

32. Industry output growth

The last decade

The Bangladesh Bureau of Statistics states that industrial output in Bangladesh expanded 2.7x between 1990 and 2003 and 1.6x again between 2003 and 2010. As an average figure, that contains a lot of sub sector variation.

Assumptions of model

The general index of manufacturing from previous years was used to identify trends and upper and lower bounds on growth. Logistic curve models were then introduced for each sector, allowing scenarios that focus the growth in certain sectors that align naturally. Other sectors that are not the focus will also grow, but not as aggressively. The sectors are chose to align with reporting categories used by the Bangladesh Bureau of Statistics.

Levels

Level 1

The focus is on Natural Fibers and Wood Products. These may be domestically produced or imported as raw material and exported as high quality goods. In 2010, Bangladesh is a significant player in the textile industry already, and with relatively low cost labor it is likely to remain so for decades. Specific BBS sectors: (Jute, cotton, woven apparel & leather) and (Wood products including furniture)

Level 2

Focus is on Food, Beverages, Tobacco and Paper. These were combined because of the volume of packaging needed for the processed foods would spur the Paper industry in the country. Specific BBS sectors: (Food, beverage & tobacco) and (Paper and paper products)

Level 3

Focus is on Metalwork. Bangladesh has been a ship breaking site for decades. In 2010 this is just starting to evolve into a ship building industry. The domestic demand for metal goods is very high due to the tropical climate. Specific BBS sectors: (Basic metal products) and (Fabricated metal products)

Level 4

The focus is on Chemicals, Ceramics, Telecom Infrastructure. This scenario includes a number of sub-sectors that are unusually dependent on solid fuels and heat: ceramics, fertilizers, cement, bricks, glass ect. These are the sectors that are being driven by the building boom in Bangladesh and its neighbors. Specific BBS sectors: (Non-metallic products) and (Chemical,petroleum & rubber). The Telecom infrastructure represents a non-negligible additional energy load and so the Growth of the numbers of BTS towers is included in this sector.

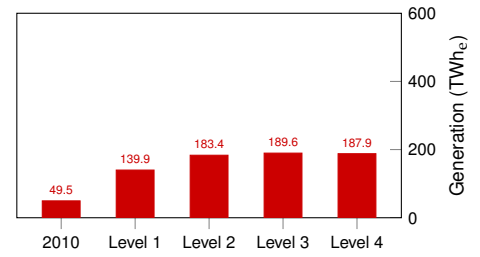


Figure 32.1: Projected in 2050,

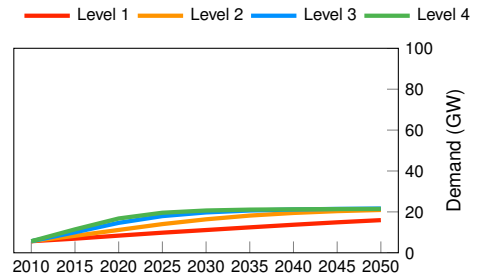


Figure 32.2: Raw energy needed by scenario



Figure 32.3: A garment factory, Bangladesh



Figure 32.4: A brick field, Bangladesh



Figure 32.5: A metal workshop, Bangladesh

Interaction with other levers

The raw materials for many of these sectors might be domestically grown in Bangladesh (eg tobacco or rubber). As such they might compete for space with bio-crops, or they may be imported from elsewhere. The general manufacturing index is not tied directly to the GDP lever, but simulates it in the chosen sector. The Industrial Energy Technology lever sets the fuel mix used by that industry potentially modifying the demand profile.