GREEN SOLUTIONS GROUP

SULTANATE OF OMAN

Agricultural sovereignty through technology

ECOSORB® · ECOFERT® · NAPEMA® · PAULOWNIA

June 2026 · Strictly Confidential

Four chapters, one vision

Understanding Oman's agricultural challenge — then the technology that resolves it.

01

The Omani Context

Geography, climate, economy — and the structural gap between current yields and agronomic potential.

02

Key Crops Under Pressure

Dates, vegetables, citrus, alfalfa: where yields stand today, where they could be, and what blocks access.

03

Our Technologies

ECOSORB®, ECOFERT®, NAPEMA®, Paulownia — each targeting a specific failure point in Omani agriculture.

04

The Partnership

Exclusive distribution, agronomic support, institutional positioning — four levers for food sovereignty.

CONTEXT

Oman agriculture at a glance

Three numbers that define the challenge and the opportunity.

4.9 M

date palms

200,000+ farming families directly dependent

> 80 %

food imported

structural dependency on global commodity markets

× 2.5

achievable yield gain

within 5 years with water and soil technology

GEOGRAPHY

Four agricultural zones — four distinct constraints

Oman’s terrain creates a patchwork of micro-climates, each with specific agronomic limitations.

Al Batinah Coast

Oman’s primary vegetable and date-producing strip. 120,000 ha cultivated. Salinity rising from over-pumped coastal aquifers.

Interior Oases

Al Dakhiliyah and Al Sharqiyah oases. Historic date groves. Water-table decline 1–2 m per year. Heat stress July–September.

Dhofar Region

Only zone receiving monsoon rains. Citrus, mango, vegetables. Potential largely under-exploited — soil organic matter critically low.

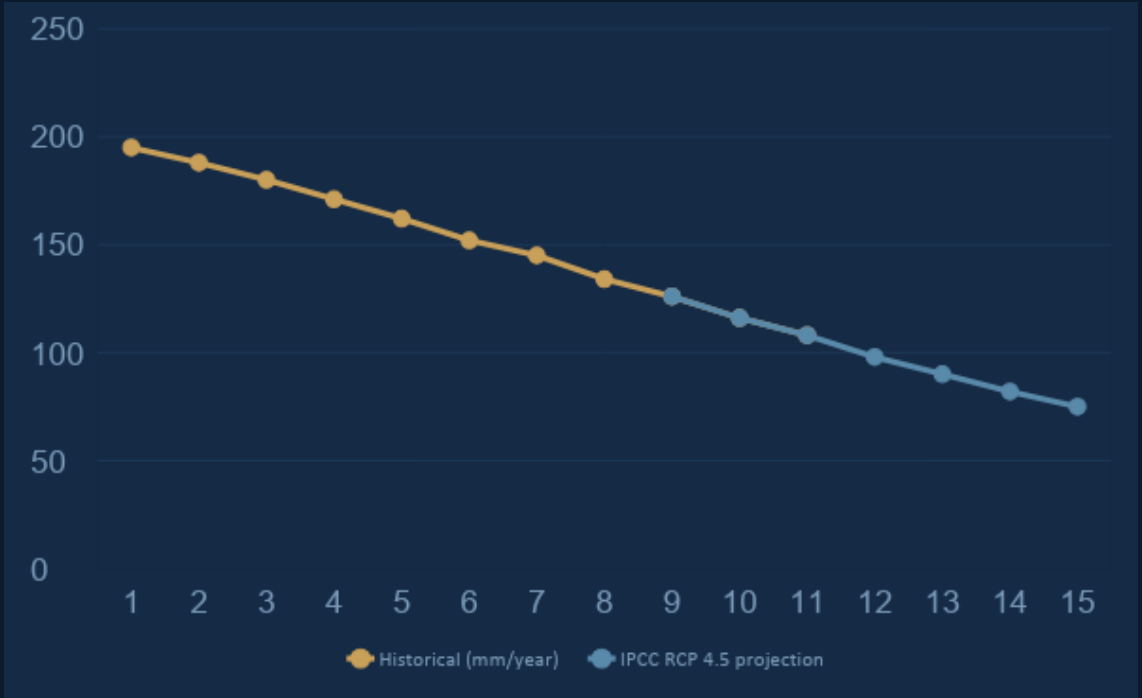
Al Wusta & Desert

Arid to hyper-arid. Limited agriculture today. Paulownia wind-break and reforestation viable in sheltered corridors.

CLIMATE

The intensifying water crisis

Oman ranks among the world's four driest countries. The trend is accelerating.



The finding

Annual rainfall has fallen 45 % over 50 years. By 2040, the IPCC RCP 4.5 scenario puts most Omani agricultural zones below 80 mm — the threshold below which rainfed agriculture becomes unviable.

Critical threshold

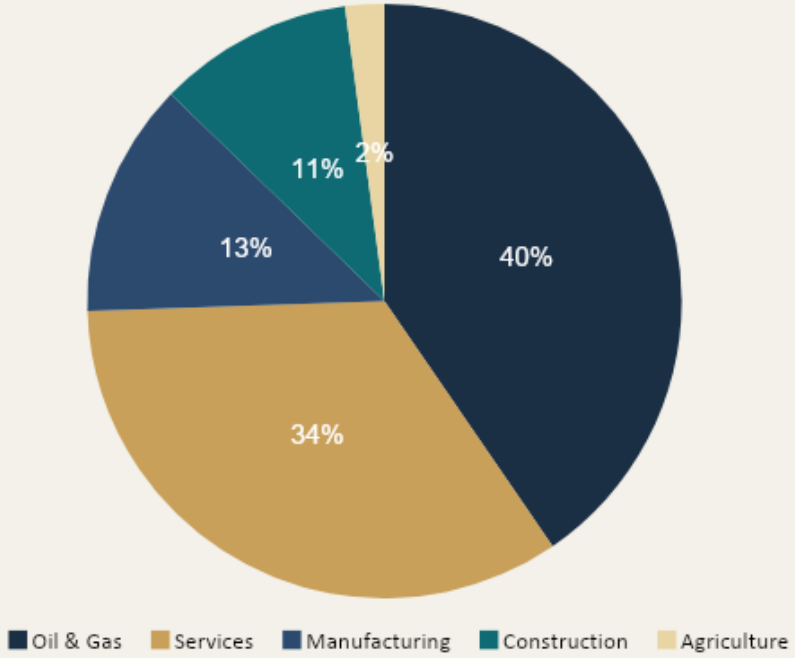
80 mm

per year — below which conventional irrigation cannot compensate without ECOSORB® polymer in the soil.

ECONOMY

The Omani economy

GDP composition 2024 — and the low-productivity agricultural sector that Vision 2040 targets.



Agriculture & Fishing

2 % of GDP

yet employs 11 % of the national workforce. A structural productivity deficit — this is the margin to recover.

The sovereign imperative

Food security

Vision 2040 explicitly targets a dramatic reduction in import dependency. Technology, not land expansion, is the designated lever.

PILLAR CROP

Dates — the historic pillar under pressure

4.9 million date palms, 200,000+ farming families — a yield that has stagnated for two decades.

69

kg / palm

current average yield

120–145

kg / palm potential

attainable with optimised practices

4.9 M

palms in production

across coast and interior oases

+75 %

documented yield gain

ECOSORB® + ECOFERT® in arid zones

The date palm, backbone of Omani agriculture. The date palm directly supports over 200,000 farming families. Yields hover at 60–80 kg/palm when improved practices reach 120–145 kg/palm — a gap costing hundreds of millions of OMR annually. The root cause: sandy soils stripped of organic matter, water stress at critical growth stages, and the absence of biological inputs. ECOSORB® and ECOFERT® address all three simultaneously.

LEVER

Vegetables — rising irrigation costs

Agriculture consumes 85 % of Oman's total water — a burden that is becoming unsustainable.

18

t / ha

current irrigated yield (tomato)

45

t / ha

agronomic potential optimised inputs

980

kt / year

annual national vegetable deficit

$450

M / year

fresh vegetable import bill

Al Batinah: Oman's underperforming breadbasket. The Al Batinah plain cultivates over 120,000 ha of vegetable land — of which only 60,000 ha are under active cultivation. Tomato yields average 18 t/ha under conventional management, while certified agronomic potential exceeds 45 t/ha. ECOSORB® reduces irrigation requirements by 40–60 % — a critical saving where pumping costs represent 35 % of all production expenses.

NICHE PREMIUM

Citrus & Pomegranate — the premium export niche

Lime, pomelo, pomegranate, mango — GCC and EU markets open, but water stress and residues block access.

Crop	Current	Potential
Tomato	18 t/ha	**45 t/ha**
Lemon / Lime	20 t/ha	**50 t/ha**
Mango	8 t/ha	**18 t/ha**
Pomegranate	4 t/ha	**9 t/ha**

Gateway to GCC and global markets

Oman benefits from preferential trade access to the GCC and EU. Dhofar and Al Batinah produce export-grade horticultural output — the bottleneck is phytosanitary compliance and yield consistency, both addressable with NAPEMA® and ECOFERT®.

Export revenue potential

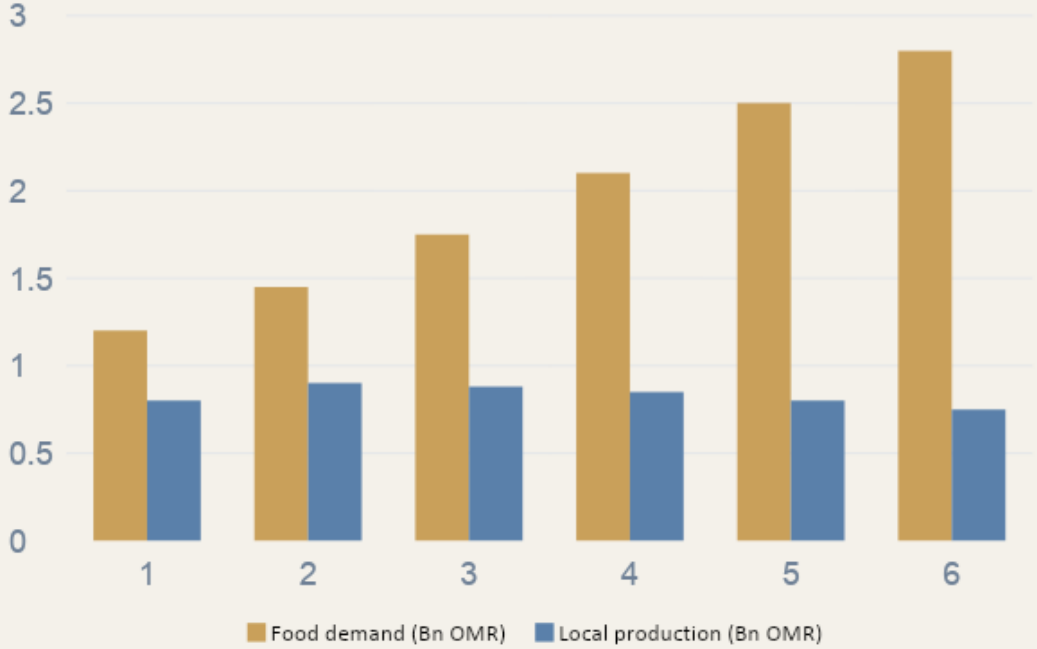
+$220 M

in additional revenues if yields reach 70 % of agronomic potential — without opening a single new parcel.

UNDER STRESS

Alfalfa & Fodder — the livestock base under pressure

Irrigated fodder crops in arid Oman — first victims of aquifer depletion and soil salinization.



The honest assessment

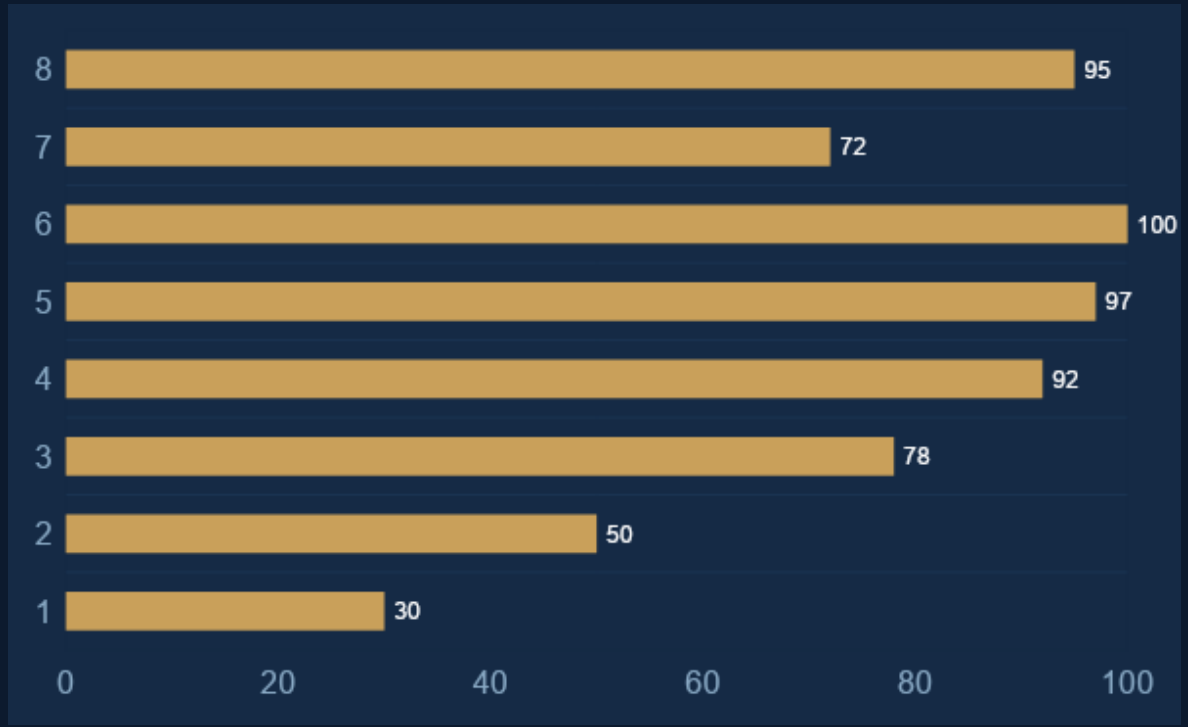
Omani alfalfa yields run at roughly half their agronomic potential and the trend is worsening. Each year of aquifer over-extraction reduces viable irrigated area and raises the cost of water per ton of dry matter.

Without targeted intervention on water retention and soil organic matter, the fodder sector is set to contract further driving up livestock costs and deepening the import bill.

ECOSORB® at seeding offsets up to two weeks of water deficit. ECOFERT® on degraded sandy soils boosts tillering density and dry matter yield per irrigation cycle.

Food dependency — the strategic blind spot

Share of imports in national consumption, by major food category (2024 data).



Annual cost

$2.1 Bn

Equivalent to roughly 2 % of GDP, spent every year to feed the country — currency flowing outward.

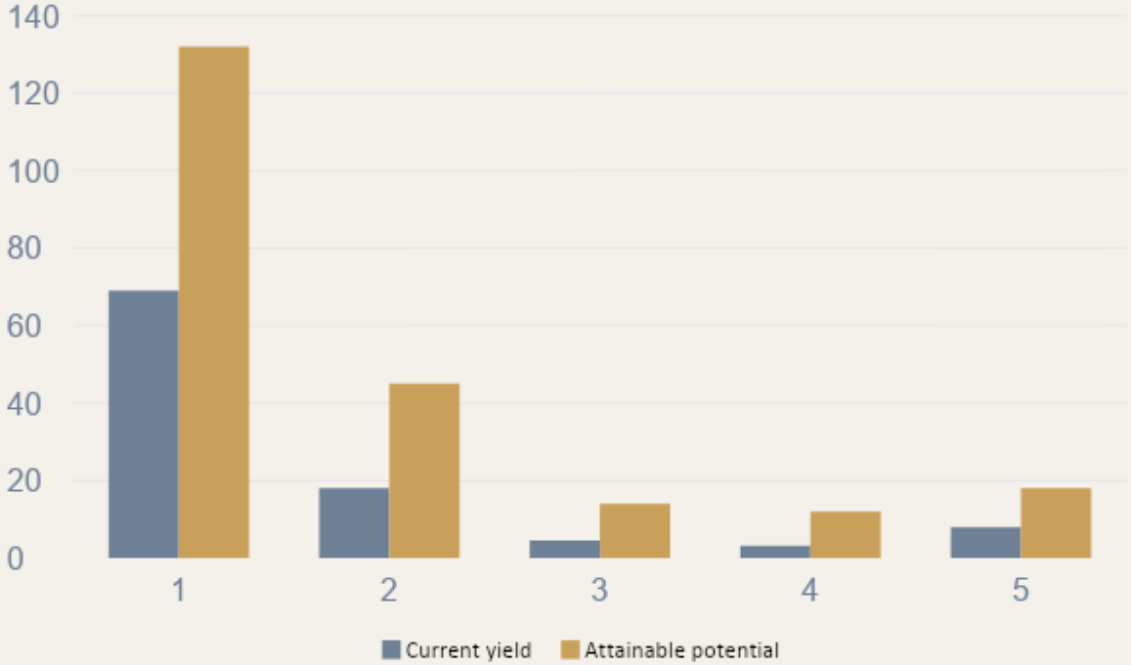
The geopolitical exposure

Every disruption in global commodity markets strikes directly at Omani household purchasing power and depletes national foreign exchange reserves. The 2022–2023 supply shocks made the vulnerability concrete.

OPPORTUNITY

Yield potential per sector — the gap to close

What a hectare produces today versus what it could produce with targeted management.



×2.5

average yield multiplier achievable across all sectors within 5 years with water management and soil restoration.

The unvarnished finding

No sector in Oman operates beyond 50 % of its agronomic potential. The recoverable margin is substantial and concentrated on three technologies.

ECOSORB®

Water that stays where it belongs

For a country where every drop counts — the hydro-retentive polymer that stores water and releases it to roots on demand, through the longest dry intervals.

300×

its own weight in water, released to roots as soil dries

40–60 %

irrigation reduction on dates and vegetables

On dates — establishment secured

The critical window for Omani date palms is establishment and early fruit set: a two-week water deficit destroys up to 30 % of yield. ECOSORB® applied to the root zone maintains an active water reserve regardless of irrigation gaps.

+50–70 %

yield increase on horticulture in dry season

3–5 years

active duration per single soil application

On vegetables — pumping cost halved

On irrigated perimeters in Al Batinah and the interior oases, water savings exceed 50 % — a direct gain on pumping costs and pressure on depleted coastal aquifers. ECOSORB® maintains root-zone moisture through the entire dry season.

ECOFERT®

Sandy soil regeneration — converting exhausted substrate into living, productive ground.

The soils of Oman's agricultural zones share one critical limitation: massively sandy, below 0.5 % organic matter, incapable of retaining nutrients or water. Decades of intensive cropping without organic restitution have accelerated depletion. Mineral fertilizers leach out within a few irrigations.

ECOFERT® works at the root cause: active rebuilding of the clay-humus complex, inoculation with micro-organisms adapted to hyper-arid conditions, soil structuring via bacterial polysaccharide residues. Water-holding capacity improves measurably across two to three growing cycles.

For Omani date growers and vegetable producers in Al Batinah, this is the exit from a twenty-year depletion spiral.

ECOFERT START

Seedling startup and germination boost

ECOFERT GROW

Active vegetative growth and tillering

ECOFERT BLOOM

Flowering and fruit-set support

ECOFERT SOIL

Deep organic soil reconstitution

ECOFERT STRESS

Drought and heat stress resistance

EXPORT COMPLIANCE

NAPEMA® — natural protection for export crops

Zero chemical residue, EU and GCC phytosanitary compliance guaranteed.

Omani export horticulture faces growing phytosanitary pressure: powdery mildew on pomegranate, anthracnose on mango and lime, bacterial blight on tomato. Conventional treatments are increasingly restricted by European and GCC buyers — border rejections for residue exceedance are multiplying.

NAPEMA® combines plant extracts and essential oils in a systemic formulation that simultaneously stimulates the plant's own immune defenses. Protection persists well beyond the application date — that is the key difference from a conventional fungicide.

For Omani exporters targeting EU and GCC premium markets, NAPEMA® is the guarantee of zero-residue compliance — and a selling price three to four times the local market rate.

Antifungal protection

Systemic coverage against powdery mildew, anthracnose, and bacterial blights threatening Omani export crops — without residue.

EU & GCC compliance

Zero chemical residue on vegetables and fruit. Guaranteed access to premium European and GCC market tiers at premium prices.

Durable plant immunity

Stimulates the plant's natural immune defenses. Protection extends well beyond the application date.

REFORESTATION

Paulownia — the barrier against desertification

An ultra-fast-growing tree that stabilizes soils, blocks sand dunes, and generates commercial timber within five years.

Desertification is advancing at an estimated 2–4 km per year in Oman's interior and northern regions. The Arab Regional Green Belt calls for large-scale reforestation — but implementation is hampered by the absence of species adapted to fast growth under extreme heat and low rainfall.

Paulownia Altifolia, reaching 6–8 metres in its first season, develops a deep root system capable of stabilizing sandy soils and drawing moisture from deeper strata. It is the only comparably fast-growing species tolerating extreme temperatures up to 45 °C while remaining commercially productive in timber within five to seven years.

Green Solutions Group supports international reforestation programmes already engaged with the Sultanate of Oman. A national distribution partner is the missing link between available financing from IsDB, World Bank, and GCC funds, and field implementation at scale.

5–7 years
commercial timber

8 m
first-season height

45 °C
maximum heat tolerance

3×
CO_2 absorption vs conventional reforestation

The partnership model

Three pillars — exclusive distribution, agronomic support, institutional positioning.

Exclusive Distribution

- Territorial exclusivity — Sultanate of Oman
- Funded launch stock — first season
- Logistics import through Port of Muscat
- Premium commercial margins

Agronomic Support

- Certified technical training for field teams
- Field advisory — crop cycle monitoring
- Techno-commercial hotline
- Seasonal agronomic updates

Institutional Positioning

- Co-branding with MAFWR and PAFC
- Aligned with Vision 2040 food security
- Listed with FAO, World Bank, IsDB
- Support with GCC donors and green finance

GREEN SOLUTIONS GROUP

Oman has everything it needs to feed its population.

What it needs is the technology that transforms potential into measurable results.

No impossible promises. No miraculous transformation. A realistic doubling, within five years, of yield per hectare on the crops that sustain the nation dates, vegetables, citrus, alfalfa. The technologies exist. The agronomic evidence is documented. What Oman needs is a national partner capable of carrying this technology transfer to scale.

Green Solutions Group seeks an Omani partner of institutional standing to build this programme together. The window is open — it will not remain so indefinitely.

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