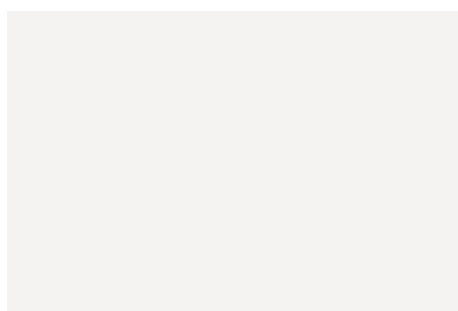
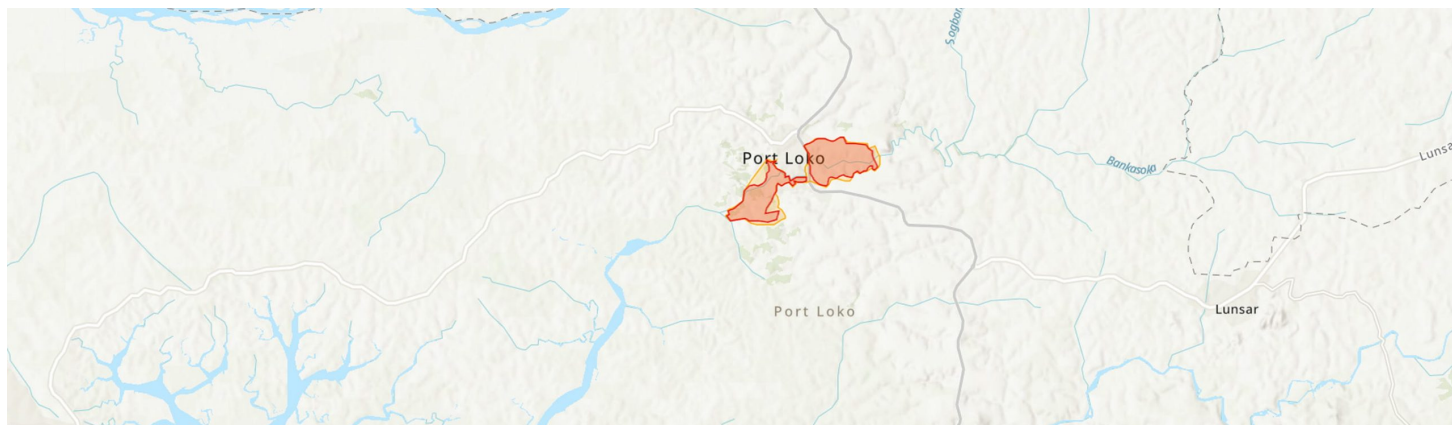


Port Loko Forest and Wetlands Complex

SIETIPA20



Country: **Sierra Leone**

Administrative region: **Northwestern (Province)**

Central co-ordinates: **8.75000 N, -12.80000 E**

Area: **17.9km²**

Qualifying IPA criteria

A(i), C(iii)

IPA assessment rationale

The Port Loko forest and wetland complex IPA falls under criterion A(i) as it is the only known site for the Critically Endangered *Inversodicraea feika* endemic to Sierra Leone and home to three other globally threatened taxa. The site also qualifies under criterion C(iii) due to the presence of the nationally threatened waterfalls and rivers supporting endemic Podostemaceae.

Site description

Port Loko Town and its environs are typically flat lands and are characterized by heights between 3m and 75m above sea level in the Northwestern province of Sierra Leone. The Port Loko Forest and Wetlands Complex lies within the transitional zone between the

coastal mangroves and the interior forest-savannah mosaic of Sierra Leone. The site includes degraded semi-deciduous forest patches, gallery forests, freshwater swamps, riparian corridors, and seasonally inundated grasslands (Bolilands), embedded within a matrix of agricultural land, and fallow areas.

Despite extensive anthropogenic disturbance resulting in the presence of disturbance-tolerant flora, the site retains a range of ecologically functional habitats that, although degraded, still support rare plant species. The forest patches and wetland margins are particularly important for plant species adapted to seasonal flooding and edaphic variation, while the proximity to the Rokel River and the Scarcies River and their tributaries creates ecological corridors for dispersal.

Botanical significance

The IPA is of high botanical significance due to the presence of four globally threatened and range restricted taxa. Most importantly, it supports the Critically endangered *Inversodicraea feika*, a rheophytic species endemic to Sierra Leone and currently known only from this IPA making it highly significant for conservation. Additional threatened taxa include the Endangered *Pterocarpus erinaceus*, the Vulnerable *Newtonia elloitii* and *Lophira alata* and the near threatened *Psychotria limba*.

Habitat and geology

The Port Loko Forest and Wetlands Complex exhibits a high degree of ecological heterogeneity, shaped by both geological and hydrological variability. The landscape consists of a mosaic of secondary forest fragments, wooded savannah, seasonally flooded inland valley swamps, and gallery forests, interspersed with rice paddies, fallow agricultural land, and extensive oil palm-dominated groves (Garriga, 2014).

Freshwater swamp habitats, particularly along the tributaries of the Great and Little Scarcies rivers, support hydrophytic flora such as *Raphia palma-pinus* and *Nymphaea lotus*. These swamps function as critical hydrological buffers, regulating seasonal water flows and reducing sedimentation downstream. Gallery forests along riverbanks provide shade-needed and moisture-dependent species and may provide habitat corridors for both plant and animal dispersal across fragmented landscapes.

Coastal and estuarine zones at the western extent of the district are dominated by mangroves and low-lying floodplains. These areas are part of the Bullom-Sherbro wetlands characterized by fine-grained clays, marine sands, and estuarine alluvium, supporting halophytic vegetation and extensive root networks that bind sediments and prevent erosion (Goodenough et al., 2018). The mangrove zones also act as nurseries for fish and crustaceans and contribute to both food security and biodiversity conservation.

The geology of the area, lies on the western edge of the West African Craton within the Rokelide orogenic belt, consists mainly of weathered Precambrian granitic and gneissic rocks (Goodenough et al., 2018). This has resulted in typically acidic, lateritic, and nutrient-poor soils, with more fertile alluvial deposits in valley bottoms supporting swamp formation.

This combination of variable substrates and seasonal hydrology underpins the site's habitat diversity, enabling the persistence of both upland savannah and hydrophilic lowland species within a small geographic area.

Mining activities, including both artisanal and industrial extraction of iron ore and rutile, have further degraded terrestrial and freshwater ecosystems through vegetation clearance, soil erosion, and sedimentation of adjacent watercourses (Mabey et al., 2020). In addition, drainage and infilling of freshwater wetlands for infrastructure development and settlement growth continues to reduce critical habitats in this IPA.

Mangrove fringes along the Scarcies River are also under pressure from fuelwood collection and land reclamation. The loss of these habitats reduces coastal resilience and impacts ecosystem services such as fisheries support, and shoreline protection.

Although environmental legislation exists in Sierra Leone, enforcement remains limited, as formal protection within Port Loko area is sparse (Fofanah &Abdulai-Kamara, 2024). Resource management is largely dependent on community-based or customary systems, leaving these ecosystems vulnerable to escalating human pressures.

Site assessor(s)

Fanny Massally, Royal Botanic Gardens, Kew

Date of first assessment:

9th Mar 2026

Reviewed by:

Aiah Lebbie, The University of Sierra Leone

Conservation issues

The Port Loko Forest and Wetlands Complex faces multiple, overlapping threats that are degrading its ecological integrity. Agricultural expansion, particularly for rice cultivation, has led to the conversion of inland valley swamps and forest patches into farmland. These changes are exacerbated by unsustainable land-use practices such as slash-and-burn farming and uncontrolled fire use, which impede natural forest regeneration and increase the risk of permanent ecosystem degradation

Between Port Loko District lost over 173,000 hectares of tree cover, accounting for nearly 44% of its forested area. This large-scale deforestation has resulted in substantial carbon emissions and biodiversity loss (Global Forest Watch, 2024).

IPA criterion A species

SPECIES	QUALIFYING SUB-CRITERION	≥ 1% OF GLOBAL POPULATION	≥ 5% OF NATIONAL POPULATION	1 OF 5 BEST SITES NATIONALLY	ENTIRE GLOBAL POPULATION	SOCIO-ECONOMICALLY IMPORTANT	ABUNDANCE AT SITE
<i>Newtonia elliotii</i> (Harms) Keay	A(i)	—	—	—	—	—	Common
<i>Lophira alata</i> Banks ex Gaertn.f.	A(i)	—	—	—	—	—	Occasional
<i>Inversodicraea feika</i>	A(i)	—	—	—	—	—	Scarce
<i>Pterocarpus erinaceus</i> Poir.	A(i)	—	—	—	—	—	Common

IPA criterion C qualifying habitats

HABITAT	QUALIFYING SUB-CRITERION	≥ 5% OF NATIONAL RESOURCE	≥ 10% OF NATIONAL RESOURCE	1 OF 5 BEST SITES NATIONALLY	AREAL COVERAGE AT SITE
Waterfalls with endemic Podostemaceae	C(i)	✓	—	✓	

General site habitats

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE
Forest - Subtropical/Tropical Swamp Forest	—	
Savanna - Moist Savanna	—	
Grassland - Subtropical/Tropical Seasonally Wet/Flooded Lowland Grassland	—	

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
Agriculture (pastoral)	—	
Agriculture (aquatic)	—	
Harvesting of wild resources	—	
Extractive industry	—	
Residential / urban development	—	
Agriculture (arable)	—	

Threats

THREAT	SEVERITY	TIMING
Residential & commercial development - Housing & urban areas	High	Ongoing - increasing
Agriculture & aquaculture - Annual & perennial non-timber crops - Small-holder farming	High	Ongoing - stable
Energy production & mining - Mining & quarrying	High	Ongoing - increasing
Biological resource use - Fishing & harvesting aquatic resources - Unintentional effects: subsistence/small scale (species being assessed is not the target) [harvest]	High	Ongoing - stable
Biological resource use - Logging & wood harvesting - Intentional use: subsistence/small scale (species being assessed is the target) [harvest]	High	Ongoing - stable
Natural system modifications - Dams & water management/use - Small dams	Medium	Future - planned activity
Pollution - Domestic & urban waste water	High	Ongoing - stable

Management type

MANAGEMENT TYPE	DESCRIPTION	YEAR STARTED	YEAR FINISHED
No management plan in place		—	—

Bibliography

Global Forest Watch 2020. **Global Forest Watch**.

John Mambu Koroma and Mohamed Syed Fofanah September 2024. **Impact of Charcoal Production on Forest Loss: Case Study of Bo, Moyamba, Port Loko and Tonkolili Districts in Sierra Leone**. International Journal of Engineering Research & Technology (IJERT), Vol Vol. 13 Issue 9 (pub. <https://www.ijert.org/>)