

Oman Indian oil sardine fishery

MarinTrust whole fish assessment

4 August 2026

Additional species added to scope after FIP meeting, 22 September 2026

1. Introduction

This is the sixth version of this assessment. The fishery was initially assessed by MarinTrust in February 2023, then updated to MarinTrust Standard version 3 by Jo Gascoigne, March 2024, and further updated with additional information in December 2025 and February 2026. This document further updates the assessment. The new information incorporated into this assessment is the following:

- Fishery and species composition data obtained directly from the participating factories;
- A formal English translation of Royal Decree 20/2019 (Living Aquatic Resources Laws)
- A review of publicly-available fisheries legislative and policy documents by Dr Mohamed Samy-Kamal (Samy-Kamal 2026)
- A report of the state of knowledge of fishery interactions with ETP species (OneOcean 2026)

Previous versions showed the edits in red / strikethrough, but this has now become too confusing, so this is a clean, stand-alone document, replacing previous versions.

2. Scope

Management Authority	Sultanate of Oman
Main species	Indian oil sardine (<i>Sardinella longiceps</i>)
Fishery Location	FAO Area 51 (Indian Ocean West), Oman EEZ
Gear type	beach seine, purse seine, encircling gillnets Omani gear codes FG(net), FG(small pelagic net), FG(CN)

3. Summary of outcome

Overall outcome		GAP
Clauses failed		Reason for fail
M1.1.3	Fishers access to training materials	Not clear for all fishers
M1.3.3	Transparent and independent scientific advice	Advice is not publicly available
M1.5.2	Transparency of decision making	Most information on advice and decision-making is not publicly available
M2.2.2	Systematic non-compliance	Some concerns are reported
M2.3.2	Fishery cooperation with management	Assessor has no information
M2.3.3	Catch reporting and tracing for traceability and exclusion of IUU	To some extent but unclear if sufficient
A1.2	Sufficient information for stock assessment for sardines	Information being collected to use data-deficient methods
A2.3	Estimation of appropriate level of removals	Mandated but may not yet be in place
A2.4	Internal or external review of assessment	May be internal in MAFWR – unclear

A2.5	Stock assessments public	Not publicly available
A3.1	Mechanism to restriction fishing mortality	Not in place
A3.2	Removals at recommended level	Mandated but not in place as yet
A3.3	Fishing stopped when stock below Blim	Not in place – no reference points
A4.1	Stock status	Unclear
B	Risk analysis for goldstripe sardine, rainbow sardine, Indian sardine and Indian mackerel	Estimates of B and/or F are not publicly available
E1.1.2	ETP interactions reported and recorded	Maybe for Turkish vessels but not for artisanal
E1.1.3	Fishery impacts on ETP species known	Unclear at present
E1.2.1	No negative impact of the fishery on ETP spp	Cannot be guaranteed at present
E1.3.2	Measures are working	Cannot be guaranteed at present
E2.1.2	Information on time / place / scale of fishing operations	Not available at present
E3.1.3	Impact of fishery on ecosystem	Need information on stock status
E3.2.1	Fishery not having impact on ecosystem	Unclear
E3.3.2	Measures to protect ecosystem are working	Unclear

4. Species composition of fishery

According to sourcing data received from the participating factories, they source from two fisheries:

- small artisanal / fibreglass purse seine fishery
- large, industrial (Turkish) purse seine fishery

At present (to end 2025-6 season), the majority of the raw material comes from the artisanal fishery (~70% in the most recent season), but the Turkish vessels are relatively recent arrivals so the sourcing strategy might vary over the next few seasons. It will be kept under review annually.

Another source of data is the landings data from the 2023 Fisheries Statistical Yearbook, which is available online (<https://stg-portal.service.gov.om/ministry-of-agricultural-fisheries-and-water-resources>; in Arabic). This was the basis for the previous version of this assessment. However, these data are prior to the arrival of most of the Turkish purse seiners, so may not be applicable to the current situation. We have therefore updated the species composition and sourcing information to use the information directly from the factories, from the most recent three seasons (Table 1).

Table 1. Fishery source and species composition of raw material purchases by the participating factories, seasons 2023-4 to 2025-6 (t)

Species	Vessel type	2023-4	2024-5	2025-6	% (all years)
oil sardine	fibreglass	129,080	132,459	131,763	67.3
oil sardine	Turkish	32,453	20,358	59,940	19.3
Indian sardine	fibreglass	-	29,196	431	5.1
goldstripe / rainbow sardine	fibreglass	4,334	3,870	6,224	2.5
goldstripe / rainbow sardine	Turkish	-	-	37	0.0
crescent grunt (tiger perch)	fibreglass	10,468	5,071	-	2.7

mackerel	fibreglass	6,875	4,393	550	2.0
mackerel	Turkish	299	46	14	0.1
catfish	fibreglass	2,511	521	-	0.5
horse mackerel	fibreglass	1,160	853	-	0.3
hilsa	fibreglass	314	1,019	-	0.2

The species listed above are the following:

English name	Omani name	Scientific name
oil sardine	ouma	<i>Sardinella longiceps</i>
Indian sardine	hafa	<i>Sardinella sindensis</i>
goldstripe sardine and/or rainbow sardine	samika, shmaiki, samaika*	<i>Sardinella gibbosa</i> and/or <i>Dussumieria acuta</i>
crescent grunt	burama*	<i>Terapon jarbua</i>
Indian mackerel	bagha	<i>Rastrelliger kanagurta</i>
catfish	yahm, yanam	<i>Arius</i> spp.
horse mackerel	agar	<i>Trachurus indicus</i> **
hilsa	shighai	<i>Nematalosa nasus</i>

* the identification of samaika and burama remains to be fully confirmed

** noted as *Trachurus* sp. but *T. indicus* seems to be the only *Trachurus* species with the appropriate distribution

In addition to this, at the FIP meeting on 22 September 2026, all the participating factories were requested to verify their species lists, to make sure that all species represented in the raw material in very small quantities were nevertheless included. This has led us to include the following additional species in the scope of the FIP, all potentially present in the raw material in small quantities:

- spotted sardinella (*Amblygaster sirm*)
- Indian scad (*Decapterus russelli*)
- needlefish (*Trichiurus lepturus*)

There may also occasionally be other species of scombrids or small tunas, most likely mixed with the mackerels – this remains to be fully clarified.

5. Species categorisation

The species categories has not changed from version 2 to version 3; i.e. Type 1 species are 'target' species and should make up a minimum of 95% of fishery; Type 2 species are non-target. Category A species are Type 1 species with a species-specific management regime, while Category B species are Type 1 species without; Categories C and D are the same for Type 2 species. At least 95% of the catch should be considered as Category A or Category B. The proportions should be based on fishery data, not factory data. The only reliable data we have for the moment is factory data, but on this basis, we categorise the species for the two fisheries (artisanal and Turkish) separately.

Oil sardine makes up 99.6% of factory purchases from the Turkish vessels. Since fishmeal factories are (as far as we know) the main or possibly only customers, we can likely be confident that this is also the case for the fishery. Therefore, for this fishery, oil sardine is Category A/B. The only other species mentioned in the data, in very low quantities (total 51 t purchased by the factories across

the three seasons and both species) are goldstripe / rainbow sardine and Indian mackerel. We consider these species as Category C/D for the Turkish fishery.

For the artisanal fishery, it is relevant to consider the percentages individually for each season, since they quite variable (Table 2). In the most recent season, oil sardine made more or less 95% of purchases, while the three sardine species together made up >99%. In past seasons, there has been a greater variety of species, although the sardines plus mackerel still make up 95%, or close to it. Reportedly the arrival of the Turkish vessels means that the factories can be more selective about their purchase from the artisanal fishery, which uses a variety of methods and sells to a variety of markets as suitable and available.

For now, for the artisanal fishery, we take the three sardine species plus the Indian mackerel as Category A/B and the others as Category C/D, potentially to be removed if they continue to be absent from the statistics in the next couple of seasons.

Table 2. Species composition of purchases from artisanal fishery, by %

	2023-4	2024-5	2025-6
oil sardine	83.4	74.7	94.8
goldstripe sardine	2.8	2.2	4.5
rainbow sardine			
Indian sardine	-	6.5	0.3
Indian mackerel	4.4	2.5	0.4
catfish	1.6	0.3	-
horse mackerel	0.7	0.5	-
crescent grunt (provisional identification)	6.8	2.9	-
hilsa	0.2	0.6	-

Spotted sardinella, needlefish and scad are also added to this list based on qualitative species information from the factories in September 2026 (see above).

For now, since there is no species-specific management, the species are included in Categories B and D respectively. It is advised, however, that the FIP aims to promote the target species from Category B to Category A (see FIP Action Plan).

The species table (Table 5 in MarinTrust 2023) is updated below.

Table 3. Species categorisation table (LC = least concern)

Species	IUCN category	MT category Turkish fishery	MT category artisanal fishery	References
oil sardine	LC	A	A	Di Dario and Munroe 2020
goldstripe sardine	LC	D	B	Santos et al. 2018
rainbow sardine	LC	D	B	Hata 2021
Indian sardine	LC	-	B	Di Dario 2018
Indian mackerel	LC	D	B	Collette and Pollard 2023
catfish		-	D	
horse mackerel	VU	-	D	Smith-Vaniz et al. 2018

crescent grunt	LC	-	D	Dahanukar et al. 2016
hilsa		-	D	
spotted sardinella	LC	D?	D	Di Dario 2017
needlefish		D?	D	
Indian scad	*	D?	D	

* IUCN assessment LC but from 2010 – no longer useful

6. Assessment

M1. Management Framework

M1.1 There is an organisation responsible for managing the fishery		
M1.1.1	The management and administration organisations within the fishery are clearly identified	Pass
M1.1.2	The functions and responsibilities of the management organisations include the overall regulation, administration, science and data collection and enforcement roles, and are documented and publicly available	Pass
M1.1.3	Fishers have access to information and/or training materials through nationally-recognised organisations	GAP
M1.1.1: Royal Decree No. 20/2019 Issuing the Living Aquatic Resources Law (https://qanoon.om/p/2019/rd2019020/): This provides the current statutory basis for modern fisheries, defining state ownership of marine resources, introducing absolute gear prohibitions, and empowering MAFWR as the resource manager on behalf of the state. Royal Decree No. 92/2020 Modifying the Name of the Ministry of Agriculture and Fisheries: This consolidates administrative power by restructuring MAFWR as the singular sovereign authority over fisheries management, licensing, and aquatic wealth protection. M1.1.2: Royal Decree 92/2020 (https://qanoon.om/p/2020/rd2020092/) sets out the structure, functions and responsibilities of MAFWR, including regulation, science and data collection and enforcement. Sultan Qaboos University (SQU) has a non-statutory scientific role. M1.1.3: Royal Decree No. 20/2019, Article 19: <i>The Ministry shall work to encourage and develop artisanal fishing, train and guide artisanal fishermen, and create job opportunities for Omani cadres in the fishing profession and activities related to living aquatic resources.</i> Having said that, we do not have information about what is practically available on the ground. It does not seem, for example, the fishers are provided with information about handling and releasing ETP species (One Ocean 2026).		

M1.2 Fishery management organisations are legally empowered to take management actions		
M1.2.1	There are legal instruments in place to give authority to the management organisation(s) which can include policies, regulations, acts or other legal mechanisms	Pass
M1.2.2	Vessels wishing to participate in the fishery must be authorised by the management organisation(s)	Pass

M1.2.3	The management system has a mechanism in place for the resolution of legal disputes	Pass
M1.2.4	There is evidence of the legal rights of people dependent on fishing for food or livelihood	Pass
M1.2.1: The MAFWR is empowered by Royal Decree 92/2020 to issue regulations and take action to protect fish stocks. Royal Decree 20/2019 Article 2 also states: <i>The Ministry shall manage their [living aquatic resources] exploitation, assessment and supervision in accordance with the provisions of this law and the Regulations. No activity relating to living aquatic resources may be authorised or licensed except after coordination with the Ministry and in accordance with what is specified in the Regulations.</i> Ministerial Decision No. 70/2026 Issuing the Executive Regulation of the Living Aquatic Resources Law modernizes licensing, mandates vessel tracking, and enforces operational zones for all fleets. This consolidates previous decisions which regulated individual gear types or other issues into one overall set of regulations. M1.2.2: Royal Decree 20/2019 Article 7: <i>The Ministry shall maintain a special register in which artisanal, coastal and commercial fishing boats licensed to fish are recorded, along with the name of each owner, the fishing area where fishing is permitted, fishing equipment, tools and methods, the number of fishermen or workers authorised to work on board the boat or vessel, the date and country of manufacture, technical specifications such as length, tonnage and engine power; and any other data specified by the Ministry.</i> Under Ministerial Decision No. 70/2026 (https://qanoon.om/p/2026/maf20260070/), all fishers, whether part- or full-time, must have a license, although the licence is not specific to any particular fishery. All fishing vessels must display vessel identification. M1.2.3: Oman's legal framework provides a multi-tiered dispute resolution structure encompassing formal administrative appeals, out-of-court settlements, and traditional customary arbitration. • Administrative Appeals (Grievance Mechanism): Under Article 25 of Ministerial Decision No. 70/2026, applicants whose license applications are rejected have 60 days from the date of formal notification to lodge an administrative appeal. If the Competent Authority does not respond within 30 days, the appeal is legally deemed rejected. • Administrative Settlement: Article 61 of Royal Decree No. 20/2019 grants the Minister discretionary power to settle violations administratively prior to judicial ruling. Settlement halts criminal proceedings provided the violator pays a fine of not less than 50% of the maximum statutory fine and rectifies the violation at their own expense. • Customary Arbitration (<i>Lijan Sunan Al-Bahr</i>): Article 352 of Ministerial Decision No. 70/2026 codifies the traditional authority of the Customary Sea law committees (<i>Lijan Sunan Al-Bahr</i>). These bodies are legally mandated to arbitrate local disputes among fishers concerning gear usage, spatial/temporal conflicts, and seasonal operations according to established maritime customs. RD 20/2019 Article 61 states: ... <i>the Minister or his delegate may refrain from proceeding with the public lawsuit procedures for violations stipulated in this law or the Regulations and settle them at any stage of the public lawsuit and before a final judgement is issued therein.</i> ... M1.2.4:		

Article 19 of Royal Decree 92/2020 (Living Aquatic Resources Law) states that the Ministry should support and develop artisanal fishing, and create job opportunities for Omani citizens in fishing and related work.

M1.3 There is an organisation responsible for collecting data and (scientifically) assessing the fishery		
M1.3.1	The organisation(s) responsible for collecting data and assessing the fishery is/are clearly identified	Pass
M1.3.2	The management system receives scientific advice regarding stock, non-target species and ecosystem status	Pass
M1.3.3	Scientific advice is independent from the management organisation(s) and transparent in its formulation through a clearly defined process	GAP
M1.3.1: Royal Decree 92/2020 places responsibility for fisheries research with the MAFWR. In practice, much of the research reviewed for the purposes of this assessment was produced by the Department of Marine Science and Fisheries at Sultan Qaboos University. There is no formal statutory relationship between the two but there are close links. Talking to both parties, their roles seem to be clear. M1.3.2: The responsibility for providing scientific advice to support management is internal within MAFWR. According to Royal Decree No. 92/2020 and Ministerial Decision No. 70/2026, the Directorate general of fisheries research and the Marine Science and Fisheries Centre (MSFC) are formally designated as key components of the "Competent Authority" within the Ministry of Agriculture, Fisheries and Water Resources (MAFWR). They hold the explicit statutory obligation to conduct stock research and provide management recommendations. The internal process by which MAFWR solicits, receives and takes account of all research findings is currently a bit unclear. From discussion with fisheries scientists at SQU, it seems that there is a process where they receive fisheries data from the Ministry on an annual basis and use it for stock assessments and other analyses, which are then presented back to the Ministry. SQU is also conducting research on the ecosystem. MAFWR therefore does receive scientific advice, both from internal / statutory sources and from external / non-statutory sources (mainly SQU). RD 20/2019 Article 4 states: <i>The Ministry encourages scientific bodies, centres and researchers to conduct research relating to living aquatic resources, and to conduct it in fishing waters ...</i> M1.3.3: Scientific advice from SQU is independent, and there is a process, as noted above, but it is not clear from the outside how it works.		

M1.4 The fishery management system is based on the principles of sustainable fishing and a precautionary approach		
M1.4.1	In reaching a determination for M1.4, the assessor should consider if the following is in place: A policy or long-term management objective for sustainable harvesting based on the best scientific evidence and a precautionary approach is publicly available and implemented for the fishery	Pass
As an overarching objective, Article 2 of Royal Decree No. 20/2019 classifies living aquatic resources as vital national assets and establishes the state's legal duty to protect, develop, and ensure the "rational and sustainable exploitation" of marine stocks.		

More specifically, Oman's legal framework mandates that core management decisions be built on biological principles, though the exact administrative procedures for integrating research findings are broadly stated rather than procedurally step-by-step.

- Resource exploitation plans: According to Article 149 of Ministerial Decision No. 70/2026, the competent authority is legally required to formulate resource exploitation plans built upon scientific foundations, specifically accounting for species biological cycles, spawning periods, and reproductive patterns.
- Total Allowable Catch (TAC) & quota determination: Article 33 of Royal Decree No. 20/2019 mandates that the Ministry establish annual commercial extraction limits and quotas based strictly on scientific evaluations of available biomass to maintain long-term sustainability.

M1.5 There is a clearly defined decision-making process which is transparent, with processes and results made publicly available

M1.5.1	There is participatory engagement through which fishery stakeholders and other stakeholders can access, provide information, consult with, and respond to, the management systems' decision-making process	Pass
M1.5.2	The decision-making process is transparent, with results made publicly available	GAP
M1.5.3	The fishery management system is subject to periodic internal or external review to validate the decision-making process, outcomes and scientific data	Pass

M1.5.1:

There is a formalized, legislative mechanism for stakeholder participation through institutionalized regional coastal committees. Articles 351–352 of Ministerial Decision No. 70/2026 establish Customary Sea Law Committees (*Lijan Sunan Al-Bahr*) across all coastal districts (*Wilayats*). These include traditional community leaders/elders, elected fisher representatives, and local MAFWR officials. Article 351 of Ministerial Decision No. 70/2026 explicitly grants these committees the legal standing to review and submit formal recommendations on proposed draft laws, ministerial regulations, and administrative decisions before executive enactment.

M1.5.2

Decision-making is transparent to stakeholders, through the above mechanism. Reportedly MAFWR also engages with the wider fishing community on a regular basis through social media. However, information such as scientific advice and meeting minutes are not publicly available (e.g. on the Ministry website), as far as we can establish.

M1.5.3:

The Omani fisheries legal framework contains no statutory obligation requiring periodic third-party, independent, or international reviews of its management system or scientific assessments. Management performance evaluations remain internal to MAFWR. However, ongoing adjustments to the regulatory framework suggests an ongoing internal process within the Ministry of review and adjustment / modernisation of the fishery management system: e.g. replacement of Royal Decree 53/1981 by Royal Decree 20/2019 as the over-arching legislation; consolidation and revision of Ministerial Decisions 245/2016, 183/2016 and 34/2019 (specific items of regulation) into 70/2026 (unified code of regulations implementing 20/2019 in detail). Ministerial Decision 70/2026 requires, for example, the development of Resource Exploitation Plans for key fishery resources, including the establishment of TACs and quotas, which has not been a feature of Omani fisheries management up till now. Therefore, a review process clearly exists in practice even if it is not formally codified into the requirements of the system.

M2. Surveillance, Control and Enforcement

M2.1 There is an organisation responsible for monitoring compliance with fishery laws and regulations		
M2.1.1	There is an organisation responsible for monitoring compliance with specific monitoring, control and surveillance (MCS) mechanisms in place	Pass
M2.1.2	There are relevant tools or mechanisms used to minimise IUU fishing activity	Pass
M2.1.3	There is evidence of monitoring and surveillance activity appropriate to the intensity, geography, management control measures and compliance behaviour of the fishery	Pass
M2.1.1: The organisation responsible for monitoring compliance with fisheries laws and regulations is the Department of Fisheries Control and Licensing within the MAFWR. RD 92/2020 gives responsibility to the Ministry as the ‘supervisory authority’. Article 48 of RD 20/2019 states: <i>The Supervisory Authority shall have the following powers with respect to violations within its jurisdiction relating to the provisions of this law or the Regulations:</i> [in summary monitoring and control of fishing vessels, and facilities for transport, stockage and sale of LAR, and licences and documentation; issue violation reports; seize and destroy or sell vessels, facilities, equipment, fishing gear and LARs] M2.1.2 and M2.1.3: Enforcement data over the past few years shows a highly active monitoring system, with violations generally hovering between 3,000 and 4,800 infractions annually: • 2025: 3,223 violations • 2023: Over 4,800 violations • 2021: 4,352 violations • 2020: 4,298 violations The drop in violations in 2025 may reflect the recent tightening of regulations, the mandatory rollout of Vessel Monitoring Systems (VMS), and the transition toward institutionalizing the artisanal fleet, which makes evasion more difficult. When we break down the specific types of infractions (using the highly detailed data released for 2025 and 2021), a clear picture emerges of where the sector struggles with compliance: 1. Administrative and licensing failures (the vast majority): By far, the most common offense is administrative. In 2025, 1,840 cases (~57% of all violations) were related to licensing—this includes operating without a license, failing to renew, or failing to carry the required documents for boats and fish transport vehicles. In 2021, this number was even higher, at 2,834 cases. 302 vessels were also cited in 2025 for failing to display vessel identification. 2. Prohibited gear / methods The use of banned fishing equipment (such as illegal mesh sizes, unauthorized nets, or trapping cages) is the second most common infraction. There were 440 cases of this in 2025, and 455 cases in 2021. 3. Illegal expatriate labor Oman strictly regulates who can operate artisanal vessels, officially reserving these roles for Omani nationals to protect local livelihoods. However, employing unlicensed expatriate workers remains a persistent issue, with 146 cases recorded in 2025 and 266 cases in 2021. 4. Tracking system (VMS) violations		

As Oman enforces its Vessel Monitoring System (VMS) policy to combat IUU fishing, it has started prosecuting tampering or non-compliance. In 2025, authorities recorded 149 violations explicitly linked to vessel tracking devices.

5. Spatial and temporal violations

In 2025, there were 74 cases of fishing in prohibited areas and 12 cases of out-of-season shrimp harvesting which were recorded.

Enforcement actions:

When violations are detected, MAFWR utilizes confiscations alongside fines to deter repeat offenses. For example, during the 2025 enforcement campaigns, authorities executed 2,550 seizures, which resulted in the confiscation of:

- 1,566 illegal fishing nets
- 60 boats/vessels and 107 engines
- Over 12,100 kg of illegally caught marine life (including 9,234 kg of fish and over 1,500 kg of out-of-season lobster)

M2.2 There is a framework of sanctions which are applied when infringements against laws and regulations are discovered

M2.2.1	The laws and regulations provide for penalties or sanctions that are adequate in severity to act as an effective deterrent	Pass
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M2.2.2	There is no evidence of systematic non-compliance	GAP
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M2.2.1:

Articles 50-60 of Royal Decree 20/2019 set out the penalties for a range of offences, plus attempting to commit the offences. These include fines, prison and confiscation, depending on the Article of the law which has been violated, and gives the Ministry discretion (a range of options) as to the penalty imposed. As an example: Article 51: violation of Articles 9, 15, 16, 20 or 22* results in a prison term of 10 days – 1 month, and/or a fine of 200-1000 rials, to increase up to double for a repeat violation.

(* fishing without a licence, or an expired licence, or using a fishing boat for unlicensed activities, or failing to carry the licence or display a registration number)

M2.2.2:

Clearly the control system is able to detect a considerable quantity of non-compliance, and take action accordingly. According to MarinTrust (2023), widespread non-compliance was at that time a concern expressed by stakeholders. It seems that it may be ongoing, despite strong enforcement efforts, e.g. in relation to employment of non-Omani labour.

M2.3 There is substantial evidence of widespread compliance in the fishery, and no substantial evidence of IUU fishing

M2.3.1	The level of compliance is documented and updated routinely, statistically reviewed and available	Pass
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M2.3.2	Fishers provide additional information and cooperate with management/enforcement agencies/organisations to support the effective management of the fishery	GAP
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M2.3.3	The catch recording and reporting system is sufficient for effective traceability of catches per vessel and supports the prevention of IUU fishing	GAP
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M2.3.1:

There is **no legal requirement** mandating MAFWR to publicly disclose or publish compliance, violation, or enforcement data via an official portal or annual public registry. Although internal tracking obviously exists, public access to these databases is not legally guaranteed.

While the MAFWR does not maintain a live, interactive "open data" portal for real-time compliance tracking, it does regularly release aggregated annual enforcement data to the public through official press statements, local media (such as the Oman News Agency and Muscat Daily, e.g., <https://www.muscatdaily.com/2022/02/07/4352-violations-of-marine-fishing-law-in-2021/#:~:text=An%20MAFWR%20official%20said%20that%20specialists%20in,unlicensed%20expatriate%20workers%2C%20373%20instances%20of%20non%2D> ; and <https://www.muscatdaily.com/2026/03/25/over-3200-fisheries-violations-recorded-across-oman-in-2025/#:~:text=Meanwhile%2C%20the%20Ministry%20of%20Agriculture%2C%20Fisheries%20and,for%20fishing%20boats%2C%20vessels%20and%20fish%20transporters.>), as well as national reports to international bodies.

M2.3.2: Unclear

M2.3.3:

In general Royal Decree No. 84/2008 Issuing the Food Safety Law mandates traceability throughout the supply chain. MAFWR is the competent authority and the catch certification system is sufficient to allow export of fisheries products to the EU and other areas with strict regulation on traceability of imports. The participating factories have traceability of raw material sourcing back to purchase date and landing site although whether there is traceability to individual artisanal vessels is unclear. In general for the artisanal fishery, the fleet is very large (26533 in total in 2023, according to the Statistical Bulletin), making traceability to vessel level quite challenging.

Species requirements: Category A species

The objective of the FIP in the short term is to ensure that oil sardine is a Category A species. In the medium term, it may also be important to ensure that goldstripe and Indian sardine and Indian mackerel are included in Category A, but they have been evaluated under Category B for now.

A1. Data collection (Category A species)		
A1.1	Landings data are collected such that the fishery-wide removals of this species are known	Pass
A1.2	Sufficient additional information is collected to enable an indication of stock status to be estimated	GAP
A1.1: Landings data are collected and published in the annual Statistical Bulletin. Landings are general recorded as 'sardine', but there is sampling which allows the division of 'sardine' catch into component species (as set out above) (see 2023 Statistical Bulletin). The factories are also able to provide raw material data by species. A1.2: In general, there are periodic stock assessments for various species (e.g. Hashemi et al. 2025, Al Alawi and Dutta 2023, Al Shehhi et al. 2021), using data such as size and CPUE. Reportedly there		

have been stock assessments for sardine, but they do not seem to be systematic. Dr Sachinandan Dutta (SQU) project will start in the 2026-7 season to collect the necessary data for a stock assessment for oil sardine.

A2. Stock assessment

A2.1	A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock) and considers all fishery removals and the biological characteristics of the species	Pass
A2.2	The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy	Pass
A2.3	The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status	GAP
A2.4	The assessment is subject to internal or external peer review	GAP
A2.5	The assessment is made publicly available	GAP
A2.1: There has been considerable work over the years (see summary and details in MarinTrust 2023) but it seems to be ad hoc as to the area and species grouping considered, and it is not clear how it feeds into the management of the fishery. However, according to SQU, there is a process whereby the annual statistics are provided, they conduct stock assessments and provided that information back to the Ministry to feed into management decision-making. A2.2: The issue of 'biological stock' is difficult for Oman, because all the species of sardine are thought to be migratory. Genetic analysis, however, suggests that oil sardine in the Gulf of Oman constitutes an individual stock, separate from the wider Indian Ocean (i.e. the west coast of India) (Wilson et al. 2021). According to MarinTrust, MSY reference points have in the past been estimated, but by species group (small pelagics) rather than by species. More recently, SQU has reportedly been using a range of data-limited methods to estimate different reference points, including for sardine. A2.3: Unclear – the assessment reports are not publicly available. A2.4 and A2.5: The assessments cited by MarinTrust (2023) are publicly-available, peer-reviewed papers, but the more recent assessment reports are not publicly-available.		

A3. Harvest strategy

A3.1	There is a mechanism in place by which total fishing mortality of this species is restricted	GAP
A3.2	Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy	GAP
A3.3	Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).	GAP
A3.1: A licence is required to access the fishery. Article 33 of Royal Decree 20/2019 mandates that the Ministry establish annual commercial extraction limits and quotas based strictly on scientific evaluations of available biomass to maintain long-term sustainability; however there does not		

seem to be a formal TAC for oil sardine at present. Ministerial Decision 70/2026 establishes a range of gear and other restrictions (e.g. mesh sizes, banned gears, closed areas and seasons) which have the effect of reducing mortality, but these are not guided by any kind of management objectives or reference points for the stock, as far as we know.

A3.2: We have not so far been able to review the most recent stock assessment, but data collection to update it should soon be underway.

A3.3: There is no limit reference point formally agreed or mandated by management, nor any such rules.

A4. Stock status		
A4.1	The stock is at or above the target reference point; OR IF NOT: the stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure; OR IF NOT: the stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited	GAP
There is reportedly a recent stock assessment, but it is not publicly available.		

Species requirements: Category B species

For now, goldstripe sardine, Indian sardine and Indian mackerel are being evaluated as Category B species.

These are scored using a risk assessment, based on biomass or fishing mortality relative to reference points or the long-term mean. However, we do not have any of this information for any of these species at present.

Species requirements: Category D species

Category D species are:

Species	MT category Turkish fishery	MT category artisanal fishery
goldstripe sardine	D	B
rainbow sardine	D	B
Indian mackerel	D	B
catfish	-	D
horse mackerel	-	D
crescent grunt	-	D
hilsa	-	D
spotted sardinella	D?	D
needlefish	D?	D
Indian scad	D?	D

The tables for evaluating Category D species using a PSA are given in Appendix (Section 8). The assessment of catfish has been based on *Arius (Plicofollis) dussumieri*, which appears to be a common coastal species in the western Indian Ocean.

All the species scored a pass.

E1. Impact on ETP species

For this ecosystem section it is relevant to establish what are the main gears used by the fisheries.

The Turkish vessels use large purse seines. For vessels >10m, purse seine nets are permitted to have a maximum height of 30 m and a total length of 400 m, with a minimum mesh size of 20 mm. They must operate at least 10 nautical miles offshore, in a minimum depth of 35 m (Ministerial Decision 70/2026).

For the artisanal fishery, according to the statistical bulletin for 2023, taking data from the Oman south area (Al Sharqiyah, Al Wusta and Dhofar), the catch of oil sardine comes from different gear types as follows:

- FG(net) – small outboard vessels using nets of type so far unspecified: 38%
- FG(sp net) – the above vessels using nets specific for small pelagics (i.e. likely seines): 40%
- FG(CN) – the above vessels using a net code only applied in Dhofar: 12%
- LA(net) – larger inboard dhows using some kind of nets: 3.6%
- BSN – beach seine: 6.3%

Note that the various net codes applying to the FG vessels could be different variants, or different interpretations by enumerators of the same thing; this is so far unclear. It is clear, however, that the vast majority of the product (>90%) comes from small, open vessels with outboard engines, using nets of some kind.

E1.1 Information on interactions between the fishery and ETP species is collected		
E1.1.1	ETP species which may be directly affected by the fishery have been identified	Pass
E1.1.2	Interactions between the fishery and ETP species are recorded and reported to management organisations	GAP
E1.1.3	Collection and analysis of ETP information is adequate to provide a reliable indication of the impact the fishery has on ETP species	GAP
E1.1.1: One Ocean (2026) identifies all possible interactions of the fishery (Turkish and artisanal) with ETP species		
E1.1.2: The Turkish vessels reportedly have Ministry observers on board (frequency / coverage unknown), but the data they collect is unclear at present. For the artisanal fishery, this is not done.		
E1.1.3: This is not the case (One Ocean 2026).		

E1.2 The fishery has no significant negative impact on ETP species		
E1.2.1	The information collected in relation to E1.1.3 indicates that the fishery does not have a significant negative impact on ETP species	GAP
See above		

E1.3 There is an ETP management strategy in place for the fishery		
E1.3.1	There are measures applied to the fishery which are designed to manage the impacts of the fishery on ETP species	Pass

E1.3.2	The measures are considered likely to achieve the objectives of regional, national and international legislation relating to ETP species	GAP
E1.3.1: The Royal Decree 20/2018 and the Ministerial Decision 70/2026 (law and regulations) include the following provisions for protected ETP species in fisheries: • Prohibition on hunting, catching, or harming sea turtles (and their eggs), cetaceans, dugongs and seabirds • Any incidental capture (bycatch) of ETP species must be safely extracted immediately and returned to the sea alive • Mandatory installation of acoustic deterrent devices (pingers) on all driftnet (<i>Al-Heyal</i>) fishing operations to mitigate marine mammal entanglement [Note: not this fishery] • Total ban on landing, holding, trading, or harvesting specified elasmobranchs, including oceanic whitetip sharks, thresher sharks, manta rays and devil rays • Prohibition of lightweight gillnets (<i>Shibak Al-Daqqah</i>) E1.3.2: We are not certain about this as yet.		

E2. Impact on the habitat

E2.1 Information on interactions between the fishery and marine habitats is collected		
E2.1.1	Habitats which may be directly affected by the fishery have been identified, including any habitats which may be particularly vulnerable	Pass
E2.1.2	Information on the scale, location and intensity of fishing activity relative to habitats is collected	GAP
E2.1.3	Collection and analysis of habitat information is adequate to provide a reliable indication of the impact the fishery has on marine habitats	Pass
E2.1.1: Oman has a strong record in marine habitat protection, since there is a nationwide ban on bottom trawling throughout the EEZ (Ministerial Decision 70/2026, Article 98). Small pelagics may also not be targeted near coral reefs (consolidated into MD 70/2026 from MD 183/2016). One Ocean (2026) identify potentially vulnerable habitats in the general area of the fishery as follows: <i>unique coral and kelp communities in Dhofar and Al Wusta; monospecific Montipora and mixed coral reefs of Bar Al Hikman and Masirah Island; and mangroves and seagrass beds at Jazirat Mahawt, as well as seagrass elsewhere at the Bar Al Hikman peninsula and Masirah Island.</i> In general, the fishery uses pelagic gear. The Turkish vessels (with larger, heavier nets) are restricted to water deeper than 35m, with a maximum net drop of 30m, so should never touch the bottom. The artisanal vessels appear (as far as we can tell) to rely mainly on hand-hauling the nets, which therefore cannot be large. E2.1.2: Unclear. This score is a placeholder to ensure that operational information is collected and reviewed. E2.1.3: See above. Impacts are unlikely.		

E2.2 The fishery has no significant impact on marine habitats

E2.2.1	The information collected in relation to E2.1.3 indicates that the fishery does not have a significant negative impact on marine habitats	Pass
The available information suggests that fishery is highly unlikely to have habitat impacts.		

E2.3 There is a habitat management strategy in place for the fishery.		
E2.3.1	There are measures applied to the fishery which are designed to manage the impact of the fishery on marine habitats	Pass
E2.3.2	The measures are considered likely to prevent the fishery from having a significant negative impact on marine habitats	Pass
E2.3.1 and E2.3.2: Zoning and net regulations, as well as wider habitat protection regulations, suggest that the fishery is not having an impact on marine habitats.		

E3. Impact on the ecosystem

E3.1 Information on the potential impacts of the fishery on marine ecosystems is collected		
E3.1.1	The main elements of the marine ecosystems in the area(s) where the fishery takes place have been identified	Pass
E3.1.2	The role of the species caught in the fishery within the marine ecosystem is understood, either through research on this specific fishery or inferred from other fisheries	Pass
E3.1.3	Collection and analysis of ecosystem information is adequate to provide a reliable indication of the impact the fishery has on marine ecosystems	GAP
E3.1.1: A great deal of recent research is available on the physical and biological oceanography, dynamics and ecosystem of the Arabian Sea; e.g. Ismail and Salim 2025, Narvekar et al. 2021, Ismail and Shehhi 2022, Chatterjee et al. 2022 and many others; the ecosystem is sufficiently well-studied that the key ecosystem elements and drivers can be identified. E3.1.2: The role of small pelagics in the ecosystem can also be inferred from other similar upwelling ecosystems and related species (e.g. in NW Africa). E3.1.3: The main concern is likely to be the status of the small pelagic stocks, since these are a key forage species for higher trophic levels.		

E3.2 There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem		
E3.2.1	The information collected in relation to E3.1.3 indicates that the fishery does not have a significant negative impact on marine ecosystems	GAP
See above		

E3.3 There is an ecosystem management strategy in place for the fishery		
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E3.3.1	There are measures applied to the fishery which are designed to manage the impacts of the fishery on marine ecosystems	Pass
E3.3.2	The measures are considered likely to prevent the fishery from having a significant negative impact on marine ecosystems	GAP
E3.3.1: There are a range of general measures which aim to reduce the wider impact of the fishery, and of fisheries in general. For example, bottom trawling and certain types of driftnet are banned and the length of the others restricted (see above), and the larger vessels are confined to offshore and deeper waters (see above). Discarding at sea is banned – all catch must be landed (MD 70/2026, Article 10). For the larger vessels, bycatch (i.e. non-oil sardine) must not exceed 5% of the catch (MD 70/2026, consolidated from MD 183/2016). A range of ETP species (including turtles, cetaceans, some birds and some sharks) are protected (see above). E3.3.2: As noted above, the main issue for the ecosystem is likely to be the stock status of the small pelagics themselves. We do not have information on this as yet.		

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8. Appendix: PSA scoring tables

Table D(a) - Productivity Susceptibility Analysis (PSA) and scores

PSA productivity attributes and scores for fish and invertebrates			
Productivity attributes	High productivity (Low risk, score = 1)	Medium productivity (medium risk, score = 2)	Low productivity (high risk, score = 3)
Average age at maturity	<5 years	5-15 years	>15 years
Average maximum age	<10 years	10-25 years	>25 years
Fecundity	>20,000 eggs per year	100-20,000 eggs per year	<100 eggs per year
Average maximum size	<100 cm	100-300 cm	>300 cm
Average size at maturity	<40 cm	40-200 cm	>200 cm
Reproductive strategy	Broadcast spawner	Demersal egg layer	Live bearer
Mean Trophic Level (MTL)	<2.75	2.75-3.25	>3.25

PSA susceptibility attributes and for fish and invertebrates					
Susceptibility attributes	Low susceptibility (Low risk, score = 1)		Medium susceptibility (medium risk, score = 2)		High susceptibility (high risk, score = 3)
<i>Areal overlap (availability)</i> : Overlap of the fishing effort with a species concentration of the stock	<10% overlap		10-30% overlap		>30% overlap
<i>Encounterability</i> : The position of the stock/ species within the water column relative to the fishing gear, and the position of the stock/species within the habitat relative to the position of the gear	Low overlap with fishing gear (low encounterability)		Medium overlap with fishing gear		High overlap with fishing gear (high encounterability); default score for target species
Selectivity of gear type: Potential of the gear to retain species	a	Individuals < size at maturity are rarely caught	a	Individuals < size at maturity are regularly caught	a Individuals < size at maturity are frequently caught
	b	Individuals < size at maturity can escape or avoid gear	b	Individuals < half the size at maturity can escape or avoid gear	b Individuals < half the size at maturity are retained by gear
<i>Post-capture mortality (PCM)</i> : The chance that, if captured, a species would be released and that it would be in a condition permitting subsequent survival	Evidence of majority released post-capture and survival: >66% of animals are returned alive and survive the encounter. Where observers can verify that >66% are released alive in combination with a high risk score for selectivity, the PCM score may be reduced to a low risk score (1).		Evidence of some released post-capture and survival: 33-66% of animals are returned alive and survive the encounter. Where observers can verify that 33-66% are released alive in combination with a high risk score for selectivity, the PCM score may be reduced to a medium risk score (2).		Retained species or majority dead when released

Table D(b) - PSA risk rating table

	Average Susceptibility Score	1 - 1.75	1.76 - 2.24	2.25 - 3
Average Productivity Score	1 - 1.75	Pass	Pass	Pass
	1.76 - 2.24	Pass	Pass	Further checks – criteria in Table D(c)
	2.25 - 3	Pass	Further checks – criteria in Table D(c)	Further checks – criteria in Table D(c)

Table D(c) - Further assessment for Category D species

D1. The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.
D2. There is no substantial evidence that the fishery has a significant negative impact on the species.