

## **Benin (Republic of)**

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### **Location and area**

Benin is a republic in western Africa, bordered on the north by Burkina Faso and Niger, on the east by Nigeria, on the west by Togo, and on the south by the Gulf of Guinea. Benin has an area of 112,622 km<sup>2</sup>. (Microsoft Encarta Encyclopedia 2002)

### **Topography**

From south to north the following regions can be distinguished:

- The coast of Benin, straight sand bars with a network of shallow lagoons into which rivers drain;
- The Terre de Barre, a mostly fertile and intensively cultivated lowland;
- The seasonally flooded Lama swamp with peaty soils;
- An intensively farmed area, which is the realm of the pre-colonial Kingdom of Dahomey.

Most of the rest of the country has poor, often lateritic soils, rising in the far north to include the edge of a 488-m high plateau of ancient rocks and extremely infertile soils. In the northwest are the rugged Atakora Mountains.

The rivers Ouémé and Couffo drain most of southern Benin, and the River Mono, which forms part of the border with Togo, drains the southwest. The main rivers of northern Benin are the Niger, which forms part of the boundary with the republic of Niger, and its tributaries, the Sota, Mékrou, and Alibori rivers. On the coast, lakes Ahémé and Nokoué are estuaries of two rivers whose seaward exits are blocked by the sand bar. (Microsoft Encarta Encyclopedia 2002)

### **Climate**

Benin's climate ranges from equatorial in the south to an increasingly arid, tropical wet-and-dry climate in the north. The south receives about 1,270 mm of rainfall a year, mostly during March to July and September to November; the average monthly temperature ranges from 20° to 34° C. Temperatures are also high in the north, and the annual rainfall of about 900 mm occurs mainly from May to September. (Microsoft Encarta Encyclopedia 2002)

### **Land use**

A dense tropical rainforest once covered much of the land close behind Benin's coastal bar. This has largely been cleared, except near rivers. Woodlands cover a large part of central Benin, and grasslands predominate in the drier north. Cash crops, produced mainly in the south, include palm oil, palm kernels, cotton, coffee, and cocoa (Microsoft Encarta Encyclopedia 2002).

### **Wetlands**

Wetlands in the coastal zone include (Ministère de l'Environnement de l'Habitat et de l'Urbanisme n.y.):

- Mangroves, along Ahémé lake, the western rivers (Mono, Sazué) and the coastal lagoons (Djègbadji, Togbin, Djondji);
- Swamp forests with *Mitragyna inermis* and *Raphia hookeri* in the valleys of the Mono, Couffo and Ouémé rivers;
- Periodically inundated forests with *Berlina grandiflora* and *Dialium guineense*, near Baha (Zinvié) and Avagbodji, including the Gbêvozoun forest of the Bas-plateau à Bonou;
- Riverine forests with *Pterocarpus santalinoïdes* and *Manilkara multinerius*;
- Littoral herb savannahs with *Schizachyrium sanguineum*, *Ctenium necottonu*, and *Anadelphia afseliana*;
- Brackish herb vegetations and lagoons that are temporarily connected with the ocean, with grasslands with *Paspalum vaginatum*, *Typha australis*, and *Echinichlora pyramidalis*;
- Herb vegetations of the regularly inundated clay areas in the Ouémé valley (generally called the 'Tigbodji');
- Artificial wetlands formed by plantations of *Cocos nucifera*, *Elaeis guineensis*, *Casuarina equisetifolia*, *Melaleuca leucadendron*, *Acacia auriculiformis*, *Anarcadium occidentale*, *Tectona grandis*, *Eucalyptus* sp.; and others with *Thalea welwichi*, *Raphia*, *Nymphaea lotus*, *Pistia stratiotes*, etc.

## Peatlands

Important wetlands, that might include some peatlands, are the Ouémé Floodplain and delta, shared by Benin and Nigeria (896 km<sup>2</sup> in the wet season, 52 km<sup>2</sup> in the dry season) and the floodplain of the Oti-Pendjari River, shared with Upper Volta, with an area in the wet season of 4,810 km<sup>2</sup> (Howard-Wiliams & Thompson (1985).

According to Markov et al. (1988), some peatland forests are found at the lower Ouémé river. Also the mangroves found at the Atlantic coast in many cases have some peat. Peatlands are protected in one National Park.

According to the Ministère de l'Environnement de l'Habitat et de l'Urbanisme (n.y.) peat deposits are found in the coastal area of Benin. The Comé, Allada and Sakété plateaus (40 - 50 m a.s.l.) are separated by a depression that is often swampy (north of Godomey - Cococodji), sometimes lagunary (lagunes of Porto-Novo, Towo, and Todougba). Geological mapping (1: 50.000) in the period 1970 - 1985, has revealed new deposits of peat,

According to the interpreted World Soil Map (Van Engelen & Huting 2002) no histosols exist in Cameroon and 2,712 km<sup>2</sup> of gley soils.

The Benin economy is extremely sensitive for energy problems 73% of the total energy consumption is derived from wood, which leads to severe degradation of the (mangrove) forests and to soil erosion. Therefore diversification is sought. Since 1987, mangrove reforestation takes place around the Nokoué and Ahémé lakes.

Still to be checked:

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... marble deposits at Idadjo, Atomè-Lonkly (Mono), and Lanta (Couffo); **peat** deposits adjacent to the **Togo** frontier; silica sand along the coast south of Porto ...  
[www.countrywatch.com/files/019/as\\_topic.asp?TP=METAL&vCOUNTRY=019](http://www.countrywatch.com/files/019/as_topic.asp?TP=METAL&vCOUNTRY=019) - 37k -