

LIBERIA



General

Liberia - officially the Republic of Liberia - is located on the West African coast. It is bordered by Sierra Leone in the Northwest, Guinea in the North, Ivory Coast in the East, and the Atlantic Ocean in the South and Southwest. Liberia covers 11.1 Mha (million hectares) with, in 2024, a population of 5.6 million, or 0.5 persons per ha (Wikipedia and United Nations, 2024).

Climate and geography

Source: esri

The equatorial climate, in the south of the country, is hot year-round with heavy rainfall from May to October with a short interlude from mid-July to August. During the winter months of November to March, dry dust-laden winds blow inland. Climate change in Liberia causes many problems as Liberia is particularly vulnerable to climate change. Liberia both faces existing environmental issues, as well as sustainable development challenges. Because of its location in Africa, it is vulnerable to extreme weather, the coastal effects of sea level rise, and changing water systems and water availability (source: Wikipedia).

The landscape is characterized by mostly flat to rolling coastal plains that contain mangroves and swamps, which rise to a rolling plateau and low mountains in the northeast. Tropical rainforests cover the hills, while elephant grass and semi-deciduous forests make up the dominant vegetation in the northern sections. Liberia's river basins tend to move in a southwestern pattern towards the sea as new rains move down the forested plateau off the inland mountain range of Guinée Forestière, in Guinea. Liberia's main northwestern boundary is traversed by the Mano River while its southeast limits are bounded by the Cavalla River. Liberia's three largest rivers are St. Paul with its mouth near Monrovia, the river St. John at Buchanan, and the Cestos River, all of which flow into the Atlantic. The Cavalla is the longest river in the nation at 510 km (source: Wikipedia).

According to Fuller *et al.* (2015) the Ministry of Agriculture estimated that fertile lowlands composed of swamps and flood plains cover 20% of Liberia's surface and that this means, that approximately 20 million hectares would be available for lowland farming. They also presented a manual on the *Rehabilitation and development of integrated lowland rice farming in Liberia*. In this manual they show a schematic lay out of a rice polder (Figure 1).

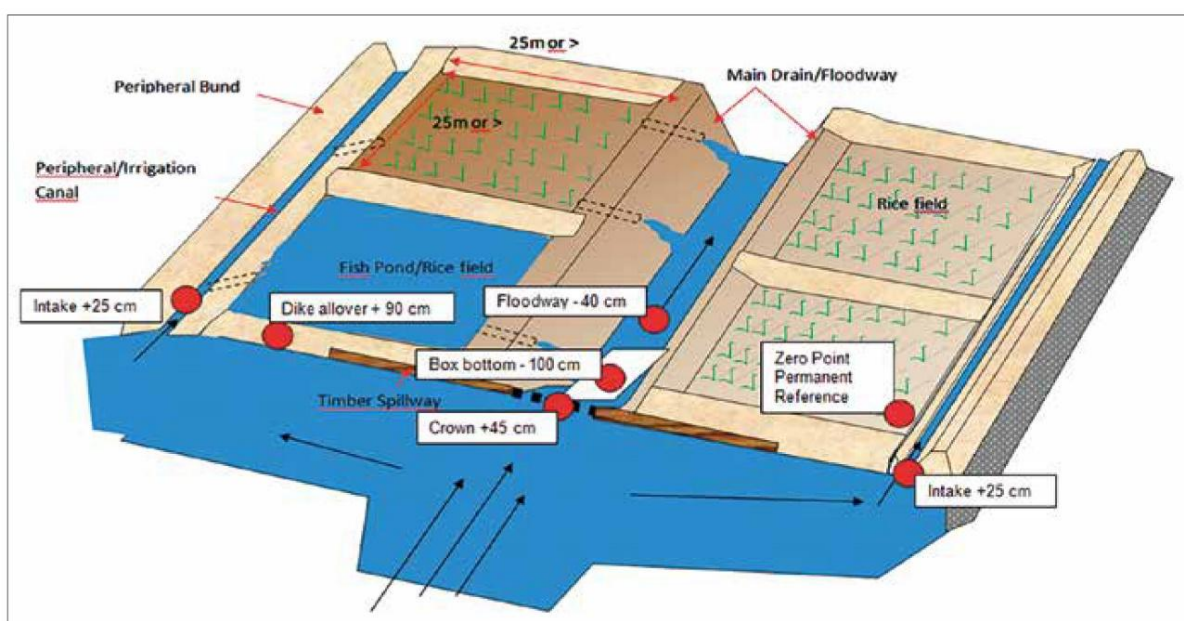


Figure 1. Schematic lay out of a rice polder (Fuller *et al.*, 2015)

Existing polders

Fuller *et al.* (2015) presented a scheme of a polder lay out in Selega Swamp (Figure 2). At Google Earth it can be observed that this polder has indeed been made. In addition they show principle lay-outs and cross-sections of the components of a polder scheme.

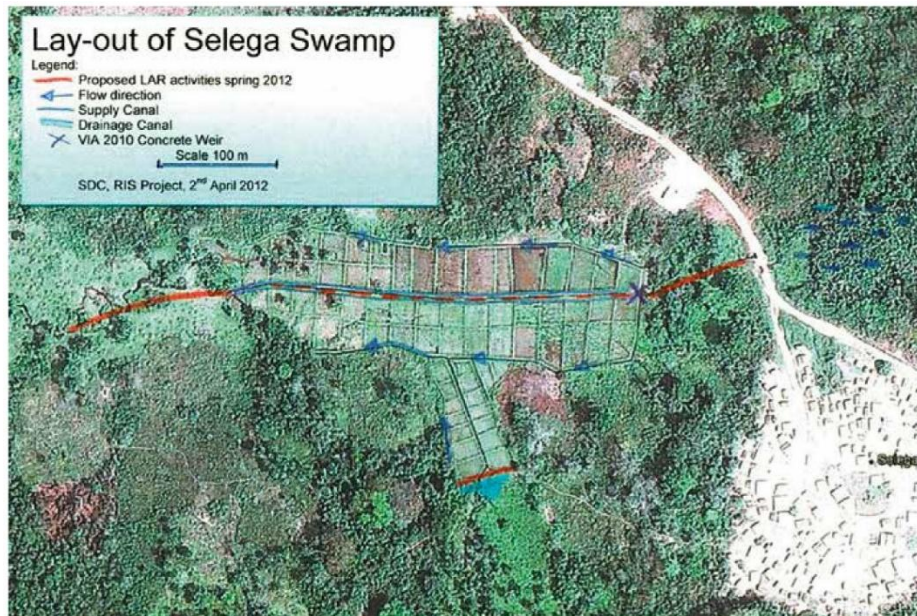


Figure 2. Scheme of a polder layout in Selega Swamp (Fuller *et al.*, 2015)

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

Proposed polders

No proposed polders have been identified.

Location of the polder in Liberia as shown on the World polder map

The location of the polder in Liberia is shown in Figure 3.

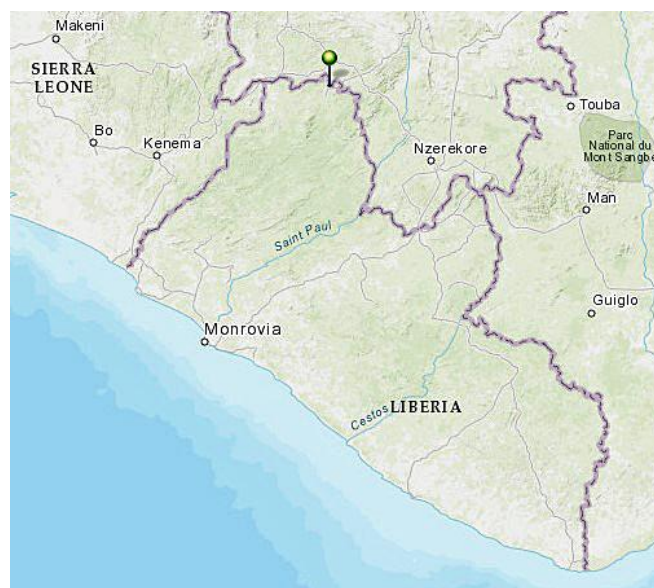


Figure 3. Location of the polder in Liberia (source: esri – Batavialand)

References

Fuller, G.M., B. Strebel, S.Z. Subah and J.T. Moore, 2015. *Rehabilitation and development of integrated lowland rice farming in Liberia. Technical manual for irrigable lowland development in Liberia*. Ministry of Agriculture. Monrovia, Liberia.

United Nations, Department of Economic and Social Affairs, Population Division. 2024. *World Population Prospects, medium prognosis. The 2024 revision*. New York, USA.

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Lelystad, August 2024

Table I. General characteristics of existing polders in Liberia

Name	Reclamation	Area in ha	Type *)	Latitudes	Longitudes	Elevation in m+MSL	Land use
Polder in Selega Swamp			RLL	8° 24' N	9° 43' W		Agriculture
Total							

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