

3.8 GUINEA BISSAU

Introduction

Guinea Bissau is situated on the Atlantic coast of West Africa, bounded by Senegal and Guinea. It has an area of 36 125 km², a population of 826 000 (1983) and a mean population density of 22.8 persons/km². The country extends 200 km from north to south (10°55 '-12°45 'N) and 325 km from east to west (13°37'-16°43'W). The land surface is hilly but low lying. Virtually all the country is below the 100 m contour which is exceeded only along the borders. The highest points are Cape Roxo (12°21'N/13°37'W) on the northern border, and a 269 m 'peak' on the border in the southeastern extremity (11°45'N/13°43'W). The coastline is one of submergence, characterised by long, much branched, flooded valleys, along the shores of which deep layers of alluvium have been deposited. The coast is so highly indented that its length, including inlets to the point where their widths decline below 1 km, measures over 1000 km, while the offshore islands contribute a further 550 km.

Drainage is by a number of sluggish rivers which flow roughly southwestwards to the coast, between a series of parallel SW-NE watersheds. From north to south these are the Cacheu, Mansoa, Geba, Grande de Buba, Tombali, Cumbija, Cacine and Inxanche Rivers, the latter, in its lower course, marking the southern border. The coast is entirely deltaic with many small muddy or sandy islands immediately offshore, and a major island group with some rocky shoals, the Bijagos Archipelago, just off the mouth of the Geba River.

Climate

Most of the country receives 1500-2000 mm rain/yr, but the southwestern quadrant is more humid, with falls averaging more than 2000 mm. However, rainfall is highly seasonal and there is a 7 month dry period from November to May inclusive. This is most severe in the north where stations may record no rain at all for periods of 30-60 days. Precipitation is most intense in August, when any part of the country may receive a monthly total of 500 mm, or even more. In the north, 99% of the total annual rainfall may be received in the 5 months from June to October. The total rainfall for the 7 month dry season along the northern border may be less than 30 mm. Rain falls on 130 days a year at Bissau (11°52'N/15°35'W), the capital, situated in the central coastal district on the Geba Estuary. The mean temperature of the coolest month at Bissau is 25°C and that of the warmest month 28°C. Temperatures are moderated by sea breezes.

Vegetation

The coastal lowlands are covered by dense forests, mostly swamp forests, while the

interior is savanna covered, with gallery forests along streams.

Wetlands

The low coasts and estuarine shores are cloaked by mangroves, indeed there is little coastline that is not so vegetated. The exceptions are a 15 km strip along Vareola Bay, south of Cape Roxo and immediately north of the Cacheu River mouth, which is sandy, and a 3 km strip south of Point Cabaciera (12°02'N/16°20'W), which is sandy/rocky. Other shores devoid of mangroves occur on the offshore islands, e.g. the north facing shores of Caravella, Carache and Bubaque Islands, and the west facing shores of Caravella, Uno and Orango Islands. The outermost islands, Unhocomo and Unhocomozinho, are rocky.

Upstream of the mangroves, and behind them, are swamps dominated either by palms and pandans, or by freshwater swamp forest trees. Inland the country is characterised by low hills, 30-100 m asl. There is little flat land and no important wetland. However, almost all the narrow gallery forests are subject to periods of inundation during the rainy season.

List of Wetlands Described

1. Coastal Swamp Forests
2. Interior Wetlands

1. Coastal Swamp Forests

General: Tidal forests (mangroves) cloak much of the coast and extend far up many streams. They reach 100 km up the Cacheu River, whereafter they grade into palm swamps and freshwater swamp forest. This latter vegetation once extended for another 42 km upstream to the town of Farim (12°29'N/15°13'W), but much of it has been replaced by rice fields. Towards the river mouth the mangroves reach a maximum width of 15 km on the north bank. Once there were more than 110 000 ha of mangrove forest and 13 000 ha of freshwater swamp forest on this single river system, but 10 -15 % has been cleared in recent years. Tidal forests, backed by freshwater swamp forests, used to extend for 110 km up the Mansoa River, but here too most of the upper 65 km of brackish and freshwater forests have been cleared. Mangrove forests still reach 35 km up the Tombali River, but up the Cumbija River the upper 55 km have again been cleared. On this river mangroves now occupy only the lower 15 km. By contrast, the Geba Estuary, the largest inlet in Guinea Bissau, never had extensive mangroves, being characterised by banks of high relief. Nevertheless, a major block of 9000 ha, which used to extend along the south bank upstream from the mouth for nearly 50 km, reaching widths of 3 km, has now been reduced to scattered stands. Above this, for many kilometres upstream, mangroves have always been scarce although small stands do occur in suitable sites. The estuaries of the Grande de Buba and Cacine Rivers are also lacking in extensive mangrove forests, except near their mouths. The offshore islands are partly fringed by mangroves, but this is a coast of submergence and the high islands of the Bijagos Archipelago, which represent

old hilltops, rise quite steeply from the sea in places. However, all along the coast, numerous recent offshore mudbanks are largely, or even completely, covered by mangroves. There were approximately 250 000 ha of tidal forest in Guinea Bissau in 1975, but this had been reduced by 15-20% by 1986.

Flora & Fauna: The mangrove and Guinean/Soudanian freshwater swamp forest flora is as described in the regional introduction. The fauna is typical of tropical West African coastal swamps, again as detailed in the regional introduction. The coastal mudflats are important as a wintering ground for palearctic waders, and the Bijagos Islands support many sea birds.

Human Impact & Utilisation: Mangrove timber has long been cut for fuel, and mangrove poles are used for building. There are many villages in the mangroves, and fish, crabs and prawns from the mangroves have traditionally been an important source of protein for the people. Many thousands of hectares of swamp forest have been cleared for rice cultivation, particularly on the upstream ends of estuarine swamp forests. Annual production now exceeds 45 000 tonnes, and this is to be increased. Fishing is the second most important export industry in Guinea Bissau, most of the fish being trawled offshore and exported to the USSR. These fish and prawns however, spend their juvenile stages in the mangroves, and the vast annual catches, exceeding 100 000 tonnes of fish and 2000 tonnes of prawns, will inevitably alter the balance of the estuarine food chains. Overfishing is a fact rather than a threat.

Conservation Status: Unprotected.

2. Interior Wetlands

General: Floodplains occur on almost all rivers in Guinea Bissau above the limits of tidal influence. They extend, in semi-continuous fashion, up the Corubal for 230 km to the border with Guinea, and far up the Geba River. In general they are forested, but narrow, about 0.5-2 km wide.

Human Impact & Utilisation: Many hectares of riverine floodplain have been cleared for rice paddy.

Conservation Status: Unprotected