

South Sudan dossier summary

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

Key figures

Figure	What it means
+825 t	Of extra maize per 10,000 ha treated, central scenario (413 to 1,650 t depending on the scenario).
1,018,687 ha	Of sorghum harvested in 2024, the main crop (FAOSTAT).
19,000 ha	Equipped for irrigation, for 2,477,890 ha of cropland (FAOSTAT).
54.3 Mm³	Irrigation water saved per year in the central scenario, enough to irrigate about 4,300 more ha.
206 t	Mineral nitrogen used in 2024, all imported.
36 M$	Of agricultural exports in 2023, for $613 million of imports (FAOSTAT).

M = million · Mm³ = million cubic metres · t = tonnes. The gains are scenarios built from the trials cited; no trial has yet been conducted in South Sudan.

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 rain or irrigation 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, usable in organic farming.	Published certificate; potato trial with EVERGREEN®. Levels A and C.
Paulownia ALTIFOLIA®	Fast-growing tree for agroforestry.	Website figures; no trial in South Sudan. Level C.

Key points

- **A rain-fed agriculture.** 19,000 ha equipped for irrigation, or 0.8% of cropland: The main stake is to keep the water of each rain near the roots.

- **Where water is shortest.** National water stress is 4.2%; Malakal gets 783 mm of rain for 2,334 mm of evapotranspiration.
- **Rainfed crops quantified.** For maize, a published trial makes it possible to quantify a yield gain.
- **In irrigation.** The "vegetables and melons" group gives 83% of the water saved (watermelon, Mexico (2023)).
- **Importing into South Sudan.** East African Community common external tariff: 10% for subheading 3906.90, application by South Sudan to be confirmed; no fertiliser registration regulation found.

The regions at a glance

Region (city)	Rainfall (mm/yr)	Deficit (mm/yr)	Temperature (°C)
Central Equatoria (Juba)	946	1,133	28.6
Eastern Equatoria (Torit)	909	1,034	27.5
Western Equatoria (Yambio)	1,388	232	24.9
Jonglei (Bor)	888	1,201	28.8
Upper Nile (Malakal)	783	1,551	28.8
Unity (Bentiu)	882	1,409	28.9
Lakes (Rumbek)	1,037	1,069	28.4
Warrap (Kuajok)	908	1,394	28.7
Northern Bahr el Ghazal (Aweil)	928	1,433	28.4
Western Bahr el Ghazal (Wau)	1,065	1,059	27.9

How to read the figures

Each figure refers to a source with a confidence level. A: Official statistics or international database (World Bank, FAO, South Sudanese public bodies (National Bureau of Statistics, Ministry of Agriculture and Food Security, revenue authority)). 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.

Extra production per 10,000 ha treated

Crop	Average yield (t/ha)	Cautious (t)	Central (t)	High (t)
Maize	0.96	413	825	1,650

Trade

- **First products exported.** Lucerne (alfalfa) meal and pellets, sesame seed and food wastes, out of $36 million of agricultural exports in 2023.
- **Main imports.** Wheat and meslin flour, sorghum and flour of maize, out of $613 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