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COMMITTEE ON FISHERIES

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OUTCOMES OF THE INTERNATIONAL SYMPOSIUM ON FISHERIES SUSTAINABILITY: STRENGTHENING THE SCIENCE- POLICY NEXUS

Executive Summary

This paper summarizes the outcomes and outputs of the *International Symposium on Fisheries Sustainability: strengthening the science-policy nexus* that took place at FAO Headquarters, Rome, Italy, from 18–21 November 2019. The Symposium was held to help build a new vision for the sustainability of capture fisheries, and help the sector respond to the complex and rapidly changing challenges facing society. It was structured in eight thematic sessions, each addressing a number of strategic questions. The aim of this document is to synthesize the Symposium outcomes, in particular the cross-cutting key messages and recommended actions that emerged from the different sessions on how to drive sustainability forward in marine and inland fisheries. Many of these actions are also pertinent when dealing with unexpected crisis, such as the COVID-19 pandemic, as they are intended to build resilient and sustainable food systems that leave no one behind. The report of the Symposium is complemented by the following documents: Draft Declaration for sustainable fisheries and aquaculture (COFI/2020/2.3); Summary report of the International Symposium on Fisheries Sustainability (COFI/2020/Inf.8).

Suggested action by the Committee

The Committee is invited to:

- comment on the outcomes, outputs and recommendations of the Symposium and provide guidance on how these may inform future priorities to be addressed by FAO in order to enhance the support to Members in improving fisheries sustainability (COFI/2020/11).
- consider the outcomes, outputs and recommendations of the Symposium when discussing the 2020 Declaration for Sustainable Fisheries and Aquaculture (COFI/2020/2.3) for endorsement.
- take into account the recommendations of the Symposium within the context of the debate on the objectives, functioning and terms of reference of a potential new COFI Sub-Committee on Fisheries Management (COFI/2020/10).

- provide recommendations to develop a new vision and strategy for fisheries sustainability in the twenty-first century that promotes the objectives of the 2030 Agenda for Sustainable Development, in particular the Sustainable Development Goal (SDG) 14 and the indicators under FAO custodianship. (COFI/2020/5, COFI/2020/Inf.11).
- advise on possibilities for future support and potential extra-budgetary funding for the work programme that help address the Symposium recommendations.

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I. INTRODUCTION

1. Capture fisheries is the only major food production industry that relies on exploiting wild populations; the sustainability of the sector faces more and more challenges from a rapidly changing world, which include population growth, a degrading environment and diminishing biodiversity, and a number of anthropogenic impacts, including climate change, as well as the multiple impacts from the COVID-19 pandemic.

2. Fish and fish products are crucial for food, nutrition and livelihood security around the world; and in particular, for the nutrition of many Low Income Food Deficit Countries (LIFDCs) in Africa, Asia and Oceania. Moreover, in the last 50 years, per capita fish consumption has doubled, and dietary recommendations include a significant increase in fish consumption¹. However, the fraction of marine fish stocks exploited within biologically sustainable levels continues to decline, especially in least developed regions, and the percentage of stocks fished at biologically unsustainable levels increased to 34 percent in 2018². In addition, knowledge of the sustainability status of inland fisheries, which are increasingly affected by the demand for fresh water, is limited.

3. It is clear that the fisheries sector is at an important crossroad. A new vision for capture fisheries that better reflects the decisive role of the sector in future economic development, nutrition, food and livelihoods security, including in the context of the 2030 Agenda for Sustainable Development and the United Nations Decade of Ocean Science for Sustainable Development (2021-2030) needs to be developed.

II. OBJECTIVES, OUTCOMES AND OUTPUTS

4. *The International Symposium on Fisheries Sustainability: strengthening the science-policy nexus* (18-21 November 2019, Rome, Italy) was held to discuss and support the development of a new vision for capture fisheries sustainability in the 21st century.

5. The outputs of the Symposium include the publication of a comprehensive booklet with relevant background information, session description and contents and main challenges addressed by each session, prepared ahead of the meeting in coordination of the Advisory board members and the session leads; a dedicated chapter in the FAO flagship publication on the State of World Fisheries and Aquaculture 2020 with the main key messages of the sessions; the proceedings for the meeting with the summaries and recommendations emerging of the sessions, and this document for the 34th Session of the Committee on Fisheries.

6. The debates, key messages and recommended actions that emerged from the Symposium were expected to contribute to:

- a) promoting strategies for synergistic and supportive actions and policies at multiple scales to support sustainable fisheries while meeting international commitments;
- b) reinforcing commitments to the FAO Code of Conduct for Responsible Fisheries and its associated instruments, and lead to new FAO partnerships;

¹ Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., *et al.* 2019. Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet*, 393(10170): 447–492.

² FAO. 2020. State of the World Fisheries. Food and Agriculture Organization of the United Nations, Rome Italy

- c) assisting countries debate and consider a new COFI Sub-Committee on Fisheries Management at COFI 34;
- d) supporting the planning process of the UN Decade of Ocean Science for Sustainable Development (2021-2030) to join efforts, in moving towards an Ocean We Need for the Future We Want; and
- e) contributing to the high-level policy statement on the role, value and sustainability status of global and regional fisheries in the 21st century, to be endorsed during the 25th anniversary celebrations of the Code of Conduct for Responsible Fisheries, during COFI 34.

7. The outcomes and outputs are also expected to support in addressing relevant targets and objectives set in different conventions and international agreements, as well as to assist FAO in identifying practical measures to implement strategic actions such as the Blue Growth and Hand-in-Hand Initiatives. In particular, the Symposium addressed critical issues within the Agenda 2030 for Sustainable Development and the global call for a Decade of Action to deliver, inter alia, the following Sustainable Development Goals: SDG1 – No poverty, SDG2 – Zero hunger, SDG3 – Good health and well-being, SDG4 – Quality education, SDG5 – Gender equality, SDG8 – Decent work and economic growth, SDG9 – Industry, innovation and infrastructure, SDG10 – Reduced inequalities, SDG11 – Sustainable cities and communities, SDG12 – Responsible production and consumption, SDG13 – Climate action, SDG14 – Life below water, SDG15 – Life on land and SDG16 – Peace and justice.

III. SYMPOSIUM OVERVIEW

8. The International Symposium on Fisheries Sustainability attracted participation from nearly 1000 individuals from academia, the private sector, government, international organizations, civil society and non-governmental organizations, as well as 107 speakers and panelists from a wide range of regions and sectors, providing diversity and gender balance. Together they reflected a strong representation of all fishery stakeholders from around 100 countries, providing an invaluable source of knowledge and expertise for the Symposium outcomes and outputs.

9. The Symposium was structured around eight thematic sessions in which a number of questions were addressed in plenary discussions. The sessions' themes were:

Session 1	The status of global and regional fisheries sustainability and its implications for policy and management
Session 2	Sustainable fisheries: linking biodiversity conservation and food security
Session 3	Fish in food security and nutrition: from tide to table
Session 4	Securing sustainable fisheries livelihoods
Session 5	The economics of fisheries
Session 6	Fisheries management in the face of a changing climate
Session 7	Fisheries information systems and new technologies
Session 8	Policy opportunities for fisheries in the 21st century
Session 9	Summary of the Sessions

10. The Symposium also included an Innovation Forum and side events related to fisheries sustainability and marine-derived products from different perspectives, offering an opportunity to

showcase best-practices and innovative approaches to fisheries sustainability and to network among Symposium attendees. In addition, artwork displays from different artists promoted ocean conservation through art.

11. The Symposium received technical and financial support from FAO and the following partners: Conxemar, Environmental Defense Fund (EDF), European Commission, International Council for the Exploration of the Sea (ICES), Marine Stewardship Council (MSC), Minderoo Foundation, National Fisheries Institute (NFI), National Oceanic and Atmospheric Administration (NOAA), North Pacific Marine Science Organization (PICES), Rare, Sasakawa Peace Foundation, UN Decade of Ocean Science for Sustainable Development, United States Geological Survey (USGS), Wildlife Conservation Society (WCS), WorldFish and World Wide Fund for Nature (WWF).

IV. MAIN CONCLUSIONS AND OVERARCHING ACTIONS

12. The remarkable diverse group of experts and participants of the Symposium contributed to rich and detailed discussions on various topics (COFI/2020/Inf.8) from which messages and recommendations emerged to improve sustainability in the sector and contribute to a new vision for sustainable fisheries in the twenty-first century. These recommendations represent a collective set of views from all participants on how to drive sustainability forward, to inform and to be taken into consideration by all stakeholders.

13. These messages, included in Annex A, covered a wide range of topics (e.g. food and nutrition security; gender and equity; capacity development; communication and evidence-based information sharing; data and information; technology; integration across sectors; biodiversity; livelihoods and social sustainability; and partnerships). The main cross-cutting messages and overarching actions for marine and inland fisheries have been summarized below:

- 1) There is a strong need to **integrate fisheries into broader planning and governance frameworks** that bring multiple sectors together and facilitate the implementation of science- and evidence-based assessment and management. Participation of fisherfolk in all steps of the process is encouraged.
- 2) The development of **joint integrated biodiversity and food security objectives** is required to ensure that aquatic foods can reach those that need it most now, and in the future, reducing undesirable impacts and food waste and addressing malnutrition and hunger.
- 3) **Capacity building, in particular aimed at data collection and analysis** and improving countries ability to better assess and monitor their fisheries, continue to be needed. These programs should increase transparency, reduce the digital divide and include new technologies.
- 4) Communication on fisheries issues needs to be largely improved. In particular, **there is a need to change the narrative on fisheries**, putting the emphasis on its uniqueness and importance as a food production system, and leveraging it as a vehicle to empower fisherfolk.
- 5) **Livelihoods, well-being and decent work** must be considered more explicitly in fisheries management, including by increased stakeholder involvement and secured rights and access.
- 6) **Gender equality and support to the younger generations** must be improved. Proactive mechanisms for this include elevating the role of women in decision making; engagement of youth; focused capacity building actions; gender statistics, including sex- and age-disaggregated data.
- 7) Reducing and **eliminating harmful practices** that may lead to overcapacity, overfishing, and/or Illegal, Unreported and Unregulated (IUU) fishing are important means for sustainability. Also, include improved access to credit, finance and insurance, especially in small-scale fisheries (SSF), as well as the integration of market-based mechanisms with measures to protect non-market, social and ecological value.

- 8) **Political will** should be sought and capacity to improve implementation of existing policy frameworks should be strengthened. Policy innovations in the sector are required to address emerging challenges such as climate change, and the increasing demand of fish and fish products.

14. These recommendations reflect FAO's mandate to eradicate poverty and hunger by promoting sustainable and resilient food systems, including through: enhancing sustainable productivity to improve food security and nutrition; contributing to economic growth and raising living standards; and empowering women, youth and vulnerable communities.

Annex A. Key messages and recommended actions per session

The key messages and recommended actions that emerged during the discussions of the different sessions are listed below:

Session 1 The status of global and regional fisheries sustainability and its implications for policy and management.

- Promote assessment and monitoring of individual stocks and improve transparency at the stock and country level to better understand the status of fisheries at relevant geographical scales.
- Encourage the development and implementation of simpler stock assessment methods that require less-detailed data and less technical expertise to reduce the proportion of unassessed stocks around the globe.
- Improve the monitoring of inland fisheries and develop approaches to evaluate freshwater fisheries along with technical tools to manage inland systems.
- For inland fisheries it will be particularly important to engage with other sectors (e.g., hydropower, agriculture) and consider fisheries within an integrated watershed management framework.
- Mobilize resources and provide financial support for continued capacity development programmes aimed at strengthening stock and fisheries assessment and monitoring systems, particularly in developing-world, small-scale and inland fisheries.
- Consider adoption of a new global target for sustainable management that would be more conservative or precautionary in data-limited situations and/or where governance is weaker.
- Focus efforts on collecting biological, fishery and habitat information, in a cost-efficient and rigorous manner.
- Data-poor does not always mean information-poor. Develop and implement better mechanisms to incorporate multiple types of available information, including local knowledge and expertise, and their integration into assessment and management approaches.
- Collect basic data needed for a particular fishery and capture local knowledge to help design empirical, simple harvest control rules.
- Encourage appropriate communication, knowledge mobilization and education across all actors (fishers, scientists and managers) involved in decision-making to improve transfer of information and buy-in compliance to regulations to achieve effective management systems.
- Promote appropriate communication and awareness about the impact of illegal fishing on overfishing and fish stock recovery.
- Encourage mechanisms to improve and reward compliance with management regulations.
- International organizations, non-governmental organizations, civil society organizations and academic and research institutions need to better cooperate and expand their outreach to build technical capacity in fisheries and aquaculture to continue to take on the challenge of sustainability of global fisheries.

Session 2 Sustainable fisheries: linking biodiversity conservation and food security

- Support the development of joint biodiversity and food security objectives that recognize trade-offs and are nationally and locally relevant, and supplement aspirational targets for biodiversity and food security.
- Engage and influence existing and emerging policy frameworks (for example, the CBD's post-2020 global biodiversity framework, and the SDGs) that represent opportunities to design, implement and monitor joint objectives.
- Continue developing inclusive integrated management frameworks that rapidly move to reference points consistent with ecosystem sustainability goals, promoting stewardship and participatory management that effectively translate into action at all scales.

- Enhance the ability to monitor and report on ecological, economic and social sustainability by incorporating information on ecosystems (including people), drawing on diverse sets of knowledge (social, economic and biological sciences, and local and traditional knowledge), disaggregated by gender.
- Promote and strengthen diverse, inclusive and accountable partnerships to effectively manage ecosystems for both biodiversity and food security.
- Integrate market-based mechanisms with measures to protect non-market social and ecological values that advance sustainability in fisheries management.
- Implementation should build on previous experiences using these tools that help achieve joint objectives and remain mindful of the specific context.

Session 3 Fish in food security and nutrition: from tide to table

- Use best available science to make food policy and nutrition action plans.
- Improve data collection and analysis of aquatic food consumption and analysis of nutrients and food safety (at species level, considering parts used, processing and preparation methods).
- Ensure that aquatic foods are reaching those who need them most, across diverse communities within regions, and diverse individual needs within households – to ensure that essential micronutrients, fatty acids and bioavailable proteins reach children, women and men.
- Deploy context-specific messaging through appropriate channels to encourage consumption of diverse nutritious and sustainably produced aquatic foods.
- Include aquatic foods in food systems policies, given their potential contribution to addressing malnutrition in all forms.
- Improve the utilization and stability of the aquatic food supply by supporting disruptive technologies, social innovations and targeted risks to unleash new networks of supply chain governance capable of empowering women-led businesses and being inclusive and socially just.

Session 4 Securing sustainable fisheries livelihoods

- Fully recognize and support the role of fisheries, in particular small-scale fisheries, in income, culture, and food security and nutrition.
- Recognize the role of women and prioritize achieving gender equality across the value chain, including decision-making.
- Empower fishing communities, strengthen participatory approaches and build capacity. By developing and supporting inclusive institutions and small-scale fisheries organizations, including those representing the rights of indigenous communities, women and marginalized sectors of societies, local communities can participate in resource planning, development and governance to secure access to resources and markets.
- Modify data collection systems to include interdisciplinary and disaggregated data to account for nutrition, well-being, gender and other dimensions beyond catch. Encourage co-production of information with stakeholders to promote trust and collaboration among governments, academia and small-scale fishing communities, and build capacity to use information.
- Promote approaches to fisheries development and governance that build on the principles of the SSF Guidelines.
- Ensure that actors along the value chain, in particular women and small-scale producers and processors, have the capacity to seize opportunities and have access to benefits and engage fully in sustainable and equitable food systems.
- Encourage recognition of the role of small-scale fisheries in livelihoods, food and nutrition to millions of people globally, and use the occasion of the International Year of Artisanal Fisheries and Aquaculture in 2022 to raise the profile of fisheries livelihoods.

Session 5 The economics of fisheries:

- Fishing is an economic activity, and the efficient and effective allocation and utilization of scarce economic resources should be part of the policy discussion also in the fisheries sector. The labour of women's or group minority contribution to the workforce can bring problems when unpaid or not-registered work take place, creating hidden inputs making a transparent price structure difficult.
- Improve the collection and analysis of economic data on the full impact of the sector, especially on the contribution of women and the small-scale fisheries, to support policymakers to make informed decisions.
- Include economic considerations in policy trade-offs. Introducing market-based instruments leads to higher financial efficiency and increased profitability for operators, but reduces the number of jobs, necessitating the introduction of social-support systems/flanking measures during the transition.
- Increasing average age of fishers together with higher availability of technological tools provide opportunities for sectoral restructuring and improved opportunities for young and well-qualified people, leading to improved economic returns.
- Promote trust across value-chain relationships. Fisheries management does not take place in isolation and requires building awareness through participation in sustainability at all levels of the supply chain, including consumers and fishers.
- Define and allocate property rights and implement actions, based on local contexts, to improve the economic performance of fisheries.
- Recognize the role of women and disadvantaged groups in the value chain by achieving equal pay and improving the inclusion and participation at all levels. Mainstream inclusive policies to increase the role, well-being and working conditions of all human capital in the sector.
- Improve access to credit, finance and insurance, especially in the small-scale subsector, and in particular for women entrepreneurs and operators from disadvantaged groups.
- Reduce waste and increase utilization by developing new products and markets.
- Reduce and eliminate harmful subsidies that contribute to overcapacity and overfishing.
- Promote greater social responsibility in the fisheries value chain, working together through public-private partnerships, and through international collaboration with the ILO, IMO and others.

Session 6 Fisheries management in the face of a changing climate

- Urgently implement transformative adaptation. Many fishers are already adapting, but institutions and policies need to step-up. Learn from examples of successful adaptation.
- Respond to climate change by improving fisheries management through the implementation of cross-sectoral, holistic and precautionary approaches that attain robustness to variability, rather than stability.
- Develop adaptive spatial management mechanisms that can help address shifts in species distributions and changes in the seasonality of ecological processes.
- Climate change will almost always result in winners and losers. This requires negotiating trade-offs and building on climate justice, equity and ethical considerations when taking decisions on the allocation of and access to fisheries resources.
- Diversify value chains by adding value to new or currently undervalued resources. Promote market diversification to avoid weak links that result in low resilience to changes and shocks. Educate consumers.
- Design adaptation solutions that account for gender differences in terms of vulnerability and build on the specific skills and the positive role women and youth can play.
- Invest in innovation to modify fishing, modern insurance alternatives, early warning systems, communication, and the use of industry real-time data.

Session 7 Fisheries information systems and new technologies

- Integrate data collection and supply chains. There is a strong need for developing countries to invest in the capacity to collect, compile and analyze data in fully integrated systems.
- Promote online structures delivering analytic services, and invest in remote sensing technologies, internet accessibility and sensors as ways to generate new, real-time and inclusive knowledge.
- Development of key simple and easy to collect data as a way to expand the information on which to make fisheries management decisions.
- Tackle institutional and regulatory barriers preventing the implementation of effective fisheries information systems and data sharing, and consider open-data policies governed by principles that are secure and transparent.
- Build trusted knowledge from data. Develop well-defined, transparent and inclusive processes to facilitate communication at the science–policy interface in order to ensure that trusted sources of data and information (including indigenous ones) produce credible, relevant and legitimate fisheries knowledge, openly accessible, at all scales.
- Reduce the digital divide. Invest in mobile data collection and the use of remote-sensing technologies, involve fisherfolk communities, including women and youth, and empower them with services (including analytics) to improve their livelihoods and facilitate ownership.
- Support capacity building in the data supply chain, i.e. data collection, data management and data analysis.
- Develop international policy guidelines on how to develop and equitably utilize emerging technologies and ensure FAIR principles (Findable, Accessible, Interoperable, Reusable).
- By supporting strengthened governance and increased partnerships among data and technology providers, the public sector can help achieve comprehensive, neutral and sharable data feeds from local applications to global statistics and trends monitoring.

Session 8 Policy opportunities for fisheries in the twenty-first century

- Integrate fisheries into broader planning and governance frameworks that bring multiple sectors together. Fisheries management cannot act in isolation, and should be working alongside other more visible and economically valuable sectors.
- Continue and intensify efforts to eradicate IUU fishing. In particular, all flag, port, coastal and market States need to ratify and implement the PSMA.
- Strengthen the political will and capacity to improve implementation of existing policy frameworks, and support policy innovation for emerging challenges.
- Ensure fisheries policy and management decisions are inclusive, promoting scientific evidence and the recognition of local and traditional knowledge.
- Improve public and governmental perception of fisheries to justify investment and respond to criticism, thus increasing ownership of the fisheries agenda.
- Increase accountability and build greater trust in the capacity and transparency of the fisheries sector to be part of the solution.
- Improve cohesion between fisheries and biodiversity conservation objectives.
- Ensure livelihoods, well-being and decent work are fundamental goals in fisheries governance and management, involving stakeholders, and securing rights and access, while reconciling food security and supply objectives with conservation.
- Ensure that efforts to develop the blue economy are based on sustainable development, and incorporate the rights of those whose livelihoods depend on the sea now and for future generations of fishers.
- Improve gender equality, support to younger generations and capacity building in fishers' communities.