AQUACULTURE
4 KEY REASONS TO INVEST IN AQUACULTURE IN SAUDI ARABIA

1. Favorable Environmental and Climatic Conditions

- Saudi Arabia is strategically located with a 1,800 km coastline along the Red sea.

- Saudi Arabia’s access to the Red Sea offers ideal conditions for aquaculture and the production of high quality seafood:
  - Pristine water: 7.04 mg/l of dissolved oxygen (DO)
  - Low wave heights: 0.5 m to 1 m
  - Suitable depth: 20 m to 50 m of depth (depending on location)
  - Adequate salinity: 35 to 41 PPT (depending on location)
  - Varying water temperature along the coast: 18˚C (north) and 38˚C (south) making it possible for production of a wide range of fish species.

2. Growing Local Market and Big Export Potential

- Saudi Arabia’s seafood consumption is expected to grow by 7.4% per annum until 2030.

- Growing local consumption, driven by population growth and increase in consumption per capita, expected to generate an additional demand of 500,000 tons in 2030.

- With stagnant growth in capture fisheries and stricter safety regulations imposed on imports, aquaculture is poised to be the main source of supply of seafood in Saudi Arabia.

- In addition to local consumption, Saudi Arabia is strategically located to become a quality seafood exporter serving the GCC market as well as the Asian and European markets.
GOVERNMENT COMMITMENT TO GROW THE SECTOR TO ITS FULL POTENTIAL

- Saudi Arabia is highly committed to growing the industry as building **safe and strategic food reserves** are mandated by Saudi Arabia’s Vision 2030.

- Inline with Vision 2030, the Ministry of Environment, Water and Agriculture (MEWA) launched a dedicated **program** that is committed to reach **600,000 tons of fisheries products by 2030**.

- The **program** set a **budget of SAR 1.3 bn** to unlock the sector by investing in infrastructure, R&D, and marketing campaigns.

- In addition, Saudi Arabia’s strict quality and safety assurance programs have made its seafood products renowned for their **safe and high quality**.

INVESTMENT OPPORTUNITIES READY FOR INVESTORS

- Saudi Arabia’s 1,800 km coastline on the Red Sea offers plenty of opportunities.

- Several opportunities along the aquaculture value chain are ready for investors, including **feed mills, hatcheries, grow-outs and processing plants**.

- 15 locations have been identified by the government as suitable for aquaculture after rigorous exploration of the Red Sea shores. As such, the areas conform to the standards adopted in the Kingdom which have been issued by the **Fisheries Department in 2017 (1438 AH)**.
WITH LONG COASTLINES ALONG THE RED SEA, SAUDI ARABIA IS AN IDEAL LOCATION FOR AQUACULTURE
THE RED SEA HAS FAVORABLE AND DIVERSIFIED ENVIRONMENTAL AND CLIMATIC CONDITIONS FOR AQUACULTURE

1,800 km  
LONG COASTLINE

20 to 50 m  
SUITABLE CAGE DEPTH

7.04 mg/l  
PRISTINE WATER AND ADEQUATE DO

0.5 to 1 m  
LOW WAVE HEIGHTS

35 to 41 ppt  
ADEQUATE SALINITY depending on location

18 to 30°C  
SUITABLE WATER TEMPERATURE depending on location

*These conditions allow local production of a wide range of species*
SAUDI ARABIA’S SEAFOOD CONSUMPTION CREATES A NATURAL LOCAL MARKET FOR AQUACULTURE

SAUDI ARABIA’S SEAFOOD CONSUMPTION TO GROW AT 7.4% PER YEAR UNTIL 2030 ...

Seafood consumption in Saudi Arabia (thousand ton)

Source: National Fisheries Development Program in the Kingdom of Saudi Arabia (2016)
... DRIVEN BY AN INCREASE IN POPULATION AND PER CAPITA SEAFOOD CONSUMPTION

1.4% per year
Population growth rate in Saudi Arabia

6% per capita
Saudi Arabia’s seafood consumption
(to reach global average of 20kg by 2030)
POPULATION GROWTH AND INCREASE IN PER CAPITA SEAFOOD CONSUMPTION ARE DRIVING MARKET GROWTH

POPULATION GROWTH

Population in Saudi Arabia (million)

Source: National Fisheries Development Program in the Kingdom of Saudi Arabia (2016)
INCREASE IN PER CAPITA SEAFOOD CONSUMPTION

Seafood consumption per capita (kg)

Source: National Fisheries Development Program in the Kingdom of Saudi Arabia (2016)
AS CAPTURE FISHERIES PRODUCTION IS EXPECTED TO REMAIN STABLE ...

- Capture Fisheries recorded a 1% CAGR over the past 12 years
- No further growth is expected in the future

... AQUACULTURE PRODUCTION IS EXPECTED TO CAPTURE THE DEMAND GROWTH

- Aquaculture recorded a 12% CAGR over the past 12 years
SAUDI ARABIA CAPTURE FISHERIES PRODUCTION HAS BEEN STABLE OVER THE PAST TWELVE YEARS

TOTAL CAPTURE FISHERIES PRODUCTION IN SAUDI ARABIA (THOUSAND TONS)

+1%

Capture fisheries production expected to stabilize at **70,000 tons per year**
WHEREAS AQUACULTURE PRODUCTION IS GROWING SIGNIFICANTLY

TOTAL AQUACULTURE PRODUCTION IN SAUDI ARABIA (THOUSAND TONS)

Aquaculture expected to grow at even faster rate due to increase in consumption and increase in competitiveness of local products
THE GCC ALSO OFFERS OPPORTUNITIES FOR LOCAL AQUACULTURE PRODUCTS

GCC EXPECTED TO IMPORT 770,000 TONS OF FISH BY 2030

GCC fish imports (thousand tons)

KSA is well positioned to capture this growth in imports due to its proximity and ability to procure fresh products

Source: FAO, MEWA, Industry experts
SAUDI ARABIA HAS THE RIGHT INFRASTRUCTURE ACROSS THE RED SEA TO FACILITATE EXPORT
SAUDI ARABIA IS COMMITTED TO UNLOCKING THE AQUACULTURE SECTOR

AQUACULTURE, A PRIORITIZED INDUSTRY

We will concentrate our efforts on supporting the aquaculture industry

Source: Saudi Arabia's Vision 2030
KEY STEPS TAKEN TOWARDS UNLOCKING THE SECTOR

Conducted detailed and comprehensive sector review to understand current state of fisheries sector

Prepared sector development plan to attain sector's production targets

Established a dedicated, cross sectorial, program to implement the development plan

Source: Ministry of Environment, Water and Agriculture
OBJECTIVES

“THE NATIONAL FISHERIES DEVELOPMENT PROGRAM IN THE KINGDOM OF SAUDI ARABIA”

- Ensure Aquaculture sector in Saudi Arabia is competitive and sustainable
- Build strong and effective relationships between the private and public sector
- Promote local sea food production locally and internationally
- Continue to develop and modernize the post-harvest sector
- Establish partnerships with relevant stakeholders to support the sector in R&D, human capital development and financing
THE PROGRAM AIMS AT INCREASING TOTAL SEAFOOD PRODUCTION TO 600,000 TONS BY 2030

SAUDI ARABIA'S SEAFOOD PRODUCTION (THOUSAND TON)

TARGET PRODUCTION FROM AQUACULTURE IS 530,000 TONS IN 2030

Source: The National Fisheries Development Program in the Kingdom of Saudi Arabia (2016)
TO ENABLE THE RAMP-UP, THE PROGRAM WILL SPEND SAR 1.3 BN IN ORDER TO UNLOCK THE AQUACULTURE’S POTENTIAL

PROGRAM FINANCIAL SUPPORT
From 2018-2030, SAR million

- Infrastructure: 800
- R & D: 320
- Marketing Campaign: 100
- Private Sector Support: 40
- Total Incentives: 1,260

Source: The National Fisheries Development Program
DETAILS OF THE
PROGRAM SUPPORT

1

- Develop 8 marine clusters across Saudi Arabia (providing ice, fuel, fresh water, power, landing stations, maintenance facilities)

- Develop support infrastructure (including Processing plants, Feed Mills, Hatcheries and Grow out facilities)

2

- Continuous research on developing new species that can give Saudi Arabia sustainable competitive advantage

3

- Promote local products

- Build awareness about high quality, safe and nutritionally rich local products within Saudi Arabia and international markets

4

- Provide marketing support and funds to organize and host conferences, events, etc.
FINALLY, SAUDI ARABIA IS ALREADY PUTTING IN PLACE STRICT REGULATIONS TO ENSURE SUSTAINABILITY

Of the Aquaculture sector and the high quality of its safe local seafood products

BAP CERTIFICATION

- BAP certification mandatory for all aquaculture facilities by 2020
- Saudi Arabia on track to be the first country in the world to have national level BAP certification
- This ensures environmentally safe and sustainable products and that the Best Aquaculture Practices are implemented

SAMAQ

- National Aquaculture product certification and brand scheme, based on responsible Aquaculture practices
- SAMAQ certification to be used for the promotion of KSA’s Aquaculture products to the local (and regional) markets

BIO-SECURITY PROGRAM

- Strong bio-security program based on international standards, with ISO certified labs
- SOP shared with farms to ensure safety of operations
- Regular monitoring (monthly) to ensure SOP is being implemented

Source: The National Fisheries Development Program
OPPORTUNITIES ALONG THE VALUE CHAIN AVAILABLE TO ACHIEVE FISH PRODUCTION TARGETS OF 600,000 TONS BY 2030

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>ESTIMATED INVESTMENTS REQUIREMENTS</th>
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<td><strong>PRE-HARVEST</strong></td>
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<td>Fish feed</td>
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<td><strong>PRODUCTION</strong></td>
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<td>Hatcheries</td>
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<td>Inland fish RAS farming</td>
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<td>Coastal shrimp farming</td>
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<td>Marine finfish cage farming</td>
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<td><strong>POST HARVEST</strong></td>
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<td>Refrigerated transport</td>
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<td>Chilled / cold storage</td>
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<tr>
<td>Secondary processing / value add</td>
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</table>

1. Inland fish recirculation, coastal shrimp and marine finfish feed
2. Cage collars, nets, moorings, feed storage, work boats, equipment and hatcheries
3. Transportation, chilled storage, secondary processing / value adding

Source: The National Fisheries Development Program in the Kingdom of Saudi Arabia (2016)
TODAY, 15 MARINE FINFISH AQUACULTURE OPPORTUNITIES ARE READY FOR INVESTORS

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Source: The National Fisheries Development Program in the Kingdom of Saudi Arabia (2016)
MAIN AQUACULTURE PLAYERS ON THE RED SEA

TABUK FISHERIES

ASMAK

THAWRAT SEAS

ISLAND PRAWN

SAUDI COASTS CO.

NAQUA

SAUDI FISHERIES

JAZADCO

RED SEA AQUACULTURE CO.

Source: MEWA
ABOUT SAUDI GENERAL INVESTMENT AUTHORITY
Saudi General Investment Authority is the Kingdom’s investment promotion agency. Our priorities are to attract and develop foreign investment, enhance the nation’s investment climate, increase the ease of doing business, and eliminate obstacles from investors’ journey.

To discover the countless opportunities, across major economic sectors, that Saudi Arabia has to offer:

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