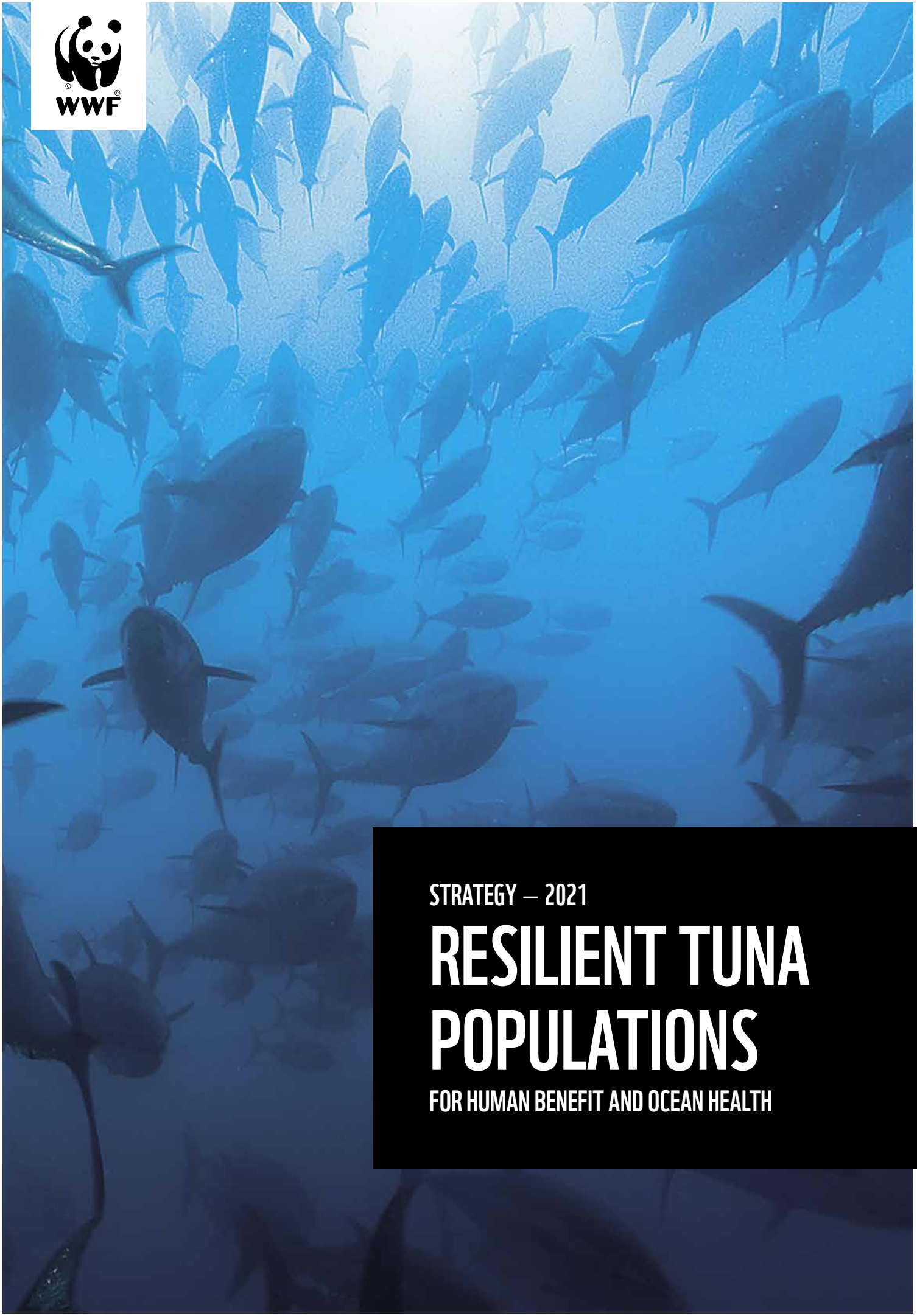

STRATEGY – 2021

RESILIENT TUNA POPULATIONS

FOR HUMAN BENEFIT AND OCEAN HEALTH

WWF'S global tuna strategy aims to bring the exploitation of tuna for food and as a source of revenue by industrial and artisanal fisheries into balance with their fundamental role in ecosystem maintenance.

This tuna strategy is embedded into WWF's Global Goals, which aim to:

- PROTECT and restore our natural resources
- Make production and consumption more SUSTAINABLE
- STOP THE LOSS of species and biodiversity

THIS TUNA STRATEGY CONTRIBUTES TO THE BROADER

OCEAN 2030 GOAL

– ENSURE PRODUCTIVE AND RESILIENT OCEAN ECOSYSTEMS THAT SUSTAIN HUMAN WELL-BEING AND CONSERVE BIODIVERSITY – AND OUTCOMES.

1. By 2030, conserve and effectively manage at least 30% of coastal and marine ecosystems.

2. By 2030, halve the number of unsustainable fisheries across the world.

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VISION

All tuna stocks are rebuilt to optimal biomass levels, defined as a **spawning stock biomass* of at least 40% by 2040**, and bycatch of endangered, threatened and protected species is eliminated.

MISSION

Ensure RFMOs and their state parties in the tuna supply chain are accountable for taking the best management decisions to **ensure the long-term sustainability of tuna populations** in a changing marine environment to deliver economic and food security benefits, particularly for coastal communities, and to **serve their ecological maintenance functions for ocean health**.

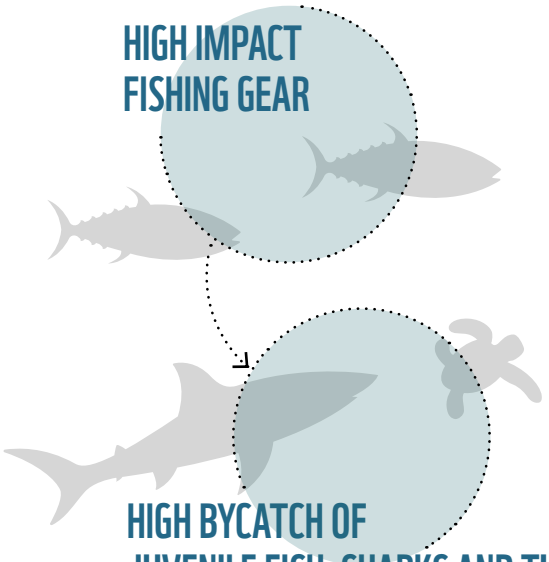
* key definitions on page 7

TUNA, PEOPLE AND THE ENVIRONMENT

BACKGROUND AND RATIONALE

Tuna fisheries are part of the complex and multi-dimensional relationship people have with the ocean. While they are extremely valuable as a food source, particularly for coastal communities, they provide other essential functions. By swimming, diving, eating, excreting and dying, tuna mix water layers, store carbon and cycle nutrients that fuel the whole ocean food chain. This includes the primary producers in the ocean, plankton, which play a crucial role in oxygen production and carbon sequestration.

Tuna biology is complex, and maintaining stocks at sustainable level requires significant scientific intervention by Regional Fisheries Management Organisations. Despite these interventions, many tuna stocks are currently at low biomass levels, which results in more young fish, but with lower numbers of large, adult spawning fish. Recent research has highlighted that fish populations with many large individuals and high biomass fisheries are better for stocks, ocean health and communities, and retain the social and economic benefits to emerging economies. While the benefits to the tuna stocks are obvious, the exact contribution to the economic and social benefits will vary across regions.



Some fisheries that supply tuna to the markets use high impact fishing gear, such as fish aggregating devices (FADs), that despite being economically efficient, are responsible for high bycatch of juvenile fish, as well as sharks and turtles. Other fisheries, like the tuna longline fisheries, have significantly affected sharks and other marine species, and these have not been fully addressed. These fishing practices need strong interventions and much improved management because of their significant and largely unmonitored impacts on tuna and many other species required for ocean health and food security for vulnerable communities.

By changing the current paradigm of fisheries management and charting a course toward more sustainable, inclusive and efficient resource management approaches, we can halt the downward spiral of large marine species and bend the biomass curve up for tuna populations.

Establishing verifiable and traceable tuna products will contribute to the removal of illegal, unreported and unregulated (IUU) tuna from the supply chain. The elimination of poor labour practices and human-rights abuses in supply chains will complete the definition of “sustainable tuna fishery”.

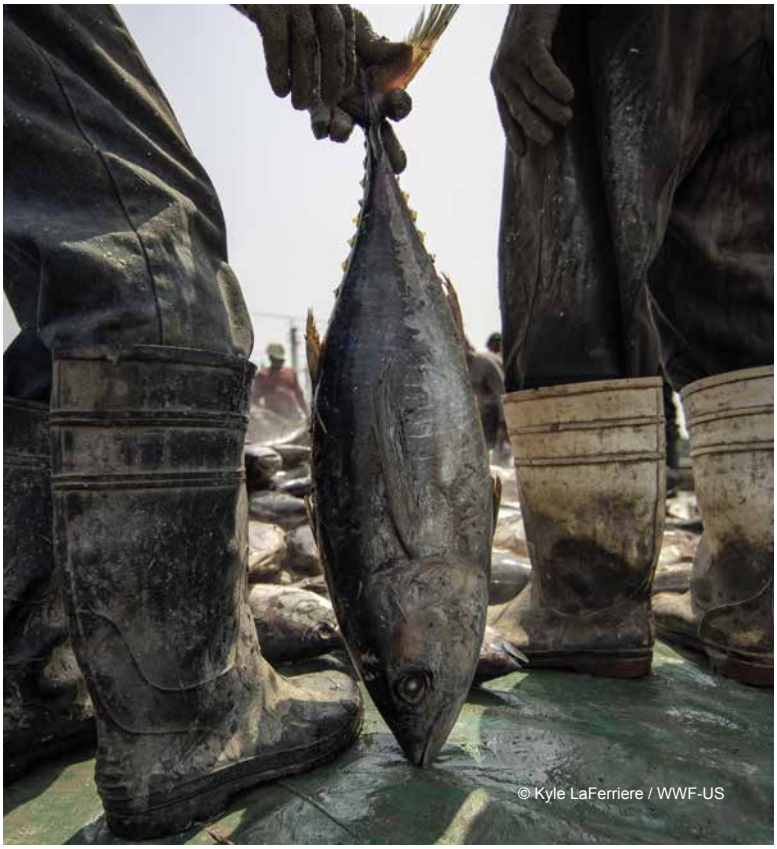
THEORY OF CHANGE

RFMOs are the mandatory management authorities for tuna. Their scientific committees use catch and effort data, and other parameters to establish a draft total allowable catch (TAC). This is then "refined" through a political process at the commission meetings. The result is often a different, usually higher, TAC. As a result, the numbers of tuna in maximum sustainable yield (MSY) managed populations are too low to fulfil and maintain their ecosystems services, suffer range contraction that lowers the long-term profitability of tuna fisheries, which in turn triggers unsuitable subsidies, and significantly erodes the ability of dependent coastal communities to harvest tuna and related species. This is exacerbated by delinquent behaviour of flag states by non-adherence to voluntary catch limits, exceeding mandatory catch limits, discarding practices and bycatch of sharks, seabirds, turtles, and marine mammals, most of which cannot be released unharmed.

The leap in efficiency of the purse seine fisheries with the deployments of massive and poorly regulated numbers of FADs has caused significant non-target tuna bycatch, including greater than 60% mortality of yellowfin and bigeye that are not sexually mature. FAD fisheries also have significant catches of non-tuna species, many of which are important for small island developing states' (SIDS) economies and food security.

Therefore, the theory of change will be to engage with RFMOs via the most vulnerable stakeholder groups – the developing coastal states and SIDS – to fix the biological reference point for managing stocks. The goal is to establish clear harvest control rules in line with scientific advice and not political preferences. Furthermore, we will engage with retailers to reduce and eventually eliminate sourcing from tuna stocks that are below spawning stock biomass (SSB) 40%. The SSB 40% is a target reference point already established by some RFMOs as a safe level for fisheries management, or as a rebuilding target. However, not all RFMOs have such target reference levels, or for all stocks. Bycatch of non-target species, particularly threatened species, should be moved from a minimum allowed catch to being eliminated from the catch.

Implementing these interventions will help rebuild depleted stocks, institute more stable TACs that ensure robust stocks and eliminate sourcing tuna from stocks that are at low biomass levels.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STRATEGIC WORK STREAMS

1. Build capacity in coastal states to implement MORE EQUITABLE RESOURCE HARVEST STRATEGIES that will result in rebuilding stocks to SSB 40%

2. Cooperative engagement with RETAILERS, MARKETS AND THE FISHING INDUSTRY to supply and source tuna only from fisheries that are at, or rebuilding stocks to, SSB 40% and that are TRANSPARENT AND TRACEABLE

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STRATEGY

1. Work with coastal member states at RFMOs to implement more equitable resource harvest strategies that will result in rebuilding stocks to SSB 40%, which will lead to maximum economic yields.

Key asks will include:

- Set SSB 40% as the target reference point for harvest strategies and that harvest control rules shall aim to maintain this goal.
- Improve management of poorly regulated fishing gears, such as FADs, longlines and gillnets.
- RFMOs adopt population thresholds and management plans for endangered, threatened and protected (ETP) species, such as sharks.
- Require labour compliance reporting to eradicate human rights violations and improve safe working conditions.
- Annual reporting on biological metrics for all stocks (SSB, Fmsy, SB/SB0); data deficient fisheries undergo full stock assessments.
- Eliminate over-capacity from tuna fisheries.

2. Work with retailers, markets, market states and the fishing industry to supply and source tuna only from fisheries that are rebuilding stocks to at least SSB 40% and that are transparent and traceable.

Key asks will include:

- Processors, retail and market partners alter sourcing behaviour to shift to support higher biomass stocks to at least SSB 40%.
- Sourcing policies
  - take into consideration the ETP species mortality and reduce this to zero.
  - insist worker welfare is protected; no products sourced with slave labour or human rights abuses.
  - incorporate traceability and transparency.
- Processors, retail and market partners commit to advocating with relevant member states within their supply chains to adopt the key asks at RFMOs.

To implement this strategy, EACH WWF RFMO LEAD HAS ESTABLISHED WORKING GROUPS WITH WWF OFFICES AND DEVELOPED AN IMPLEMENTATION PLAN FOR THAT WORK STREAM, which will include developing their own communication, markets, and innovation activities. Where main markets are outside the ocean basin or target country, joint committees/working groups should be established.

GUIDANCE ON TERMINOLOGY

What is a sustainable tuna fishery?

Fisheries where tuna stocks are at spawning stock biomass (SSB) 40%, or rebuilding toward SSB 40%, and including stocks that are, at a minimum, at SSB level that provides MSY, but where SSB is not below 20% of SSB0, with limited or no ecosystem impacts, have verifiable, open-access traceability schemes from place of catch to consumption, are free of IUU fishing and human-rights abuses, and come from safe labour environments.

The seafood sector should consider the following indicators for their tuna sourcing value chain.

- That a minimum spawning stock level of 40% (SSB/SSB0= 0.4)* is a relatively healthy biomass indicator and where the stock is below 20% of the original biomass (SSB/SSB0 = 0.2), the stock is "unacceptable" for sourcing purposes unless a meaningful stock rebuilding plan/ commitment is in place.
- The fish come from fisheries committing and implementing actions for improved fisheries data quality for stock assessments, and human rights in the value chain are addressed at RFMO level.
- Where the RFMO does not adopt the scientific advice or does not provide sufficient data to report the spawning stock biomass and determine the MSY of a stock, the precautionary approach advises that such fisheries are unlikely be deemed sustainable for sourcing purposes. Sufficient data requires a minimum of three reference points: Fmsy and SSBmsy, or Bcurrent/B0. Those falling below this threshold are data deficient fisheries.
- The fish does not originate from illegal, unreported, or unregulated fisheries.
- The fish come from a fishery that avoids or mitigates the use of destructive or fishing gear with a high impact on juveniles and endangered, threatened and protected species, such as sharks, dolphins, turtles, seabirds and whales.
- Please consult your local WWF office for detailed guidance.

Advocacy on the part of the WWF office and the retailer are encouraged to bring THE IMPORTANCE OF TUNA FOR OCEAN HEALTH to the attention of flag states, and other seafood sectors in the value chain.

GLOSSARY

The maximum sustainable yield (MSY) for a given fish stock means the highest possible annual catch that can be sustained over time by keeping the stock at the level producing maximum growth. The MSY refers to a hypothetical equilibrium state between the exploited population and the fishing activity, usually at a biomass level of half of the original biomass of the stock.

Biomass (B) is the body-weight of all the fish of one specific stock in the water.

Spawning (stock) biomass (SSB) is the combined weight of all individuals in a fish stock (usually females only) that have reached sexual maturity and are capable of reproducing.

Fishing mortality (F) is a model parameter representing the death rate due to fishing.

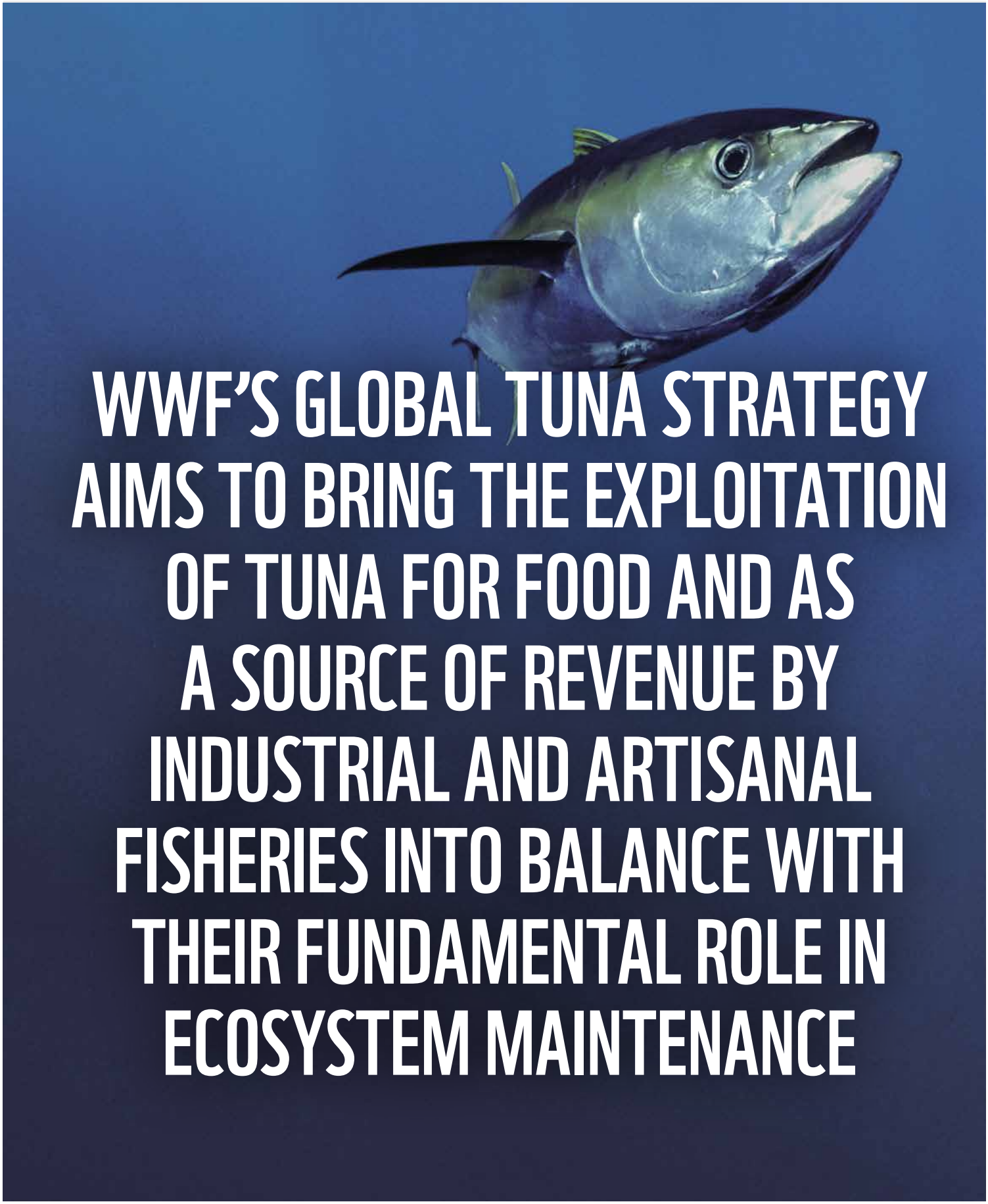
RFMO data and data deficient: Regional Fisheries Management Organizations are the source of stock assessment information and, generally, this data is made public. Where the RFMO does not adopt the scientific report or does not provide sufficient data to determine MSY (Fmsy and SSBmsy), the precautionary approach advises that such fisheries are **data deficient** and should not be deemed sustainable until complete stock assessment data are available.

Unsustainable: The SSB/SSB0 at 20% is the minimum level of acceptance, below it the stock cannot be deemed sustainable (see FAO Fisheries and Aquaculture Technical Paper No. 569, Review of the state of world marine fishery resources).

Mitigation and best practice: With regard to sharks and other ETP species, this generally means the fishery or RFMO has shark management plans and eliminates shark finning. For ecosystem impacts, it means no use of destructive fishing gear, i.e., fishing gear considered to have a significant disturbance or impact on the environment, or catches, entangles ETP species, or contributes to marine plastic pollution. Demersal trawl, gillnets and FADs are such fishing gear.

FADs: fish aggregating devices. FADs attract a multi-species assemblage of fish. This may result in large numbers of juvenile catches of some tuna species, as well as ETP species. For fisheries targeting tuna, the impact of FADs can, to some extent, be mitigated by adopting best practice in FAD construction to reduce entanglement and pollution, and adopting best handling practices for incidentally caught ETP species. FAD fisheries should introduce more effective management measures to reduce the catch of juvenile tuna, particularly if such tuna stocks are below the SSB = 0.4 biomass target, or at unsustainable levels.

ETP species: Species listed as vulnerable, endangered or critically endangered on the IUCN Red List of Threatened Species, and species listed on national threatened lists, are considered endangered, threatened and protected at either a national or international level, depending on their distribution.



WWF'S GLOBAL TUNA STRATEGY AIMS TO BRING THE EXPLOITATION OF TUNA FOR FOOD AND AS A SOURCE OF REVENUE BY INDUSTRIAL AND ARTISANAL FISHERIES INTO BALANCE WITH THEIR FUNDAMENTAL ROLE IN ECOSYSTEM MAINTENANCE

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