

COMMITTEE ON FISHERIES

SUB-COMMITTEE ON FISHERIES MANAGEMENT

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ADDRESSING ILLEGAL, UNREPORTED AND UNREGULATED FISHING IN THE CONTEXT OF EFFECTIVE FISHERIES MANAGEMENT

Executive Summary

This document revisits the terms illegal, unreported and unregulated (IUU) fishing, as understanding and providing an operational definition to each component of IUU fishing is an important step towards tailored action to enhance fisheries management. FAO's work in developing methodologies and indicators for the estimation of the magnitude and impact of IUU fishing is outlined, and the roles and requirements of monitoring, control, surveillance and enforcement in fisheries management are reviewed. The capacity development needs to combat IUU fishing are also addressed, and a summary report of FAO's assistance is presented.

Suggested action by the Sub-Committee

The Sub-Committee is invited to:

- discuss the three components of illegal, unreported and unregulated (IUU) fishing and their impact on achieving sustainable fisheries;
- note the progress made on producing guidance for Members on methodologies and indicators for the estimation of the magnitude and impact of IUU fishing and encourage their application;
- identify key actions to strengthen cost-efficient, innovative and tailored monitoring, control and surveillance mechanisms for effective fisheries management, together with effective enforcement schemes to ensure compliance;
- discuss the challenges faced by Members in combatting IUU fishing consistent with international standards and requirements and note capacity development needs in this regard.

Queries on the substantive content of this document may be addressed to:

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I. REVISITING THE TERMS ILLEGAL, UNREPORTED AND UNREGULATED FISHING

1. Addressing illegal, unreported and unregulated (IUU) fishing in all types of fisheries, including small scale fisheries (SSF), is crucial as it undermines efforts at national, regional and global levels to achieve effective fisheries management.¹ The Code of Conduct for Responsible Fisheries² and related international instruments consistently underscore the need to combat IUU fishing – a composite term describing acts and omissions considered to be insidious, threaten sustainable resource use, undermine the integrity of ecosystems and economies, harm livelihoods that depend on fisheries, and compromise food security and nutrition. Sustainable Development Goal (SDG) 14³ and its targets 14.4 and 14.6 affirm States' commitments to combat IUU fishing, thus contributing to the conservation and sustainable use of oceans and aquatic resources. Despite the longstanding and wide usage of the collective term “illegal, unreported and unregulated fishing” and its abbreviation “IUU fishing” in the global fisheries nomenclature, such term is often conveniently applied to illegality only (i.e. the contravention of fisheries laws), whilst frequently unregulated and unreported fishing may be more of a concern and are overlooked. Understanding and giving an operational definition to each component of IUU fishing is an important first step towards tailored action to enhance fisheries management, especially considering the particularities of national legal, management, institutional, operational and governance systems.

2. The three components of IUU fishing may seem straightforward but a closer look unravels their broad, complex and overlapping nature. The reference to “fishing” implies that IUU fishing is all about fishing activities. However, “**unreported fishing**” is not, *sensu stricto*, a fishing activity as it refers to the act of non-reporting or misreporting the location, date and time of fishing, and the amount and species of the catch (i.e. unwanted catch). In this regard, Tsamenyi et al,⁴ suggested that the term “unreported fishing” be rearticulated as: “non-reporting of fishing activity” (i.e. non-reporting of location/date/time of fishing), and “non-reporting of catch”, “underreporting of catch”, or “misreporting of catch”. This will enable targeted action that snares these four separate forms of “unreported fishing”, commencing with regulating them. Another peculiarity concerning the term “unreported fishing” is that where, for instance, non-reporting or underreporting of fishing activity or catch occurs in contravention of applicable laws, these occurrences are, technically, also “illegal fishing” simultaneously. In the situation where this is a fact, enforcement action should be taken. Conversely, if these activities are not prescribed as violations in laws, then they can also be considered concurrently as “unregulated fishing”.

3. **Unregulated fishing**, can be considered as a situation of governance failure i.e. activities that are not regulated or that are taking place without a fisheries governance framework.⁵ This links “unregulated fishing” to the situation where there is an absence of regulation. This naturally requires management authorities to initiate regulatory action including by establishing appropriate policy and legal frameworks. In taking management or regulatory action in Small Scale Fisheries (SSF), care must be exercised such that informal management or governance through customary practices or traditions or self-regulation, especially by Indigenous Peoples and local fishing communities, are taken into account.

4. The term “**illegal fishing**” is the easiest of the three IUU fishing components to understand. It simply means, engaging in the act of fishing and related activities contrary to applicable laws. Where such fishing continues to occur, the response should be the taking of appropriate enforcement action or addressing the underlying reasons for lack of or ineffective enforcement including increasing penalties

¹ Effective fisheries management is defined as “the integrated process of information gathering, analysis, planning, consultation, decision-making, allocation of resources and formulation and implementation, with enforcement as necessary, of regulations or rules which govern fisheries activities in order to ensure the continued productivity of the resources and the accomplishment of other fisheries objectives.” See FAO. 1997. FAO Technical Guidelines for Responsible Fisheries. No. 4. Rome, FAO, 82pp

² www.fao.org/3/v9878e/v9878e.pdf

³ <https://sdgs.un.org/2030agenda>

⁴ www.fao.org/3/i5028e/i5028e.pdf

⁵ www.fao.org/3/i5028e/i5028e.pdf

for serious violations or building capacity to investigate, remedy non-compliance and prosecute violations.

5. Clarifying the meaning of IUU fishing also helps in obtaining a better or more realistic assessment of the magnitude and impact of IUU fishing. This assessment can reveal the critical areas or types of fisheries, where and what interventions should be made as a priority and point out the challenges that can be concomitantly targeted through enhanced policy, legal, institutional and operational frameworks including monitoring, control and surveillance (MCS), information exchange systems and enforcement for sustainable fisheries management.

II. ASSESSING THE MAGNITUDE AND IMPACT OF IUU FISHING

6. FAO's work on developing methods for the estimation of IUU fishing dates from February 2015⁶ when it convened an expert panel outside of Rome for a three-day workshop. The workshop was prompted by global estimates of IUU fishing that were garnering widespread attention, including a global estimate of illegal and unreported fishing⁷ (11-26 million tonnes of catch, equating to USD10-23.5 billion in value annually for 2000-2003). The workshop recognized the value of developing standardized methods that could support ongoing efforts towards new and updated estimates for various regions, species and fisheries. However, there was considerable debate about what such IUU fishing estimates should include, and whether this would be a feasible or even useful exercise given data and analytical capabilities available to most fisheries.

7. The immediate result of the workshop was to commission a review of existing studies to assess their methodological strengths and weaknesses and the possibilities for combining them into a global estimate⁸. This study concluded that global estimates are, by their nature, coarse approximations and while initially useful for raising awareness the focus should shift to smaller scale estimates to assist in developing practical fisheries management measures. To better guide regional, national or sub-national IUU fishing estimation studies FAO began work on a series of *Technical guidelines on methodologies and indicators for the estimation of the magnitude and impact of illegal, unreported and unregulated (IUU) fishing*. The first volume, "*Principles and approaches*", introduces key concepts and examples, and helps to begin scoping how the estimate will be constructed⁹. The second volume, "*A practical guide to delivering an estimate*" outlines a logical, step-by-step progression from study planning to execution to presentation of results¹⁰. The third volume, "*A catalogue of examples*" explains specific data sources and calculation steps used in constructing various types of estimates¹¹.

8. A number of insights regarding the benefits and limitations of IUU fishing estimation exercises have arisen from, and evolved concurrently with, the development of these technical guidelines. **The first is that estimates at any scale (global, regional, national or local) can be useful in drawing attention to the problem of IUU fishing but may not assist authorities with the design of countermeasures and the assessment of their performance.** This is particularly true for some methodologies which are not granular and do not build upward from specific activities to a total IUU fishing amount. This point was first recognized in the expert panel workshop, amplified in the technical guidelines' series, and borne out by a large number of recent estimation studies.

⁶ www.fao.org/3/i5028e/i5028e.pdf

⁷ <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0004570>

⁸ FAO. In prep. Technical guidelines on methodologies and indicators for the estimation of the magnitude and impact of illegal, unreported and unregulated (IUU) fishing. Volume 3 – A catalog of examples for estimating IUU fishing. (Annex 1 - Review of studies estimating illegal, unreported and unregulated fishing and the methodologies utilized. A study commissioned by FAO to Poseidon Aquatic Resource Management Ltd. in 2016.)

⁹ <https://doi.org/10.4060/cc6434en>

¹⁰ FAO. In prep. Technical guidelines on methodologies and indicators for the estimation of the magnitude and impact of illegal, unreported and unregulated (IUU) fishing. Volume 2 – A practical guide for delivering an estimate.

¹¹ FAO. In prep. Technical guidelines on methodologies and indicators for the estimation of the magnitude and impact of illegal, unreported and unregulated (IUU) fishing. Volume 3 – A catalogue of examples.

9. **The second insight is that IUU fishing estimates can differ greatly depending on what activities they include, and in many cases, the estimated category labels do not correspond neatly with the three components of the IUU fishing definition** (which are themselves ‘broad, complex and overlapping’ --see preceding section). Many studies do not clearly define which of these components they are attempting to estimate or create new categories that better reflect their fishery-specific compliance schemes. For example, one study of the South Pacific tuna fishery¹² found that most (89%) IUU fishing was associated with misreporting, and very little (5%) with unlicensed (illegal) fishing. However, the study noted that, as discussed in the preceding section of this paper, the allocation of misreported catch to a specific component of the IUU fishing definition is not straightforward since misreporting can be considered illegal fishing (rather than unreported fishing) if it occurs in contravention of applicable laws. Furthermore, the low estimates of unlicensed (illegal) fishing in South Pacific tuna fisheries must be considered in the context of their industrial nature and advanced MCS systems. In contrast to this emphasis on misreporting in South Pacific tuna fisheries, illegal fishing was found to be the major component of concern in two other recent studies of industrial-scale, offshore North Pacific fisheries which are less rigorously monitored¹³. Furthermore, illegal fishing remains a significant issue particularly in border zones of many Asia-Pacific countries¹⁴.

10. **The third insight is that even when methods are applied consistently over time, estimates may vary due to changes in input data quality or quantity making it difficult to compare between studies.** The Pacific tuna fishery study described above attributed the majority of change in IUU fishing estimates between 2016 and 2020 to changes in the availability of data sources. This suggests that even consistent methodologies may not produce directly comparable estimates between fisheries or over time. A desire for this type of repeatable benchmarking, in combination with the difficulty of obtaining fishery-specific data across multiple jurisdictions, recently led to the creation of an IUU Fishing Risk Index designed to score 152 countries in a standardized manner¹⁵. But to achieve this the index utilizes public domain information or expert surveys and is based on metrics that are sometimes insensitive or subjective measures of the risk of IUU fishing rather than its true prevalence. This illustrates an important example of the potential trade-offs between ease of application and technical rigour when quantifying IUU fishing.

11. Having gained these insights into the strengths and weaknesses of IUU fishing estimation studies, FAO’s latest volume in the series of technical guidelines shifts the focus from quantitative estimates to indicators. While IUU fishing estimates can help to mobilize the public sentiment, political will, technological development and financial resources necessary for improved MCS systems, the indicators approach focuses on helping fisheries authorities use their own MCS data to examine the effectiveness of MCS measures, identify emerging threats and ensure resources are channeled where they are most needed. This latest volume, entitled “*Developing and using indicators of performance in fighting IUU fishing*”¹⁶ demonstrates how to use national MCS datasets to develop and track metrics that highlight potential issues and trigger further analysis, but do not necessarily result in a conclusion about the level of IUU fishing (for example, an indicator could be the number of suspected unauthorized transshipments). FAO’s proposed indicator framework will help fisheries authorities design their own easy-to-compile detection, coverage and investment indicators using four case studies as examples. Once populated, the set of indicators can also be used as a tracking dashboard, a means of stakeholder consultation and a mechanism for regional cooperation in combatting IUU fishing. FAO is anticipating the development of tools and curricula to support the indicators approach and seeks to identify countries interested in testing such an approach through workshops planned for 2024.

¹² <https://mragasiapacific.com.au/wp-content/uploads/2021/12/ZN2869-FFA-IUU-2020-Update-final.pdf> .

¹³ <https://www.sciencedirect.com/science/article/pii/S0308597X17303998>;
<https://www.science.org/doi/10.1126/sciadv.abb1197> .

¹⁴ <https://www.fao.org/3/cb2640en/cb2640en.pdf>

¹⁵ <https://globalinitiative.net/wp-content/uploads/2021/12/IUU-Report-2021.pdf>

¹⁶ FAO. In prep. Technical guidelines on methodologies and indicators for the estimation of the magnitude and impact of illegal, unreported and unregulated (IUU) fishing. Volume 4 – Developing and Using Indicators of Performance in Fighting IUU Fishing.

III. MONITORING, CONTROL, SURVEILLANCE AND ENFORCEMENT

A. Monitoring, control and surveillance: their role in fisheries management

12. Understanding the importance and role of Monitoring, Control, and Surveillance (MCS) in achieving effective fisheries management requires an understanding of: a) the dynamics of the fisheries sector and its relations with the environment and ecosystems; b) activities and characteristics across the value chain (i.e. preharvest, harvest, post-harvest); and c) temporal and spatial characteristics of fishing and fishing related activities. Detailed knowledge of different fisheries including SSF, all stakeholders, their roles, and the manner in which they interact will also assist in the identification of priority needs for the design and implementation of appropriate strategies, plans, operations, processes and procedures for MCS.

13. The effective management of fisheries is highly dependent on reliable information and data, which are essential to risk assessment, decision-making and adaptive management. MCS not only provides a framework for the collection of such information and data but promotes a culture of compliance with fisheries management plans and regulations to achieve sustainable fisheries. States must therefore have adequate means to conduct MCS and developing States, in particular, often face various challenges, the key elements of which are listed in Annex 1. FAO has supported more than 20 States in strengthening their MCS systems by addressing various aspects of such challenges and developing their institutional and operational capacity, thereby enhancing their performance as flag, port, coastal and market States.

14. In order to address the three components of IUU in small-scale fisheries, there is a need to design and implement MCS mechanisms and processes that are cost-efficient and suitable for the socio-economic and cultural contexts in which SSF operate¹⁷.

B. MCS requirements and the role of enforcement

15. The three components of the MCS are fully interlinked as a whole and should not be viewed as standalone or disparate from one another, with each one of the components having its specific requirements.

16. In cases where non-compliance with a fisheries management regulatory framework is detected through MCS, enforcement is required to translate the benefits of MCS into actionable and effective measures against perpetrators of non-compliance, thereby safeguarding the sustainable fisheries management plans in place. The absence of a combination of adequate MCS and effective enforcement, would render fisheries management incapable of achieving sustainability. In this regard, the following set of elements need to be in place:

17. **Monitoring** (e.g. the collection, measurement and analysis of fishing related information including catch, species composition, fishing effort, bycatch, discards, area of operations which are primary data that fisheries managers use to arrive at management decisions) requires the use of technology, human resources, processes and procedures to gather, store, analyse and use data and information pertaining to fisheries and fisheries related activities.

18. **Control** (i.e. the specification of the terms and conditions under which resources can be harvested) requires an effective regulatory framework at the national or regional level. Control may, where it is considered appropriate, constrain activities by implementing rules on, *inter alia*, fishing effort, access to waters, fishing gears and seasons.

19. **Surveillance** (i.e. the checking and supervision of fishing activity to ensure that regulatory frameworks and terms, conditions of access and management measures are observed) is achieved by the

¹⁷ See COFI:FM/XXX/2024/Inf.6

organized application of technical and human means to gain real-time or near real-time observations of activities taking place, either within a national jurisdiction or in areas beyond national jurisdiction.

20. **Enforcement** plays a fundamental role so that MCS systems can meet their objectives. It is required where there is an actual or suspected contravention of, or non-compliance with, measures and involves imperative action to stop or correct the action and/or impose dissuasive sanctions. Enforcement requires supporting regulatory frameworks that establish effective administrative and/or criminal processes to discern facts, establish culpability and impose sanctions of adequate severity to deter future violations.

C. MCS and the 2009 FAO Agreement on Port State Measures and complementary international instruments and regional mechanisms to combat IUU fishing

21. The 2009 FAO Agreement on Port State Measures to prevent, deter and eliminate illegal, unreported and unregulated fishing (PSMA) is a specific agreement that contributes to MCS by providing a legally-binding framework for the implementation of fisheries related port State measures. In particular, it provides for the integration of port State measures with the wider schemes of port State control, the obligation for an advance request to be submitted by foreign flagged vessels seeking access to a port of a party to the PSMA, giving port States the right to refuse entry or grant entry conditional to an inspection, and suspend the use of port pending investigations. The PSMA also provides a framework for information gathering and exchange, together with a harmonized system of follow-up action, all elements that lie at the core of effective MCS.

D. MCS Resource Materials

22. To support countries in the development of adequate MCS systems, FAO has developed a detailed “*Checklist of MCS systems, operations, procedures and tools to combat IUU fishing*”¹⁸ covering 50 topics across eight thematic areas.

IV. CAPACITY DEVELOPMENT NEEDS TO COMBAT IUU FISHING

23. In 2017, in response to calls from COFI to promote the implementation of international instruments to combat IUU fishing, and to address Members’ requests for assistance, FAO launched a global capacity development programme to support the implementation of the PSMA and complementary instruments. The Programme is aligned with SDG target 14.4 and 14.6 and addresses Part 6 of the PSMA¹⁹, whilst extending also to non-Parties.

24. Through the Programme, FAO:

- Assisted over 50 countries in strengthening their capacity to more effectively combat IUU fishing in line with international fisheries instruments. A summary of the assistance delivered under the Programme is given in Annex 2.
- Contributed to global and regional processes aimed at promoting a more conducive environment to prevent, deter and eliminate IUU fishing, including: (i) the development of the Voluntary Guidelines for Transshipment; (ii) the work of the Joint FAO/ILO/IMO Ad hoc Working Group on IUU Fishing and Related Matters (JWG); (iii) the establishment of a cooperation network among members of the Community of Portuguese Speaking Countries on combatting IUU fishing; (iv) a study on the implementation of the Compliance Agreement; (v) several global

¹⁸ In preparation for publication.

¹⁹ Part 6 of the PSMA addresses the requirements of developing States in relation to the implementation of port State measures consistent with the Agreement.

and regional PSMA statutory and related meetings; (vi) communication and awareness raising, on the benefits of implementing the PSMA and complementary instruments.

- Developed and maintained global tools and resources, which also facilitate capacity development, including: (i) the PSMA applications for designated ports and contact points; (ii) the PSMA Global Information Exchange System (GIES); (iii) the Global Record of Fishing Vessels, refrigerated Transport Vessels and Supply Vessels; (iv) the Global Capacity Development Portal; (v) FAO's database on port State measures (Port-Lex); (vi) a fisheries training programme on the implementation of international instruments; (vii) a series of technical guidelines on matters such as the estimation of the magnitude and impact of IUU fishing, coastal, flag and port State responsibilities, and market related measures.²⁰

25. FAO receives numerous requests for assistance from Members to strengthen their capacities to combat IUU fishing in line with international standards and requirements. The 35th Session of COFI urged FAO to continue to strengthen its vital technical and capacity building work related to IUU fishing through the Programme. To respond to such requests, subject to funding availability, future activities may include: (i) expanding country-level assistance to include new internationally-agreed measures, including those on transshipment and relevant regional measures; (ii) intensifying trainings in areas such as fisheries law, MCS and operations, interagency cooperation and information sharing; (iii) enhancing global and regional cooperation, coordination and information sharing; (iv) assisting the Parties to the PSMA in implementing their decisions, including the Bali Strategy and the convening of statutory meetings; (v) following up on the recommendations of the sessions of the FAO-IMO-ILO Joint Working Group on IUU fishing and related matters ; (vi) addressing other priorities and recommendations as guided by COFI and the Meetings of the Parties to the PSMA.

²⁰ www.fao.org/port-state-measures/en/

Annex 1**MCS Challenges**

The main challenges countries face in implementing effective MCS include financial constraints, human and material capacity weaknesses and governance issues such as absence or insufficient cooperation and collaboration between national agencies involved in the fight against IUU fishing, as well as a lack of political will.

MCS Thematic Area		Key Challenges
1	General description of the fisheries sector	Lack of reliable information about fishing and fishing related activities.
2	MCS and enforcement framework	Political will, institutional and legal frameworks, weak links in the application of port, flag, coastal and market State responsibilities.
3	Fisheries Monitoring Centre	Insufficient and untrained personnel, skills shortages, budget weaknesses, lack of 24/7 coverage.
4	Human resources	Training, competences, lack of staff.
5	Training programmes and capacity building	Budget, lack of experienced trainers, no curricula, project support not stable, intermittent.
6	Information collection mechanisms	Lack of processes and procedures to collect the requisite information and data. Lack of human capacity to identify what is required in terms of data and information.
7	MCS means	Finance for initial capital outlay. No operational or maintenance budgetary provision. Long term sustainability of project support, intermittent projects.
8	Standard Operating Procedures (SOPs)	Lack of technical knowledge to identify activities for SOPs, standardization, interagency collaboration, capacity weaknesses affecting implementation.

Annex 2**FAO Global Capacity Development Programme to support the Implementation of the PSMA and Complementary Instruments: Country level assistance (as of July 2023)**

Subject Area	Recipient countries
Needs assessment	47
National Plans of Action to Prevent, Deter and Eliminate IUU fishing	2
Legal review	25
Legal support	22
Legal training	25
MCS review	19
Strengthening of MCS	22
MCS training	9
Port inspection training	7
Flag State performance	7
Development of catch documentation schemes	5
Strengthening interagency coordination	13