

Madagascar dossier summary

Irrigation water, climate, fertilisers and crops. The essentials of the 23-page dossier.

Key figures

Figure	What it means
1,538 Mm³	Water saved per year in the central scenario, or 11.9% of agricultural withdrawals. Range of 769 to 3,076 Mm³ a year.
99 000 ha	Extra irrigable area with the same water, at 15,516 m³ per equipped hectare.
98 000 t	Production gain in the central scenario, for the crops where a trial is cited.
2.04 M ha	Rice harvested in 2024, the main crop (FAOSTAT).
767 M$	Agricultural exports in 2024, including $457 million of vanilla and cloves.
930 M$	Agricultural imports in 2024, including $163 million of palm oil.
9,771 t	Mineral nitrogen used in agriculture (FAOSTAT, latest year).

Bn = billion · M = million · Mm³ = million cubic metres · t = tonnes. The water savings are scenarios built from the trials cited.

Our products

Green Solutions develops products for water, fertilisation and crop protection. Four families are of interest to this dossier.

Product	Claimed use	Published evidence (level)
EVERGREEN® (water-retention polymer)	Holds water as a gel, near the roots.	Trials on maize, potato, watermelon, date palm and soybean. Level B to C.
ECOSORB® (water-retention polymer based on corn starch)	Same use; lasting 2 to 3 years according to the website.	Soybean trial (China); laboratory acrylamide analysis. Level B to C.
ECOFERT® (fertiliser)	Fertiliser certified by SOHISCERT and EU Bio.	Published certificate; potato trial with EVERGREEN®. Levels A and C.
Paulownia ALTIFOLIA®	Fast-growing tree for agroforestry.	Website figures; no trial in Madagascar. Level C.
Water Vital®, NAPEMA®	Outside the scope of this dossier.	No independent source in the documents consulted.

Key points

- **Rice dominates.** 2.04 million hectares harvested in 2024, for 4.97 million tonnes.
- **Agriculture withdraws almost all the water.** 12.9 km³ a year, or 96% of total withdrawals.
- **A very contrasted climate.** From 502 mm of rain a year at Ambovombe to 2,172 mm at Toamasina.

- **Rice accounts for 60% of the central saving.** No trial is cited for rice: The assumption is generic (10%).
- **The trials give the yield gains.** 98 000 t of extra production in the central scenario, for the crops where a trial is cited.
- **Vanilla and cloves: 60% of agricultural exports.** $457 million in 2024.

The zones at a glance

Zone (capital)	Rainfall (mm/yr)	Deficit (mm/yr)	Temperature (°C)
Antsiranana	844	876	25.3
Mahajanga	1,340	502	26.9
Antananarivo	1,072	296	17.9
Toamasina	2,172	-951	23.4
Fianarantsoa	1,148	108	17.7
Morondava	919	851	25.8
Toliara	556	1,282	25.2
Ambovombe	502	1,198	23.5

How to read the figures

Each figure refers to a source with a confidence level. A: Official statistics or international database (World Bank, FAO, customs). B: Research institute, laboratory or public body outside statistics. C: Manufacturer statement, website, press or estimate. The sources are listed in Annex A of the dossier.

Water saved by crop group (central scenario)

The six irrigable groups give 1,538 Mm³ a year. Rice makes up 60% of this saving, on a generic assumption.

Crop group	Equipped area (ha)	Water saved (Mm³/yr)	Trial or assumption
Rice (paddy)	598,341	928.4	Generic assumption
Maize	42,391	128.3	Maize, Türkiye (2025)
Potato, sweet potato, onion, garlic	56,850	229.3	Potato, South Africa (2025)
Vegetables and melons	13,939	65.4	Watermelon, Mexico (2023)
Sugar cane	29,603	45.9	Generic assumption
Fruit (banana, mango, citrus, avocado, pineapple)	90,576	140.5	Generic assumption

Trade

- **First products exported.** Vanilla ($265 million) and cloves ($192 million) lead agricultural exports of $767 million.
- **Main imports.** Palm oil ($163 million) and milled rice ($128 million) among $930 million of agricultural imports.

Full dossier: 23 pages, with the sources (Annex A) and the calculation method (Annex B). Green Solutions · contact@green-solutions-group.com · green-solutions-group.com