Indonesia deepwater groundfish - dropline, longline, trap and gillnet

Overview

FIP Description

The Indonesian groundfish fishery comprise 4 fishing methods, drop-line and long-line, trap and gill-net. There are an estimated 10,185 licensed vessels operating throughout the 11 WWPP zones (June, 2020). These vessels operate across a broad range (i.e. from within the 4-nautical mile baseline the EEZ boundary, and in depths of 50 to 500 m. The fisheries are within FAO Regions 57 (the Eastern Indian Ocean) and 71 (the Western and Central Pacific Ocean).The geographical range is defined as the waters within the meridians of longitude 110° East and 140° West, and 12° South, 4° North. To the North this fishery borders the EEZs of Malaysia and Philippines, to the East, the EEZs of Papua New Guinea and East Timor, and Australia to the South.

Long-line comprises short lines carrying hooks that are attached to a longer main line at regular intervals (FAO). Longlines are laid on the bottom at depths of 50 to 150 m, with the help of small anchors or weights, and marked at the surface with flagged buoys. The lines deployed in the groundfish fishery are estimated to be between 200 to 500 hooks per set, depending on vessels size (Mous, pers com, September 2017). The bottom long-liners fish on the shelf area as well as on the top of the slopes that drop into deeper waters. Bottom long line fishing for snappers and co-occurring species is done with vessels ranging from smaller than 5 GT up to around 100 GT in Indonesian waters.

Drop-lining comprises a main line with one to 10 hooks and a weight (Mous, ibid.), held vertically in the water by hand (handline) or by manual reel. Several droplines may be operated by one fishermen or one vessel (FAO). Drop line fishers target snappers and other demersal species around structures and slopes throughout Indonesia from depths of around 30 to 50 meters on continental shelf areas, to deep slopes and seamounts 50 to 500 meters deep. Drop liners deployed in this fishery range in size from simple canoes to vessels more than 30 GT.

Trap and Gill-net fishing for snappers, groupers, emperors and co-occurring species is less widespread than the use of long line and drop line and is often done in a mixed fishery where hook and line methods are used simultaneously with the traps or gillnets. Commonly used deep water traps for snappers and groupers are made of metal frames and wiring, with the trap cages around 1.5 meters long and wide and about 0.5 to 1 meter high. Traps are usually baited and positioned near structures which are known aggregation sites for target species. Bottom gillnets are set horizontally near structures on continental shelf areas but also vertically along steep

slopes and reef drop-offs, with one end tied off to rocks or coral heads on reef tops and the other end weighted and dropped several hundred meters deep, by stretching the net away from the reef over deep water before dropping it.

The size of vessels in this fishery include a broad range of vessels, including < 5 GT to > 30 GT. Fishers are licensed by permit system with MMAF responsible for licensing vessels > 30 GT, Dinas Perikanan Province, for vessels between 5 to 30 GT, and Dinas districts, for all vessels under 5 GT. Vessels are licensed annually, according to broad definitions of fishing method. However, the method and target species for vessels less than 5 GT may change according to availability of the target species. Larger vessels are known to move long distances and into different jurisdictional area, in which case, they will be required to hold several licenses. Vessels over 30 GT are only allowed to hold two concurrent WPP licenses.

The stock assessment programme comprises a number of proxy assessments of the multi-species deepwater dropline and longline fisheries targeting snappers, groupers, emperors, and grunters, located at depths ranging from 50 to 500 metres. These proxy assessments are identified as reasonable proxies of stock biomass for the Point of Recruitment Impairment (PRI) and/or Maximum Sustainable Yield (MSY). There are 395 individual Units of Assessment (UoA), representing 90% of the total species numbers in the dropline fishery and 90% in the longline fishery. The expectation is that the 396 UoAs, will be separated between dropline-caught species by. management area, with each area representing single stocks. Many, of these species occur in both fisheries and in each management area.

There is presently no harvest strategy applied to these fisheries by the management authority, the Ministry of Marine Affairs and Fisheries (MMAF).

The following FIP development priorities have been identified:

MSC Principle 1

Using a suite of proxies, development of agreed Performance Indicators and Reference Points to define stock status based on existing data sets (e.g. fishery-independent surveys)

Provide a sufficiently robust estimate of the removals from each stock by Indonesian fisheries other than the sub-fisheries under assessment

Development of a harvest strategy which is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving the stock management objectives of each target species fluctuating around a level consistent with MSY.

MSC Principle 2

Provide a comprehensive table on other species catches, taken by each sub-fishery, and relating these numbers to the total catch in each fishery. This requires some elaboration of the data collection system for each of the groundfish fisheries in each WPP . Once collected, the assessment will need to review species caught, their status and vulnerability if between 2-5% of the total catch), and whether the UoA fishery is likely to impact on these stocks. From information gathered to date, this would appear to be quite unlikely.

Review whether ot not the fishery requires a shark finning strategy. Sharks caught represent less than 1% of the total catch of all species.

Review the impact of lost gears on marine habitats.

Implement a policy of non-discarding of waste, or any other synthetic or semi-synthetic organic compoundsfrom fishing vessels.

MSC Principle 3

Implement a fishery specific management plan that identifies short and long-term objectives, which are consistent with achieving the outcomes expressed by MSC?s Principles 1 (stock assessment, harvest strategies) and 2 (ecosystem management).

Develop a comprehensive decision-making system is in place into the WPP consultative process that includes:

Develop and apply of a compliance strategy for the deepwater snapper and grouper sub-fisheries.

Ensure that there is a fisheries specific management performance review process in place which is subject to internal and occasional external review.

How is this FIP Doing?

Current Status:

Actions Progress This shows the proportion of actions in the workplan that the FIP has completed.

Actions Overview This shows the proportion of actions that are behind schedule, on track,completed, or not yet started.

Behind	On Track	Complete	Future
0%	90%	10%	0%

Red Indicator Progress This shows the proportion of actions specifically addressing red indicators that are behind schedule, on track, completed, or not yet started. This helps users understand the progress the FIP is making on the biggest challenges in the fishery.

Behind	On Track	Complete	Future
0%	100%	0%	0%

FIP Progress Rating

A - Advanced Progress

FIP Objective(s)

Project Objective

To ensure the long term livelihood of fishers by establishing sustainable resource management for the nation?s groundfish (snapper, grouper, emperor and grunter) fisheries, and supporting preservation of allied ecosystems from which these resources depend (July 2019-June 2023).

Sub objective 1. The application of proxies accepted as an appropriate stock assessment tool for the Indonesian groundfish fishery (July 2019-July 2024).

Sub objective 2. To develop a groundfish fishery harvest strategy (July 2019-Dec 2022)

Sub objective 3. to promote the ecosystem based approach to fisheries management (July 2019-Jan 2023)

Sub objective 4. Fishery specific management objectives applied with the support of a management plan (July 2019-Dec 2021).

Sub objective 5. WPP decision making structure strengthened to ensure that it responds to fisheries specific requirements (July 2019-Dec 2022).

Sub objective 6. To strengthen compliance systems within the groundfish fishery (July 2019-Dec 2022)

Sub objective 7. Robust chain of custody system operational (July 19-June 2020)

FIP Type

Comprehensive

FIP Stage

Stage 4: Improvements in Fishing Practices or Fishery Management

Start and Projected End Dates

July, 2019 -
June, 2024

Species

Common Name

Goldband Snapper
Scientific Name
Pristipomoides multidens

Common Name
Sharptooth Jobfish
Scientific Name
Pristipomoides typus

Common Name
Rusty Jobfish
Scientific Name
Aphareus rutilans

Common Name
Malabar Snapper
Scientific Name
Lutjanus malabaricus

Common Name
Crimson Jobfish
Scientific Name
Pristipomoides filamentosus

Common Name
Saddleback Snapper
Scientific Name
Paracaesio kusakarii

Common Name
Crimson Snapper
Scientific Name
Lutjanus erythropterus

Common Name
Flame Snapper
Scientific Name
Etelis coruscans

Common Name
Areolate Grouper
Scientific Name
Epinephelus areolatus

Common Name
Red Emperor
Scientific Name
Lutjanus sebae

Common Name
Grass Emperor
Scientific Name
Lethrinus laticaudis

Common Name
Blue-lined Emperor
Scientific Name
Gymnocranius grandoculis

Common Name
Giant Ruby Snapper
Scientific Name
Etelis sp

Common Name
Slender Pinjalo
Scientific Name
Pinjalo lewisi

Common Name
Pale Snapper
Scientific Name
Etelis radiosis

Common Name
Striped Grouper
Scientific Name
Epinephelus latifasciatus

Common Name
Almaco Jack
Scientific Name
Seriola rivoliana

Common Name
Green Jobfish
Scientific Name
Aprion virescens

Common Name
Timor Snapper
Scientific Name
Lutjanus timorensis

Common Name
Chinamanfish
Scientific Name
Symphorus nematophorus

Common Name
Lavendar Jobfish
Scientific Name
Pristipomoides sieboldii

Common Name
Cocoa Snapper
Scientific Name
Paracaesio stonei

Common Name
Duskytail Grouper
Scientific Name
Epinephelus bleekeri

Common Name
Mozambique Large-eye Bream
Scientific Name
Wattsia mossambica

Common Name
Painted Sweetlip
Scientific Name
Diagramma pictum

Common Name
Mangrove Red Snapper
Scientific Name
Lutjanus argentimaculatus

Common Name
Red Bass
Scientific Name
Lutjanus bohar

Common Name
Humpback Red Snapper
Scientific Name
Lutjanus gibbus

Common Name
John's Snapper
Scientific Name
Lutjanus johnii

Common Name
Russell's Snapper
Scientific Name
Lutjanus russelli

Common Name
Brownstripe Red Snapper
Scientific Name
Lutjanus vitta

Common Name
Moluccan Snapper
Scientific Name
Lutjanus boutton

Common Name
Blubberlip Snapper
Scientific Name
Lutjanus rivulatus

Common Name
Tang's Snapper
Scientific Name
Lipocheilus carnolabrum

Common Name
Tomato Hind
Scientific Name
Cephalopholis sonnerati

Common Name
Orange-Spotted Grouper
Scientific Name
Epinephelus coioides

Common Name
Bridled Grouper
Scientific Name
Epinephelus heniocus

Common Name
Dotted Grouper
Scientific Name
Epinephelus epistictus

Common Name
Eightbar Grouper
Scientific Name
Hyporthodus octofasciatus

Common Name
Bar-Cheeked Coral Trout
Scientific Name
Plectropomus maculatus

Common Name
Leopard Grouper
Scientific Name
Plectropomus leopardus

Common Name
White-edged Lyretail
Scientific Name
Variola albimarginata

Common Name
Pink Ear Emperor
Scientific Name
Lethrinus lentjan

Common Name
Spangled Emperor
Scientific Name
Lethrinus nebulosus

Common Name
Longface Emperor
Scientific Name
Lethrinus olivaceus

Common Name
Spotcheek Emperor
Scientific Name
Lethrinus rubrioperculatus

Common Name
Longnose Trevally
Scientific Name
Carangoides chrysophrys

Common Name
Bludger
Scientific Name
Carangoides gymnostethus

Common Name
Bluespotted Trevally
Scientific Name
Caranx bucculentus

Common Name
Giant Trevally
Scientific Name
Caranx ignobilis

Common Name
Bigeye Trevally
Scientific Name
Caranx sexfasciatus

Common Name
Tille Trevally
Scientific Name
Caranx tille

Common Name
Rainbow Runner
Scientific Name
Elagatis bipinnulata

Common Name
Japanese Rubyfish
Scientific Name
Erythrocles schlegelii

Common Name
Slate Sweetlips
Scientific Name
Diagramma labiosum

Common Name
Javelin Grunter
Scientific Name
Pomadasys kaakan

Common Name
Bigeye Barracuda
Scientific Name
Sphyraena forsteri

Common Name
Sawtooth Barracuda
Scientific Name
Sphyraena putnamae

Common Name
Japanese Soldierfish
Scientific Name
Ostichthys japonicus

Common Name
Blackspotted Croaker
Scientific Name
Protonibea diacanthus

Common Name
Orange Croaker
Scientific Name
Atrobucca brevis

Gear Type

Bottom Longline

Dropline

Gillnet

Pot/Trap

Location

FAO Major Fishing Area

Area 57 (Indian Ocean, Eastern)

Area 71 (Pacific, Western Central)

Exclusive Economic Zones

Country
Indonesia

Geographic Scope
Entire Country

Country Flag of Vessel

Indonesia

Estimated Total FIP Landings
111333 metric tons

FIP Leads

Organization Name
The Nature Conservancy ? Indonesia Fisheries Conservation Program

Organization Type
NGO

Primary Contact
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Phone
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Website Name
The Nature Conservancy ? Indonesia Fisheries Conservation Program

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Source URL: https://fisheryprogress.org/fip-profile/indonesia-deepwater-groundfish-dropline-longline-trap-and-gillnet