

COUNTRY PROFILE

BANGLADESH

Geography

The People's Republic of Bangladesh is a South Asian country flanked by Indian states of West Bengal and Bihar on the west, Meghalaya on the north, and Tripura and Myanmar to the east and the Bay of Bengal on the south. The total area of Bangladesh is 147,570 Sq.Km. Bangladesh lies between latitudes 20° 34' N and 26° 38' N and between longitudes 88° 01' E and 92° 41' E. The landmass of Bangladesh is somewhat flat with the great plains in the southern part of the country.

Population and land use

The population of Bangladesh was 168.2 million in mid-2020 with a growth rate of 1.37% per annum according to the Sample Vital Registration System (SVRS) of Bangladesh Bureau of Statistics. The land area is 88.2% (World Bank, WB,2021), with an arable area of 70.7% (WB, 2018), followed by forest with 14.5% (WB, 2020). Out of the total area, according to the Agriculture Diary,2021 of the Department of Agricultural Extensions, the agricultural area is 8.82 Mha and according to Information Book of Forest,2022 the forest area is 2.3 Mha. The land available for cultivation has been declining over the decades.

Climate and rainfall

There are three distinct seasons in Bangladesh that makes its climate warm and humid regulated by pre-monsoon, monsoon, and post-monsoon circulations with heavy rainfall and tropical cyclones occurring on a periodical basis. Summer (March to June) is hot and humid; monsoon (June to October) is rainy, and winter (October to March) is cold and dry. Temperatures ranging from 15°C to 34°C throughout the year with an average temperature around 26°C availing in Bangladesh. April records maximum temperatures of 30~40°C, and January has a minimum temperature of 10°C.

Geo. Area (MKm²)
0.147



Population (M)
168.2 (2020)

Average rainfall (mm)
2200



Arable Area (Mha)
8.82 (2021)

Irrigated Area (Mha)
7.87 (2022)



Drained Area (Mha)
1.5

The annual rainfall of Bangladesh is about 2200 millimeters (mm) mostly concentrated in the monsoon where most territories perceive at least 1,500 mm of precipitations per year, while others, such as the northeastern border regions, receive up to 5,000 mm. The coastal areas of Chittagong and the northern part of the Sylhet district record maximum rainfall, while the western and northern parts of the country get minimum precipitation.

Food and agriculture

Agriculture is the main occupation of Bangladesh. The arable land of the country is 8.82 Mha. Bangladesh produces rice, wheat, maize, pulses, spices, oilseeds, jute, tea, sugarcane, mango, pineapple, bananas, jackfruit, potatoes, and sweet potatoes. Bangladesh is the third-largest producer of rice in the world. Due to the abundant supply of water, rice is grown and harvested thrice a year. The rice production rose to 37.6 MT from 33.5 MT, wheat to nearly 1.1 MT from 1.0 MT and maize yield jumped to over 4.1 MT from 1.0 MT in the last ten years.





Water resources management

The Ganges, Brahmaputra and Meghna are the primary sources of water for the country. Most of the rivers are tributaries or distributaries of these rivers. The water resources include rainfall and runoff, trans-boundary inflows, and groundwater. The total renewable water resources amount to approximately 1211 Billion Cubic Meters(BCM).



Of these, 1190 BCM is surface water, and 21 BCM is groundwater resources. Internal renewable water resources amount to 105 BCM, of which 84 BCM originate from surface and 21 BCM from groundwater. Externally renewable water resources total 1106 BCM, of which 0.03 BCM from underground and the remainder are from trans-boundary river flows. The usage pattern of water is 96% for agricultural use, 3% for domestic use, and 1% for industrial use. A three billion USD, water management scheme, is being planned under Delta Plan 2100. The strategies include river dredging, river connectivity, the Ganges Barrage Project with ancillary infrastructure for water storage purposes. There is a water-sharing treaty for the Ganges and the Government is taking initiatives to reach such agreements on Teesta and other rivers.

Irrigation and drainage

According to FAO, overall water withdrawals totals 36 BCM, composed of 32 BCM for irrigation and 4 BCM for domestic and industrial purposes. About 28 BCM of irrigation water comes from groundwater. Innovations in mechanical irrigation have led to a rapid expansion of irrigated agriculture in Bangladesh. The demand for irrigation water is the greatest and the fastest growing and anticipates an increase in demand for irrigation water by 25% to about 20 BCM between 2000 and 2025. The Teesta Barrage project in the northwest region, which was sandy, barren and farmers could hardly cultivate a single crop due to drought-prone area, was implemented during 1979 to 1990. So, this project covers 1343 Km² gross area in two phases. This is the largest irrigation project in Bangladesh. The total irrigated area is 5.6 Mha.

River basins

The Ganges-Brahmaputra-Meghna (GBM) river basins are the transboundary river basins with a total area of just over 1.7 MKm², distributed between India, China, Nepal, Bangladesh and Bhutan. The GBM river system is the third-largest freshwater drainage system to the world's oceans, being exceeded only by the Amazon and Congo River Systems. Dhaka the capital of Bangladesh is surrounded by the rivers namely Balu, Bongshi, Buriganga, Dhaleswari, Sitalakhya, Tongi Khal and Turag. The basin area of those rivers covers four districts as Dhaka, Gazipur, Narayanganj, and Munshiganj.

The central region of the basin is Dhaka City Corporation and its surroundings, Savar and Keraniganj, with an area of 1464 Km².

Water policy

The major policy reforms in irrigation include: (i) liberalization of imports and distribution of irrigation engines and spare parts; (ii) rationalization of duties and taxes on irrigation equipment import; (iii) removal of engine standardization restrictions; (iv) withdrawal of tube well spacing and siting regulations, and (v) withdrawal of subsidies on irrigation equipment prices. The 'National Land Use Policy, 2001' was formulated to ensure criteria-based use of land for agriculture (crop production, fish cultivation and rearing of ducks and chickens), housing, afforestation, commercial and industrial establishments, rail and highway and for tea and rubber gardens. The Economic Zone Act in 2010 provides legal basis for the establishment of economic zones in all potential areas including backward and underdeveloped regions with a view to encouraging rapid economic development through industrialization.

ICID and National Committee

Bangladesh joined the ICID in 1973. Late Mr. Amjad H. Khan of the Bangladesh National Committee of ICID (BANCID) served as Vice President of ICID from 1984 to 1987. Engineer Fazlur Rashid is the current Chairman of BANCID. The BANCID can be contacted at jrcombd@gmail.com.