

BRAZIL

The Federal Republic of Brazil

The Federal Republic of Brazil occupies most of the core and eastern coast of South America. It covers almost half of the continent (47,3%) with a total area of 8,456,508 km² plus 55,452 km² of inland waters. It is bordered in the north, by French Guyana, Suriname, Guyana and Venezuela; in the northwest by Colombia; in the west by Bolivia and Peru; in the southwest by Argentina and Paraguay; and in the south by Uruguay. The eastern coast is washed by the Atlantic Ocean.



FIG. 1.- Brazil.

Brazil is a federation consisting of 26 States, territories and the nation's capital which is located in the city of Brasilia on the central plateau at an altitude of 1,100 metres. The population is over 150 million.

Brazil displays several kinds of contrasting views and landscapes, on account of the vastness of its territory. The northern rain forest, the southern prairies,

the western swamps and marshes, and the northeastern stunted sparse brushwoods are very definite characteristics which allow the division of the land into well defined natural regions.

Brazil possesses immense mineral resources, mainly of gold, iron, manganese, cassiterite, bauxite, copper and nickel. There are also large areas with fertile soils for agriculture where the plantations of coffee, cotton, corn, rice, beans, orange, cocoa and soybean stand out. The abundant hydraulic power is put in use by means of huge power plants such as Itaipu, Paulo Alfonso, Furnas and Urubupunga.

Brazilian rivers form eight large hydrographic basins, and the Amazonic Basin, along with the Sao Francisco, Parana and Paraguay Basins are the most important. These basins are the vital links between regions that provide the flow of national and international products along 4,400 km of rivers and canals, approximately half of which are located in the Amazonic Region (25,000 km).

Brazil houses the largest industrial complex in Latin America, concentrated in the southeast. Industrial Centres like Sao Paulo, Rio de Janeiro and Minas Gerais stand out above many others. The industries in Brazil deal mainly with food, textiles, chemicals, metallurgy, oil, automobiles and civil architecture. There is a large number of ports along the 8,000 km of its Atlantic coast, where 95% of import and export trades flow in and out.

The Brazilian Merchant Marine consists of approximately 450 vessels for ocean and coastal navigation, with an approximate total gross cargo capacity of 9,800,000 tons (1989). There are also about 2,000 vessels trading in inland waters with a total gross cargo capacity of 709,000 tons.

Hydrographic service

The mapping of the Brazilian coast goes back to the XVIth century. Since then, and up to the second half of the XIXth century, successive hydrographic and cartographic surveys have been carried out. That was the foundation of accurate scientific knowledge about the coast of Brazil.

In 1876, the Brazilian Hydrographic Service was effectively organized and structured. The first Director was Lieutenant Senior Grade Antonio Luis Von HOONHOLTS, the Baron of Teffé. Later on, due to the expansion of the activities involving Aids to Navigation, meteorology and oceanography, the institution had its name altered at several times until 1946, when it received its present name; Directorate of Hydrography and Navigation (DHN).

In 1934, the first systematic mapping of the whole coast was initiated as a result of the Brazilian Nautical Cartographic Plan. It took 40 years to carry out this plan. By 1975, the Brazilian coast had been completely charted. Between 1942 and 1946, all activities of the Hydrographic Office were interrupted, because of World War II. In 1962, during the VIIIth International Hydrographic Conference, Vice-Admiral Alberto dos SANTOS FRANCO, Brazilian Navy, was elected as a member of

the Directing Committee of the International Hydrographic Bureau (IHB) for the 1962-67 term.

In 1982, during the XIIth International Hydrographic Conference, Vice-Admiral Orlando Augusto Amaral AFFONSO, Brazilian Navy, was elected as a member of the Directing Committee of the IHB for the 1982-97 term. The Directorate of Hydrography and Navigation (DHN) is an effective branch of the Brazilian Navy. It is located in the City of Niteroi, Rio de Janeiro State. It operates a fleet of 28 survey ships and shore installations spread all over the country, and includes 2,016 military and civilian personnel.

The DHN today is engaged in the updating of 300 nautical charts; in the editing of 30 publications on Aids to Navigation and other subjects; in maintaining light-houses, buoys and other navigational aids; in oceanographic campaigns which result in a considerable amount of data being processed and promulgated to the maritime and scientific communities; in the automation of surveys and cartographic operations; in the cooperation with other institutions dedicated to tasks concerning the delimitation of the Brazilian continental shelf and Exclusive Economic Zone; in the operation of the Marine Meteorological Service over the South Atlantic areas under the responsibility of Brazil; and in providing instruction and training to all personnel that serve within its jurisdiction.