

Benin dossier summary

Water, climate, fertilisers and crops. The essentials of the 26-page dossier.

Key figures

Figure	What it means
+1,018 t	Of extra maize per 10,000 ha treated, central scenario (509 to 2,036 t depending on the scenario).
+578 t	Of extra soybean per 10,000 ha treated, central scenario (289 to 1,155 t depending on the scenario).
1,759,588 ha	Of maize (corn) harvested in 2024, the main crop (FAOSTAT).
24,330 ha	Equipped for irrigation, out of 4,314,600 ha of cropland (FAOSTAT).
6.4 Mm³	Irrigation water saved per year in the central scenario, enough to irrigate about 4,784 more ha.
48,523 t	Mineral nitrogen used in 2024, all imported.
915 M$	Of agricultural exports in 2024, for $1,039 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 Benin.

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 Benin. Level C.

Key points

- **Predominantly rainfed farming.** 24,330 ha equipped for irrigation, or 0.6% of cropland: The main challenge is to retain water from each rainfall event near the roots.

- **Where water is scarcest.** National water stress is 1.0%; Kandi gets 953 mm of rain for 2,012 mm of evapotranspiration.
- **Rainfed crops quantified.** For maize and soybean, a published trial makes it possible to quantify a yield gain.
- **In irrigation.** The "vegetables" group gives 73% of the water saved (watermelon, Mexico (2023)).
- **Importing into Benin.** 5% customs duty (ECOWAS common external tariff) for subheading 3906.90, 18% VAT; fertiliser quality control under the 2012 ECOWAS regulation.

The regions at a glance

Region (city)	Rainfall (mm/yr)	Deficit (mm/yr)	Temperature (°C)
Alibori (Kandi)	953	1,059	27.2
Atakora (Natitingou)	1,303	482	26.0
Borgou (Parakou)	1,080	634	26.3
Donga (Djougou)	1,131	573	26.1
Collines (Savalou)	1,368	92	26.0
Zou (Abomey)	1,194	246	26.3
Plateau (Pobè)	1,353	-46	26.0
Ouémé (Porto-Novo)	1,287	38	26.4
Atlantique (Allada)	1,140	229	26.6
Littoral (Cotonou)	1,287	38	26.4
Mono (Lokossa)	1,140	269	26.6
Kouffo (Aplahoué)	1,194	226	26.3

How to read the figures

Each figure refers to a source with a confidence level. A: Official statistics or international database (World Bank, FAO, Beninese public bodies (INStaD statistics institute, Ministry of Agriculture, Livestock and Fisheries, tax directorate)). 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	1.19	509	1,018	2,036
Soybean	1.02	289	578	1,155

Trade

- **Main products exported.** Cotton lint, ginned, soya bean cake and karite nuts (sheanuts), out of $915 million of agricultural exports in 2024.
- **Main imports.** Refined sugar, wheat and meat of chickens, fresh or chilled; rice imports amount to $703 million, out of $1,039 million of agricultural imports.

Full dossier: 26 pages, with the sources (Annex A) and the calculation method (Annex B). Green Solutions · contact@green-solutions-group.com · green-solutions-group.com