

**COMMENTS OF THE NATIONAL AUTHORITY OF AQUACULTURE AND FISHING TO RESOLUTION 74/18 - UNITED NATIONS (SUSTAINABLE FISHING AND MITIGATION OF INCIDENTAL FISHING AND ILLEGAL IMPLEMENTATION OF AN ECO SYSTEMIC APPROACH TO FISHING MANAGEMENT)**

In response to the request made by the Ministry of Foreign Affairs, The National Authority of Aquaculture and Fishing (hereinafter AUNAP) presents its observations and comments on General Assembly Resolution 74/18 to paragraph 213 (on sustainable fishing and mitigation of by catch and illegal fishing) and paragraph 67 (implementation of an eco-systemic approach for fisheries management). This entity sees the need to unify the comments since the required topics are intimately connected to each other and therefore must be articulated for further discussion.

**GENERAL COMMENTS**

*Sustainable fishing, growing aquaculture*

Within the framework of public policies in which the agricultural sector is being developed, and taking into account that a sustainable production approach is becoming increasingly relevant, it is important that in any decision or perspective given to the country's position takes into account the different sectors given the technical, financial, administrative and especially population capacity. This should not only pertain responsibility of the state in regards to productivity, but also food security. In that sense, from its competences AUNAP emphasizes that its lines of work are: sustainable fishing and growing aquaculture, therefore we propose that the line of work be in accordance with these provisions.

AUNAP makes it clear that the objectives and goals of the development policies already defined for the agricultural sector must be considered in the definition of Colombia's position. This is a result of the different conversations at other work tables where biodiversity and environmental sustainability issues are addressed in view of conservation approaches.

Specifically, the following information is denoted for the fishing and aquaculture sector:

1. Fishing: fishing as a productive activity is carried out on wild animals, with the objective of generating processes that allow these resources to be sustainable over time. AUNAP performs actions framed in:
  - a) Fishing quotas: Maximum limits for the extraction of the fishing resource are established.
  - b) Exclusive areas of artisanal fishing that aims at the sustainability of the resource through the development of responsible fishing by artisanal fishermen who use it as a means of subsistence and food security.
  - c) Special management areas for fishing in accordance with the provisions of the state of fishing in Art 51 of the fishing statute (Law 13 of 1990).
  - d) Prohibitions: By species, spatial and temporal. As a mechanism of biological conservation.
  - e) Fisheries management: These processes are aimed to achieve the sustainability of the resources with an ecosystem and participatory approach.
  - f) Measures against illegal fishing and the crime of illegal fishing activity in the Colombian maritime territory - Law 1851 of 2017.
  - g) Fishing observers for control, inspection and surveillance of the fishing resource.
  - h) Research on the state of fishery resources.

- i) Regulation of fishing gear.
2. Aquaculture: productive activity that has had an important development in recent years represented in a worldwide growth that has been positioned in the world to minimize the impact on fishery resources and to fill up the deficit that exists between demand and the natural supply of fish for food security. AUNAP performs actions framed in:
    - a) Development of new technological packages that allow diversifying production processes in diverse species, both continental and offshore.
    - b) Food security, based on aquaculture products that can satisfy the need of protein in Colombia.
    - c) 95% of aquaculture in Colombia has been developed with exotic species that are currently domesticated. For its greater control, AUNAP has the resolution: 2287 of 2015 “which states that some species of fish are declared domesticated for the development of Aquaculture and other provisions are dictated”.
    - d) National Development Plan for Sustainable Aquaculture.

Other actions:

- a) Other actions are aimed to the repopulation of native species being careful in their distribution by basins, and taking into account the purity of the genetic pool.
- b) Monitoring the catches made on the resource in fisheries and harvest for aquaculture.

Under this vision, the exercise of fishing in Colombia means that this activity does not work in a determined way with target fisheries, but rather the catches are exercised over a wide variety of species and with a variety of fishing gear and methods.

#### ✓ MISSIONAL DEVELOPMENT

During the mission of the AUNAP, different actions, regulations and projects have been taken in favor of the development of fisheries with an ecosystem approach. As proof of this, what has been done from each mission unit is detailed below:

#### ➤ TECHNICAL DIRECTION OF INSPECTION AND SURVEILLANCE:

This agency is responsible for monitoring, controlling and coordinating all actions that allow verifying compliance with regulations related to the exercise of fishing and aquaculture production in Colombia, which are oriented to ensure sustainability and a good use of fishery resources to provide a future for the next generations.

#### 1. Rules:

- Law 1851 of 2017 “by which measures are established against illegal fishing and the crime of illegal fishing activity in the Colombian maritime territory”.
- Communication of December 30<sup>th</sup>, 2015 for the Bureau of Illegal Fishing and Illegal Fishing activity.
- Resolution 1026 of July 2016 “By which control and surveillance measures are adopted for the control of fishing activity carried out by national and foreign flag vessels”.

- Resolution 1970 of 2018. "By which the National Co-management Committee for Bycatch in Colombia is created and regulated."

## 2. Projects:

- Reduce illegal, unreported and unregulated fishing in Colombian Marine waters with the conceivable adoption of the Port State Measures Agreement.
- Implement a monitoring room that facilitates the control and surveillance of vessels entering domestic waters.
- The World Vessel Registry is one of the latest international initiatives requested by the ministers and assumed by the FAO Committee on Fisheries (COFI) as a global tool that is necessary, urgent, cost-effective and effective also in relation with the fight against illegal, unreported and unregulated fishing (IUU), in Colombia the report was made to fulfil with this.
- General fishing register: At a national level, a technological tool for the registration of national vessels and existing regulations is being worked on.
- Statistical Fisheries Service of Colombia - SEPEC. The compelling of statistical information has allowed the strengthening of the AUNAP and the decision-making based on the best existing technical evidence, improving continuously and establishing six components of information gathering (artisanal fishing, industrial fishing, commercialization, monitoring on board, ornamental fishing and aquaculture). As a result of all these efforts, AUNAP has been recognized by DANE, the highest governing body of the country's statistics, as part of the National Statistical System - SEN, which is the articulated set of components that, in an organized and systematic way, guarantees the production and dissemination of official statistics at national and territorial level that the country requires and during the validity 2019 it has been made the certification of the first statistical operation "ESTIMATION OF HANDCRAFTED VOLUMES UNDERTAKED IN FISHING SITES" was carried out under the NTC PE - 1000 standard.

## 3. Actions-activities:

- Meetings are held at the Illegal Undeclared Unregulated Fishing Bureau -INDNR- to schedule training for the different entities around all the procedures that are carried out in an illegal fishing context in Colombian waters, additionally since 2017 they have proceeded with 8 drills in the ports where the landing of fishing product is carried out by national and foreign vessels.
- Development of international information exchange seminars with the member states of the Port State Measures Agreement.
- Participation in workshops for the possible adoption of measures Governing State of the Port carried out by FAO with experts from Panama and Rome.
- Socialization and dissemination at national level of monitoring, control and surveillance measures of fishery resources and aquaculture production for sustainable fishing and growing aquaculture.
- Strengthening of the entity's operational and logistic technical capabilities for the monitoring, control and surveillance of fisheries and aquaculture, evidenced by training officials on control and surveillance procedures, acquisition of vessels to facilitate follow-up work, control and surveillance
- Strengthening of control and surveillance procedures for fisheries and aquaculture, as a tool that facilitates the monitoring and control of administrative acts granting permits for the development of fisheries and aquaculture in the country.

- Global fishing quotas. During each term, AUNAP is responsible for analyzing the existing information in order to determine the maximum sustainable yield through mathematical models and propose a precautionary margin of use that guarantees the sustainability of the fishing resources and subsequently ensures compliance with the quotas assigned to each permit holder.

➤ KNOWLEDGE AND INFORMATION GENERATION OFFICE

Is in charge of formulating the lines of research, concepts and procedures for Colombian fisheries and aquaculture resources, as well as directing the technical investigations that establish criteria, guidelines and instruments for their sustainable use and increase of the country's productivity and competitiveness, facilitating to the National Government to consolidate the policy on the efficient use of the resources coming from the sector.

Research Projects

PURPOSE OF THE CONTRACT OR AGREEMENT	RESULTS ACHIEVED
<p>During various annuities, AUNAP has contribute in the evaluation of the distribution and abundance of the main demersal fishery resources in the Colombian Pacific and Caribbean and other potential resources, considered for the country as squid.</p>	<p>The abundance and distribution of the main demersal resources in the north of the Colombian Caribbean and north of the Colombian Pacific were estimated in order to establish space-time differences that have a scope of sustainable management and use of the resources related to the study area.</p>
<p>During various annuities, AUNAP has joined with other organizations, for the strengthening of biological-fisheries monitoring actions in port, fishing areas and on board vessels of fishing resources in the main industrial and artisanal marine fisheries, corresponding to the implementation of the Colombia-POPC Fisheries Observer Program.</p>	<p>Implementation of the Fisheries Observer Program of Colombia-POPC that aims to know the dynamics of industrial and artisanal fishing activity estimating catch volumes, fishing areas and biological parameters that will allow inputs to be recognized in the establishment of fishing regulations.</p>
<p>Join technical, administrative, logistic and financial cooperation efforts between AUNAP and SQUALUS FOUNDATION to carry out a risk assessment and violation of elasmobranchs, analysis of the shark production chain and effect of the SPA on the conservation of fishery resources</p>	<p>As a result of this study, the following shark species were identified as related to fishing activities carried out in waters surrounding the Archipelago fisheries, as follows:</p> <ul style="list-style-type: none"> <li>✓ Alopiidae family: <i>Alopias pelagicus</i>, <i>Alopias superciliosus</i>, <i>Alopias Vulpinis</i></li> <li>✓ Carcharhinidae family: <i>Carcharhinus falciformis</i>, <i>Carcharhinus leucas</i>, <i>Carcharhinus limbatus</i>, <i>Carcharhinus longimanus</i>, <i>Carcharhinus porosus</i>, <i>Culeo Galeocerdo</i>, <i>Prionace glauca</i></li> <li>✓ Sphyrnidae family: <i>Sphyrna lewini</i>, <i>Sphyrna mokarran</i></li> </ul> <p>In addition, the necessary parameters for the risk assessment models involving sharks and the</p>

	ecosystems they are part of, were not estimated, also the ecological risks given by fisheries for each shark species that live in the surrounding waters of the Archipelago, were not mentioned as well
Combine technical, administrative, logistics and financial cooperation efforts between the National Aquaculture and Fisheries Authority – AUNAP and the Colombian Foundation for the Research and Conservation of Sharks and Rays-SQUALUS to carry out a biological-fishery evaluation of the Exclusive Artisanal Fishing Zone ZEPA and its associated fishing resources and studies of distribution and abundance of the Pala Snail in the southern keys of the Archipelago of San Andrés, Providencia and Santa Catalina ”	Biological-fisheries evaluation of the Exclusive Zone of Artisanal Fishing ZEPA and its related fishing resources  Conduct studies of distribution and abundance of the Pala Snail in the southern keys of the Archipelago of San Andrés, Providencia and Santa Catalina
Carry out a study of the relative abundance of the strombus gigas / lobatus gigas fishing resource in the artisanal fishing areas in the southern keys - Bolívar and Albuquerque and formulation of management recommendations	Determination of the abundance of the Strombus gigas / Lobatus gigas fishing resource, in the artisanal fishing areas in the southern keys - Bolívar and Albuquerque and formulation of management recommendations
Make the assessment of the potential usable in the third reproductive period of the year of the lobster fishery resource in La Guajira	Assessment of the potential in the third reproductive period of the year of the lobster fishery resource in La Guajira

➤ **TECHNICAL ADMINISTRATION AND DEVELOPMENT ADDRESS**

It is responsible for coordinating the exercise of fishing and aquaculture activity in the national territory, focusing its technical efforts towards: projecting the standards for the implementation of the activity; establish the areas with an aquaculture vocation; implement, formulate, prepare and develop plans, programs, projects and procedures to regulate the management and exercise of fishing and aquaculture activity; determinate the requirements and procedures for granting and / or modifications of permits in their different phases; propose adjustments to the regulation of fishing activity, to make it compatible with national and sectorial legal frameworks; issue a safe-conduct (mobilization guides), capture and indirect importation certificates; promote training activities and encourage dissemination of regulations and normativity; coordinate the implementation of promotion policies and the assignments of economic support; provide technical fishing and aquaculture assistance to users, among other functions.

- Actions and regulations.

Based on the guidelines provided by the Fisheries Policy, the recommendations provided by FAO, and the faculties of the National Aquaculture and Fisheries Authority - AUNAP, framed in Decree No. 4181 of 2011, fishery management processes have been advanced, under an inclusive and participatory perspective with all the actors involved in the fishing activity, under a fishing ecosystem approach. As a result, fisheries management processes are managed from AUNAP, some of those are adopted under an **administrative act**.

In response to the fishing component immersed in the Gulf of Tribugá - Cabo Current Regional Integrated Management District (DRMI - GTCC), in coordination with the Regional Autonomous Corporation of Chocó (CODECHOCÓ), fishery management is achieved, in harmony with the objectives of conservation DRMI - GTCC. Likewise, it is implemented a deep-water shrimp trawling season agreement -CAP-, used in the framework of the DRMI - GTCC fisheries management process.

The Fisheries management figures, Exclusive Zone of Artisanal Fisheries - ZEPA, and the Special Zone of Fishing Management - ZEMP, in the north of the Department of Chocó, have become Complementary Conservation Strategies, which under the fishing ecosystem approach, have yielded positive results in terms of an increase in fisheries production, and also in the recovery of populations of species that have no commercial interest, but are benefited by the implementation of measures aimed at extractive activity.

In addition, other fisheries management processes are being implemented under a fisheries ecosystem approach, in the Sogamoso River basin (Topocoro reservoir and lower basin), Gulf of Urabá, Inírida River Star, Bitá River basin, among others.

The initiative to create or expand protected areas by Natural National Parks has been harmonized with AUNAP in order to intervene in the fishing component in line with the conservation objects established for the recently created Yurupari - Malpelo Integrated Management Districts; Cabo Manglares Bajo Mira and Frontera; and Cinaruco.

Considering the need to have guidance to develop fisheries management in the country, AUNAP issued Resolution No. 0586 of April 2, 2019 “Through which fishing management guidelines are established in the national territory,” stating that such processes should aim to maintain and conserve fishery resources so that fishing, is a sustainable supply service, based on natural supply and in response to the socioeconomic conditions of the communities that benefit from the extraction and related activities this, as well as environmental factors.

Nowdays

DEPARTMENT	AREA OR RESOURCE	OVERALL STATUS
Choco	Gulf of Tribugá Cabo Corrientes Integrated Management District	Process in which fishing activity is regulated as a component of the fisheries management process. (Resolution AUNAP 2111 of 2017)
Choco		DRMI Charm of the Mangroves of Bajo Baudó (Opening Car 002 of 2019)
Pacific		DNMI Yuruparí - Malpelo (Opening Car 003 of 2018)
Nariño		DNMI Cabo Manglares - Bajo Mira y Frontera (Opening Car No. 004 of 2018)
At the National level	Regulation on shark incidentalality	Process in which fishing activity is regulated as a component of the fisheries management

		process. (Resolution AUNAP 1743 of 2017)
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**TRANSVERSAL PROJECTS**

- AUNAP - INVEMAR - GEF cooperation project entitled “SUSTAINABLE MANAGEMENT OF INCIDENTAL CAPTURE IN LATIN AND CARIBBEAN ARRASTRE FISHERIES (REBYC-II LAC)” which aims to strengthen the management of bycatch and responsible trawling practices within an EEP framework; Since its inception in 2015, the evaluation of new technologies adapted to the industrial shrimp trawling nets in the Colombian Pacific and Caribbean has been carried out, including the change of the material traditionally implemented for the construction of the nets and a device that excludes fish that facilitates the escape of *juveniles*. Giving rise to a lower percentage of incidentally and optimizing the costs associated with fishing operations.
- National Plan of Action for the Conservation and Management of Sharks, Rays and Chimeras of Colombia - PAN Tiburones Colombia



Commentaries

**DOCUMENT: BACKGROUND INFORMATION FOR THE FIFTEENTH ROUND OF INFORMAL CONSULTATIONS OF STATES PARTIES TO THE UNITED NATIONS FISH STOCKS AGREEMENT ON "THE IMPLEMENTATION OF AN ECOSYSTEM APPROACH TO FISHERIES MANAGEMENT"**

March 25th 2020

Inputs from:

Dirección de Asuntos Marinos, Costeros y Recursos Acuáticos de Minambiente (*Department of Marine, Coastal and Aquatic Resources Affairs of the Ministry of Environment*) and the Marine and Coastal Research Institute "Jose Benito Vives de Andrés" (INVEMAR)

## 1. GENERAL CONSIDERATIONS

Colombia is a country with successful experiences of Fishing Projects with an Ecosystem Approach. In addition to this, it has different Management Plans for Endangered Species and an exercise of Formulation of a Management Plan for Aquatic Resources. Hence, for the country, this is an opportunity to adopt this type of initiative.

It is worth mentioning that the Ministry of Environment, in the comments projected to the "Project to Update the Fishing Law" (Law 13 of 1990), recommended integrating the Ecosystem Approach in Fishing Activity.

On the other hand, the mission of the Marine and Coastal Research Institute "Jose Benito Vives de Andrés" (INVEMAR) to carry out basic and applied research on the country's marine and coastal resources of interest, has been implementing the Ecosystem Approach in several of its research projects and activities, aimed to evaluate populations and fishing management. Specifically, it is conducting multidisciplinary fisheries research, combining biological, ecological, economic and social aspects. This is how contributions to fisheries management plans are addressing, under the Ecosystem Approach, significant additions to the ecological well-being (goals towards conservation), the human well-being (economic and social goals) and good governance (goals towards empowering both centralized and community-based institutions).

Three illustrative cases of application of the Ecosystem Approach to fisheries are described in the following:

- Sustainable Management of Bycatch in Latin America and Caribbean Trawl Fisheries (REBYC-II LAC) Project, financed with GEF resources, implemented by FAO and executed in Colombia by INVEMAR. This project addresses applied research to reduce the ecosystem impact of trawl nets. On the one hand, prototype trawls were designed, built and validated, which contributed to reducing discards (the impact on the biodiversity of fish) by more than 20% compared to traditional nets. The prototype nets also have less erosive effect on the marine benthos and consume less fuel in their



operation, as they are made of a lightweight material and use larger mesh sizes compared to traditional nets. The above responds to reducing the environmental impact by offering a fishing technology that reduces CO<sub>2</sub> emissions. Combined with this technology, spatio-temporal closures were designed together with the fishermen to regulate access to fishing areas, in such a way that the fishing effort is controlled, and sensitive habitats are protected by trawling without reducing the income of the fishermen. These technological and operational management measures are being implemented through co-administrative and co-management actions, signing fishing agreements between artisanal fishermen, industrialists, NGOs, the academy and institutions such as the National Aquaculture and Fisheries Authority (AUNAP) and INVEMAR. On several occasions these agreements have been elevated to the rank of Resolutions of the Ministry of Agriculture, introducing evidence of the application of the Ecosystem Approach where the goals of resource conservation and productivity are balanced. This project has had an important political impact and has contributed to modifying the institutional structure for fisheries management in Colombia.

- A long-term research activity is the monitoring of artisanal fishing in the Ciénaga Grande of Santa Marta (CGSM), an estuarine lagoon Biosphere reserve and Ramsar wetland. For 25 years, INVEMAR has been conducting research not only on fisheries monitoring, but also on the environment by monitoring the quality of the waters, the structure and coverage of the mangrove swamp, and more recently the hydrodynamics of the system. This scenario allows to acquire the knowledge on the environmental and biotic effects that occur in the system, affecting the life histories of fauna populations, especially fish in the CGSM. Fishery monitoring is carried out under participatory research, that is, trained local fishermen are the field collectors of fishery information. The results of this research are: to know the variability of fishery production, its effect on biodiversity, how to reduce it, as well as to generate human intervention scenarios to maintain a productive ecosystem that ensures the provision of fishery resources to the human population dependent on the ecosystem service. INVEMAR with this information generates management measures so that the fishing and environmental authorities exercise the policy to conserve this ecosystem.
- The declarations of marine protected areas in the regions, taking advantage of existing national legislation to declare coastal territories under the figure of Regional Integrated Management Districts (DRMI), INVEMAR has been identifying conservation gaps for species of economic interest and has related these to areas susceptible to be declared as DRMI by the environmental authorities of the coastal regions (Autonomous Regional Corporations and those of Sustainable Development). For their implementation, these DRMIs must structure management plans that include fisheries management actions with an Ecosystem Approach, focusing especially on the sustainability of the traditional livelihoods of human populations, promoting food security, while simultaneously aiming at environmental sustainability and the well-being of the communities that inhabit these territories.



## 2. SPECIFIC COMMENTS

Pages (s)	Observation
1	<p>Regarding:</p> <p>“Article 5 on “General principles”, which requires coastal States and States fishing on the high seas, in giving effect to their duty to cooperate in accordance with the Convention, to inter alia : “(b) ensure that such measures are based on the best scientific evidence available and are designed to maintain or restore stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global...”</p> <p><b>Comment:</b> A good success experience is the REBYC-II LAC Project mentioned at the beginning of this document as one of the three illustrative cases of INVEMAR’s Ecosystem Approach.</p>
2	<p>In accordance with:</p> <p><i>“...e) adopt, where necessary, conservation and management measures for species belonging to the same ecosystem or associated with or dependent upon the target stocks, with a view to maintaining or restoring populations of such species above levels at which their reproduction may become seriously threatened...”</i></p> <p><b>Comment:</b> Colombia has different Plans of Action for Endangered Species. Likewise, the work carried out in the Formulation of the Aquatic Resources Management Plan of Colombia is highlighted.</p>
4	<p>Concerning:</p> <p><i>“Application of the precautionary and ecosystem approaches. (a) Apply the precautionary and ecosystem approaches to fisheries management with a view to achieving the commitment to sustainably manage and protect marine and coastal ecosystems so as to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans by 2020...”</i></p> <p><b>Comment:</b> The Ministry of the Environment recommended including this concept in the update of the Country's Fisheries Law (Law 13 of 1990).</p>