

Guinea (Republic of)

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Location and area

Guinea is an independent republic in western Africa, bounded on the north-west by Guinea-Bissau and Senegal, on the north-east by Mali, on the east and south-east by Ivory Coast, on the south by Liberia and Sierra Leone, and on the west by the Atlantic Ocean. The total area of the country, including the Iles de Los, is 245,857 km². (Microsoft Encarta Encyclopedia 2002).

Topography

Guinea has four major topographic regions:

1. Lower Guinea, the coastal plain, extends about 48 km (30 mi) inland from the coast, which is about 275 km (170 mi) in length.
2. Beyond the coastal plain, is middle Guinea, the Fouta Djallon, a mountainous plateau region with an average elevation of about 900 m.
3. Upper Guinea is gently undulating savannah country, broken by occasional rocky outcrops with an average elevation of 300 m (1,000 ft).
4. In the extreme south-east are the forested Guinea highlands, with in the Nimba Range the highest point in the country (1,850 m).

The principal rivers are the Bafing (the upper course of the River Senegal) and the Gambia, both of which rise in the mountains of the Fouta Djallon and flow northeast over the country's borders. Many smaller rivers rise in the Fouta Djallon and descend to the coastal plain, where they divide into many branches. The River Niger and its important tributary the River Milo originate in the forested Guinea highlands.

Climate

Guinea has a climate that varies with altitude. Rainfall is highest and range of temperature lowest in lower Guinea. Conakry has an annual rainfall of 4,250 mm and an annual average temperature of 27° C. In the Fouta Djallon, annual rainfall averages 1,800 mm and the average annual temperature is 20° C. In upper Guinea, annual rainfall is less than in the Fouta Djallon, and the annual average temperature is 21° C. In the Guinea highlands annual rainfall averages 2,800 mm. The highest temperatures are found in this region. The climate in the highlands is equatorial with no clearly distinguishable seasons. The rainy season in the remainder of the country occurs from April/May to October/November. (Microsoft Encarta Encyclopedia 2002).

Land use

Dense mangrove forests abound along the coast and the riverbanks. The Fouta Djallon, which has been subject to extensive burning, is covered with sedge. The higher plateau areas have dense forests. Upper Guinea is characterized by savannah woodland. The Guinea highlands are characterized by dense rainforest. (Microsoft Encarta Encyclopedia 2002).

Wetlands

Without further reference or description, Lappalainen & Żurek (1996c) give a total wetland area of 5,250 km² (cf. Bord na Mona 1985).

WWF (2001) estimates the area of mangroves in Guinea to be 22,800 km² (www.worldwildlife.org/wildworld/profiles/terrestrial/at/at1403_full.html).

Peatlands

Kivinen & Pakarinen (1981) mention the presence of peatland in Guinea but present no estimates for its area.

Bord na Mona (1985), referring to the FAO/UNESCO Soil Map of the World 1975-1981, mentions the presence of Histosols associated with 5,250 km² of lagoon deposits and delta soils along the Guinea coast. Probably on the basis of Kawalec (1976) three types of peats are distinguished:

1. Saline mangrove peat, formed by *Rhizophora* spp. on fluvial-marine deposits
2. Intermediate *Raphia* peat, formed on desalinated marine sediments and alluvium
3. Continental *Raphia* peat, formed on alluvial deposits in river valleys.

All the peats are fairly shallow.

Shrier (1985) mentions coastal peat deposits associated with Fluvisols in lagoons, deltas and river valleys. Saline mangrove peat (*Rhizophora*) fringes freshwater *Raphia* deposits which are fairly shallow and regularly inundated. No areal estimation.

Andriessse (1988) estimates the extent of organic soils in Guinea to be 5,250 km². Schneider & Schneider (1990) and Pfadenhauer et al. (1993) mention a peatland area for Guinea of 5,250 km².

According to the interpreted World Soil Map (Van Engelen & Huting 2002) 853 km² of histosols exist in Guinea and 2,054 km² of gley soils.

Mire and peatland losses

According to Benneh et al. (1996) open peat mining in littoral zones of Guinea contributes to the destruction of vegetation and the acceleration of coastal erosion.

Still to be checked:

Kawalec, A. 1976. The genesis of Lower Guinea peat bogs and processes of transformation under drainage. Proc. 5th Int. Peat Congress Poznan 2: 29-36.