

People's Republic of Bangladesh

A Glance At: Emissions, Energy, Climate Impacts and Mitigation

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EVSS 695

Global Climate Change

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Introduction to Bangladesh

- Formally known as East Pakistan until 1971, Bangladesh is small country, comparable to the size of Iowa, located in Southern Asia (24 00 N, 90 00 E).
- With India as its primary border, Bangladesh also borders the Bay of Bengal and a small section of Burma to the southeast.

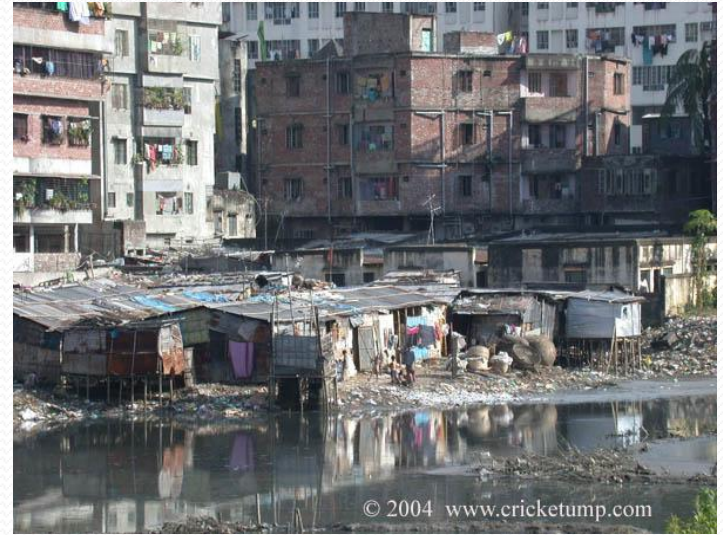


Geography

- General
 - Most of the country is positioned on deltas of large rivers flowing from the Himalayas
- Climate
 - tropical with mild winters, hot and humid summers, and warm and humid monsoon seasons (June-October)
- Terrain
 - generally flat plains with some hills in the Southeast
- Natural Resources
 - natural gas, arable land, timber, coal
- Land Use
 - arable land: 55.39%, permanent crops: 3.08%, other: 41.53% (2005)
- Total Renewable Water Resources: 1,210.6 cu km (1999)
- Natural Hazards
 - droughts; cyclones; most of the country is usually flooded during the summer monsoon season

Land Area and Population

- Bangladesh's total area comprises nearly 143,998 square kilometers, with 130,168 consisting of land and 13,830 covering water.
- It is home to about 156,050,883 people according to a July 2009 estimate by the CIA World Factbook.



Population Statistics

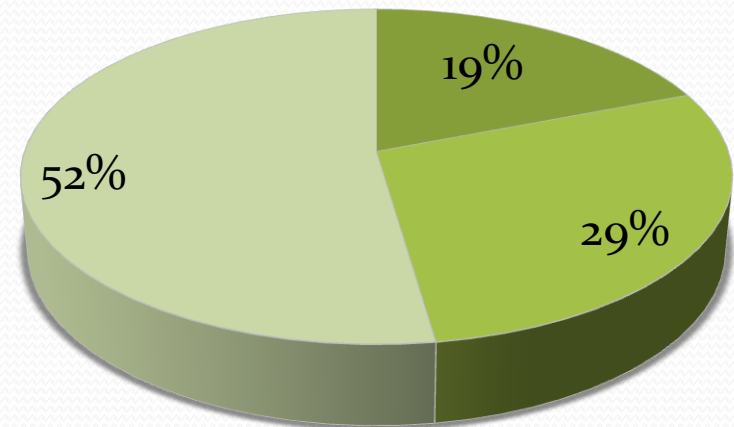
- Bangladesh's population growth rate in 2009 is 1.292%.
- Within the growing population, roughly 35% encompasses ages 15 and under and 61% encompasses ages 15-64.
- The population is unevenly distributed between urban and rural areas within the country. Nearly 73% of the population is located in non-urban regions, as defined by the country.
- As a result of various reasons including climate change, the net migration rate for Bangladesh in 2009 is -2.53 migrants/1,000 population.

Gross Domestic Product (GDP)

- Bangladesh's 2008 GDP was \$224 billion (in 2008 US dollars), up from \$201 billion in 2006.
- Its 2008 GDP Real Growth Rate was 4.9%, down 1.5% from 2006.
- The graph to the right illustrates a breakdown in GDP composition by sector.

**Percent GDP Composition
by Sector**

■ Agriculture ■ Industry ■ Services



Industries Breakdown

Main Industries

- Cotton textiles
- Jute
- Garments
- Tea processing
- Paper newsprint
- Cement
- Chemical fertilizer
- Light engineering
- Sugar

Exports and Imports (2008 Estimates)

- Exports- \$13.97 billion
 - Commodities- garments, jute and jute goods, leather, frozen fish and seafood
 - Partners- US 21%, Germany 13.2%, UK 8.6%, France 6.3%, Netherlands 4.7%
- Imports- \$19.59 billion
 - Commodities-machinery and equipment, chemicals, iron and steel, textiles, foodstuffs, petroleum products, cement
 - Partners-China 14.7%, India 14.7%, Kuwait 7.5%, Singapore 7.1%, Japan 4.1%

Fossil Fuel Usage

Electricity, Natural Gas, and Oil (2007 estimates)

- Electricity
 - Production- 22.78 billion kWh
 - Consumption- 21.37 billion kWh (2006 estimate)
 - Import/Exports- 0 kWh
- Natural Gas
 - Production- 15.7 billion cu m
 - Consumption- 15.7 billion cu m
 - Import/Export- 0 cu m
 - Proved Reserves- 141.6 billion cu m (1 January 2008 estimate)
- Oil
 - Production- 6,746 bbl/day
 - Consumption- 89,940 bbl/day (2006 estimate)
 - Import- 83,220 bbl/day (2005) Export- 1,351 bbl/day (2005)
 - Proved Reserves- 28 million bbl (1 January 2008 estimate)

Income, Education, and Technology

- Labor Force: 70.86 million
- Labor Force by Occupation: agriculture: 63%, industry: 11%, services: 26% (FY95/96)
- Household Income or Consumption By Percentage Share
 - lowest 10%: 4.3%
 - highest 10%: 26.6% (2005)
- Population below Poverty Line: 45% (2004 estimate)
- Literacy (defined by being of age 15 and over can read and write):
 - total population: 47.9%
 - male: 54%
 - female: 41.4% (2001 Census)
- School Life Expectancy:
 - 8 years (2004)
- Education Expenditures:
 - 2.7% of GDP (2005)
- Internet Users: 500,000 (2007)
- Cell Phone Users: 34.37 million (2007)

Current Environmental Issues

- Loss of land is forcing many people to live on and cultivate flood-prone land
- Waterborne diseases in surface water
- Surface water run-off increases from melting ice flowing down rivers from the Himalayas
- Water pollution in general, especially of fishing areas, as a result of using commercial pesticides
- Ground water contaminated by naturally occurring arsenic
- Intermittent water shortages due to falling water tables in the northern and central parts of the country
- Soil degradation and erosion
- Deforestation
- Severe overpopulation

Bangladesh's Carbon Footprint

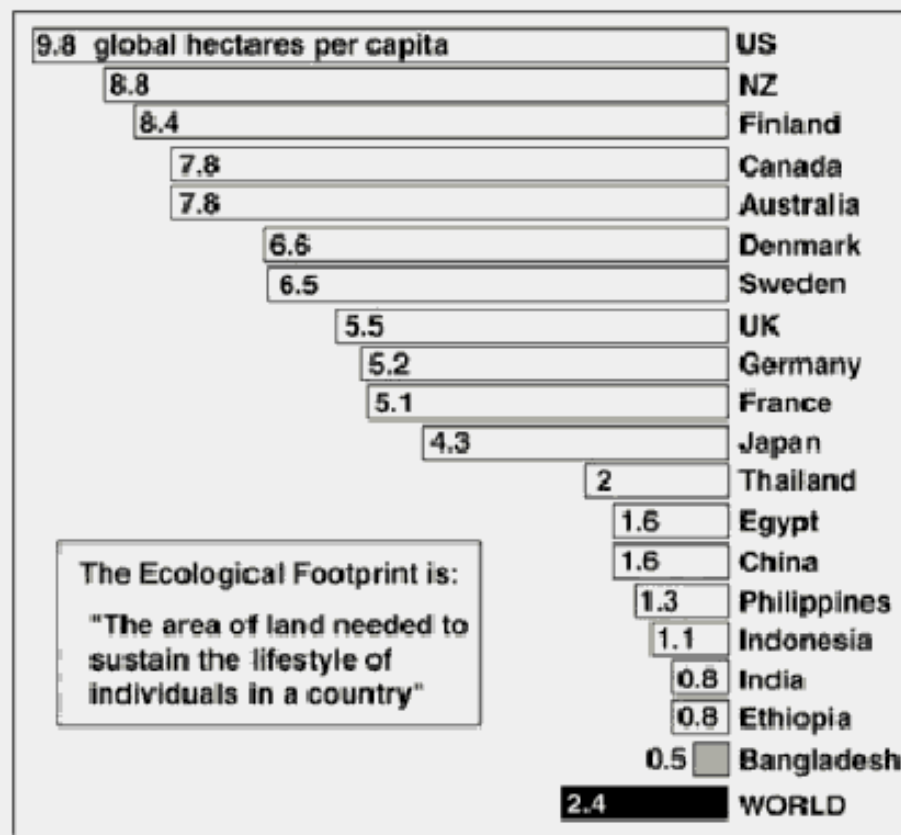


Figure 5

Ecological Footprint Of Bangladesh Compared to Other Countries Of the World and the World Average

Environmental Agreements and Kyoto Protocol Involvement

Agreements Party To:

- Biodiversity
- Climate Change
- Kyoto Protocol
- Desertification
- Endangered Species
- Environmental Modification
- Hazardous Wastes
- Law of the Sea
- Ozone Layer Protection
- Ship Pollution
- Wetlands

Protocol Status:

- Bangladesh signed and ratified the Kyoto Protocol in 2001.
- As a non-Annex I party, Bangladesh is not bound by specific targets for GHG emissions.
- At a recent conference entitled, “International Climate Change Architecture,” held by Australia and supported by the US in Bangladesh during August 2008, Bangladesh expressed her wishes for a legally binding Copenhagen Protocol and the allocation of 1 trillion US dollars per annum to support climate change adaptation actions in least developed countries.