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**SPANISH CONTRIBUTION – 15TH ROUND OF INFORMAL CONSULTATIONS
OF STATES PARTIES TO THE 1995 FISH STOCKS AGREEMENT
ECOSYSTEM APPROACH TO FISHERIES**

Spain, as a Member State of the European Union, and a country with a long fishing tradition, is strongly committed to integrating the ecosystem approach in fisheries management, and has demonstrated this with its support both within the European Union, United Nations and the Regional Fisheries Organizations, founded on the basis of solid scientific knowledge, through international scientific institutions such as ICES, the committees and subcommittees of the RFBs or the centres and institutes or scientific advisory bodies STECF, IEO, AZTI or others.

The application of this ecosystem approach is demonstrated by many examples, such as the Spanish network of marine reserves of fishing interest (as well as other spatial management tools in fisheries management), international campaigns for the evaluation and identification of vulnerable marine ecosystems in the field of regulation of NEAFC, NAFO, CCAMLR, SPRFMO, Barents Sea, Patagonian Shelf International Waters (FAO 41) and SEAFO.

1. Background. Concept. Evolution.

Over the last three decades, a more holistic management approach, based on an ecosystem approach, has been emphasized. The concept of ecosystem management was generated from the paradigm shift in ecosystem ecology and natural resource management. Since 1992, the Rio de Janeiro Convention on Biological Diversity (CBD) has promoted the idea of “conserving, protecting and restoring the health and integrity of ecosystems”, thus promoting for the first time the concept of ecosystem-based management.

The Strategic Plan for Biological Diversity 2011-2020, approved by the 10th meeting of the Conference of the Parties to the Convention on Biodiversity in 2010, included the AICHI goals to be achieved by 2020. Goal 6 “sustainable management of aquatic resources” envisaged that, by 2020, all fish and invertebrate stocks and aquatic plants would be managed and farmed in a sustainable and legal manner such as applying ecosystem-based approaches, so that recovery plans and measures are in place for all depleted species, fishing activities will not have significant detrimental impacts on endangered species and vulnerable ecosystems, impacts of fishing on stocks and species and ecosystems will be within ecological limits insurance.

In September 2020, a decade later and after the deadline has expired, the Convention on Biological Diversity published the fifth Global Biodiversity Outlook (GBO-5) report, which reviews the history and analyzes the results of the strategic plan and the AICHI goals. Although significant progress has been made towards this goal in some countries and regions, one-third of marine fish stocks are overexploited.



Actions to achieve this target generally focus on better assessment of fish stocks and development of regulatory measures, such as for issues related to illegal, unreported and unregulated fishing, fishing practices and equipment, as well as better monitoring of fishing vessels and bycatch. Activities to ensure the health of fish stocks include fish size regulations, seasonal or periodic fishing bans, the establishment of marine protected areas, and the restoration of fish habitats.

The fisheries ecosystem approach proposes the development of an integrated fisheries management based on the FAO Code of Conduct for Responsible Fisheries (1995). It is conceived as a new direction for the management of fishing activity, aimed at reversing the order of priorities in management, starting with the ecosystem instead of the target species. This implies considering not only the exploited resource but also the ecosystem (including the ecological interdependencies between species and their relationship with the environment) and the socioeconomic aspects related to the activity. In this way, the traditional methods of fishery evaluation and management are not left aside, but the holistic approach implies the search for a better bio-socioeconomic balance in order to contribute to sustainable development.

Within the Technical Guidelines for Responsible Fishing, prepared by FAO as practical steps to apply the aforementioned Code of Conduct, there are several examples of guidelines dedicated to the ecosystem approach: on the management of bottom fishing in the high seas (FAO, 2008); on the human dimensions of the ecosystem approach to fisheries (FAO, 2010); on sustainability of small-scale fisheries (FAO, 2012); etc.

Since 2016, FAO uses the Code of Conduct for Responsible Fisheries (CCRF) application also to report on progress made against Aichi Biodiversity Target 6 and relevant Sustainable Development Goal targets. The responses indicate an increase in the rate of development and implementation of fisheries management plans and in the application of the ecosystem approach to fisheries. However, these are less developed for fisheries in inland waters than for marine fisheries.

In the EU context, in 2008 the Marine Strategy Framework Directive was approved, which focused on the global application of this approach to all human activities that take place in the marine environment. The concept included in the CFP regulation focuses on the management of fishing activities and their concern in their interaction with the marine environment.

In 2013, Regulation (EU) nº 1380/2013 of the European Parliament and of the Council, of December 11, 2013, on the common fisheries policy, establishes in its article 2 section 3, referring to the objectives, that the “The CFP will apply an ecosystem approach to fisheries management in order to ensure that fishing activities have minimal negative impact on the marine ecosystem, and will strive to ensure that fishing and aquaculture activities avoid degradation of the marine environment.”

In this regard, the International Ocean Governance Forum promoted by the European Union in 2020, as a continuation of the 2016 Joint Communication of the European Parliament and Council, supports the development of the EU's international ocean governance agenda for the future of our oceans. This Forum is considered an integral part of the Green Deal of the European Commission and the EU's response to the 2030 Agenda, in particular, the Sustainable Development Goal (SDG) 14, Life below water, and mobilizes all interested parties



(stakeholders), including EU Member States, international organisations, the private sector, civil society and scientific actors.

Thus, under the name "International Forum on Ocean Governance of the EU 2021: Setting the course for a sustainable blue planet", the final recommendations for ocean sustainability action were presented. The adopted recommendations will support the development of the International Ocean Governance Agenda, the EU action plan for the future of our oceans. These recommendations were classified into four categories, according to the objective of achieving oceans: clean and healthy, productive, resilient and understood. The achievement of these objectives, and especially that of making the oceans productive, requires the adoption of key measures such as the adoption of the ecosystem approach in the management of the oceans, supporting the sustainable blue economy, the sustainable management of the populations of fish and the application of existing instruments such as the Port State Control Measures.

2. Implementation of the ecosystem approach: Good practices in the international scope

The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR/CCAMLR), can be considered as the pioneer organization in the application of the ecosystem approach for the management of marine living resources. Despite not being an RFMO in the strict sense of the word, it does include aspects of fisheries management, and so their contributions are very valuable in this context. Thus, it has addressed several serious problems related to the direct effects of fishing on various components of the Antarctic marine ecosystem, such as the mortality of seabirds in longline fishing, the effects of trawling, marine debris, the effects of fishing in non-commercially exploited species, and the krill fishery.

In relation to the Regional Fisheries Organizations aimed at the management of straddling species, all of them bear in mind the application of the ecosystem approach in fisheries management, specifically:

- **NAFO (Northwest Atlantic Fisheries Organization)** in the Preamble of its Convention and in its objectives defined in article 2 of the same.
- **SPRFMO (South Pacific Regional Fisheries Management Organization)** in the Preamble of its Convention and in its article 3.1.b.

The rest of these RFOs in which Spain participates as a Member State of the EU, do not mention this term in their founding texts, but they do endorse their objectives, by trying to avoid the negative effects of fishing on dependent and related species of the target species, the protection of biodiversity, as well as preventing damage to vulnerable ecosystems. These Regional Straddling Fisheries Organizations are: NEAFC (Northeast Atlantic Fisheries Commission), SEAFO (Southeast Atlantic Fisheries Organization) and SIOFA (South Indian Ocean Fisheries Agreement).



In addition, it should be noted that all these organizations, except NEAFC, have a scientific committee that advises them on these aspects and in which Spanish scientists from the Spanish Institute of Oceanography (IEO) participate.

NEAFC is advised from the scientific point of view by the International Council for the Exploration of the Sea (CIEM/ICES), with a large Spanish participation.

These scientists rely on data provided by scientific observer programs aboard straddling fishing vessels. It should be noted that this Spanish scientific observation program exists in all the international fishing grounds in which the Spanish fleet fishes, even when the Organization that regulates this activity does not make it mandatory. In this way, data is collected on target species, but also on accompanying species and indicators of the presence of ecosystems. In addition, within the NAFO area, Spain carries out annual research campaigns with an oceanographic vessel in which these parameters are collected in greater detail.

The work currently being carried out by NAFO on models of ecosystem productivity deserves a particular mention. This organization has a Working Group of its Scientific Council, on ecosystem science and advice (ESA) and a Working Group on the ecosystem approach within the framework of fisheries management (EAFFM/). Scientists, fishing administrations and the fishing industry participate in this Working Group that meets once a year.

In relation to the Regional Fisheries Organizations aimed at the management of Highly Migratory Species, only the Commission for the Conservation of Atlantic Tunas (ICCAT) has expressly included the ecosystem approach in its regulation. Both because of the quantitative importance of the fisheries subject to management and conservation, and because it is by far the regional fishing organization with the largest number of contracting parties, the involvement of this commission in the ecosystem approach is very relevant, and it has taken place in two phases.

Initially, in 2015, ICCAT approved the Resolution on the Application of an Ecosystem Approach to Fisheries Management (Resolution 15-11), calling for the application of an ecosystem-based approach to fisheries management when formulating recommendations in accordance with the Article VIII of the Convention creating ICCAT. This approach was therefore taken into account in different resolutions approved in ICCAT as of 2015.

The next step, which has meant an intensification of the process, has taken place at the end of 2019, with the raising of the level of regulation, which now becomes part of the ICCAT agreement itself. During the annual meeting of the ICCAT Commission in Palma de Mallorca, a modification was adopted in November 2019 that includes the ecosystem approach in articles IV.a and V.1.a of the agreement. This obliges the Commission and the contracting parties to the convention to apply the precautionary approach and an ecosystem approach to fisheries management in accordance with the relevant internationally agreed standards and, where appropriate, with recommended procedures and practices.

3. Lessons Learned in Spain: good practices at the national level

3.1. Contribution of marine reserves of fishing interest in the ecosystem approach.

The network of Marine Protected Areas (AMP), in addition to being one of the management tools based on geographical areas, is perceived as an optimal formula to safeguard the good



environmental status of marine biodiversity in EU waters under the protection of the Natura 2000 Network. Likewise, this network of MPAs has increased exponentially in recent years, promoted by different countries and the European Regional Marine Conventions, achieving significant progress towards global objectives. However, scientific needs and priorities together with clear, achievable and measurable objectives are needed to lay the foundations for establishing an ecologically coherent network of Marine Protected Areas.

Marine reserves of fisheries interest are created on the basis of the best scientific information, fisheries surveys and bionomic mapping, in order to support traditional artisanal fisheries. They are an example of an ecosystem approach to fisheries with 36 years of experience in 2022 that show not only improvements in fishery resources with higher abundances of fish species, and of other species, also structuring, but also larger sizes, i.e. more fertile spawners that favour recruitments. As a result of the creation and provision of resources in each marine reserve (human and material), this "reserve effect" can be observed within each reserve with the integral reserves, where no scientifically motivated uses are authorised, and which are the maximum exponent of maximum protection and the results of the catches in the marine reserves and their surroundings. The export of eggs and larvae has also been observed in the case of the Columbretes Islands reserve and the red lobster. Likewise, a maintenance or even improvement of the "good environmental status" has been observed in the reserves.

Finally, in the reserves, a slowdown in the abandonment of small-scale fishing activity has been observed, with new young fishermen entering, although the pace is still slow, which is a sign of their effectiveness in supporting traditional small-scale fisheries. Other benefits of the reserves are their role as a sentinel against global impacts of climate change and their role in raising awareness of the need to care for the sea with responsible use and codes of conduct for informed activities. Science is fundamental to the basis and monitoring of these marine reserves as well as communication actions in the framework of SDG 14 and the 2021-2030 decade of Ocean Science and Sustainability, to which the International Year of Sustainable Fisheries and Aquaculture will be added in 2022.

3.2. Good Practices on commercial fishing fleet /national fisheries management through the ecosystem approach

In relation to measures to mitigate accidental catches, it should also be noted that Spain has approved the National Plan for the reduction of Accidental Catches in Fishing Activity. The plan is structured as a guide to assess and monitor the problem of accidental catches in the Spanish fleet and propose technical solutions that allow the catches of sensitive species included in national and European regulations to be reduced or eliminated, where possible.

It is worth mentioning the measures adopted for the mitigation of cetaceans bycatch in Cantabrian and Northwest Waters and in the Bay of Biscay, established in order APA/1200/2020.

The actions contemplated in the plan must be developed during the next decade, so that in 2030 a level of impact of the fishing activity on sensitive fauna is reached that does not endanger the



affected populations. All these measures will be aimed at reducing accidental catches to the minimum possible levels, and always below the maximum biological withdrawal values for each species.

Among the measures implemented are those related to closures for bottom trawling in the Mediterranean, which contribute to the recovery of stocks but also to habitats, in the context of the Mediterranean Multiannual Plan. They are all included in Order APA/423/2020, and its amendments Order APA/753/2020 and Order APA/1397/2021.

4. Future challenges

4.1. Reinforcement of the role of the RFMOs

RFMOs have shown great progress in ad hoc implementation of the ecosystem approach in fisheries management. While it is true that few RFMOs have yet implemented a long-term vision of ecosystem assessment, they have made considerable progress on the ecological component of target species, the ecological component of bycatch, as well as the components of the properties of each ecosystem, the trophic relationships and their habitats.

According to the 14th round of the Informal Consultations on the performance evaluation of the role of RFMOs in May 2019, recommendations were shared to improve the management of fish stocks, minimize the effects of bycatch, and the protection habitats of special interest.

Spain is aware that we face common challenges such as the coordination of all marine ecosystem research activities, the development of mechanisms to better integrate ecosystem research and advice in fisheries management decision-making.

4.2. Strengthening the scientific base and data for decision making

Spain considers essential to strengthen the binomial between science and fishing to promote cooperation in marine and fishing research, which implies an improvement in scientific knowledge and requires investment in blue science and innovation.

Scientific knowledge and innovation are essential tools to fight climate change and guarantee sustainable fishing and the eradication of illegal fishing. Fishing decisions must be based on the best available scientific knowledge. To this end, intense work is being done to acquire the necessary data in sufficient quantity and quality on the state of the different fishing stocks, but also on the environment in which they develop, and on the socioeconomic situation of the fishing sector and related industries.

Therefore, the commitment to scientific knowledge as a basis for decision-making in fisheries management is clear and one of the main pillars of action, even more so in the framework of the United Nations Decade of Ocean Science and Sustainable Development (2021-2030).

4.3. Environmental Impact Assessment (EIA)



Strengthening the implementation of the Environmental Impact Assessment (EIA) will be a key tool to guarantee the biological sustainability of fisheries, the preservation of the aquatic ecosystem and the quantitative and qualitative protection of fishery resources, including marine genetic resources. Therefore, the EIA will help ensure the protection, maintenance and recovery of natural habitats.

In this regard, the systematic implementation of an EIA in fishing-related activities has been carried out in recent years, not only by many RFMOs but also in the EU and its Member States, where advanced measures have been adopted, in the EIA framework and the Directives on Strategic Environmental Assessment and Impact Assessment.

4.4. Lasting social commitment and gender approach

Our challenge is to make a better ocean for our future generations, which is why we will not stop defending the commitment of fishermen and women and their local communities, the fishing industry and fishing sector to supply us with healthy quality food and to reinforce the social and gender of fishing through sustainable fishing that takes into account the ecosystem approach.