Implementing management plans and voluntary initiatives regarding FADs: the OPAGAC experience – an update

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Summary

In recent years, tuna-RFMOs have adopted various management measures for tropical tuna fisheries, in order to follow scientific advice regarding the status of stocks, and ecosystem impacts of the fisheries directed at them. Some of those measures address recommendations concerning fisheries using FADs.

This document provides an update of the actions undertaken by the members of the Producers' Organization OPAGAC, which include nine fishing companies, 47 purse seiners, with activity in tropical and sub-tropical waters of four tuna-RFMO. The measures implemented are intended to evaluate and mitigate, where required, the impact of the OPAGAC fishery on target and bycatch species, and the ecosystem, focusing on the potential impacts of FADs. It represents an update to the document presented at the 1st meeting of the Joint Tuna RFMOs FAD Working Group and covers initiatives the OPAGAC fleet has been implementing since 2010, some of them on a voluntary basis. In 2016 OPAGAC initiated a FIP through which it has consolidated previous work and initiated new actions. The document provides a snapshot of what has been achieved so far, current activities, and prospects.

Introduction

In recent years, the OPAGAC fleet has implemented a range of voluntary actions to improve monitoring of the fishery, be able to better evaluate its impact, and mitigate those impacts whenever they prove to be significant. Moreover, in 2016, WWF agreed to support OPAGAC in the implementation of a Fishery Improvement Project (FIP), effective since October 2016. The OPAGAC-WWF FIP is now going through its third year and progress is reported as four separate FIPs on Fishery Progress (Fishery Progress 2019). Its ultimate goal it to achieve the Marine Stewardship Council (MSC) certification of its purse seine fishery using a single Unit of Assessment (UoA) per stock - i.e. regardless of the fishing mode used.

Actions

A non-exhaustive list of the actions implemented by the OPAGAC fleet is presented below. Where required, the OPAGAC FIP collaborates with other FIPs, such as TUNACONS in the Eastern Pacific and SIOTI in the Indian Ocean, in order to coordinate and maximize the impacts of the actions it implements.

1. Actions intended to improve management of tropical tunas by the four tRFMOs where the fleet operates (ICCAT, IOTC, IATTC and WCPFC):
   i) Actions devoted to strengthening the management of stocks of tropical tunas, in particular participation, promotion and assistance to the implementation of Harvest Control Rules (HCR) by each RFMO;
      - Evaluate which alternative management tRFMOs could implement to successfully maintain tropical tuna stocks around target reference points (Sharma & Herrera 2018);
      - Assist the stock assessment and management advice processes through:
        - Research towards the development of purse seine CPUE indices of abundance through the release of fisheries data and high resolution buoy and echo sounder data from FADs (Moniz *et al.* 2018); moreover, OPAGAC collaborates with the EU Project CECOFAD II (EASME/EMFF/2016/008, "Provision of scientific advice for fisheries beyond EU waters");
        - Evaluation of the quality of estimates of catch by species and size for the industrial tuna purse seine and other fleets, through reviews of data collection, management and reporting schemes (Herrera and Báez 2018a,b); OPAGAC also participates in the project RECOLAPE (MARE/2016/22, "Strengthening Regional cooperation in large pelagic fisheries data collection");
        - Support the development of alternative stock assessments towards using the best available science in the provision of management advice to the Commission.
   ii) Actions aimed at ensuring compliance of the OPAGAC fleet with the management measures adopted by the tRFMOs and promote the implementation of similar actions by other fleets. OPAGAC advocates for an expansion of the use of Electronic Monitoring Systems (EMS), supporting the implementation of EMS

as an alternative or a complement to human observers, and for EMS to be formally recognized as "observer coverage" by all RFMOs. OPAGAC also participates in the European project FarFISH (https://www.farfish.eu/), which aims at improving various aspects of RFMO and coastal state management;

iii) Actions implemented under the framework of the Tuna Transparency Initiative, intended to promote the adoption of regional programmes under the framework of the tRFMO. OPAGAC also advocates for tRFMO prohibiting all transshipments at-sea, because they are considered to be a source of IUU;

iv) Actions intended to strengthen the capacity of coastal states in MCS, through capacity building initiatives. Those include funding and participation in workshops and training sessions: in 2018 OPAGAC participated in a training session for observers in São Tomé e Príncipe, organized by the ICCAT Secretariat (ICCAT 2018); OPAGAC will support other training initiatives during 2019.

2. Actions intended to assess and reduce the impact of the OPAGAC fleet on the marine ecosystem. This includes actions to:

i) Reduce as much as possible the fishing mortality of bycatch species, in particular species of sharks, marine turtles and other sensitive marine fauna (ETP species), as identified by the tRFMO. In particular adoption of non-entangling FAD designs (the OPAGAC fleet deploys exclusively non-entangling FADs) and guidelines for the safe release of bycatch species, from the net, upper, and lower decks of purse seiners. This is achieved through the implementation of a Code of Good Practices, which encompasses all Spanish tuna purse seiners. The OPAGAC fleet uses a combination of human and electronic observers to monitor the activities of its purse seine and support vessels, having 100% observer coverage since 2015 in all oceans, well above those recommended by some tRFMOs. In 2018, OPAGAG presented a preliminary study (García and Herrera 2018) showing that the contribution of the purse seine gear to the mortality of main bycatch species is very low when compared to that recorded for other gears, such as longlines and drift nets (PS bycatch levels are estimated at 0,15%, for sharks and rays, less than 0,3%, for turtles and null for marine mammals). OPAGAC is planning to work with other parties in the Indian Ocean to be able to refine and extend the estimates and the results of the new study will be presented in 2019. The same work will be conducted in other oceans as well.

ii) Reduce and mitigate, as much as possible, the potential impact of FADs on the marine ecosystem:

- The results of two years of implementation of the FAD-Watch Project were presented to the last Working Party on Ecosystems and Bycatch of the IOTC (Zudaire *et al.* 2018). OPAGAC has also coordinated the preparation of a FAD-Watch White Paper, which is being presented at this meeting (J-T-RFMO FAD WG_Herrera_S11; J-T-RFMO FAD WG_Herrera_S11_ES);
- OPAGAC is currently co-financing and participating in EU biodegradable FAD pilot projects, one in the Indian Ocean, under AZTI's leadership (https://www.azti.es/proyectos/biofad/), and the other in the Pacific Ocean, coordinated by the Secretariat of the IATTC.

iii) Support research with satellite buoys, in order to assess the range of frequencies that would allow discrimination of the biomass beneath the FADs by species.

References

Fishery Progress 2019. https://fisheryprogress.org/fip-profile/atlantic-ocean-tropical-tuna-purse-seine-opagac, https://fisheryprogress.org/fip-profile/indian-ocean-tropical-tuna-purse-seine-opagac, https://fisheryprogress.org/fip-profile/eastern-pacific-ocean-tropical-tuna-purse-seine-opagac, https://fisheryprogress.org/fip-profile/western-and-central-pacific-ocean-tropical-tuna-purse-seine-opagac.

García, A., and Herrera, M. 2018. Assessing the contribution of purse seine fisheries to overall levels of bycatch in the Indian Ocean. IOTC-2018-WPDCS14-26_Rev1.

Herrera, M., and Báez, J. C. 2018a. On the potential biases of scientific estimates of catches of tropical tunas of purse seiners the EU and other countries report to the ICCAT and IOTC. SCRS/2018/136.

Herrera, M., & Báez, J. C. 2018b. On the potential biases of scientific estimates of catches of tropical tunas of purse seiners monitored by European scientists and catches reported to the ICCAT and IOTC. IOTC–2018–WPTT20–17.

ICCAT 2018. ICCAT newsletter 27: other activities.

Moniz, I., Morón, J., and Herrera, M. 2018. Using FADs to develop better abundance indices for tropical tuna. SCRS/2018/119; IOTC-2018-WPTT20-21.

Sharma, R., and Herrera, M. 2018. Using Effort Control Measures to Implement Catch Capacity Limits in ICCAT PS Fisheries. SCRS/2018/116.

Zudaire, I., Santiago, J., Grande, M., Murua, H., Adam, P-A., Nogués, P., Collier, T., Morgan, M., Khan, N., Baguette, F., Morón, J., Moniz, I., and Herrera, M. 2018. FAD Watch: a collaborative initiative to minimize the impact of FADs in coastal ecosystems. IOTC-2018-WPEB14-12.