

MAURITANIA



Source: esri

General

Mauritania - officially the Islamic Republic of Mauritania - is located in the Maghreb Region of Western Africa. It is bordered by the Atlantic Ocean in the West, Western Sahara in the North, Algeria in the Northeast, Mali in the East and Southeast, and Senegal in the Southwest. With an area of just over 103 Mha (million hectares) with in 2022 a population of 4.74 million, or 0.046 persons per ha (Wikipedia and United Nations, 2022).

Climate and geography

The climate is characterized by extremes in temperature and by meager and irregular rainfall. Annual temperature variations are small, although diurnal variations can be extreme. The harmattan, a hot, dry and often dust-laden wind, blows from the Sahara throughout the long dry season and is the prevailing wind, except along the narrow coastal strip, which is influenced by oceanic winds. Most rain falls during the short rainy season from July to September. Average annual rainfall varies from 500 to 600 mm in the far South to less than 100 mm in the northern two-thirds of the country (source: Wikipedia).

Mauritania lies in the western region of Africa, and is generally flat, with occasional ridges and clifflike outcroppings. It is considered part of both the Sahel and the Maghreb. Approximately three-quarters of Mauritania is desert or semi-desert. As a result of extended, severe drought, the desert has been expanding since the mid-1960s. The plateaus gradually descend toward the northeast to the barren El Djouf, or "Empty Quarter," a vast region of large sand dunes that merges into the Sahara Desert. To the West, between the ocean and the plateaus, are alternating areas of clayey plains and sand dunes, some of which shift from place to place, gradually moved by high winds. The dunes generally increase in size and mobility toward the North. Belts of natural vegetation, corresponding to the rainfall pattern, extend from East to West and range from traces of tropical forest along the Senegal River to brush and savanna in the Southeast. Mauritania is home to seven terrestrial ecoregions: Sahelian Acacia savanna, West Sudanian savanna, Saharan halophytics, Atlantic coastal desert, North Saharan steppe and woodlands, South Saharan steppe and woodlands, and West Saharan montane xeric woodlands.

Existing polders

Van Wetten *et al.* (1990) describe a very simple polder system in the Lake Rkiz area (Figure 1). Small dikes have been built. Water can enter the area during high river flow in the Senegal River and is then kept in the area. When the water has been infiltrated Sorghum is planted.

At Google Earth several polder type of landscapes at the Mauritania side of the Senegal River can be identified. However, It is difficult to determine whether it indeed are polders.

Proposed polders

At request of the Senegal River Basin Development Authority, under the title *Fight against weed pests in the Senegal River Delta*, the *Rijksdienst voor Ondernemend Nederland* (2010) invited proposals for the construction of 8 polders along the Senegal River. These polders would include 63 km of polder dikes, about 60 km of drains, about 8 pumping systems and at least 8 inlet structures. Four of these polders would be constructed at the Mauritania side of the river and four at the Senegal side. The polders are located close to the towns of Rosso and Richard Toll along existing agriculture fields. Another important aspect of the project would be the clearance of the Typha – a type of reed - and the preparation of the land in the new polders. The project proposed the creation of polders where the Typha cannot grow: a sustainable solution as it would mean that existing Typha would only have to be cleared once at the start of the project. The polders would have to create new agricultural ground in which rice and other agricultural products such as vegetables can be grown. In the framework of this programme Royal HaskoningDHV, has produced a master plan to develop the Senegal River Delta and designs for the

eight polders with a total area between 3000 and 4000 ha as a pilot project. An artist impression is shown in Figure 2. It has to be verified whether these polders indeed have been constructed.

General characteristics of the polders in Mauritania are shown in Table I.

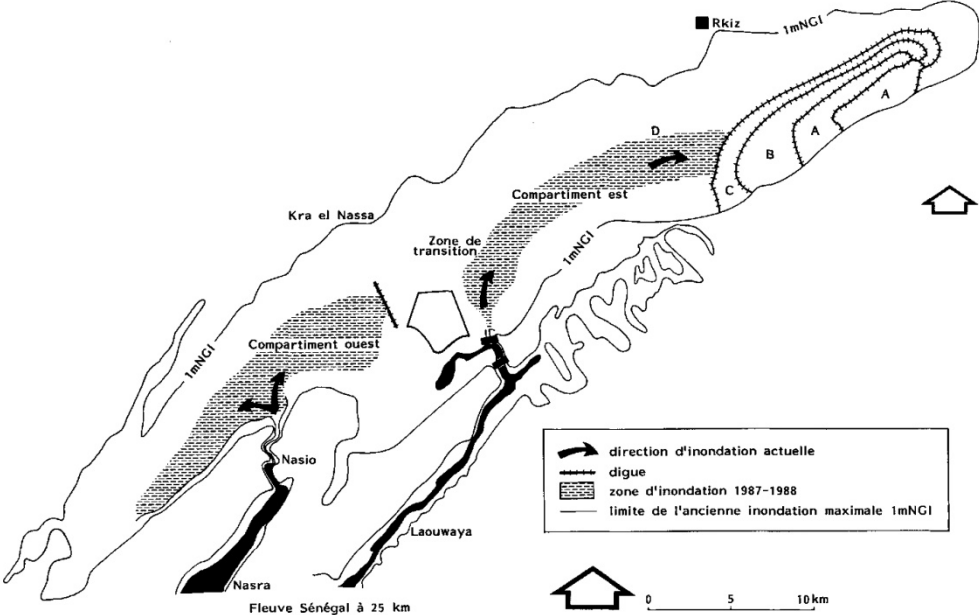


Figure 1. Polders in Lake Rkiz area (van Wetten et al., 1990)



Figure 2. Artist impression of the proposed polders in the Senegal River Delta (source: Royal HaskoningDHV)

Location of the polders in Mauritania as shown on the World polder map

The location of the polders in Mauritania is shown in Figure 3.



Figure 3. Location of the polders in Mauritania (source: esri – Batavialand)

References

- Rijksdienst voor Ondernemend Nederland, 2010. *Fight against weed pests in the Senegal River Delta*. <https://www.rvo.nl/subsidies-regelingen/projecten/fight-against-weed-pests-senegal-river-delta>
- Royal HaskoningDHV, 2013. *Tackle typha in Senegal River Delta. Polders along Senegal River*. Amersfoort, the Netherlands.
- United Nations, Department of Economic and Social Affairs, Population Division. 2022. *World population prospects, medium prognosis. The 2022 revision*. New York, USA.
- Wetten, J. van, Cheikhnaould Mbaré, M. Binsbergen and T. van Spanje, 1990. *Zones humides du Sud de la Mauritanie*. Research Institute for Nature Management (RIN). Texel, the Netherlands (in French).

Notes:

- World Bank, 1980. Mauritania - Gorgol Irrigation Project (Credit S-16-MAU) OED Report No. 3134 dated September 18.
- World Bank, 1988. *Mauritania - Gorgol Noir Irrigation Project*. Project Completion Report (Credit 1068-MAU) Report No. 7566 dated December 29. Africa Regional Office.
- in this project there is mentioning of drains. However, there is no reference to a polder.

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Table I. General characteristics of existing and proposed polders in Mauritania

Name	Reclamation	Area in ha	Type *)	Latitudes	Longitudes	Elevation in m+MSL	Land use
<i>Existing polders</i>							
Polders in Lake Rkiz area		2400	RLL	16° 51' N	15° 20' W	2	Agriculture
<i>Proposed polders</i>							
4 polders							
Total		2400					

*) RLL = reclaimed low-lying land; LGS = land gained on the sea; DL = drained lake