

Investment opportunities in commercial fisheries in Oman

Introduction

The Omani fishing fleet is mainly artisanal and its contribution in the total fish production is over 98%. Its activity is concentrated on the coastal line, leaving a massive and unpracticed aquatic space that have supposedly a great potential in the exploitation of the Tuna resources for Oman. It is widely admitted that the current exploitation pattern shows a high concentration of fishing pressure on the near-shore large pelagic fish species. To remedy this abnormal situation, the national authorities reviewed the initial Development Program to design a coherent development policy commensurate to the fishing opportunities offered within the national EEZ and in the Areas Beyond the National Jurisdiction and consequently contribute to the exploitation of offshore fishing grounds while reducing the pressure on the inshore fishing grounds.

Specificities of the Fisheries sector in Oman

- fisheries is a vital economic sector, socially and culturally integrated in the country's society,
- Although the country enjoys more than 23 ports, Fishing activities are spread along the Omani coast from over 150 landing sites which helps ensure social stability along those coasts.
- The ninth five-year plan focused on the fisheries sector as one of the main pillars for increasing the Gross Domestic Product to serve the Government's objectives in diversifying the national economy,
- Large pelagic resources are considered important economic species and highly desired by the local and global consumers,
- These resources are estimated to be highly exploited, both in the territorial waters of coastal states and in the high seas' regions.
- these fish resources are considered of high importance for citizens in terms of internal consumption,
- Oman is enjoying large maritime EEZ which encompass great large potential of pelagic resources,

- The fishing capacity deployed by Oman (Artisanal) is not compatible with the large potential of its maritime spaces,
- Necessity for Oman to set up and implement a development program that seeks to ensure the responsible exploitation of these resources, by launching a modern fishing fleet in line with the Sultanate's aspirations to exploit these fishery resources.

Policy of the Sultanate of Oman with regard to the Development of a Tuna commercial fishing fleet

- Promote the sustainable and responsible exploitation of Tuna fisheries, with specific levels of exploitation in accordance with the best scientific recommendations of the Indian Ocean Tuna Commission.
- Launch a modern fishing fleet specialized in the exploitation of large pelagic resources in the exclusive economic zone of the sultanate and in the Areas beyond the National Jurisdiction (ABNJ) and ensure the distribution of fishing activities within the inshore and offshore fishing areas;
- improve the supply of fish products to the local consumers and so contribute to the food security of the Sultanate.
- Develop fishery industries based on the exploitation of these resources to raise its value-added level, while providing job opportunities for nationals, thereby maximizing the economic and social benefits resulting from such exploitation.
- Promote the development of the industrial zone in Al-Duqm, through the provision of raw materials for value-added industries in the region.

Large pelagic resources targeted by the commercial fleet

The large pelagic Fleet Development Plan (FDP) is based on the exploiting of these resources in order to enable the Sultanate to participate in the exploitation of the resources dwelling the areas under its jurisdiction using modern means of exploitation and compatible with the geographical distribution of Tuna stocks and their biological characteristics in the Arabian Sea and in the Indian Ocean. Unquestionably, the Sultanate is currently using its artisanal fleet to exploit a small fraction of the resources dwelling its coastal areas without investing in the exploitation of offshore areas (exclusive economic zone) and international waters.

The Target large pelagic Species consist of all Tuna and Tuna like species:

a. The main large pelagic species

English name	Scientific name	Arabic name	نوع الصيد والاستعمال
Yellowfin tuna	<i>Thunnus albacares</i>	الجيدر	صيد حرفي - سوق محلي
Longtail tuna	<i>Thunnus tonggol</i>	التونة طويلة الذيل - السهوة	صيد حرفي - سوق محلي
Bigeye tuna	<i>Thunnus obesus</i>	التونة كبيرة العين	صيد حرفي - سوق محلي + صادرات (-)
Albacore tuna	<i>Thunnus alalunga</i>	التونة البيضاء	صيد حرفي - سوق محلي
Kawakawa	<i>Euthynnus affinis</i>	صدى - شروري	صيد حرفي - سوق محلي
Striped bonito	<i>Sarda orientalis</i>	- مرمرة سقطانة	صيد حرفي - سوق محلي
Skipjack tuna	<i>Katsuwonus pelamis</i>	سمك التونة الوثاب - حقبية	صيد حرفي - سوق محلي
Frigate tuna	<i>Auxis thazard</i>	تبانة - درية	صيد حرفي - سوق محلي
Billfish	Istiophoridae	ميخ - سنسول	صيد حرفي - سوق محلي
Sharks	Various species	قرش - جرجور	صيد حرفي - سوق محلي + صادرات (-)

b. Large pelagic historical catches (tons)

2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	
28600	19292	20859	14947	7576	7736	5501	1948	2580	6102	5488	16850	14205	Yellowfin
16613	20893	14542	13954	11158	12972	14274	10217	8564	8052	7753	7754	7884	longtail
9501	7818	5555	4900	4034	4315	4597	3113	2214	2336	4077	2261	2442	Kawakawa
2195	1992	4574	4541	1140	307	488	562	180	155	383	688	665	Stripped bonito
2186	1184	1078	684	395	1014	944	1577	1314	737	1113	194	170	Frigate Tuna
206	55	216	16	23	8	94	22	80	11	18	102	106	Skipjack
1159	1109	2421	1616	290	231	198	2027	369	55	418	568	449	others
60460	52043	49245	40658	24616	26583	26096	19466	15301	17448	19250	28417	25921	total

c. Large pelagic stocks' status

Tunastocks status in the Indian Ocean

Exploitation situation related to the Tuna stocks

Species	Catch in 2015	MSY estimate
Yellowfin tuna جبندر	Catch 2015= 407,000t	MSY: 424,000 t
Skipjack tuna حقيقية	Catch 2015= 393,954 t	MSY: 684,000 t
Bigeye tuna الثونة كبيرة العين	Catch 2015= 92,736 t	MSY: 104,000 t
Longtail tuna سهوة	Catch 2015= 135,920 t	MSY: 143,000 t
Kawakawa صدفة	Catch 2015= 152,772 t	MSY: 152,000 t
Albacore tuna	Catch 2015= 35,068 t	MSY: 38,800t

The types and specifications of fleets proposed: The

proposed fleet size and its specifications:

Considering the fishing opportunities within Oman's EEZ, the biological diversity of these resources and the Sultanate's needs to exploit these resources, this plan is based on the introduction of a new specialized fishing fleet having the capacity to exploit all the areas of distribution of these resources. For this purpose, it is proposed to introduce commercial fishing vessels in sizes ranging from 30 to 70 meters of total length and with appropriate gears namely longlines, purse seine nets and Pole and Line equipment.

Due to the specificities of this fleet and the limited experience of the Sultanate's investors in the field of commercial purse seines and Pole and

Line fishing, and to ensure full success of this initiative without venture into high investments, this plan is based on the following principles:

- The gradual introduction of commercial vessels shall begin with limited numbers in the early years of the Development Program and gradually increase their number as the experience of the Omani partners improves and positive results from this initiative become evident. On the other hand, the Development Program will be continuously evaluated, and necessary modifications will be introduced as needed to ensure its success in achieving the objectives.
- The commercial fishing licenses will be for 4 years for both purse seine and Pole and Line vessels to enable Omani investors to gain knowledge with these techniques. In addition, this period will allow the enterprise to train and qualify the appropriate local manpower in order to properly run this type of vessels. However, these vessels will be owned and registered under Omani flag immediately after the end of the lease period and it will, in no way, be extended for further periods.

The proposed fleet size:

Fishing vessels	Phase 1 (2018-2020)	Phase 2 (2021-2023)	Phase 3 (2024-2027)	Total
longliners	40	50	60	150
Purse seiners	10	10	20	40
Pole & line vessels	5	5	-	10
Total	55	65	80	200

Fishing gears:

The specifications of fishing gears should not conflict with the local and international rules and legislations. In addition, the vessels should not be equipped with gears that may lead to the abnormal levels of by-catch which is defined for these vessels as follows:

- Total ban of fishing demersal resources (by-catch: 0%).
 - Total ban of prohibited shark species by RFMOs and local laws and regulations.
 - Use appropriate equipment to avoid marine mammals, turtles and seabirds.
- Exploitation areas: EEZ of the Arabian Sea and the international waters of the Indian Sea of Oman. Oman Sea is totally excluded from the licensed fishing area for this new fleet. The authorized fishing zone starts from 40 nautical miles from the coast for purse seiners and 20 miles for the longliners.

Landings & dealing with the catch:

- a. Prevent the transfer of fish from one vessel to another at sea or in foreign ports.
- b. All catches for all licensed vessels should be landed in Omani ports exclusively and particularly in Salalah Port or Duqm Port.
- c. These vessels are requested to market at least 25% of their production in the local market for internal consumption and the Ministry may review this percentage as needed. It would be recommended to direct the upmost part of the production to the existing domestic fishery

industries, and the remaining may be stored or exported to international markets.

Fleet tracking & monitoring:

Fishing operations are tracked by VMS and by observers onboard these vessels. The costs and expenses of monitoring are financed by the vessels' operators. These amounts are to be paid directly to the Security and Safety Centre, which is entrusted with the administration of the observers. It is also necessary for these vessels to register all information and data on fishing operations, quantities, species, areas and others in the logbook approved by the Ministry for each type of fishing vessel. When entering the ports, ships are subject to inspection and verification of vessel and crew documentation as well as the catch quantities and the recorded data.

Moreover, the captain of the vessel is requested to submit its catch report to the charterer country, to IOTC and to the boat owner.

Procedures for entry and exit of vessels from ports:

A special mechanism will be put in place to monitor the vessel's entry and exit and will be put under the port administration authority. The vessel owner shall submit a request to the Ministry of Agriculture and Fisheries providing preliminary information on the entry of the vessel, such as entry and exit dates, quantities onboard, crew members and copies of vessel licenses and documents.

Production & marketing fish product:

The Development Program aims to increase the production, supply fish products to the local market, contribute to the development of fish industries, especially packaging, storage, production of value-added

products and provide employment opportunities for Omani job seekers. It should be noted that the industrial zone in the fishing port of Al-Duqm is large enough to necessitate the supply with a large share of the commercial fish production of large and small pelagic landings. The priority for fishing licenses will be given to investment projects that cover fishing and processing activities, and the Development Program does not encourage fishing without involvement in the processing industry and added value projects.

The priority given to industrial projects finds its rational in the necessity to develop high added value projects, the improvement of income for local investors, and the promotion of the supply of products to the local market for consumption. It is to be emphasized the necessity to link the attribution of fishing licenses to the development of processing industries.

Other conditions:

- All fishing vessels should land their catches in Salah Port, Duqm Port and any other Omani ports duly authorized whenever appropriate facilities are provided.
- Compliance with the regulations of fish exports, especially for species that enjoy a high internal demand (especially Yellowfin Tuna and Longtail Tuna) and promote added value projects through establishment of processing industries.
- Install VMS on all types of vessels.
- Define the fishing areas in the exclusive economic zone of the Arabian Sea / Indian Ocean and international waters.
- Registration of ships on the Indian Ocean Tuna Commission list of vessels and make sure that the vessels were not engaged in illegal, unregulated and unreported fishing practices.
- Compliance with the laws, regulations and legislation governing the sector.
- Refrain from transshipment practices at sea and from landing their production in foreign ports.

- The obligation to embark Omani observers duly employed by the Safety and Security Centre onboard the vessels with the company's obligation to pay the control costs directly to the Centre.
- The Leasing Agreement shall include a clause by which the parties (the Omani Charterer and the Vessel Owner) agree and request the Indian Ocean Tuna Commission to record the catches of the vessels as Omani production and submit a copy of the lease contract to the Commission Secretariat.
- In case the company violates the provisions of the Marine Fishing Law and its executive regulations or the conditions prescribed, the fishing leasing license will be canceled.

Procedures for investment application: See the application form

Establishment of a Commission in charge of examining the investment projects and their conformity with the Development requirements stipulated by the Ministerial Development Program.

The Commission is chaired by the DG of Fisheries Development and meets once a month or as necessary.

The commission's debates are recorded in a report in the form of Recommendations and are submitted to the Undersecretary for approval.

(以英文版為準)

阿曼商業漁業的投資機會

介紹

阿曼漁船主要是手工船，其在漁業中的貢獻產量超過 98%。漁船的活動集中在沿海地區，而阿曼在鮪魚捕撈資源仍有著極大的開發空間。以當前的捕撈方式，阿曼的捕撈大型遠洋魚類高度集中於沿岸區域。為彌補此異常現象，國家主管機關審查了初步開發計劃，設計出與國家專屬經濟區內，以及國家管轄範圍以外地區內的捕魚機會所相對應的連貫發展政策，從而為減少近海捕魚場的捕撈壓力。

阿曼漁業部門的特點

- 漁業是至關重要的經濟部門，整合了該國的社交與文化
- 儘管國內擁有 23 個以上的港口，但有多達 150 個捕魚著陸點綿延著阿曼海岸，其有助於確保沿岸的社會穩定。
- 第九個五年計劃著眼於漁業部門，將其作為增加國內生產總值，以實現政府國民經濟多樣化目標的主要支柱之一。
- 大型遠洋資源是重要的經濟物種，並且受到本地和全球消費者的高度期望。
- 據估計，無論是在沿海國家的領海還是在公海地區，這些資源都得到了高度開發。
- 就內部消費而言，這些魚類資源對人民相當重要。
- 阿曼享有大型海洋專屬經濟區，其中蘊藏著巨大的遠洋資源，
- 阿曼人工捕撈能力無法負荷其海上巨大的漁貨資源，
- 阿曼有必要建立和實施發展計劃，以發展王國內漁業資源的開發期望，建立一支現代化的捕魚船隊，確保有效開採這些資源。

阿曼王國鮪魚發展的政策

商業捕魚船隊

-根據印度洋鮪魚委員會的最佳科學建議，按照特定的發展標準，促進對鮪魚漁業的穩定與合理開發。

-啟動現代化的捕魚船隊，專門從事王國的專屬經濟區與超出國家管轄（ABNJ）的地區，開採大型遠洋資源，確保近岸和近海捕撈區域內的捕魚活動的分佈；

-改善向當地消費者的魚產品供應，從而為王國的糧食安全做出貢獻。

-在開發此資源的基礎上，發展漁業產業，並提高其附加價值，同時為國民提供就業機會，從而使此開發帶來最大化的經濟和社會利益。

-通過提供在該區域增值工業原料，促進 Al-Duqm 工業區的發展。

商業船隊針對大型遠洋資源

基於這些資源，大型遠洋船隊發展規劃（FDP），阿曼王國參與利用開發和兼容的現代化手段，與鮪魚的活動分佈區域資源的開採利用阿拉伯海和印度洋的魚類種群及其生物學特性。

王國目前正在使用其手工船隊來開發沿海地區一小部分資源，因而無需投資開發近海地區（專屬經濟區）和國際水域。

目標大型遠洋魚類包括所有金槍魚和類似金槍魚的物種：

主要遠洋魚類

English name	Scientific name	Arabic name	نوع الصيد والاستعمال
Yellowfin tuna 黃鰭鮪魚	<i>Thunnus albacares</i>	الجيدر	صيد حرفي - سوق محلي
Longtail tuna 長尾鮪魚	<i>Thunnus tonggol</i>	التونة طويلة الذيل - السهوة	صيد حرفي - سوق محلي
Bigeye tuna 大眼鮪魚	<i>Thunnus obesus</i>	التونة كبيرة العين	صيد حرفي - سوق محلي + صادرات (-)
Albacore tuna 長鰭鮪魚	<i>Thunnus alalunga</i>	التونة البيضاء	صيد حرفي - سوق محلي
Kawakawa 巴鯨	<i>Euthynnus affinis</i>	صدى - شروري	صيد حرفي - سوق محلي
Striped bonito 條紋魚	<i>Sarda orientalis</i>	- مرمرة سقطانة	صيد حرفي - سوق محلي
Skipjack tuna 正鯨	<i>Katsuwonus pelamis</i>	سمك التونة الوثاب - حقيقية	صيد حرفي - سوق محلي
Frigate tuna 軍艦鮪魚	<i>Auxis thazard</i>	تبانة - درية	صيد حرفي - سوق محلي
Billfish 旗魚	Istiophoridae	ميخ - سنسول	صيد حرفي - سوق محلي
Sharks 鯊魚	Various species	قرش - جرجور	صيد حرفي - سوق محلي + صادرات (-)

b. 大型遠洋歷史漁獲量 (噸)

2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	
28600	19292	20859	14947	7576	7736	5501	1948	2580	6102	5488	16850	14205	Yellowfin
16613	20893	14542	13954	11158	12972	14274	10217	8564	8052	7753	7754	7884	longtail
9501	7818	5555	4900	4034	4315	4597	3113	2214	2336	4077	2261	2442	Kawakawa
2195	1992	4574	4541	1140	307	488	562	180	155	383	688	665	Stripped bonito
2186	1184	1078	684	395	1014	944	1577	1314	737	1113	194	170	Frigate Tuna
206	55	216	16	23	8	94	22	80	11	18	102	106	Skipjack
1159	1109	2421	1616	290	231	198	2027	369	55	418	568	449	others
60460	52043	49245	40658	24616	26583	26096	19466	15301	17448	19250	28417	25921	total

黃鰭
長尾
巴鯨
條紋
正鯨
軍艦

C. 大型遠洋魚類現況

印度洋中鮪魚的存量狀況與相關魚種開發情況

Species 種類	Catch in 2015 捕撈	MSY estimate
Yellowfin tuna جيدر 黃鰹魚	Catch 2015= 407,000t	MSY: 424,000 t
Skipjack tuna حقيبة 正鯷	Catch 2015= 393,954 t	MSY: 684,000 t
Bigeye tuna التونة كبيرة العين 大眼尾魚	Catch 2015= 92,736 t	MSY: 104,000 t
Longtail tuna سهوة 長鰹魚	Catch 2015= 135,920 t	MSY: 143,000 t
Kawakawa صدّة 巴鯷	Catch 2015= 152,772 t	MSY: 152,000 t
Albacore tuna 長鰹魚	Catch 2015= 35,068 t	MSY: 38,800t

建議的船隊類型與規格：

提議的機隊規模及其規格：

考慮到阿曼專屬經濟海域的捕撈機會，這些資源的生物多樣性以及王國對這些資源的利用需求，該計劃基於引進新的專門捕撈船隊，該船隊有能力利用這些資源的所有分佈領域。為此，建議引進總長度在 30 至 70 公尺內的商業漁船，並配備適當的漁具，例如延繩釣，圍網和桿釣設備。

由於，這支船隊和阿曼的投資者，在相關印度洋釣鮪魚種群資源狀況上，商業圍網和開發情況經驗有限的特殊性，為確保這一舉措的圓滿成功，在不冒險進行高投資的情況下，該計劃有以下原則：

- 開發計劃的早期階段，從數量有限開始逐步引入商用船，隨著阿曼合作夥伴經驗的改善與此一計劃的成果顯著後，將逐漸增加商用船的數量。另一方面，將不斷評估開發計劃，並根據需要引入必要的修改，以確保成功實現目標。

o 圍網漁船和桿釣船的商业捕鱼许可证为期4年,使阿曼的投资者获取知识与技术。此外,在此期间,企业可以培训和培训合适的当地人力,以正确经营此类船舶。然而,这些船隻拥有和租赁期结束后,须立即在阿曼标志注册,无法延长期限。

擬議的船隊規模：

漁船

Fishing vessels	Phase 1 (2018-2020)	Phase 2 (2021-2023)	Phase 3 (2024-2027)	Total
longliners 延繩釣漁船	40	50	60	150
Purse seiners 圍網漁船	10	10	20	40
Pole & line vessels 桿釣船	5	5	-	10
Total	55	65	80	200

漁具：

漁具的規格不應與當地和國際法規相抵觸。此外,船隻不應配置非正當捕撈的漁具,這些船隻的定義如下：

- 全面禁止捕撈底層區（副漁獲：0%）。
 - 區域漁業管理組織和當地法規全面禁止捕撈鯊魚物種。
 - 使用適當的設備以避免捕撈海洋哺乳動物,海龜和海鳥。
- o 開發區：阿拉伯海的專屬經濟區和阿曼印度洋的國際水域。這個新船隊將阿曼海完全排除在許可捕魚區之外。授權捕魚區,從圍網捕撈者起,距海岸40海浬,延繩釣船從20海浬算起。

著陸及漁獲處理：

- a。 禁止漁貨在海上或港口的船上移動至別艘船隻。

b。有許可證的船隻之所有漁獲物，應僅在阿曼港口下貨，特別是 Salalah 港口或 Dqum 港口。

C。這些船隻須要將其捕獲物至少 25% 的產品，在本地市場上銷售，以供內部消費，主管部門可是其需要審查此百分比。將絕大部分漁貨產品導入至國內現有的漁業產業，其餘的可以儲存或出口到國際市場。

船隊追蹤與監控：

VMS 及其上的觀察員追蹤捕魚作業船隻。監測的費用由船家來負擔。這些款項須直接支付給安保和安全部門中心，並由觀察員管理。漁船還必須在漁船日誌中登記有關捕撈作業，數量，種類，區域和其他方面的所有信息和數據。船入港口時，船舶應接受船舶和船員文件以及捕撈量和記錄數據的檢查和驗證。此外，船長需將其捕獲報告，提交給租船國，IOTC 和船東。

船隻進出港口程序：

將會建立一個特殊的機制來監視船隻的出入，並將由港口管理當局管轄。船舶所有者應向農業和漁業部提交請求提供有關船隻入港的初步信息，例如進出港日期，船上數量，船員和船隻許可證和文件副本。

魚產品生產與銷售：

發展計劃旨在增加產量，向當地市場供應供應魚類產品，為發展魚類產品做出貢獻，特別是包裝，儲存，增值生產並為阿曼求職者提供就業機會。Al-Duqm 漁港的工業區足夠大，可供應無論是大型和小型中上層魚類的魚類生產需求。有捕撈許可證的廠商，有優先權參與在捕撈和加工活動的投資項目，此開發計劃不鼓勵捕撈者不參與加工業和增值項目。

工業項目的優先考慮是合理的，由發展高附加值的項目來增加當地投資者的收入，並促進向當地市場提供可消費的產品。要強調的是，捕撈許可證歸屬與加工業的發展是雙向的。

其他條件：

- 只要有適當的設施，所有漁船都應將其漁獲物降落在 Salalah 港，Dqum 港和其他經正式授權的阿曼港口。
- 遵守魚類出口法規，特別是具有較高內部需求的物種（黃鰭鮪魚和長尾鮪魚），並通過促進增值項目建立加工工業。
- 在所有船舶上安裝 VMS。
- 在阿拉伯海/印度洋和國際水域的專屬經濟區定義捕魚區。
- 在印度洋鮪魚委員會的船隻清單上登記註冊，確保船隻沒有從事非法，無管制和未報備的捕魚作業。
- 遵守該行業的法律，法規和法規。
- 禁止漁貨在海上或他國港口轉移。
- 將由安全和安保中心正式僱用阿曼觀察員登船，該公司有義務直接向該中心支付控制費用。
- 租賃協議需包括一個條款，雙方（阿曼租船人和船舶所有人）應同意並要求印度洋鮪魚委員會將漁獲物記錄為阿曼生產，並向委員會秘書處提交租賃合同的副本。
- 如果公司違反了海洋捕撈法及其實施細則或規定的條件的規定，漁船的捕撈許可證將被取消。

投資申請程序：請參閱申請表

成立負責審查投資項目的委員會，其符合部長級發展計劃規定的發展要求。該委員會由該委員會由漁業發展的 DG 主持，每月或必要時開會一次。

該委員會的辯論記錄以形式記錄在報告中，並提交給副部長批准。