

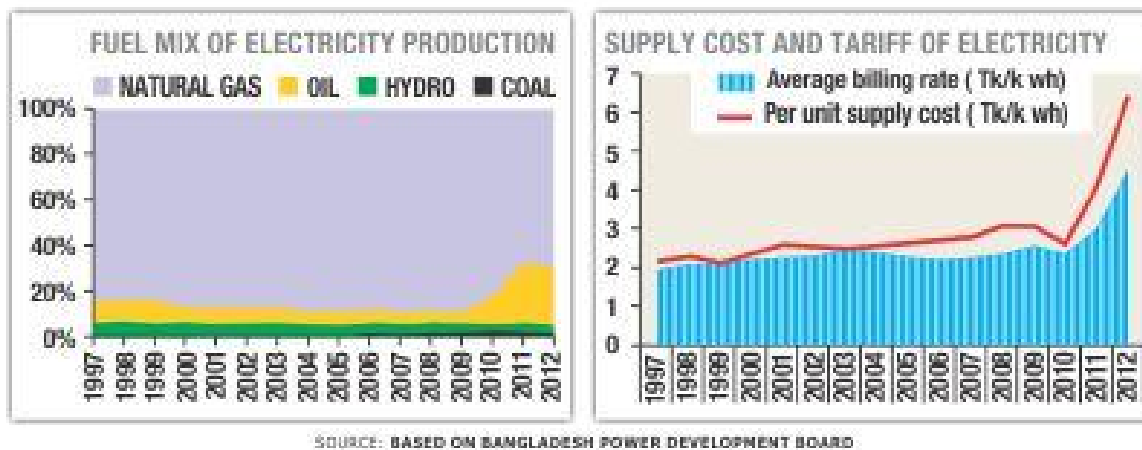
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Expensive power and price adjustment

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Electricity coverage in Bangladesh is among the lowest in South Asia. However, this statistics hides an important fact that there is a correlation between access to utilities and the level of income. In the case of key South Asian economies, this relationship is quite strong. Sri Lanka has the highest level of electricity coverage followed by India, Pakistan and Bangladesh.

Nevertheless, there are some political economy factors that affect the provisions of energy and other utility services. Prices for some utility services -- particularly electricity, gas and water -- are generally set below the costs of provision in developing countries, benefitting the urban middle class and high-income group who consume the lion's share of energy subsidies. With the extreme poor households' share in the total electricity consumption being at less than 0.1 percent, energy subsidy is highly regressive in Bangladesh. This also signifies the importance of rational pricing of energy.

While successive governments had reformed various aspects of energy and utility services, notably generation and distribution in the power sector, they had been reluctant to reform energy prices until recently, fearing a possible backlash from the voters and consumer rights groups.

However, faced with severe fiscal and macroeconomic constraints as well as pressure from donors and development partners, the current government started to adjust oil and electricity prices since assuming power in 2009, with electricity tariffs being adjusted upward numerous times.

Moreover, the supply cost of electricity has increased sharply in recent years owing primarily to changes in fuel mix in electricity production. This has a direct link to the current government's ambitious plan to augment the supply of electricity to bridge the marked gap between the sector's supply and demand. While the government's energy roadmap targets electricity production from various fuel sources, in recent

years the sector's dependence on fuel oil increased sharply from 5 percent in 2008-09 to more than 20 percent in 2011-12.

Electricity tariff in Bangladesh would have been much higher than the current level, had gas prices not been heavily subsidised. The other sources -- hydroelectric and coal power -- comprise approximately 5 percent of total power production.

Given the fiscally unsustainable fuel mix as well as sharp rise in electricity tariff, loom as to whether the government will be able to diversify its fuel sources of electricity by attracting large investment in gas production and developing indigenous coal resources or importing coal resources from abroad.

The power sector has already experienced the limit to rental power plants. Given the higher fuel costs in the international markets, rental power plants run at 57 percent capacity on an average. Moreover, more than 600 MW power cannot be generated due to a gas supply shortage.

Thus, despite higher generation capacity in recent years, the government has been unsuccessful in providing cost-effective electricity. Hence, it is important to understand the sector comprehensively. Reform in the sector is one of the ways to assess what policies have and have not worked in the past, towards understanding the sustainability of current policies on energy pricing.

It was only in the mid-1990s that the power sector witnessed a major policy shift, when the government in consultation with a large number of donors and development partners launched a reform project. Reform in the sector has increased private participation particularly in power generation. The sector's commercial performance improved significantly in reducing power distribution losses and in the operational performance of transmission system. The regulatory body -- Bangladesh Energy Regulatory Commission -- has also been formed whereby private and public sectors now have equal share in power generation.

The ruling party has shown interest in reforming electricity generation and transmission which gives them opportunities to align their political and economic interests. During the past BNP government's tenure, considerable focus was placed on increasing transmission capacity though it was widely reported as serving their interests. However, their priority to increase electricity transmission above generation capacity proved to be a wrong move in light of the chronic load-shedding.

Increasing electricity generation capacity has been a major focus for the current government. When the AL government assumed power in January 2009, the effective capacity of power generation stood at around 3,500MW. The government has added more than 4,000MW in various forms, including liquid fuel-based, gas-based and dual fuel plants. Bangladesh Power Development Board's power generation report shows that in 2012, the total generation capacity stood at more than 7,700MW, while the actual production has been between 4,000MW and 5,000MW.

Consequently, the key objective of the power sector reforms agenda remains unfulfilled. While some of the power generation constraints are addressed, the government has offered an expensive solution to power woes. To find an answer to the unfulfilled objectives of such reforms, it is essential to examine the political economy of power mix.

According to the Power System Master Plan, the forecasted demand for electricity is 19,000MW in 2021 and 34,000MW in 2030. To meet the growing demand, the plan suggested a fuel mix comprising 30 percent domestic coal, 20 percent imported coal, 25 percent natural gas including liquefied natural gas, 5 percent liquid fuel and 20 percent nuclear, renewable energy and power import.

It is not unusual that preference is heavily skewed towards coal at 50 percent since this form of hydrocarbon produces approximately 40 percent of electricity globally, followed by natural gas (22 percent), renewable (19 percent), nuclear (14 percent) and liquid fuels and other petroleum (5 percent). Coal is the main source of primary energy both in China and India. Even one-third of the United States' electricity is generated by coal.

The stock of primary energy indicates that Bangladesh has comparative advantage in producing electricity from coal and gas. However, Bangladesh's transition to a diversified fuel mix, particularly coal-based electricity production, faces considerable hurdles. Due to environmental concerns, the donors and development partners, left-wing political parties and civil society organisations are opposed to producing electricity from coal with the existing technology.

Moreover, the elected governments do not have much incentives or capacity under the competitive clientelist political settlement to develop long-term projects such as base-load power plants. A leading political economist observed, "The problem in the power sector is that long-term contracts and calculations are difficult when the political settlement has features of competitive clientelism with short time horizons of the ruling coalition and with low and declining governance capabilities of the bureaucratic organisations, who regulate the investment in these sectors."

Market-based reforms in energy and utility sectors have been unsuccessful in improving the overall governance quality, thereby precluding the long-term investment in the sector critical for cost-effective electricity production. The sector has been highly successful in reducing system loss. However, a plethora of governance issues such as longer maturity time of projects, lengthy procurement processes, weak contract enforcement, higher technical system loss, collusion and corruption, poor internal governance, higher levels of investment risks and bureaucrats' risk-averse approach bar the flow of large-scale external finance and technology.

As a result, the power sector has had little success in developing coal and gas-fired base load power plants over the past three and a half years. The government, its agencies and private sector players have given more focus on rental power plants that rely on oil as a primary fuel and can be materialised within six months to a year.

Although the oil-based rental power plants should have been phased out by this time to allow other primary fuels, these plants are likely to maintain their share in the next few years, increasing supply cost of electricity and undermining the power sector reform.

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