Understanding

THE RENEWABLE ENERGY LANDSCAPE

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Blog

Renewable Energy Landscape in Bangladesh: Aspirations, Realities, and Pathways to Progress

Youth Perspective by **Md Hasin Israq**

In a world on the brink of irreversible climate change, nations are grappling with the urgent need to revamp their energy strategies. Among these nations, Bangladesh finds itself at a crucial crossroads in its energy journey. As a vocal voice in fighting climate change, Bangladesh has the moral responsibility to follow the environmental guidelines and take such policies that align with climate agreements and commitments. However, as a developing nation of almost 170 million people, Bangladesh requires efficient and affordable options for the energy sector. This task has become even more challenging because of the supply shock inflation in the energy sector due to the ongoing war in Ukraine. However, it can be argued that Bangladesh's policy is not the most efficient; instead, a fresh approach towards renewable energy could take Bangladesh to the position it desires to be in.

As part of the Paris Agreement, all nations have committed to pursuing measures to keep global warming far below 2 degrees Celsius, ideally to 1.5 degrees Celsius, compared to pre-industrial levels. To achieve this goal, global carbon dioxide emissions need to be reduced by 45 percent by 2030 from 2010 levels and reach net-zero emissions by 2050. As a signatory of the agreement, Bangladesh has also recognised this as a global goal in the IEPMP 2023 (Integrated Energy and Power Sector Master Plan). The Mujib Climate Prosperity Plan also acknowledges these objectives' importance and pressing nature. The plan targets to reach 30% renewable energy by 2030 and at least 40% by 2041. On the other hand, the government's Vision 2041 program aims to increase power generating capacity to 30,000 MW by 2030 and 40,000 MW by 2040. Bangladesh must thus grow its RE power generation capacity to 12,000 MW by 2030 and 24,000 MW by 2041 to comply with the government's planned path to attain carbon neutrality. This comprehensive plan demonstrates Bangladesh's commitment to reducing climate change and promoting sustainable development.

Bangladesh has set an ambitious goal, but carrying it out would be exceedingly challenging. Bangladesh only produces 1158.1 MW of electricity from renewable energy sources, only 4.93% of the total electricity generation capacity. This indicates that, to fulfil the previously specified aim, the country must roughly tenfold its current renewable energy production capacity by 2030 and twentyfold by 2041. This would require a significant commitment from the government, both in terms of policymaking and funding.

However, the historical course shows a dramatic difference between ambition and accomplishment. Even eight years after the target date, the Renewable Energy Policy 2008's objective to increase renewable energy's contribution to 5% by 2015 and 10% by 2020 has yet to be achieved. This difference emphasises the complex difficulties in turning ambitious goals into successful outcomes. Several factors, including poor infrastructure, a lack of technical skills, and budgetary shortcomings, have exacerbated this gap. Identifying and tackling these issues serves as the cornerstone for developing strategies that can deal with the complexity of the future.

Nevertheless, there is an explanation given by the policymakers justifying this gap. They often argue that the goal was set at 5% by 2015 and 10% by 2020 to inspire and boost investing in renewable energy production, knowing it wouldn't be possible to achieve. Setting too ambitious targets, nonetheless, can hinder the development of a country by distorting resource allocation, obscuring reachable milestones, and increasing the likelihood of demoralisation and repeated failures.
In addition to undermining long-term planning and creating unreasonable expectations among citizens, pursuing unachievable objectives erodes public confidence in the government's strategy on renewable energy. Such goals could also encourage unsustainable behaviour by ignoring social and environmental costs. The potential for incremental innovation and holistic development can be overlooked in the quest for quick wins.
A perfect example of looking for quick wins can be found in the recent strategic shift towards LNG, which is a prime example of misallocation of resources. Indeed, LNG was once an excellent alternative to coal for energy production as it was cheaper. On April 20, 2020, the price of Asian spot LNG was just USD 2.05/MMBtu. As a result, the government cancelled ten coalfired power plants in 2021, deciding to make further investments in LNG. However, the government failed to get a favourable long-term agreement to buy LNG when the price was affordable. In October 2021, a significant supply problem prompted the price of Asian spot LNG to peak at USD 35/MMBtu, 17 times more than in February, making it no longer a cheaper option. Yet Bangladesh now plans a $2.6 billion investment in liquefied natural gas (LNG) import capacity.
It would be a lie if someone told you that this price hike of LNG was unanticipated. The government's Power System Master Plan- 2016 predicted that solar and wind energy costs would decrease by 50% and 30%, respectively, while LNG prices would rise by 40% by 2040. Despite these findings, the government did not take concrete action to explore renewable energy sources. Perhaps the government couldn't trust the RE sector because it could not fulfil the previous RE targets.

At the same time, $14.5 billion was invested in renewable energy in our neighbouring nation of India, an increase of 125% from the financial year 2020–21 and 72% from the pre-pandemic period of the 2019–20 financial year.

Rs 5,365 crore ($655 million) has been spent in Gujarat, India, to create solar-wind hybrid power production capacity in 4-5 facilities, each of which would be able to generate between 2000 and 5000 MW of energy. We might have reached the goal of 12000 MW of energy production capacity through RE by 2030 if the $2.6 billion we are investing in LNG was used for such projects. Thus, The government must put its faith in renewable energy and select realistic goals and policies.

The government alone cannot achieve its RE goals while maintaining economic growth. It needs to create a system where the general mass can heavily contribute. Interestingly, Bangladesh has installed over six million Solar Home System (SHS) units, thousands of rooftop units, street lights, and solar irrigation units since 1996. However, the general mass considers these solar panels as not long-lasting. This situation has occurred due to a lack of maintenance system. Here, the government can contribute massively by creating this system. The government can include training on fixing solar panels in the vocational training courses. The government has completed an electricity distribution workforce even at the root levels of the country. If these workers are trained in fixing solar panels, investing in solar panels for home electricity shall become a viable option for the general people and reduce pressure on the national grip. Net metering, a billing mechanism that credits solar energy system owners for the electricity they add to the grid, is also an excellent incentive for people to contribute to RE. The 'Net Metering Guidelines – 2018' has already been prepared by the government to do so. This way, the government will create a system that makes a demand for RE while ensuring supply as well. Nurturing existing renewable energy initiatives, for instance- solar street lighting projects, net metering systems, hard stance on controlling inefficient vehicles and so on, is also crucial.

In conclusion, Bangladesh's path toward a future powered by renewable energy sources has challenges and opportunities. The voyage demonstrates how the nation can cope with adversity and make the most of advantageous circumstances. Steady rules, smooth actions, and intelligent strategies are critical. By learning from the success of nearby countries, using resources well, and building complete energy systems, Bangladesh can get closer to its clean energy goals. Keeping things running smoothly, involving people, and evolving positively all increase the likelihood of success. As Bangladesh moves toward a cleaner energy future, working together, trying new things, and not giving up will be essential. The way ahead might be complex, but by staying strong and working together, Bangladesh can make its path and leave a lasting mark for the future.