

Inefficiency holding power sector back

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As a result, power generation capacity exceeds demand by 40 percent, far beyond the optimal 8-10 percent.

Additionally, a shortage of skilled manpower has led to poor planning and higher costs.

Saifur made three recommendations to improve the power sector: reducing demand by improving energy efficiency, increasing solar power installation as much as possible, and looking at the opportunities for cross-border power transfer.

Speaking about distribution issues, he said having a capacity beyond the demand is useless without stronger transmission and distribution.

Most power cuts happen here due to distribution issues as voltage and frequency fluctuate a lot, he added.

The electricity coming from India through Bheramara is also more expensive because Bangladesh's power network is weak, which increases costs. A \$500 million high-voltage direct current (HVDC) was installed for Indian power imports, though strengthening the local grid with flexible AC transmission systems (FACTS) could have been a more cost-

effective solution, Saifur said.

"Our grid system is incompatible with India's, causing higher costs. Additionally, we need to upgrade our grid to be able to handle more renewable energy."

About the Integrated Energy and Power Master Plan-2023, he said the country lacks short term goals.

"We don't have clear targets for what we'll do in 2030, 2035, or 2040. It's unclear what the alternatives will be if fuel costs spike. We need a realistic plan for such situations."

"Some parts of our national energy plan are unrealistic, like using hydrogen as an alternative fuel. This is very expensive. Even the US is struggling with hydrogen fuel. How will we manage it? Without a market for hydrogen, it's impractical. Hydrogen import is also costly. The idea of a hydrogen hub in the plan is not viable since there is no demand for the fuel domestically or internationally."

Saifur said reducing demand by improving powerplants' efficiency and increasing the use of energy saving products should be the top priority of Bangladesh. "We can increase the use of solar power and small nuclear

plants, and we can look for cross-border power transfer."

"Since we have limited resources, we can import electricity from Nepal, Bhutan, and India. China also has significant hydro potential in Kunming, and they sell power to Vietnam. There was an offer for a Kunming-Myanmar-Bangladesh electricity link, but that didn't happen."

He added that such transfer of electricity has some challenges, like a lack of power supply by the exporter. "There can be some UN treaties to prevent countries from cutting off power supplies without the consent of the recipient country."

As nuclear energy is a lengthy and expensive way to meet the demand, the country could use small modular reactors (SMRs), a type of small nuclear power plant with a capacity from 50 to 120 MW, the expert said.

These are easy to install and less risky and do not waste huge amounts of water, according to him. "China, the US, Argentina, Russia, and South Korea are already using SMRs. We could collaborate with these countries."

Saifur thinks the rise in Rooppur

Nuclear Power Plant's cost to cross \$12 billion was supposed to happen. "In the US, nuclear plants often cost 2-2.5 times more than initially estimated. Equipment costs rise, and there are inspections, testing, and time delays."

The plant has 230kV and 132kV lines, but the 400kV line is still not ready. The Power Grid Bangladesh PLC says the existing lines can handle 1,200MW of power, but the Russians disagree.

They have said they need gas-based backup, but Bangladesh cannot afford to keep 1,200MW of gas-powered backup running, according to Saifur.

"There's also the issue of where to use the electricity from Rooppur. Will it be transmitted to Dhaka or used elsewhere? This highlights the importance of having skilled manpower who can anticipate such costs and plan accordingly."

About the nuclear waste management of Rooppur, Saifur said there was no investment plan on how the waste will be disposed of.

Uranium fuel rods that heat water to produce steam for generating electricity need to be replaced every 18 months. After being used up, the rods remain hot for a while. In the US, these

spent rods are stored in swimming pools for at least two years to cool down before being transported for long term storage, he said.

He added that Bangladesh plans to send nuclear waste to Russia, but there's no clarity on interim storage and transportation costs.

Saifur, a lifetime fellow of the US Institute of Electrical and Electronics Engineers (IEEE), said that at least 30 percent of the total power mix of Bangladesh should come from renewable sources.

However, installing coal-based power plants despite the need to cut such sources for environmental reasons was a necessary step, he added.

"We needed power, and without coal, we would have faced serious shortages. We don't have hydro or enough gas, so coal was the only viable option. We can consider more nuclear power plants, but that will take another 10 years. This served as an intermediate solution to meet energy needs."

"As for carbon emissions, Bangladesh's emissions are negligible compared to larger countries, so we have the moral right to use coal," said Saifur, who led the IEEE delegation as its president at the COP 27 climate

summit in 2023.

About coal fired plants, he said raising their efficiency from 40 percent to 44 percent could cut coal use by 10 percent. To increase the efficiency of these plants, Bangladesh could use financing from the \$100 billion loss and damage fund under the UN.

Saifur believes Bangladesh's engineers should join international training programmes and global conferences. Engineers from countries like India, Nepal, Malaysia, and Myanmar gathered in Singapore last year for the Conference of the Electric Power Supply Industry, but Bangladesh had no representation.

"The best way to improve skills is by building connections with neighbouring countries and like-minded nations. We should have more interactions with Thailand, Indonesia, Singapore, Japan, South Africa, and the Middle East."

Besides, the Power Management Institute should prioritise training by foreign experts over bureaucratic concerns, he said. "That doesn't happen here. Our bureaucracy is focused on administrative matters like the benefits, cars, drivers and peons, rather than the core issues."

Experts voice concern

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tour to China.

The Brahmaputra is a transboundary river originating from the Angsi Glacier near Mount Kailash in the Himalayas. It flows roughly 3,000km through China, India, and Bangladesh before emptying into the Bay of Bengal. The river also receives significant catchment contributions from Bhutan.

The \$137 billion project aims to generate 60 gigawatts of electricity -- nearly three times the capacity of China's Three Gorges Dam (22.5 GW) -- and would be powerful enough to meet the annual electricity needs of the United Kingdom.

Chinese state media has described the Medog Hydropower Station as a safe and ecologically sensitive project that will help meet China's carbon neutrality targets. But environmentalists and regional experts have raised alarms over the possible downstream impacts.

These days, management of common river systems anywhere in the world prioritises the participation of people

in the basin and riparian states from the inception to the implementation stage of any infrastructure project that interferes with the natural flow," said Sharif Jamil, environmentalist and Bangladesh country representative for Riverkeeper, an NGO.

"But unfortunately, the entire Ganges river system in Bangladesh has already been damaged due to long-standing unilateral interventions and water-diverting projects in India."

Jamil warned that China's project in such a geographically sensitive location could further compound the challenges facing downstream countries. "Now China with this giant project is in a very sensitive geographical location over the Brahmaputra river system!"

Malik Fida A Khan, executive director of the Centre for Environmental Geographic Information Services (CEGIS), voiced concerns about the ecological and hydrological impact of the dam.

"Seventy percent of the dry season flow of the Ganges-Brahmaputra-

Meghna [GBM] basin that passes through Bangladesh comes via the Brahmaputra," he said. "Any intervention of this magnitude could seriously reduce dry season flows."

He added that over 50 percent of the sediment Bangladesh receives comes through the Brahmaputra, playing a crucial role in land formation in the delta region. Disruption to sediment flow could also increase riverbank erosion as the river system adjusts to changes in water sediment balance.

"We'll be able to assess the full scope of the impact when we will get the technical reports we've requested from China," he said.

Jamil emphasised the need for legal and institutional cooperation among all riparian countries.

"Bangladesh should have ratified the 1997 UN Watercourses Convention long ago as the lowest riparian nation," he said. "It should have seriously pursued joint organisational and legal frameworks to manage the entire GBM basin together with all five riparian states."



People throng the Sadarghat launch terminal to travel to the southern districts for the Eid holidays. The rush is expected to intensify as Eid nears.

PHOTO: PRABIR DAS

The foreign couple who fought

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foreigners risked their lives for us was truly extraordinary," he added.

Speaking at the event, James Goldmann, acting British deputy high commissioner to Bangladesh, called their story a powerful demonstration of the enduring relationship between Bangladesh and the UK.

He said that the UK was among the first nations to recognise Bangladesh in 1972 and has maintained a strong partnership with the country ever since.

German Ambassador to Bangladesh

Achim Troster said, "We stand by Bangladesh and will remain a reliable and trustworthy partner -- hopefully towards more democracy and a less antagonistic political landscape."

Speaking at the event, Syed Ahsan Habib Rana, secretary general of Gulshan Society, said, "Fifty-four years ago, a nation was born not just through the struggles of its own people but also with the unwavering support of voices from across the world -- voices that refused to stay silent."

Moderating the event, Srabanti

Datta, cultural secretary of Gulshan Society, said that the exhibition is particularly valuable for younger generations. "It offers a powerful lesson on the significance of global solidarity and humanitarian efforts in a nation's struggle for freedom," she added.

As visitors at the exhibition walked past rare photographs, historical documents, and firsthand accounts of the Connells' activism, one message stood clear -- humanity knows no borders.

"Their migration isn't voluntary; they are driven by debt and the need to rebuild their lives amid persistent threats of climate-induced disasters," he said.

After migrating abroad, most of them face severe hardships, including unpaid salaries, excessive work without compensation, and even food deprivation, he said.

He urged the government to intervene, calling for foreign embassies to actively engage with migrant workers, address their grievances, and ensure their rights.

The study surveyed 1,050 households from 64 villages, incorporating key informant interviews and seasonal transect walks from July 2022 to September 2023.

migrate both locally and abroad.

"The situation is highly concerning, and if the government does not take immediate and effective measures,

said approximately 370 farms were closed, leaving farmers financially devastated, when more than 10 lakh chickens were culled during the first bird flu outbreak in the country in March 2007.

Another outbreak of bird flu among poultry was reported in the country in 2013. The poultry industry did not suffer significant losses at that time.

Nearly 50 lakh chickens were culled, and many more farms were forced to shut down towards the end of 2017 when bird flu resurfaced in several regions.

Therefore, the government should take appropriate measures to prevent the virus from spreading. Otherwise, the poultry sector would face a disaster, he warned.

The association in a statement

more farms may shut down and severely impact the country's economy."

It urged the authorities to enforce strict monitoring to prevent the sale of sick chickens.

It also called on the government to form a special task force to ensure prompt inspections in affected areas and implement effective disease prevention measures.

"In this situation, it is crucial to provide financial assistance and compensation to affected farmers, accelerate research, and launch vaccination programmes," it added.

Highly pathogenic avian influenza, commonly known as bird flu, has spread globally in recent years, including in the US, leading to the culling of hundreds of millions of poultry.

From climate displacement to debt traps

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-- four hours beyond the usual work time -- but they did not pay me overtime," he recalled.

Many other migrant workers from this region faced similar ordeals. Some were unable to secure jobs, while others were beaten, harassed, or deceived into paying money, only to have their passports confiscated.

Mamunur Rashid from Koyra, Khulna, spent Tk 5 lakh to migrate to Cambodia but had to return after 26 days. "I wasn't given a job and received limited food. My family sent money for my return ticket, but my employer took it," he said.

He later somehow managed to buy a ticket and return home.

The study highlights rising

international migration from the Sundarbans due to climate-induced displacement.

International migrants from the region now make up 14 percent, up from two percent in 2022.

According to Bureau of Manpower, Employment and Training (BMET) data, 786 people from the region migrated abroad for work between October 2022 and September 2023, compared to 477 people during the same period in the previous year -- an increase of 65 percent in 12 months.

Talking to The Daily Star, Shakirul Islam, chairperson of OKUP, said climate-induced disasters have become more frequent and severe in Bangladesh, particularly after cyclones Sidr in 2007 and Aila in 2009, forcing people to

migrate both locally and abroad.

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they are driven by debt and the need to rebuild their lives amid persistent threats of climate-induced disasters," he said.

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democratic, stable, inclusive, peaceful and progressive Bangladesh," she said.

US, CHINA GREET BANGLADESH

In a statement, US Secretary of State Marco Rubio extended heartfelt congratulations to the people of Bangladesh on Independence Day, reaffirming his support for Bangladesh's democratic journey.

About the latest case, the association in its statement said, "The situation is highly concerning, and if the government does not take immediate and effective measures,

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