with all references to vessel information in a number of **international instruments** related to combatting IUU fishing and the **regional standards** currently in use, namely:

- IHS Maritime (IHSM) requirements for issuing an IMO number;
- The FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU);
- The FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSM);
- The FAO Technical Consultation on Flag State Performance (FSP);
- The FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessel on the High Seas (Compliance Agreement) and related High Seas Vessels Authorization Record (HS-VAR).
- Vessel records belonging to various bodies, including:
    - European Commission (EC);
    - General Fisheries Commission for the Mediterranean (GFCM);
    - Indian Ocean Tuna Commission (IOTC);
    - International Commission for the Conservation of Atlantic Tunas (ICCAT);
    - Western and Central Pacific Fisheries Commission (WCPFC) ;
    - North East Atlantic Fisheries Commission (NEAFC);
    - Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).
- The Consolidated List of Tuna Vessels (CLAV) as per Workshop on Exchange of Information and Maintenance of the Consolidated List of Authorized Vessels of Tuna Regional Fisheries Management Organizations (2011).

The resulting data set of Core information for fishing vessels is as follows:

| Section | Data Field | Inclusion | Data Type |
|---|---|---|---|
| Identification | Unique Vessel Identifier (UVI)/IMO Number | Strictly Compulsory | Number |
| | External Marking | Complementary | Text |
| | International Radio Call Sign (IRCS) | Compulsory | Text |
| | Maritime Mobile Service Identity (MMSI) | Complementary | Text |
| | VMS Indicator | Compulsory | Reference |
| | VMS Details | Complementary | Text |
| Registration | Current Flag State | Strictly Compulsory | Reference |
| | Current Flag State Registration Date | Complementary | Date |
| | National Registration Number | Compulsory | Text |
| | Vessel Name | Strictly Compulsory | Text |
| | Registration Port | Compulsory | Reference |
| | Vessel Type | Compulsory | Reference |
| | Operational Status | Complementary | Reference |
| Dimensions | Length Overall (LOA) | Strictly Compulsory | Number |
| | Length Between Perpendiculars (LBP) | Complementary | Number |
| | Registered Length | Complementary | Number |
| | Beam/Extreme Breadth | Compulsory | Number |
| | Moulded Depth | Compulsory | Number |
| | Draught | Complementary | Number |
| | Gross Tonnage (GT) | Strictly Compulsory[38] | Number |
| | Gross Registered Tonnage (GRT) | Strictly Compulsory[38] | Number |
| | Power of Main Engine/s | Compulsory | Number |
| | Power Unit | Compulsory | Reference |
| | Hull Material | Compulsory | Reference |
| Construction | Year of construction | Compulsory | Number |
| | Country of construction | Compulsory | Reference |
| Ownership | Owner Name | Compulsory | Text |
| | Owner Address | Compulsory | Text |
| | Owner Nationality | Complementary | Reference |
| | Operator/Manager Name | Compulsory | Text |
| | Operator/Manager Address | Compulsory | Text |
| | Operator/Manager Nationality | Complementary | Reference |
| | Beneficial Owner Name | Complementary | Text |
| | Beneficial Owner Address | Complementary | Text |
| | Beneficial Owner Nationality | Complementary | Reference |
| | Master Name | Complementary | Text |
| | Master Address | Complementary | Text |
| | Master Nationality | Complementary | Reference |
| | Fishing Master Name | Complementary | Text |
| | Fishing Master Address | Complementary | Text |
| | Fishing Master Nationality | Complementary | Reference |
| Gears | Main Gear | Compulsory | Reference |

[38] Only one of GT or GRT is Strictly Compulsory

In addition, the data set for **refrigerated transport vessels and supply vessels** should also contain the following fields, as identified by the Equasis system that disseminates data for the global cargo fleet:

| Section | Data Field | Inclusion | Data Type |
|---|---|---|---|
| Dimensions | Deadweight | Compulsory | Number |
| | Net Tonnage (NT) | Compulsory | Number |
| | Net Registered Tonnage (NRT) | Compulsory | Number |

A single vessel may also be attributed a number of **regional identification numbers**, such as the EU Community Fleet Register (EU FR) Number or the ICCAT List Number. Therefore, there may be any number of occurrences of the below data set linked to the above record:

| Section | Data Field | Inclusion | Data Type |
|---|---|---|---|
| Identification | Regional Body | Compulsory (if applicable) | Reference |
| | Regional Body Identifier | Compulsory (if applicable) | Text |

Similarly, a number of **pictures** per vessel could be included, to assist in the identification process and for evidentiary purposes:

| Section | Data Field | Inclusion | Data Type |
|---|---|---|---|
| Picture | Picture | Complementary | File |
| | Picture Link | Complementary | URI |
| | Picture Type | Complementary | Reference |
| | Picture Details | Complementary | Text |

With regards to the tags in the Inclusion column:

- **Strictly Compulsory**: data fields which must be provided in order for a vessel record to be included in the Global Record; these fields constitute the absolute minimum requirements.
- **Compulsory**: high priority field that is required for the Global Record; however, given that the focus is on inclusion of the maximum number of vessels **at this initial phase**, a vessel record will be accepted even if this data is not available and flagged for completion at a later stage.
- **Complementary**: further fields which should be included in the Global Record if they are available, but are of a lower priority than the others.

The Reference code lists were also defined by considering all references in the instruments mentioned above and those currently in use by RFMOs and other fishing organisations, such as the use of the ISO 3166-1 alpha-3 (ISO3) country codes, International Standard Statistical Classification of Fishery Vessels by Vessel Types (ISSCFV) and International Standard Statistical Classification of Fishing Gear (ISSCFG)[39].

The Core information module is the starting point for the Global Record: whilst any other information module may be unavailable for a certain vessel, this one must be present, even if not complete, as it includes the UVI which provides the link to all the related vessel information.

[39] ISSCFV and ISSCFG from the Coordinating Working Party (CWP) on Fisheries Statistics; Handbook of Fishery Statistical Standards (http://www.fao.org/fishery/cwp/search/en). Annex L.II (ISSCFV) and Annex M.I (ISSCFG)

Taking a forward-thinking approach, the Global Record programme has been collaborating with DG-MARE of the European Commission to define Business Rules Specifications (BRS) and Requirements Specifications Mapping (RSM) documents, with the aim of standardising the vessel core information module data fields and definitions, forming a data model. The goal is to propose this model as a **UN/CEFACT certified standard**[40] which could be used in fishing-related international scenarios when exchanging information about the characteristics of fishing vessels, refrigerated transport vessels and supply vessels. Such a standard could eventually serve as a best practice for any system involved in the exchange information about such vessels, providing a uniform way to encode and transmit the information, thus increasing clarity and coherence and reducing the amount of work that will be required in the processing of such information. Although the UN/CEFACT standardisation process results in well-defined data formats and definitions, a certain level of generalization is inherent, allowing for each party that makes use of the standard to define its own implementing rules which specify whether a field is included in the data model, whether it is compulsory, which reference values it refers to, and so on. Therefore, the aim at this point is to ensure that the harmonized vessel data set is vast enough to cover national, regional and global needs, whilst providing a way for relevant systems to communicate in an unambiguous manner.

### *Historical Details*

The definition of the data fields for the historical information related to a vessel followed the same process as above. The resulting information is related to three attributes of a vessel: the flag, name and owner:

| Data Field | Inclusion | Data Type |
|---|---|---|
| Previous Flag State | Compulsory (if applicable) | Reference |
| Deregistration Date | Compulsory (if applicable) | Date |

| Data Field | Inclusion | Data Type |
|---|---|---|
| Previous Name | Compulsory (if applicable) | Text |
| Name Change Date | Compulsory (if applicable) | Date |

| Data Field | Inclusion | Data Type |
|---|---|---|
| Previous Owner Name | Compulsory (if applicable) | Text |
| Owner Change Date | Compulsory (if applicable) | Date |

Clearly, there will be vessels with no historical information as no changes would have taken place, and therefore this information module would not be applicable. However, for those with historical data, frequent changes may reveal an attempt to disguise the identity of the vessel, through flag hopping and multiple flags, for example, which is often indicative of IUU fishing.

[40] United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), a subsidiary, intergovernmental body of the United Nations Economic Commission for Europe (UNECE) Committee on Trade, aims to improve worldwide coordination and cooperation on recommendations and electronic business standards, covering both commercial and government business processes that can foster growth in international trade and related services. Its principal focus is on facilitating national and international transactions, through the simplification and harmonization of processes, procedures and information flows. Falling within the scope of the Agriculture Programme Development Area (PDA), fisheries, as part of the agricultural and food processing production and trade chain, is currently being dealt with and the vessel domain, as a crucial part of this chain, if of great interest to the group.

### *Authorisation*

The definition of the data fields for the authorisation information related to a vessel followed the same process as above. The result is as follows:

| Data Field | Inclusion | Data Type |
|---|---|---|
| Authorisation Description | Compulsory | Text |
| Authorisation Number | Compulsory | Text |
| Issued Date | Compulsory | Date |
| Issued By | Compulsory | Text |
| Authorisation To | Complementary | Reference |
| Authorisation Period Start Date | Compulsory | Date |
| Authorisation Period End Date | Compulsory | Date |
| Authorised Area | Compulsory (if applicable) | Reference |
| Authorised Species | Compulsory (if applicable) | Reference |
| Authorised Gear | Compulsory (if applicable) | Reference |
| Date of Revocation | Compulsory (if applicable) | Date |
| Reason for Revocation | Compulsory (if applicable) | Reference |

There is no restriction on the number of records for this module, per vessel. A vessel may have multiple authorisations, issued by States or RFMOs as the case may be. It should be noted that, in the case of refrigerated transport vessels and supply vessels, authorisation for transhipment would be included and any other similar fishing-related permits.

This information module is considered to be one of the most useful when evaluating the legitimacy of a vessel carrying out fishing, or fishing-related operations, as it gives an overall understanding of the approved activities for that particular vessel and may easily be compared to what, in fact, is taking place.

### *Record of Non-Compliance*

The analysis and definition of the data set for the Record of Non-Compliance information module was carried out in conjunction with NEAFC and resulted in a summary list of data fields which may be considered as an initial example.

The data set, which will be refined in the future as further information is analysed for relevance and availability, is as follows:

| Data Field | Inclusion | Data Type |
|---|---|---|
| Source | Compulsory | Reference |
| Date | Compulsory | Date |
| Location | Compulsory | Text |
| Issuing Authority | Compulsory | Text |
| Report Number | Compulsory | Text |
| Infringement / Apparent Infringement | Complementary | Reference |
| Details | Complementary | |
| Outcome | Complementary | Reference |

The Record of Non-Compliance is just one part of the Monitoring, Control and Surveillance (MSC) information set which will be included in the Global Record in due time. MCS information, and particularly offending history, is particularly relevant to the fight against IUU fishing in that it provides evidence useful in carrying out risk analysis on vessels. However, at this initial stage, only general information on the history of non-compliance, including a general description of the infringement or apparent infringement, will be included, to provide an idea of the frequency of infringement of a particular vessel, without entering into the details. Inspection reports (at sea and at port) and others (such as sighting reports) will not be uploaded as documents into the Global Record system. In addition, for the purpose of fighting IUU fishing, results of reports with positive results and no indication of incorrect behaviour are not to be included in the Global Record, as they give no added value and are very numerous and would be very cumbersome to process.

## Data Collection

The success of the Global Record is highly dependent on the compilation of reliable and wide-ranging data, covering a series of information modules relevant to the fight against IUU fishing. This section describes the suggested approach for data collection. The technical details related to data submission procedures, in particular time frames, formats, transmission channels and rules, and so on, will require further discussion and input from different entities, possibly through Expert Meetings which could produce formal guidelines for the collection of data by the Global Record.

### *Data Providers*

One crucial characteristic of the Global Record is the focus on the **receipt of data** from authorised data providers, and the fact that no data will be retrieved independently for inclusion within the Global Record. This is an important restriction, as it ensures that all the data being dealt with is certified by the source, which is responsible for its correctness and validity.

Considering Recommendation 6 of the TC: "... The TC drew attention to the **responsibilities of flag States** under international law and, therefore, recommended the provision and updating of information for the GR by the flag State." FAO member States, in their sovereign capacity and as the closest entity to the source of the information, would be responsible for collecting vessel and vessel-related data and transmitting it to the Global Record. Bearing in mind that every flag State may have a number of data reporting obligations, and it may already be communicating the requested data to other organisations, it is also possible that a flag State may officially **designate an external organisation**, such as an RFMO, to report the data to the Global Record on its behalf. However, in this case the responsibility for the accuracy of the information would remain with the flag State.

The above applies, so far, to the Core, Historical Details and Authorisation information modules. Nevertheless, the possibility of having other states (non-flag States) report on the historical information, for vessels previously within their fleet, or authorisation information, for vessels authorised to fish within their waters, should not be excluded. With regards to the Record of Non-Compliance information module, it may also be the case that the **port State or coastal State** has reported the infringement, or apparent infringement, and not the flag State. If so, the source of the information will become that State, or any entity it designates to report on its behalf, as shown in the example in Figure 4 below.

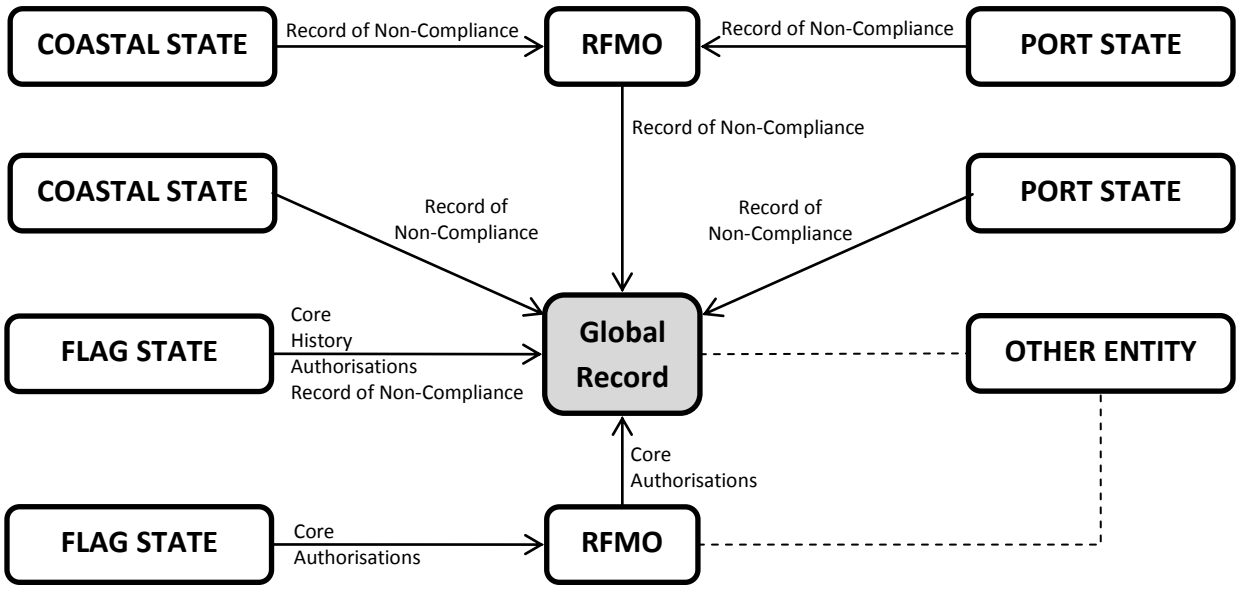



**Figure 4 - Data Providers**

Although information for different modules for an individual vessel may come from different data providers, there will only be a **single data source per record**. This means that each single authorisation in question, for example, must have all its information coming from a single data provider, as a data package. The same applies to every information module, to ensure that the integrity of the data and its trustworthiness are retained.

One issue to be considered is the role that **IHSM** could play in the verification, or data cross-checking process, of the information in the Global Record. As the managing company in charge of issuing the IMO number, IHSM is in possession of a vast range of vessel information, including most of the Core information and all of the Historical information modules. In addition, IHSM has the human resources required to confirm the verity of vessel data, by accessing various types of records, past and present, and physically surveying the vessel in question. Preliminary discussions with the company are underway in this regard.

As an initial approach, data collection will begin with those flag States which have fully fledged systems and already satisfy all, or almost all, of the Global Record requirements for Core information, and can also provide data from other information modules. In-depth analysis will be carried out to identify RFMOs or other organisations, considering also IHSM, which may take over some of the reporting from

the flag States. In parallel, recognising the importance of obtaining the widest coverage possible, and with reference to Recommendation 6 of the Technical Consultation, work will be carried out "... recognizing the ongoing need for capacity development by member States where necessary...". Thus, a capacity development framework, based on extra-budgetary contributions, has been put in place to address these needs, as further described in the main text (section on Assistance to developing States).

### *Data Communication Procedures*

Details of exact procedures to be followed in collecting data are still under discussion; however this section aims to give an overall idea of the approach to be taken, which will be developed further as different data providers come on board. An international agreement providing details on data exchange, resulting from formal dialogue, such as expert meetings, may also be considered, to eliminate the need for individual agreements and as an efficient way to deal with individual data providers.

The procedure for data collection is projected to be kept **flexible** enough to ensure that all potential data providers find an option that suits their requirements and existing systems. Initially, the possibility of tailoring the transmission mechanism to each data provider, offering several individual solutions, was considered. However, the potentially high number of data providers and prospective variance in systems in use points towards the risk of an untenable situation, whereby constant changes must be made to the system, which in turn could make it unstable. Therefore, this alternative has been put aside and will only be considered should all other options fall through. The objective is to maximize the provision of data, by getting many data providers on board, in an initial stage so as to prove usefulness of the Global Record in fighting IUU fishing, but not limited to this scope. As a consequence, flexibility, as also requested by the Technical Consultation, will be leading the first stages of the Global Record implementation.

#### General Principles

In establishing the data transmission procedures for the Global Record, emphasis must be put on the need for certified, up-to-date information. The responsibility for keeping the **data complete and current** will lie with the data provider, but the Global Record will aim to provide solutions to make this an efficient process.

The regularity of reporting is an important issue and, although the exact **frequency of data communication** is yet to be established, it is clear that data providers will have to transmit their full data set (all relevant information modules for every vessel they are responsible for) at regular intervals, but communicate any update to the information of a particular vessel as close as possible to real time. Therefore, the update rate will be determined by the dynamicity of the dataset in question. The importance of this will be more noticeable as the use of the Global Record increases, and especially as the PSM comes into force, as fisheries inspectors will need up-to-date data to verify and validate information falling under the provisions of the Agreement.

To begin with, it is suggested that an **entire information module**, or more than one, will be provided and not only the fields being changed. However, the system will retain information regarding the changes in vessel attributes, in order to build up **vessel history** over time. It is yet to be decided whether a one-time historical data import option will be provided in order to incorporate all existing history for vessels, preceding the point when the system becomes operational, into the Global Record.

#### Formats

The Global Record will provide a number of **pre-set data formats**, based on the information modules as described above, which data providers will be able to communicate. The preferred file type is an XML file, which eliminates any ambiguity in the data and allows for simplified automatic processing for insertion into the system. However, recognising that there may be data providers that are not presently prepared to create an XML file, other files such as Comma-Separated Values (CSV) and Excel files, which are more human-readable, will also be accepted. Each one of these file types will have a pre-determined format, and data providers will be able to select any one of those available. This approach will avoid extra burden on the Global Record team to implement different import routines per data provider, and update these routines according to potential changes in the formats defined by the data providers. Special cases, which could lead to further enhancement of the Global Record or require due attention, will be considered accordingly.

### Data Transmission

In keeping with the same reasoning as above, **different transmission mechanisms** will be put in place between the Global Record and the data providers. In each situation, receipt of data will be followed by **quality control checks** which will lead to data being integrated into the Global Record, if all validation is successful, or the data being refused otherwise. The data provider and the Global Record team will be informed of completion of the data upload, or given a message highlighting the problems with the data and recommending an updated version be sent.

For related IT systems to send data directly to the Global Record system, a set of **web services** will be implemented whereby the Global Record will receive data files in the specified formats and return an automatic acknowledgement on success or an error message on failure.

For data providers without the possibility of using such services, **upload functionality** will be made available through the Global Record website. Authorised users will have access to this restricted site and will be able to send files to the Global Record on behalf of the reporting States and organisations. In this case, acknowledgements or error messages could be sent to an associated email address.

Through the collaboration with the EC, specifically DG-Mare, the Global Record is also laying the groundwork for data transmission over the **FLUX** (Fisheries Language for Universal eXchange) framework. This framework, which is being implemented by the EC, provides a transportation layer for data transmission, as well as data models for different domains related to Fisheries, one of which is the Vessel domain. A FLUX message is essentially an XML file, and a common format has already been established for exchange of the vessel Core information module, as the Vessel data model, through the process described on page 35. This should eventually be extended to all other information modules. The FLUX system can be used globally by any data provider of the Global Record, and should greatly increase efficiency in data transmission. Creating a FLUX link between the Global Record and the EC will also facilitate direct communication between the Global Record and all other entities exchanging data with the EC, which are potential data providers for the Global Record. The FLUX framework already caters for the direction of messages to the appropriate recipient, sending of appropriate return messages after processing, and other such functionality; therefore, its use could incorporate a wide range of data providers without any additional effort from their part.

In the case that none of the options above satisfy the requirements of particular data providers, other mechanisms, such as sending files by **email**, could be considered in the future but will not be the focus during this first phase of implementation.

## Data Dissemination

The Global Record system's dedicated information portal is the user interface which is the main channel for dissemination of the information. This portal will take the form of a website available openly over the internet, which will provide simple, user-friendly access whilst retaining a high level of inbuilt flexibility to cope with future requirements and growth.

## Functionality

### *Viewing Information*

The ability to view all information related to a vessel, be it identification and characteristics information, history, authorisations and so on, is the most important function of the Global Record.

Vessel and vessel-related information will be disseminated on a vessel-by-vessel basis, where a particular vessel is identified either by UVI or through a search mechanism. Different **search forms** will be put in place to help find the required vessel by UVI, as the preferred option, Name or IRCS, as the simplest approach, or by any field included in any information module, in the most advanced case. A historical query will also be provided, whereby all vessels which have present or even historical information which matches the search criteria will be identified.

The presentation of the information will remain completely neutral, displaying all the **current information** related to a vessel, without making any judgement or assessment. The suggested approach is a set of tabbed pages, where each information model is displayed on a single tab, allowing the user a full overview of a single subject for a particular vessel at a glance. Functionality will also be provided to see a **track of the changes** in vessel attributes over time. For each information module, there will also be an indication of the **data provider** and **date of data reporting**.

Once a single vessel is in view, the user will also be able to **print** the related information, or **export** it to a file to be saved directly to the computer. Multiple formats will be made available for export, most likely including PDF, Word and Excel files.

### *Links to External Systems*

The Global Record programme, in the development of the system, is open to **collaboration** with other initiatives which have a similar scope to the Global Record and has been seeking out potential partners.

One important partner for the Global Record is **Equasis**, an organisation which has an information system that collects and disseminates vessel and safety-related information on the world's merchant fleet. The aim of Equasis, which is that of exchanging accurate and unbiased information to increase transparency in maritime transport, is analogous to that of the Global Record, with a difference in scope and objective as it targets the merchant fleet and not the fishing fleet. However, given that the Global Record includes refrigerated transport vessels and supply vessels, which form part of the merchant fleet, an overlap between the two systems exists. In awareness of the fact that Equasis contains a wide range of information outside the scope of the Global Record, such as information from Classification Societies and about insurance, but also material relevant to the Global Record, such as vessel identification and characteristics and presence on white and black lists of Port State Control MOUs, the development of a link between the two systems is being pursued. This will allow users of the Global Record to identify a particular refrigerated transport vessel or supply vessel through the Global Record query mechanism, and then use a deep hyperlink to open the page related to the same vessel in the Equasis website, using the UVI as a reference point. This will avoid extra data exchange and storage, whilst making the information available to the user in a simple manner. This method would be implemented to start off with, but further assessment may be carried out in the future to decide whether this is appropriate for the Global Record or not.

Using a similar approach, the Global Record system may benefit from establishing links to other external systems, in particular those belonging to **data providers**. In this manner, the use of every data source could be maximised, offering extended sets of information to the user with very little extra effort. It is

important to note that, to do so, a linking UVI must be available to skip the search process in the sourcing system.

In a complementary initiative to the Global Record, FAO has developed a system with a different role and objective that brings together fishing vessel information from the public domain. The **Fishing Vessel Finder** (FVF), developed for statistical purposes, which is also built on the VRMF, is an online tool to disseminate publicly available information on individual fishing vessels. All the information accessible through the FVF is shown as originally presented by its sources, with clear identification of data owners and date of retrieval of each detail. The system has the functionality to detect duplicate records referring to the same vessel, to the extent possible, to improve data integrity and traceability of the vessel's past. The FVF often provides several values for a single data field (as made available by different sources), and therefore it could also be used to supplement the content of the Global Record with complementary data (official and non-official). Thus, when viewing the information for an individual vessel on the Global Record portal, a link will be shown to allow interested users to view this vessel within the FVF and obtain further data which may, on careful analysis, expose indications of possible suspicious behaviour, like outdated or contradictory information on the same vessel from various sources.

### *IUU Lists*

With regards to reference to recognised IUU lists within the Global Record, **presence or absence on any particular IUU List** may immediately be flagged on the page displaying information on a single vessel within the portal, so that the user need not consult any IUU List separately. For this purpose, an IUU List information module would be designed and implemented, and the required data would be communicated to the Global Record by the owners of the IUU Lists through agreements which would have to be put in place.

Following a discussion during COFI 30 on the building up of a Global IUU List by FAO, and considering the fact that this information is of great importance for the fight against IUU fishing, it is being considered to have it included or linked to the Global Record. However, such development will only be carried out if interest is indicated by COFI members.

### *Reports*

In addition to providing information to fight IUU fishing, by increasing transparency and exchange of information and make it more difficult for IUU perpetrators to go undetected, the Global Record will become a collection of a wide range of fishing and fishing-related vessel information, all certified by member States. This will be especially true when participation in the Global Record increases and especially as further information modules are added. Therefore, apart from being an important information system to fight IUU fishing, it will also develop into an **important source of information**, such as global fishing capacity (among others) which could, for example, support the implementation of the IPOA-Capacity.

While the reporting of data is not an immediate priority of the Global Record, such functionality could be incorporated at a later stage, should it be requested by COFI members.

### *Reporting Errors*

In attempting to keep all data within the Global Record active and accurate, an arrangement could be implemented whereby qualified users of the system would be able to **report errors in Global Record data**. Although the data would not be changed, a mechanism could be put into place for the data

provider to receive a message indicating the potentially incorrect data items, allowing for a proper investigation and eventually an update of the information, if necessary.

### *Other Functionality*

The Global Record portal will include other functionality, for which a description is not necessary, including a List of Data Providers and other **standard website features** such as Contact Us, Help and FAQs and so on.

Given that the Global Record, as a global initiative, will have a user base spanning many nations, nationalities and languages, the portal, which will initially be made available only in English, will incorporate, in due time, a **multi-lingual design** to allow for the display of various languages, aiming at the six official FAO languages.

The feature set of the Global Record portal will undoubtedly be extended as information modules increase, users express interest and make their requirements known and, especially, as other initiatives such as the PSM come into force and there are new data providers and consumers.

### Access

Recalling Recommendation 6 of the TC: It was recommended, "as a general principle that vessel characteristics information be in the **public domain**". It was further recommended that "other information would be subject to some restriction if necessary, taking into consideration national legislative requirements."

It is evident that one important indicator of the success of the Global Record is the use of the system, measured by user access, which will be enhanced by a large user set, in size and scope. Only with easy availability of relevant information for all interested users will transparency and traceability be increased enough to make a difference in the identification of vessels engaging in IUU fishing and identifying their impact throughout the market chain. Therefore, to the largest extent possible, the information contained within the Global Record will be **openly accessible** to the global public through the public domain, **at no cost**. There may be restrictions, however, on the mode of dissemination, in that users may be prohibited from downloading large data sets, except under agreement with the data providers. This will ensure that automatic services are not able to consume the data being disseminated, or use it for purposes it is not intended for.

The above approach, however, does not exclude the possibility that **some of the data could remain restricted**, such as owner's details for confidentiality reasons, and accessible only after logging in as an authorised user. The data to which this constraint will be applied is largely dependent on the particular requirements of the data provider supplying the data and the national legislation or regional arrangements governing that information.

# APPENDIX 3: DATA DEFINITIONS

## Core Information

| Section | Data Field | Definition |
|---|---|---|
| Identification | Unique Vessel Identifier (UVI) / IMO Number | The unique number that is assigned to the vessel as a unique and permanent identifier. |
| | External Marking | The markings on the hull of the vessel. (Marking of fishing vessels for identification should be in accordance with uniform and internationally recognizable vessel-marking systems, such as the FAO standard specifications for marking and identification of fishing vessels.) |
| | International Radio Call Sign (IRCS) | The International Radio Call Sign of the vessel. |
| | Maritime Mobile Service Identity (MMSI) | The number used by maritime digital selective calling (DSC), automatic identification systems (AIS) and certain other equipment to uniquely identify the vessel. |
| | VMS Indicator | An indicator of whether the vessel has a VMS system on board. |
| | VMS Details | Any additional details related to VMS, including identification numbers. |
| Registration | Current Flag State | ISO3 code of the country where the vessel is registered. |
| | Current Flag State Registration Date | The date of registration of the vessel within the flag state register. |
| | National Registration Number | The registration number given by the flag state. |
| | Vessel Name | The full vessel name. |
| | Registration Port | The port (or place) of registry as recorded on the ship's papers. |
| | Vessel Type | The type of the vessel, according to the ISSCFV list. |
| | Operational Status | An indication of whether the vessel is in operation or otherwise, from a list including options such as:<br>• In Service/Commission<br>• Broken Up<br>• Total Loss<br>• Continued Existance in Doubt<br>• Laid-Up |
| Dimensions | Length Overall (LOA) | The distance, in a straight line parallel to the design waterline between the foremost point of the bow and the aftermost point of the stern of a vessel outside of the main hull. If the vessel has a bulbous bow, this is also included in this measurement. |
| | Length Between Perpendiculars (LBP) | The length of the vessel, measured from the intersection of the stem and the design waterline and the centreline of the rudder stock of that waterline. |
| | Registered Length | (i) for any vessel built after 18 July 1982, 96 percent of the total length on a waterline at 85 percent of |

| | | |
|---|---|---|
| | | the least moulded depth measured from the top of the keel, or the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline;<br>(ii) for any vessel built before 18 July 1982, registered length as entered on the national register or other record of vessels. |
| | Beam/Extreme Breadth | The width at the widest point measured at the outside of the ship's structure. |
| | Moulded Depth | (a) is the vertical distance measured from the keel line to the top of the working deck beam at side, where the keel line is the line parallel to the slope of keel passing amidships through:<br>(i) the top of the keel or line of intersection of the inside of shell plating with the keel where a bar keel extends above that line of a vessel with a metal shell: or<br>(ii) the rabbet lower line of the keel of a vessel with a shell of wood or a composite vessel; or<br>(iii) the intersection of a fair extension of the outside of the shell contour at the bottom with the centreline of a vessel with a shell of material other than wood and metal.<br>(b) In vessels having rounded gunwales, the moulded depth shall be measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwale were of angular design.<br>(c) Where the working deck is stepped and the raised part of the deck extends over the point at which the moulded depth is to be determined, the moulded depth shall be measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part. (The working deck is generally the lowest complete deck above the deepest operating waterline). |
| | Draught | The vertical distance between the waterline and the bottom of the hull (keel) of the vessel, with the thickness of the hull included. |
| | Deadweight | The actual amount of weight in tonnes that a vessel can carry when loaded to the maximum permissible draught (includes fuel, fresh water, gear supplies, cargo/catch and crew) |
| | Net Tonnage (NT) | A vessel's earning space and is a function of the moulded volume of all cargo spaces of the vessel. NT is determined according to the provisions of the |

| | | |
|---|---|---|
| | | International Convention on Tonnage Measurement of Ships, 1969 (1969 Convention). |
| | Net Registered Tonnage (NRT) | The volume of cargo the vessel can carry. NRT is pre 1969 Convention net tonnage measurement, as provided by the reporting (source) Administrations. |
| | Gross Tonnage (GT) | A function of the volume of all ship's enclosed spaces (from keel to funnel) measured to the outside of the hull framing. GT is measured according to the provisions of the International Convention on Tonnage Measurement of Ships, 1969 (1969 Convention). |
| | Gross Registered Tonnage (GRT) | The total internal volume of a vessel, where a register ton is equal to a volume of 100 cubic feet (2.83 $m^3$). GRT is pre 1969 Convention gross tonnage measurement, as provided by the reporting (source) Administrations. |
| | Power of Main Engine/s | The power of the main engine or the sum of the power of the main engines. |
| | Power Unit | The unit of measurement of the power, such as:<br>• kW<br>• HP |
| | Hull Material | The material with which the vessel hull is constructed, from the following list, for example:<br>• Wood<br>• Metal<br>• Fibreglass<br>• Other<br>• Unknown |
| Construction | Year of construction | The year when the vessel was manufactured. |
| | Country of construction | ISO3 code of the country where the vessel was manufactured |
| Ownership | Owner Name | The legal title of ownership of the vessel that appears on the ship's registration documents. |
| | Owner Address | The address of the owner, including Address, City, Postcode, Country |
| | Owner Nationality | ISO3 code of the country of nationality of the owner |
| | Operator/Manager Name | The individual or company responsible for the commercial decisions concerning the employment of a ship and therefore who decides how and where that asset is employed. |
| | Operator/Manager Address | The address of the operator/manager, including Address, City, Postcode, Country |
| | Operator/Manager Nationality | ISO3 code of the country of nationality of the operator/manager |
| | Beneficial Owner Name | The controlling interest behind the vessel and the ultimate beneficiary from the ownership. |
| | Beneficial Owner Address | The address of the beneficial owner, including Address, |

| | | |
|---|---|---|
| | | City, Postcode, Country |
| | Beneficial Owner Nationality | ISO3 code of the country of nationality of the beneficial owner |
| | Master Name | The licensed mariner in ultimate command of the vessel and responsible for its safe and efficient operation. |
| | Master Address | The address of the master, including Address, City, Postcode, Country |
| | Master Nationality | ISO3 code of the country of nationality of the master |
| | Fishing Master Name | The person responsible for the fishing operations of the vessel. |
| | Fishing Master Address | The address of the fishing master, including Address, City, Postcode, Country |
| | Fishing Master Nationality | ISO3 code of the country of nationality of the fishing master |
| Gears | Main Gear | The precise/specific gear type of the main gear authorised to be used, according to the ISSCFG list. |

### Regional Identification Information

| Section | Data Field | Definition |
|---|---|---|
| Identification | Regional Body | The regional body issuing the identifier being reported, such as:<br>• EU FR: Community fleet register number as a unique identification number of the fishing vessel within the EU<br>• ICCAT: The ICCAT list number assigned to the vessel |
| | Regional Body Identifier | The identifying codes (alphanumeric combinations) given to the vessel. |

### Picture Information

| Section | Data Field | Definition |
|---|---|---|
| Picture | Picture | The picture of the vessel. |
| | Picture Link | The link to an online location where a picture of the vessel is available. |
| | Picture Type | The type of picture, such as:<br>• Stern: A picture of the stern of the vessel.<br>• Port: A picture of the port side of the vessel.<br>• General: A general picture of the vessel. |
| | Picture Details | Any additional comment related to the picture, such as when it was taken and where. |

# APPENDIX 4: MEDIUM-TERM (5 YEAR) PROJECT PROPOSAL

This proposal is for a 5 year project which will specifically target the **System Development component** of the Global Record programme which is considered as a crucial component to advance Global Record objectives. However, additional funds would also be required (under another project) to continue providing assistance to developing countries and raising awareness of the detrimental effects of IUU fishing and the role of the Global Record in this regard. These two components will be the subject of separate proposals.

1. *General description:*

The System Development project's role within the Global Record programme will be that of carrying out the necessary core work for the advancement of the prototype into the first and operational version of the Global Record system as well as complete implementation of Phase 1.

2. *Objectives*

a. Development and implementation of a fully-fledged system, accessible online, in line with Phase 1 of the Global Record following the feedback from COFI 31 with regards to the prototype and Strategy document.
b. Set up regular exchange of data with partners and set up a pilot phase to test the system.
c. Complete the global system, with all functionality, including additional available data.
d. Make an assessment of the areas not covered and extend the system to any other possible data providers (regional or national).
e. Decide on necessary actions to be taken for implementation of Phase 2/3 and any enhancement or functionality required.
f. Provide an assessment of the *status quo* of the Global Record.

3. *Expected results and outputs*

- 1st year
  - ✓ Review of the system after COFI 2014.
  - ✓ Finalize development of an initial version of the system, based on the prototype, including the detailed analysis of few pilot data providers.
  - ✓ Evaluation of legal and technical aspects.
  - ✓ Advance, test and finalize preliminary system with few selected data providers.
- 2nd year
  - ✓ Work on data transmission mechanisms.
  - ✓ Set up regular data exchange and data validation.
  - ✓ Make system accessible to stakeholders on the web.
  - ✓ Consolidated fully fledged system.
- 3rd year
  - ✓ Maintenance of the system incorporating 1st group of data providers, and enhancements.
  - ✓ Assessment of other possible data providers (regions and/or countries) that may be ready.
  - ✓ Start integration with new data providers (expand system).

- 4th and 5th years
  - ✓ Continue inclusion of new data providers.
  - ✓ Assessment on the preparedness of countries/regions not previously covered.
  - ✓ Feasibility study on Phase 2/3.
  - ✓ Start implementation of phase 2/3 on fully working system.

*4. Resources*

In order to achieve these objectives, the following resources need to be secured to cover for:

- ✓ Core team of experts:
  - Technical manager: general design, development and management of the programme; technical guidance for development and liaison and coordination with data providers and stakeholders.
  - IT analyst developer: design, development and implementation of the system; definition of data exchange formats and standards; technical link to data providers; assistance to member States.
  - Admin/secretarial support: general administration of the project; financial issues; travel; organization of meetings.
  - Ad-hoc experts/consultants: technical advice on specific issues.
- ✓ Travel (technical meetings with data providers, etc.)
- ✓ Expert meetings and feedback on system development

| **Preliminary/prospective cost table (annual cost in USD)** | |
|---|---|
| Technical manager | 200,000 |
| IT analyst developer | 165,000 |
| Admin/secretarial support (part-time) | 40,000 |
| Ad-hoc experts/consultants | 50,000 |
| Travel | 60,000 |
| Other (visibility, servicing costs, technical support services...) | 50,000 |
| **TOTAL** | **565,000 USD annually** |

This project will be under the umbrella of the FAO Global Record programme, the overall coordination of which is the responsibility of an FAO Staff Member (secured from FAO Regular Programme, and therefore not quoted in the project budget).

*5. Preliminary calendar of activities:*

| 1st year | 2nd year | 3rd year | 4th year | 5th year |
|---|---|---|---|---|