

An aerial photograph of a city, likely Dhaka, Bangladesh. The image shows a dense urban landscape with a mix of modern high-rise buildings and older, more colorful, multi-story residential structures. A wide river flows through the middle of the city, with a prominent white arch bridge crossing it on the right side. The foreground shows a large, modern building with a curved roof and a wide road with greenery.

✦ THOMAS LLOYD

Country Report | 2021

# BANGLADESH





## Summary

With a population of 164,689,000 people, Bangladesh is the most densely populated country in the world (excluding countries with a land mass of less than 10,000 km<sup>2</sup>). The country's sustained population growth is expected to continue, with the population potentially exceeding 210 million people by 2050. The capital city of Bangladesh is Dhaka, a so-called megacity with a predicted 28 million inhabitants by 2030.

Bangladesh is the 41<sup>st</sup> largest economy in the world and has averaged a GDP growth rate of 6.6% since 2011. The country's GDP stood at USD329.1 billion in 2020, increasing significantly from a GDP of USD115.3 billion a decade earlier. Whilst absolute GDP is important, a country's GDP per capita is more illustrative of its population's wealth. Bangladesh's per capita GDP stood at USD1,888, roughly half that of Sri Lanka and over five times smaller than the per capita GDP of China.

Bangladesh has both a prime minister and president. With her party winning by a landslide,

Sheikh Hasina is the current, and longest-serving Prime Minister in Bangladesh's history. Hasina's victory in 2018 ensured she remained in office for a third consecutive term. The current President, Abdul Hamid, entered his second and final term in 2018 and is a long-standing member of the Awami League party. The Bangladesh Awami League secured 74.6% of the total vote and captured 257 of the 300 seats on offer.

The World Bank's Ease of Doing Business Index ranked Bangladesh 168<sup>th</sup> of 190 countries in 2020, up eight places from the previous year. The ranking is based on several topics including contract enforceability, for which Bangladesh ranked at 189<sup>th</sup>. The Bangladesh Investment Development Authority (BIDA) is aiming to achieve a double-digit ranking by 2021.

The Bangladesh Bank oversees the country's monetary policy, with the objective of "maintaining price stability and supporting inclusive, equitable and environmentally sustainable economic growth". Bangladesh's monetary policy is based upon achieving the government's targets

“  
Bangladesh is known for its innovative development approaches. In remote and hard to reach areas, the government successfully introduced affordable off-grid renewable energy solutions through a public-private partnership. Clean electricity meant better health and living conditions for families and more study time for children.  
”

Mercy Tembon, World Bank  
Country Director for  
Bangladesh and Bhutan





of 8.2% real GDP growth and a 5.4% average general CPI inflation ceiling, as declared in the national budget for FY21.

The Global Infrastructure Hub, a G20 initiative, publishes the infrastructure investment needs of 56 countries globally. The most recent projection placed Bangladesh's infrastructure investment gap (the difference between current and required spending plans) at USD192 billion. Of the USD192 billion, 52% is earmarked for improving the country's energy sector. The remaining USD92 billion is designated for improving Bangladesh's transport, telecommunications and water infrastructure.

Bangladesh's total installed power generating capacity, of which 87.3% is on-grid, stood at 25,277 MW as of May 2021. The composition of the country's installed capacity is heavily weighted in favour of fossil-fuelled generation, with the fuels accounting for 93.1% of total capacity. That figure may indeed be higher as roughly 5.3% of Bangladesh's installed capacity stems from the importation of power from

India, for which the source of fuel is unknown. The generation of electricity using renewables stood at 887 GWh in FY 2020, accounting for 1.2% of total generation.

The Renewable Energy Policy implemented in 2008 has failed to deliver upon its target of achieving 10% renewable generation by 2020. The extent to which Bangladesh is actively pursuing a greener future is unclear; coal and gas/LNG are expected to account for a combined 70% of power generation by 2041. Bangladesh has committed to reducing its greenhouse-gas (GHG) emissions in the power, transport and industry sectors by 5% below its business-as-usual emissions by 2030, however as the Renewable Energy Policy has shown, it should be approached with scepticism.

## BTI 2020

The Bertelsmann Stiftung Transformation Index (BTI, scale 1 to 10) analyses and evaluates the quality of the democracy, market economy and political management in 137 developing and transitioning countries. Progress and regress is measured on a path to constitutional democracy and a market economy accompanied by social policy.

### Status Index

5.1 #80 || 137  
Bangladesh

5.5  
Asia/Oceania\*

### Democracy Status

4.4 #87 || 137  
Bangladesh

5.3  
Asia/Oceania\*

### Market Economy Status

5.7 #64 || 137  
Bangladesh

5.7  
Asia/Oceania\*

### Governance Index

4.5 #83 || 137  
Bangladesh

4.9  
Asia/Oceania\*

\*Regional average

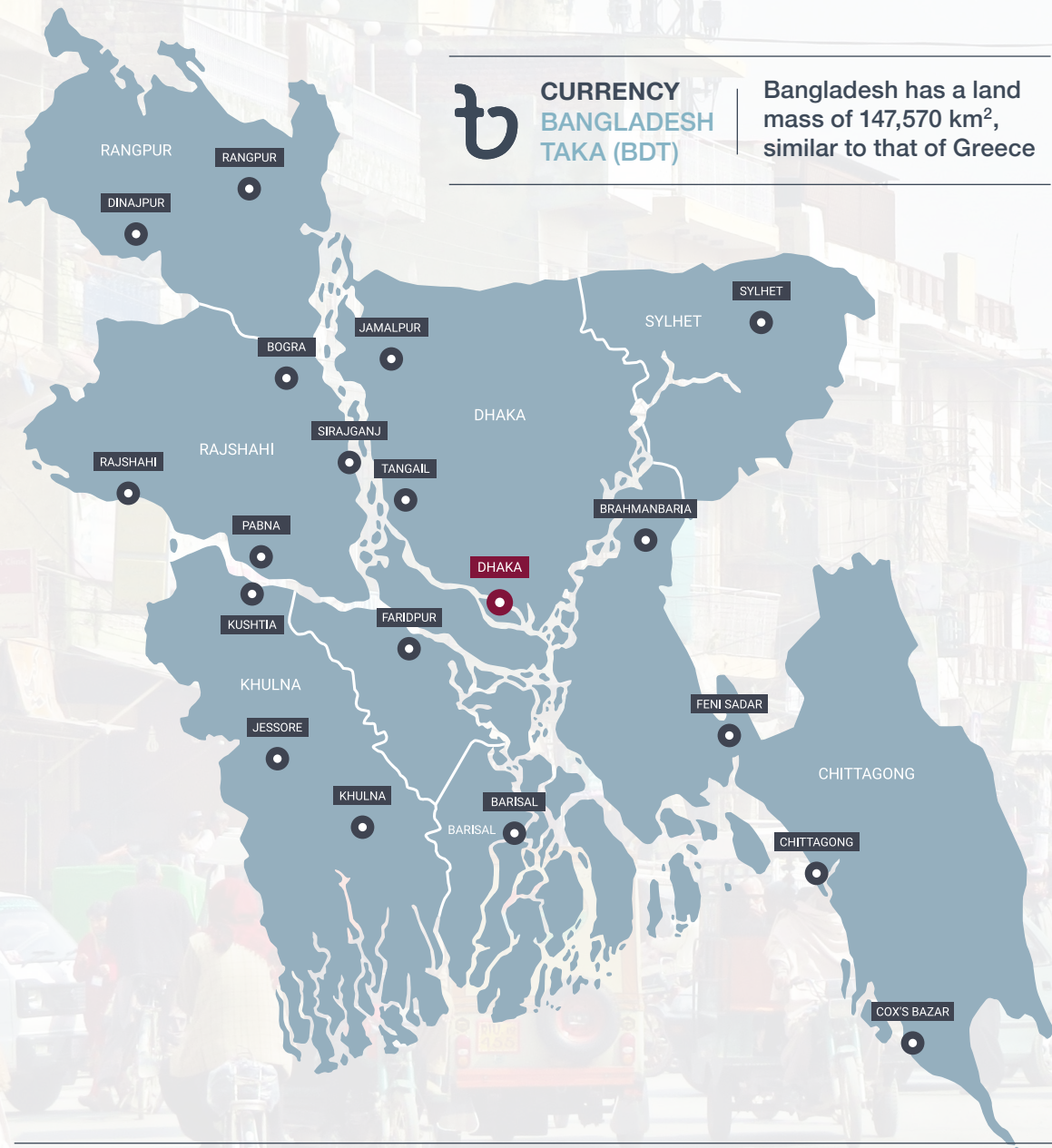
# BANGLADESH

## AN OVERVIEW



CURRENCY  
BANGLADESH  
TAKA (BDT)

Bangladesh has a land mass of 147,570 km<sup>2</sup>, similar to that of Greece



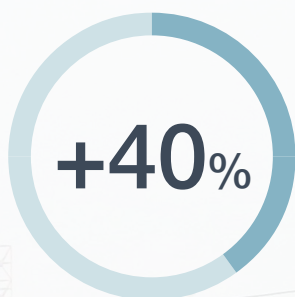
Eighth largest population in the world, which will increase by 18 million by 2050

The country is ethnically homogeneous with 98% identifying as Bengali

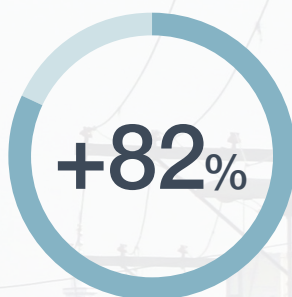


Average age of population: 27.6 years





**POPULATION  
GROWTH**  
from 2000 – 2030



**GDP  
GROWTH**  
from 2010 – 2019

**BB-**  
**WITH STABLE  
OUTLOOK**

**CREDIT  
RATING**  
Standard & Poor's



**POWER CONSUMPTION +106%**

from 2010 – 2018



has had the second  
fastest GDP growth in  
Asia over the last 10  
years



**114<sup>TH</sup>**  
of 141 countries in the  
world by infrastructure  
quality



**1.2%**  
of power comes from  
renewable energy



**89%**  
of all electricity produced  
comes from fossil fuels

**192**  
BILLION US\$

The Global Infrastructure Outlook – a G20 initiative –  
estimates the infrastructure investment gap at USD192bn  
for the period 2015-2040



## Geography

Formerly known as East Pakistan, Bangladesh was founded in 1971. The country is primarily bounded by several Indian states to the west, east and north. At a length of 4,096 km, it is the 5<sup>th</sup> largest land border in the world and significantly larger than the border Bangladesh shares with Myanmar in the south-east. The southern region of Bangladesh borders the Bay of Bengal; a huge source of trade and employment.

Bangladesh has a land area of 147,570 km<sup>2</sup>; similar to that of Greece and the US state of Alabama. Despite the similarity in land mass, Bangladesh's population is significantly higher. As of 2020, the country's population stood at 164,689,000 people; almost double that of Germany and fifteen times larger than Greece's.

Bangladesh has three distinct seasons: a pre-monsoon hot season (March through May), a monsoon season (June through October) and a winter season (November through February). Approximately 80% of the country's yearly rainfall occurs during the monsoon season. The climate is generally warm and humid, with yearly temperatures varying between 15 and 34 degrees celsius. The average annual precipitation is 2,437mm although certain regions receive as much as 5,800mm. For context, the average rainfall is approximately double that experienced in Germany and the country receives more rainfall in 5 months than Germany averages each year. Interestingly, the country's warmest months coincide with its wettest.

With the notable exception of the Chittagong Hill Tracts (CHT) region which is very rugged and mountainous, Bangladesh is considered a delta

country, with nearly two-thirds of its land mass sitting at the bottom of a plain where three main rivers converge – the Ganges, the Brahmaputra and the Meghna – and one third lying less than five metres above sea level. Whilst the land is extremely fertile, it is also highly vulnerable to climate change and presents several ongoing challenges. According to the World Bank's latest estimates, approximately 11% of Bangladesh's land is forest area. Agriculture plays a massive role in the Bangladeshi economy and over 70% of the land is defined as agricultural.

The Global Climate Risk Index analyses the impact of extreme weather events. Across the period 1999–2018, Bangladesh ranked 7<sup>th</sup> in the world, despite only contributing 0.3% of global CO<sub>2</sub> emissions. Bangladesh is extremely susceptible to flooding; tropical cyclones and torrential rainfall during the monsoon season makes them almost a formality. Climate change is expected to exacerbate the problem further through rising sea levels and will ultimately lead to more population displacement. Bangladesh experienced severe flooding in 2020, with as much as a third of the country inundated. Flooding creates huge social and economic problems; negatively affecting infrastructure, agriculture and livelihoods.

In addition to flooding, rising sea levels also increase the risk of river salinity. The impact of salinity intrusion could be huge; shortages in drinking and irrigation water would occur whilst the yield of crops, on which many rely, would be reduced. For example, a World Bank study predicted rice yields could decline 15.6% in certain districts by 2050.



**Total land area:**  
147,570 km<sup>2</sup>, 94th largest in the world, 88% land, 12% water

**Capital:**  
Dhaka

**Time zone:**  
UTC+6h

**Currency:**  
Taka (BDT)

**Continent:**  
Asia

**Coordinates:**  
23° 41' 5.978" N  
90° 21' 22.792" E

**Highest point:**  
Saka Haphong 1,063 m

**Lowest point:**  
Indian Ocean 0 m

**Longest river:**  
Jamuna (Brahmaputra),  
3,848 km

**Largest lake:**  
Kaptai Lake, 688 km<sup>2</sup> created  
by damming the Karnaphuli  
River

# Demographics

Bangladesh has a population of 164 million, yet the closest country to Bangladesh in terms of population – Russia – has a land mass more than 100 times larger. Bangladesh is very densely populated and with a population density of 1,265 people per km<sup>2</sup>, almost three times as dense as its neighbour, India. In fact, Bangladesh has the highest population density in the world when comparing all countries with a land area greater than 10,000 km<sup>2</sup>. The United Nations Population Division estimates that Bangladesh's population could be in excess of 210 million by 2050.

Bangladesh is essentially ethnically homogeneous, with approximately 98% identifying as Bengali. Perhaps unsurprisingly, the country's name translates to the 'Land of Bengal'. The remaining population is comprised of the Biharis and a number of tribes occupying the Chittagong Hill Tracts (CHT). Originating from the

Indian state of Bihar, the Biharis are a group of non-Bengali Muslims that fled during the 1947 partition. During the 1971 liberation war, many of the Biharis maintained a pro-Pakistani stance and have remained stranded in Bangladesh ever since. The CHT is an extremely diverse region. In addition to Islam, Buddhism and Christianity are also practised religions, whilst the tribes often have distinct languages and cultures.

The country is divided into eight administrative divisions, each named after the major district housed within its jurisdiction. Of the eight divisions, Dhaka is the largest, both in terms of population and the number of districts. The division also houses the nation's capital; a so-called megacity with a predicted 28 million inhabitants by 2030. According to the World Bank, around 61 million Bangladeshis live in urban areas; a figure growing steadily at approximately 3% a year.



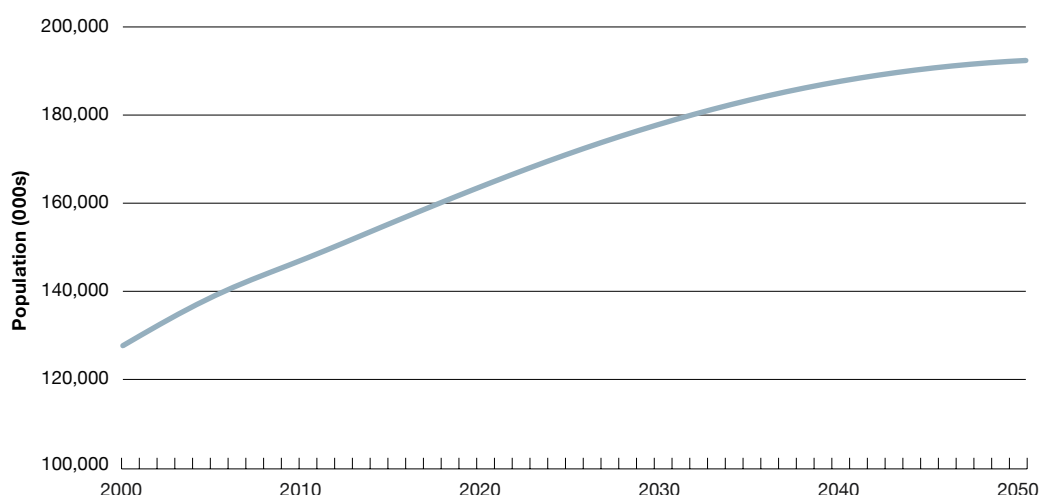
In Bangladesh, more than 160 million people live in an area of only 148,000 square kilometers (about 40 percent of the area of Germany). This makes Bangladesh the country with the highest population density in the world.

Population of Bangladesh and selected other economies

| Country        | Land Area (sq. km) | Population (000s) |           | Population Density (km <sup>2</sup> ) |
|----------------|--------------------|-------------------|-----------|---------------------------------------|
|                |                    | 2020              | 2050*     |                                       |
| Bangladesh     | 130,170*           | 164,689           | 192,568   | 1265                                  |
| India          | 2,973,190          | 1,380,004         | 1,639,176 | 464                                   |
| Philippines    | 298,170            | 109,581           | 144,488   | 368                                   |
| Germany        | 349,380            | 83,784            | 80,104    | 240                                   |
| United Kingdom | 241,930            | 67,886            | 74,082    | 281                                   |

\*Land area excludes area under inland water bodies  
Source: United Nations Population Division, World Bank

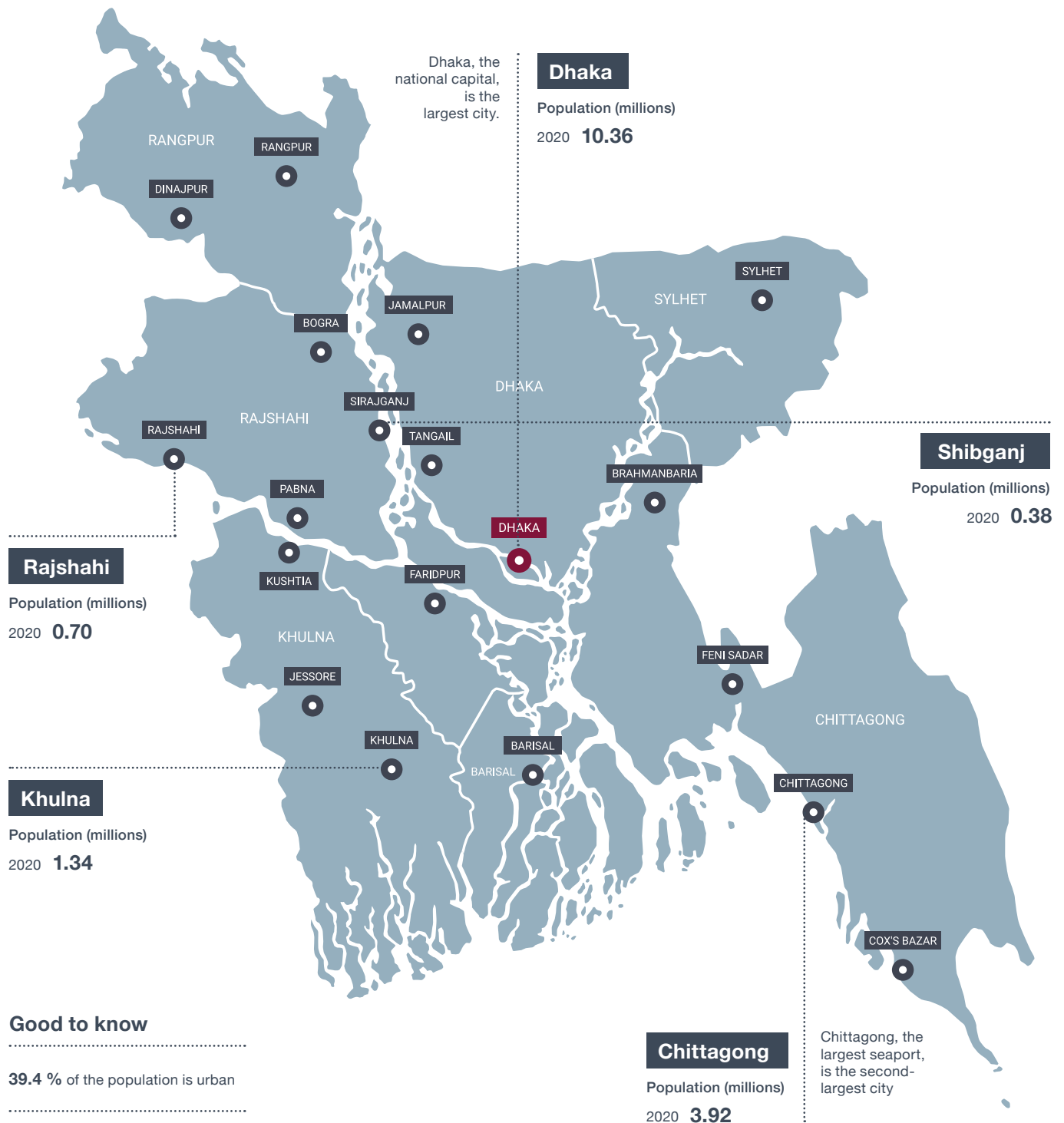
Bangladesh Population: Past and projected



Source: United Nations Population Division, \*prediction using medium fertility variant



# Population



## Good to know

39.4 % of the population is urban

The population density is **1,265** per per Km<sup>2</sup>

Bangladesh population is equivalent to **2.11%** of the total world population.

Source: [www.worldometers.info/world-population/bangladesh-population/](http://www.worldometers.info/world-population/bangladesh-population/)



# Economy

Bangladesh has experienced significant economic growth since the beginning of the millennium, with its economy now ranked the 41<sup>st</sup> largest in the world. The country's GDP stood at USD329.1bn in 2020 compared to just USD115.3bn a decade earlier. When looking at the IMF grouping of 'Emerging and Developing Asia', Bangladesh ranks 9<sup>th</sup> out of 30 countries. Over the last 10 years, the average annual increase in GDP has been an impressive 6.6%; second only to China in the region, with a peak annual growth rate of 8.2% in 2019. Though growth slowed during the COVID pandemic in 2020, it still remained positive and the country avoided the declines which characterised so many countries, both in the region and around the world.

It is useful to look at the composition of GDP and how it has changed over time. As countries become increasingly more industrialised, the dominant contributors to GDP are likely to change. In 2010, manufacturing contributed towards approximately 16.4% of Bangladesh's GDP. By 2019, that contribution had increased to around 23.2%. Total output is often split into three primary groups; agriculture, industry and services. Using data from the ADB, it is evident that the growth of industry output is significantly outpacing the growth experienced in agriculture and services. Since 2010, average yearly growth of industry output is 9.9% whereas the services and agriculture sectors have experienced output growth of 6.1% and 3.8% respectively.

An alternative statistic is the manufacturing value-added per capita which reflects two factors: manufacturing's significance in an economy, and the economy's level of industrialisation.

Between 2000 and 2019, Bangladesh's manufacturing value-added per capita increased from USD77 to USD310 representing a 303% increase. The manufacturing value-added as a percentage of GDP also increased from 12% to 19.5%

per capita GDP in selected Asian countries

| GDP per capita (Current USD) |             |        |
|------------------------------|-------------|--------|
| Rank                         | Country     | 2020   |
| 1                            | China       | 10,484 |
| 2                            | Malaysia    | 10,270 |
| 3                            | Thailand    | 7,190  |
| 4                            | Indonesia   | 3,922  |
| 5                            | Sri Lanka   | 3,679  |
| 6                            | Vietnam     | 3,499  |
| 7                            | Philippines | 3,330  |
| 8                            | Bangladesh  | 1,998  |
| 9                            | India       | 1,965  |

Source: IMF World Economic Outlook

Despite the impressive growth of GDP, Bangladesh's large and growing population means that average per capita GDP still lags way below the regional average and is less than one-fifth of that in either China or Malaysia. World Bank figures show that it has enjoyed the fastest growth in per capita income for the last three years but much further improvement and progress is still required.

Bangladesh has become increasingly more integrated into the global economy, with both exports and imports having significantly increased. In 2019-20, the value of goods



The country's economy is still dominated by agriculture. The most important agricultural products in Bangladesh are rice and jute.

GDP growth (%) of Indonesia and selected economies

| Country     | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-------------|------|------|------|------|------|------|------|------|------|------|
| Bangladesh  | 6.5  | 6.5  | 6.0  | 6.1  | 6.6  | 7.1  | 7.3  | 7.9  | 8.2  | 3.8  |
| China       | 9.5  | 7.9  | 7.8  | 7.4  | 7.0  | 6.9  | 6.9  | 6.7  | 5.8  | 2.3  |
| India       | 6.6  | 5.5  | 6.4  | 7.4  | 8.0  | 8.3  | 6.8  | 6.5  | 4.0  | -8.0 |
| Indonesia   | 6.2  | 6.0  | 5.6  | 5.0  | 4.9  | 5.0  | 5.1  | 5.2  | 5.0  | -2.1 |
| Malaysia    | 5.3  | 5.5  | 4.7  | 6.0  | 5.0  | 4.5  | 5.8  | 4.8  | 4.3  | -5.6 |
| Philippines | 3.9  | 6.9  | 6.8  | 6.3  | 6.3  | 7.1  | 6.9  | 6.3  | 6.0  | -9.5 |
| Sri Lanka   | 8.4  | 9.1  | 3.4  | 5.0  | 5.0  | 4.5  | 3.6  | 3.3  | 2.3  | -3.6 |
| Thailand    | 0.8  | 7.2  | 2.7  | 1.0  | 3.1  | 3.4  | 4.2  | 4.2  | 2.3  | -6.1 |
| Vietnam     | 6.4  | 5.5  | 5.6  | 6.4  | 7.0  | 6.7  | 6.9  | 7.1  | 7.0  | 2.9  |

Source: IMF World Economic Outlook



exported stood at USD33.2 billion (using current BDT-USD exchange rate of 84.8), down 19.2% on the year prior. Bangladesh has several key trading partners, with their importance varying depending on the direction of trade in question. The destinations of Bangladesh's good exports are somewhat concentrated; The US, UK, Germany, Spain and France accounted for approximately 49.3% of all Bangladeshi export value in 2019-20.

The exportation of textiles and textile articles is the primary source of Bangladesh's export value, accounting for 86.4% of the total in 2019-20. The country's dependency on textile exportation is thus clear; a consistent characteristic, at least since 2014-15. The composition of textile exportation is dominated by knitwear and woven garment exports. In addition, Bangladesh is an exporter of leather and leather products, agricultural products, home textiles and jute. Looking at broader economic categories, the exportation of consumer goods accounted for 89.8% of total export value, down roughly one percentage point on the year prior.

Overall, Bangladesh operates in a trade deficit for both goods and services and has done for the previous 10 years. Across the same time-period, the current account balance has fluctuated between deficit and surplus. According to the IMF, the current account balance stood at -USD5.1 billion in 2019; approximately 1.7% of GDP.

A key determinant of Bangladesh's current account balance is the inward remittances from Bangladeshi nationals working abroad. The total value of remittance receipts in 2020 stood at USD21.8 billion, up 18.5% on the year prior. Interestingly, the increase in the value of remittance receipts coincided with a fall in overseas employment. The fall in employment is attributed to the emergence of COVID-19, whilst the Bangladeshi government's 2% initiative is cited as a reason for the increase value of remittances. The 2% initiative essentially tops up the funds which are sent back to the country by Bangladeshi expatriates. The level of employment in 2017 is the highest on record, with data stretching back to 1976.



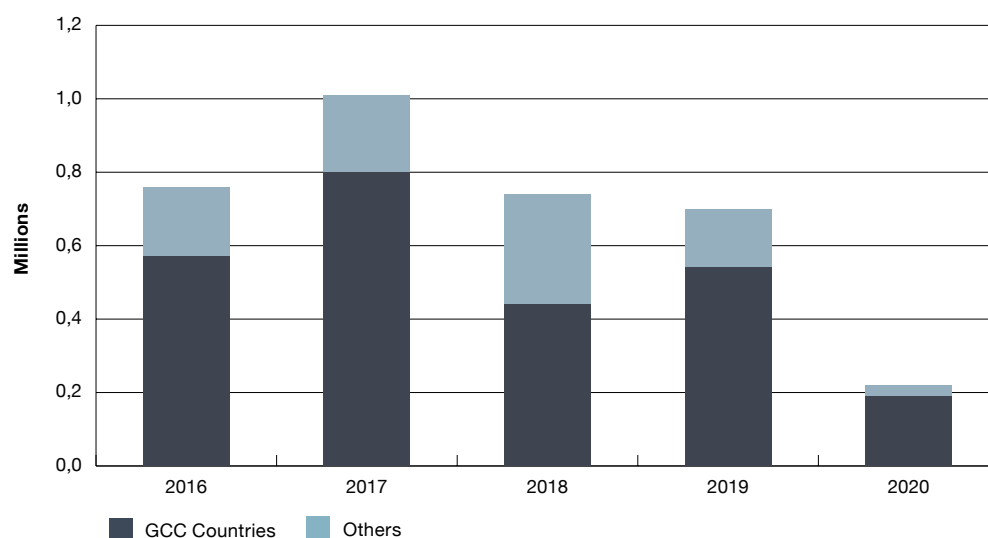
The garment industry emerged as one of the nation's success stories in recent decades. It is the second-largest globally, only next to China, and rakes in over \$28 billion (2019-20) a year from exports.

Value of Bangladesh exports by destination (millions USD)

| Country        | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
|----------------|---------|---------|---------|---------|---------|
| United States  | 5,699.7 | 5,960.1 | 5,806.4 | 6,828.4 | 5,406.0 |
| Germany        | 4,586.9 | N/A     | 5,766.9 | 6,149.1 | 4,474.7 |
| United Kingdom | 3,495.3 | 3,637.1 | 3,861.3 | 4,134.4 | 3,014.0 |
| Spain          | 1,840.1 | 2,077.1 | 2,380.2 | 2,531.4 | 1,912.6 |
| France         | 1,698.5 | 1,943.2 | 1,942.7 | 2,209.3 | 1,529.8 |

Source: Bangladesh Statistical Yearbook 2020





Source: Bureau of Manpower, Employment and Training

Employment data for Bangladesh is limited although the Asian Development Bank has provided some figures for FY2016 and FY2017. Of those employed, 38.9% work in the agriculture, forestry and fishing industry. In addition, 14.5% of Bangladeshi workers are employed in the manufacturing sector. The Bangladesh Bureau of Statistics (BBS) has produced some employment statistics for the year 2016-17. They divide employment into three broad groupings: agriculture, industry and services. Agriculture accounts for 40.6% of all employment and is the biggest employer of women. The service sector follows closely behind, accounting for 39.0% of all workers employed. Finally, the industry sector accounts for 20.4% of employment; 22.0% of male workers and 16.9% of female workers are employed in the sector respectively.

Monetary Policy in Bangladesh is set by the Bangladesh Bank, with the objective of “maintaining price stability and supporting inclusive, equitable and environmentally sustainable economic growth.” Until February of FY20,

Bangladesh was on track in regard to maintaining price stability and achieving real GDP growth. The emergence of COVID-19 made the achievement of those goals more difficult and in FY20, average annual CPI-based general inflation stood at 5.65%; above both the target of 5.5% and the 5.47% seen in FY19. This was largely attributed to non-food inflation and in particular, health-care and medical expenses. The most recent twelve-month average inflation rate was released in March 2021 and stood at 5.63%. Bangladesh’s monetary policy is now based upon achieving the government’s current targets of 8.2% real GDP growth and a 5.4% average general CPI inflation ceiling, as declared in the national budget for FY21.

Bangladesh’s foreign exchange reserves reached an all-time high in December 2020 of USD42.97 billion; 31.5% greater than the level of reserves a year prior. Official reserves have increased significantly year-on-year from around USD9.18 billion in 2011 to the current level of USD42.67 billion.



## Economic and business environment

The Bangladeshi government promotes foreign investment and appreciates its importance in sustaining economic growth. The Bangladesh Investment Development Authority (BIDA) was established in 2016 and is responsible for managing and encouraging both domestic and foreign investment.

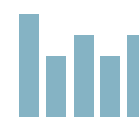
Bangladesh has several investment incentives aimed at inducing foreign investors:

- 5 to 10 years of tax holidays and reduced tax depending on the area
- Accelerated depreciation for machinery and plants
- Exemption on custom duties for capital machinery
- Double Taxation Treaties with many countries including UK and Switzerland
- Full repatriation of capital invested from foreign sources will be allowed
- 100% ownership is allowed
- The Foreign Private Investment Act 1980 provides legal protection against nationalization and expropriation
- Bilateral investment agreement with the UK and Switzerland

In addition to the above incentives, BIDA also highlight the labour force as an attractive proposition; both in terms of work-ethic and low-cost relative to other cities in the Asia region.

The World Bank's Ease of Doing Business Index assesses 190 economies and their respective business regulations. A higher ranking indicates a more favourable regulatory environment in which to operate a business. In 2020, Bangladesh ranked 168th, up eight places from the previous year. The ranking is based on several topics; including Registering Property and Enforcing Contracts, for which Bangladesh ranks 184th and 189th respectively. BIDA has acknowledged the shortcomings and is aiming to reach a 'double digit' ranking by 2021.

When parties from various countries become entangled in legal disputes, they can choose to use arbitration over litigation. The Bangladesh International Arbitration Centre is located in Dhaka and is the first organisation in Bangladesh to offer institutionalised ADR facilities. The process is concluded in 180 days and has been utilised by multinational or foreign companies working in Bangladesh.



Bangladesh currently has the world's 41<sup>st</sup> largest economy and forecasts suggest that the size of the economy could double by 2030.

Average wages in selected Asian countries

| Rank             | Worker Salary (\$) | Manager Salary (\$) |
|------------------|--------------------|---------------------|
| <b>Dhaka</b>     | 111                | 582                 |
| <b>Manilla</b>   | 262                | 1,345               |
| <b>New Delhi</b> | 217                | 1,713               |
| <b>Mumbai</b>    | 260                | 1,593               |

Source: Bangladesh Investment Development Authority





## Politics

**The constitution of the People's Republic of Bangladesh came into effect on December 16<sup>th</sup>, 1972. The national parliament, or Jatiyo Sangshad in Bengali, is comprised of 350 seats. Of the 350 seats, 300 are directly elected by their respective constituency, with the remaining 50 reserved for women subsequently chosen by the political parties based on their electoral share.**

Bangladesh has both a prime minister and a president. The president is elected by a parliamentary majority and is then responsible for appointing the nation's prime minister. The current President, Abdul Hamid, entered his second and final term in 2018 and is a long-standing member of the Awami League party. The role of president in Bangladesh is largely ceremonial; the real power is held by the prime minister. Sheikh Hasina secured a third successive term in office in 2018, with her party winning by a landslide and making her the longest-serving Prime Minister in Bangladesh history. Along with its allies, the Awami League secured 288 of the country's 298 seats on offer although the election was marred by allegations of rigging and the intimidation of voters. Politically motivated violence has been commonplace in Bangladesh and usually stems from disputes between the Awami League and the Bangladesh Nationalist Party.

Since 1991, Bangladeshi politics has been dominated by women. Khaleda Zia became the first female Prime Minister in 1991, holding office for a single term. The current Prime Minister, Sheikh Hasina, replaced Zia and similarly

held power for a single term between 1996 and 2001. Power swung back again in 2001, with Zia returning to office as leader of the BNP. History repeated itself, with the current incumbent, Sheikh Hasina returning to power. The composition of the cabinet is decided by the prime minister. Whilst a significant majority of ministers within the cabinet must be MP's, 10% may be non-MP experts. The Ministry of Power, Energy and Mineral Resources is led by Sheikh Hasina.

The legal system of Bangladesh is based on an English common law system. In contrast to other common law systems however, the Bangladesh Supreme Court has the power to declare laws made by the parliament as null and void. The system largely follows an adversarial model. Although the majority of Bangladesh's laws are in English, those more recently adopted are in Bengali. The World Justice Project produces a Rule of Law index. Using eight different factors, a score between 0 and 1 is provided, with 1 indicating the strongest adherence to the rule of law. Bangladesh received a score of 0.41 and a global rank of 115<sup>th</sup>.

Bertelsmann Stiftung's Transformation Index (BTI) uses several different indicators to measure the extent to which developing countries are transitioning toward democracy. Bangladesh ranked 87<sup>th</sup> out of 137 different countries and is defined by the index as a 'moderate autocracy'. Their report also notes that, "Power is concentrated in the hand of the prime minister, who enjoys unquestioned authority".



The Government of Bangladesh aims to achieve the status of a 'middle-income country' by 2021 and that of a 'high-income country' by 2041.





## Infrastructure

Bangladesh has three international airports; Hazrat Shahjalal International (Dhaka), Shah Amanat International (Chattogram) and Osmani International (Sylhet). Commissioned in 1980, Hazrat Shahjalal airport is the largest and serves almost all the country's international traffic. A total of 31 passenger airlines and 18 cargo airlines operate out of the airport. In addition to international airports, Bangladesh is home to 12 domestic airports. Of the twelve domestic airports listed on the CAAB's website (Central Aviation Authority of Bangladesh), only five are fully-operational. Three of the airports require prior approval for air operation, three are currently not in service and one is currently under construction. The yet to be constructed Khan Jahan Ali Airport has been in the pipeline since 1996, when an initial 102 acres was acquired. Progress has remained slow, with the main body of work yet to be begin. Biman Bangladesh Airlines is the nation's flag carrier.

The first railway in what is now Bangladesh, began operation in November 1862. The Ministry of Railways (MoR) oversees the country's railway infrastructure and is tasked with "building a safe, affordable, efficient and environmentally-friendly railway network across the country". The MoR publishes its Railway Master Plan, a strategic document with a long-term outlook to 2041. As of 2019, Bangladesh's railway network stretched a distance of 3,019 km and is divided between two zones, east and west, by the Jamuna river. The length of the country's railway network has increased by 9.1% since 2001, with the number of stations served increasing by 6.2% to 482. Several projects are underway in Bangladesh, with the aim of improving the country's rail network. The Padma Bridge Rail Link Project (PBRLP) is Bangladesh Railway's biggest project. As of May 2021, current progress on the 168 km rail-link stands at 41%, with the ultimate aim of linking the country's capital of Dhaka with the south-western district of Jashore. The Padma Multi-purpose Bridge itself has a completion



Infrastructure bottlenecks are among the largest inhibitors of economic growth in Bangladesh. According to the Dhaka Chamber of Commerce and Industry, Bangladesh will need to invest nearly \$25 billion annually through 2030 to meet its infrastructure needs.



deadline of June 2022 and consists of two decks; an upper-deck four-lane highway and the lower-deck railway.

As of 2018, the length of Bangladesh's road network (under supervision of the Road & Highway Department) stood at 21,118 km. The road network is split into three categories; National, Regional and Feeder Type A, with the width of road in each category standing at 7.3, 5.5 and 3.7 metres respectively. Approximately 62% of the road network is classified as Feeder Type A, meaning roughly 13,100 km of Bangladesh's roads are single-lane. The length of paved and unpaved road stood at 19,455 km and 900 km respectively, with the remaining 763 km undeclared. At 45.4%, the district of Rangamati has the highest proportion of its roads unpaved; unsurprising given its location in the Chittagong Hill Tracts (CHT).

Bangladesh has two main seaports, Chattogram and Mongla. The Chattogram Port is by far and away the country's most important port, consistently handling close to 90% of cargo. In 2017 – 18, the most recent data included in the Bangladesh Statistical Yearbook 2020, the Port of Chattogram handled 85,047,000 metric tonnes of cargo, with the Port of Mongla handling 9,715,000. The ports' primary objective is the facilitation of imports; 92.5% of cargo handled in the two ports was from importation. The Bangladesh government had planned to build a deep-seaport in Payra, enabling the entry of

much larger ships than those currently entering via Chattogram and Mongla. The government has since changed its approach and is instead focusing on the construction of a deep-sea port in Matabari. The port should be functional by 2025 and will be financed by the Government of Bangladesh, the Chittagong Port Authority and the Japan International Cooperation Agency (JICA).

According to the Bangladesh Telecommunication Regulatory Commission (BTRC), the number of internet subscribers in Bangladesh stood at 116.1 million in March 2021. Between 2014-2021, the number of internet subscribers grew significantly at a CAGR of 16.4%. Evidently, further growth in internet subscribers will result in an increase in electricity demand.

The improvement of infrastructure is a key driver of economic growth. The Global Infrastructure Outlook, a G20 initiative, aims to forecast the level of infrastructure investment needed for several countries. The investment gap, the difference between investment at current trends and the level of investment forecast to be needed, stood at USD192 billion for the period 2015-2040. The composition of Bangladesh's investment gap is as follows:

- Energy: USD 100 billion
- Telecommunications: USD 41 billion
- Transport: USD 10.9 billion
- Water: USD 40 billion

## Energy market

As of May 2021, Bangladesh's total installed power generating capacity stood at 25,277 MW; 87.3% of the capacity is on-grid, with the remaining 12.7% attributed to captive power and off-grid renewables. The country's on-grid power generating capacity is split fairly evenly between the public and private-sector, with each accounting for 46% and 43% of power-plant capacity respectively. The remaining 11% of on-grid capacity is comprised of power importation and a power-plant established through a joint-venture agreement (JVA).

The joint-venture agreement was established between the North-west Power Generation Company Limited (NWPGL) and the China National Machinery Import & Export Corporation (CMC), two entities owned by their respective states. Citing the NWPGL's lack of financial soundness for a coal-based mega project, the JVA was signed in June of 2014. The power plant was commissioned in May 2020 and has a capacity of 1,320 MW. Approval was granted by the Department of Environment (DOE), with the plant utilising 'eco-friendly clean coal technology'.

A total of 57 power plants are currently operated by the public sector, of which 38 are under the direct supervision of the BPDB. The remaining 19 power plants are operated by subsidiaries of the BPDB, including the Ashuganj Power Station Company Limited (APSCL) and the NWPGL. 58 of the private-sector power plants are operated by independent power producers (IPP's), with an average capacity of 158 MW.

Countries' primary fuel mix for power generation can often vary and is influenced by

factors including natural-resource endowment and government policies. The composition of Bangladesh's fuel mix is as follows:

- Natural Gas: 11,402 MW
- Furnace Oil: 6,044 MW
- Diesel: 1,290 MW
- Coal: 1,768 MW
- Solar: 129 MW
- Power Import: 1,160 MW
- Hydro: 230 MW

Bangladesh's installed power generating capacity has increased significantly over time; the country's on-grid installed capacity stood at only 5,823 MW in June of 2010. Over an 11-year time period, Bangladesh's capacity grew at a CAGR of 12.9%; arising through the deployment of both established and alternative generating technologies. The CAGR of gas-fuelled capacity was 8.1%, with the CAGR's of furnace oil, diesel and coal standing at 30.1%, 19.3% and 19.5% respectively.

In FY 2020, Bangladesh generated a total of 71,419 GWh of electricity, up 1.25% on the year prior. Bangladesh's reliance on fossil-fuelled electricity generation is clear; 89.4% of the country's electricity was generated using fossil-fuels, with natural gas accounting for 71.8% of total generation alone. Electricity generation has increased significantly since FY 2016, growing at a CAGR of 8.2%. Of the 19,226 GWh increase in electricity generation between FY 2016 and FY 2020, 80.5% is attributed to the growth in natural gas generation. In absolute terms, natural gas generation has witnessed the largest increase, however the CAGR of both coal and power importation generation is higher at



In 1980, only 0.016% of the locals had electricity. Fast forward 40 years, today that figure stands at 85%.

### Bangladesh electricity generation

| Generation of electricity (GWh) |               |               |               |               |               |
|---------------------------------|---------------|---------------|---------------|---------------|---------------|
| Fuel Type                       | FY 2016       | FY 2017       | FY 2018       | FY 2019       | FY 2020       |
| Hydro                           | 962           | 982           | 1,024         | 725           | 825           |
| Natural Gas                     | 35,822        | 38,052        | 39,804        | 48,306        | 51,290        |
| Furnace Oil                     | 8,673         | 9,950         | 10,850        | 11,426        | 9,461         |
| Diesel                          | 2,067         | 2,627         | 4,520         | 2,022         | 139           |
| Coal                            | 847           | 1,009         | 1,693         | 1,230         | 2,968         |
| Other Renewables                | 0             | 0             | 4             | 39            | 62            |
| Power Import                    | 3,822         | 4,656         | 4,783         | 6,786         | 6,674         |
| <b>Total</b>                    | <b>52,193</b> | <b>57,276</b> | <b>62,678</b> | <b>70,534</b> | <b>71,419</b> |





36.8% and 15% respectively, with the CAGR of natural gas generation standing at a lower, yet still respectable, figure of 9.4%. Evidently, the growth of the three aforementioned fuel-types' generation must have been offset elsewhere. Both hydro and diesel-fuelled electricity generation witnessed negative growth over the 4-year time-period.

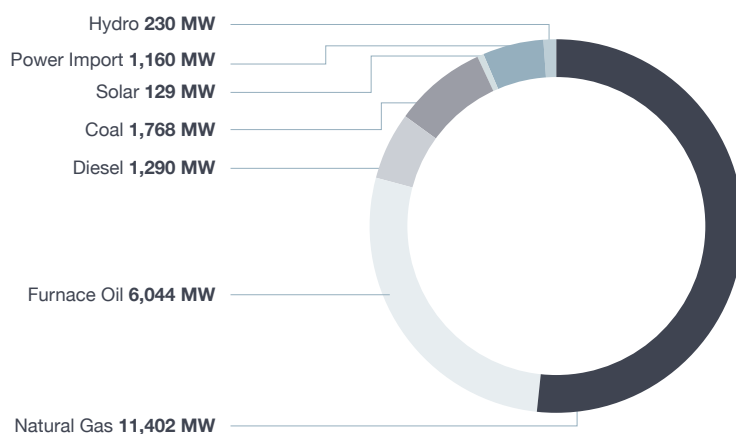
Disappointingly, the power-generating capacity, and subsequent realised generation, of renewables is extremely low in Bangladesh. Renewable

capacity (solar and hydro) accounted for 1.6% of Bangladesh's total installed on-grid generating capacity. The generation of electricity using renewables stood at 887 GWh in FY 2020. Despite representing a 16.1% increase on the year prior, renewable generation only accounted for 1.2% of Bangladesh's total generation. Bangladesh is extremely vulnerable to the risk of climate change and thus, it should understand the need for cleaner energy generation, both domestically and worldwide. The scope for improvement is clear.

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#### Composition of Bangladesh's on-grid power generating capacity

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# Renewable energy policy

Established in 1972, the Bangladesh Power Development Board (BPDB) lies under the Power division of the Ministry of Power, Energy and Mineral Resources. The BPDB operates with the vision of 'delivering uninterrupted quality power to all' and has several key responsibilities including:

- Generating electricity from its own power plants
- Power purchases from both public and private generation companies
- As the sole buyer of electricity, the BPDB is tasked with selling the electricity on to utilities
- Preparation of both generation and distribution expansion plans
- Implementation of generation and distribution projects as directed by the Government

The BPDB has produced a long-term electricity generation plan, projecting the country's future electricity demand and subsequently, the generation capacity needed to ensure the power system's stability. The plan projects a generation capacity requirement of 30,000 and 57,000 MW in 2030 and 2041 respectively.

Whilst the plan projects a generation capacity requirement of 30,000 MW in 2030, it seems that Bangladesh is planning to significantly exceed that figure. 43 projects, of capacity 15,294 MW, are at the construction stage and are expected to be completed before 2027. Independent power producers (IPP's) are responsible for 62.8% of the projects, with an average capacity of 230.7 MW. Although IPP's are expected to account for more power plants, the average capacity of the 16 public-sector power projects stands 566.6 MW.

In relation to renewable energy, Bangladesh's progress has been limited. However, the government does appear to recognise a need for improvement, with the establishment of the Sustainable and Renewable Energy Development Authority (SREDA). Its objective is to "promote, develop and coordinate renewable energy activities and ensure energy security and sustainability".

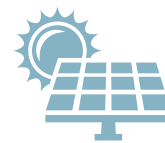
Bangladesh has agreed to reduce its greenhouse-gas (GHG) emissions in the power, transport and industry sectors by 5% below its business-as-usual emissions by 2030. Contingent on receiving international support, the country has agreed to increase the 5% GHG reduction by ten percentage points to 15%. The government introduced the Renewable Energy Policy in 2008, envisaging at least 10% of power generation to stem from renewable sources by 2020. As seen previously, the country has fallen well short of achieving this policy and further action is clearly needed.

The Private Sector Power Generation Policy of Bangladesh was first introduced in 1996, with the aim of incentivising private investment in power generation through financial benefits etc. Several incentives were declared in the policy including the exemption of corporate tax for private power companies for 15 years, free repatriation of equity and import duty exemptions. In addition, private investors are allowed non-discriminatory open access to the transmission and distribution facilities owned by the Power Grid Company of Bangladesh or any other licensee.

The SREDA has produced the National Solar Energy Roadmap 2021-2041, presenting three target scenarios of Solar PV implementations. The targets vary depending on the aggressiveness of government policy, amount of international support etc. The targeted Solar PV capacity for the three scenarios is as follows:

- Business-as-usual scenario (BAU): 6,000 MW of solar capacity
- Medium deployment scenario: 20,000 MW of solar capacity
- High deployment scenario: 30,000 MW of solar capacity

The BAU scenario is based upon the 10% renewable energy mandate being extended to 2041. That would represent a serious lack of ambition from the Bangladesh government and therefore a higher figure is more likely.



The high solar irradiation gives the country a high solar potential, but this is hardly reflected in the national primary energy production.



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Memberships and  
voluntary commitments

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