



BENOÎT GUERIN

Harvest strategies: Fisheries Management for the 21st Century

Harvest strategies are modernizing fisheries management and establish a science-based approach to achieving prolific and sustainable fisheries.

TRADITIONAL FISHERIES MANAGEMENT has too often proven to be slow and ineffective. It relies on frequent but uncertain assessments of fish population health, followed by lengthy, controversial negotiations. Now, fisheries managers, both international and domestic, are looking to an alternative approach, known as harvest strategies or management procedures, to provide a pre-agreed, science-based approach to decision-making.

“We really think harvest strategy is the way forward. There is no better way to provide guarantees towards stable catch opportunities and long term sustainability. The fishing sector looks forward to work hand in hand with scientists and managers to move towards timely adoption of this system, as we are well positioned to interpret properly what is happening out at sea.”

Miren Garmendia, OPEGUI, Directora (CEO)

Harvest strategies shift the perspective from short-term, reactive decision-making to longer-term planning, benefitting the fish, fishers, and markets. The approach is akin to agreeing to the rules before playing a game. Harvest strategies are based on a set of management objectives, such as maximum yield, market stability, and conservation, selected by fisheries managers. The operational component of the harvest strategy is known as a harvest control rule (HCR). The HCR automatically sets fishing opportunities, such as catch limits, based on population status. A technical modeling process is used to select the harvest strategy that will best meet the chosen management objectives for the fish and fishery, taking all inherent uncertainty and natural variability into account. In this respect, harvest strategies make management more robust to climate change and other shocks to the fishery system.

Harvest strategies of particular relevance to the EU: Examples at ICCAT

ADOPTED: NORTH ATLANTIC ALBACORE

Albacore is a commercial tuna species especially important to Spain, France and Ireland. The International Commission for the Conservation of Atlantic Tunas (ICCAT) adopted a harvest control rule for albacore in 2017, with plans to convert the HCR into a full harvest strategy in 2021. When the HCR was applied in 2020 to determine management for 2021, the catch limit was automatically increased by 12% with no opposition, despite the cancellation of the annual meeting due to COVID-19. This was a first for an ICCAT-managed species and a testament to the robustness of the harvest strategies approach.



LUNA MARINA

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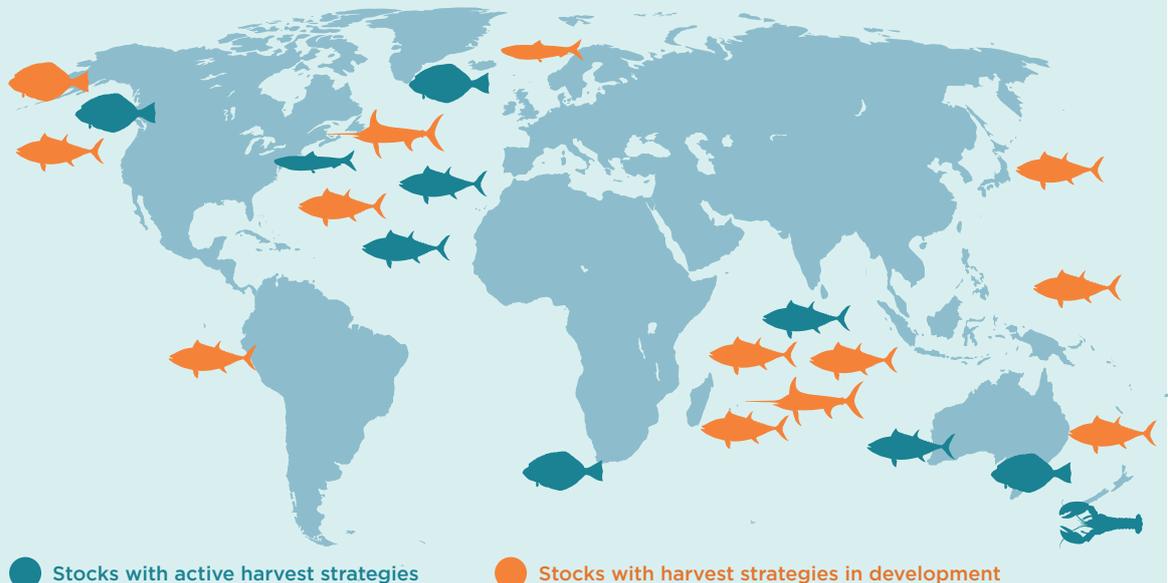


Effective harvest strategies can:

- Facilitate swift and efficient management responses to ensure resource health and long-term profitability.
- Give all stakeholders, including fishermen and markets, a clear, long-term vision of a sustainable stock and fishery.
- Avoid time-consuming and costly negotiations, or management interruptions like a pandemic.
- Offset natural variability and scientific uncertainty.
- Account for risk and balance trade-offs, such as maximizing catch while protecting a species.
- Increase market stability and improve the fishing industry's ability to plan because management decisions are predictable.
- Adhere to best practices of modern fisheries management, consistent with the United Nations Fish Stocks Agreement and the Marine Stewardship Council's certification standards.
- Effectively implement the precautionary approach.

Case studies of harvest strategies in global fisheries

Harvest strategies are in place or being developed for a broad diversity of fisheries around the world - predators and prey, surface species and bottomfish, international and domestic.



● Stocks with active harvest strategies

● Stocks with harvest strategies in development



TUNA



SWORDFISH



BOTTOMFISH



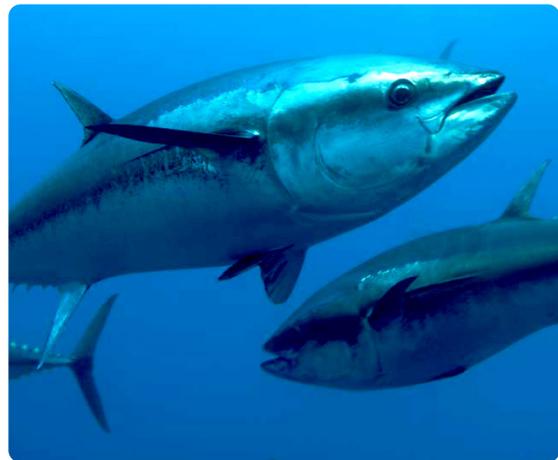
HERRING



LOBSTER

IN DEVELOPMENT: EASTERN AND WESTERN ATLANTIC BLUEFIN TUNA

ICCAT is slated to adopt a fully specified harvest strategy for both populations of Atlantic bluefin tuna in 2022. Scientists and managers will need to weigh the relative performance of a suite of candidate harvest strategies in order to select the one that is most likely to meet its objectives. This year's chief task is to finalize those objectives for the fish and fisheries. Once imple-



OCEANA

“Setting up a harvest strategy for bluefin tuna will foster exchanges between scientists and managers, so that decisions will be based on the most up-to-date and sound scientific knowledge. It will allow us to accommodate a very large range of uncertainties, increasing the likelihood that management will successfully meet its objectives.”

Dr. Tristan Rouyer, Ifremer, France

mented, the harvest strategy will set western and eastern catch limits based on the pre-agreed framework. Just 12 years ago, the eastern population was in crisis due to steep declines and illegal fishing. Now, we are on the precipice of a new chapter of abundance and science-based, innovative management for this fish that is so critical financially and culturally to the EU and its member states.

“Once harvest strategies are adopted, pre-agreed management actions are implemented in response to variations in stock status, increasing the efficiency of the management process. These harvest strategies are tested to be robust to underlying uncertainties, making them more likely to achieve objectives for fish populations and fisheries when compared to traditional fisheries management.”

Dr. Haritz Arrizabalaga, AZTI, Spain



In addition to albacore and bluefin, ICCAT has five other harvest strategies in development. All of the other major regional fisheries management organizations (RFMO) also have harvest strategies in place or in development. An ever-increasing number of nations are implementing harvest strategies domestically as well. Because they successfully rebuild overfished stocks and maintain healthy stocks at sustainable levels, whether for predators like bluefin tuna or prey like Atlantic herring, harvest strategies are the future of fisheries management. ■



In order to push these developing harvest strategies over the finish line to implementation, elected and public officials, scientists, managers, market representatives, and other stakeholders should demonstrate active support for adoption in accordance with the current timetables established for each stock at each RFMO. A precautionary harvest strategy, paired with an effective compliance regime, can ensure full recovery of depleted populations and provide sustainable and profitable fisheries long into the future.

“Metro is committed to support initiatives which strengthen RFMO management of tuna fisheries, including through harvest strategies and harvest control rules, hence our founding membership of the Global Tuna Alliance.”

Andrea Weber, director corporate responsibility, Metro A.G.



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