

THE SUN IS RISING ON BANGLADESH.

Is Our Policy Ready?

Bangladesh has the sunshine, the farmland and the proven community models to power a green revolution. What it lacks is a single plan, patient money and a grid built for the future.

Dr. Mohammad Monirul Islam

A nation running on borrowed fuel

Every time a tanker of liquefied natural gas docks at Moheshkhali, Bangladesh pays for its electricity twice: once in dollars, and again in vulnerability. Gas, oil and coal still generate nearly all of our electricity. Oil is almost wholly imported, and domestic gas reserves are steadily declining. Renewables, by contrast, account for barely 5% of generating capacity.

This is not only an economic risk. Bangladesh ranks among the most climate-exposed nations on earth, battered by cyclones, rising seas and salinity. The Renewable Energy Policy 2025 aims to meet 20% of electricity demand from renewables by 2030, and the country's latest climate pledge (NDC 3.0) commits to 25% by 2035. With barely four years left, the gap between promise and progress is wide, and widening.

My doctoral research at the Indian Institute of Business Management & Studies, Mumbai, set out to ask a simple question: what is genuinely stopping Bangladesh from going green, and what would it take to change course? Drawing on a nationwide household survey, interviews with policymakers, investors and community leaders, and benchmarking against regional peers, the answer is clear. The obstacles are not technical. They are institutional, financial and, above all, fixable.

We have already proven we can do it

Bangladesh is not starting from zero. The Solar Home System program, led by IDCOL, has placed more than four million solar home systems on rural rooftops, one of the greatest decentralized clean-energy efforts anywhere in the world. It lit homes the national grid had not reached and showed that villagers will adopt new

technology when it is affordable and locally supported.

Our natural endowments are generous too. High solar irradiation makes rooftop and utility-scale solar our strongest card. Abundant agricultural residue offers biomass power and rural jobs. Coastal belts hold modest wind potential, and regional hydropower is already flowing. Nepal began exporting 40 MW to Bangladesh through India in November 2024.

Yet the regional scoreboard is sobering. India crossed 200 GW of renewable capacity in 2024, while Bangladesh has only about 1.7 GW. The village solar story has not yet grown into a national grid story.

Four walls standing in the way

Too many cooks, no single recipe. Responsibility for renewables is scattered across ministries, regulators and agencies with overlapping mandates. Investors face shifting rules and slow approvals, and policies change faster than projects can be built.

An estimated USD 12 billion financing gap. Commercial banks see solar and wind as long-term, high-risk bets and lend reluctantly. Currency volatility makes foreign investors wary of revenue earned in taka, and so capital waits on the sidelines.

A grid built for yesterday. Without smart grids and battery storage, intermittent solar and wind power cannot be absorbed reliably. Even willing investors hit a hard ceiling at the point of connection.

An awareness gap at home. The survey found that household income, education and, crucially, awareness of government policy are the strongest predictors of whether a family adopts solar. Incentives that people do not know about simply do not work.

Two Bangladeshes in 2030

The study modelled where the country could stand by 2030 under different policy choices. The gap between the reform path and the stalled path is striking: twice the private investment, more than double the solar adoption, and electricity for millions more rural citizens.



2030 projection	Stalled	As usual	Bold reforms
Solar adoption	28%	35%	60%
Rural electrification	82%	85%	95%
Wind capacity	180 MW	220 MW	400 MW
Private investment	$500m	$600m	$1.2bn

Source: scenario modelling in the author's doctoral study.

Five moves that would change the trajectory

1. One authority, one rulebook. Create a Unified Renewable Energy Authority with a clear mandate, a one-stop approval window and a policy horizon of at least ten years. Investors do not fear ambition; they fear uncertainty.

2. Make green money flow. Issue sovereign green bonds, use blended finance in which development partners absorb first losses, and offer currency-risk guarantees. Public-private partnerships can turn a USD 12 billion gap into a USD 12 billion pipeline.

3. Build the grid of tomorrow. Prioritize smart-grid upgrades, battery storage and digital energy platforms, so that every megawatt generated can be delivered.

4. Put communities in the ownership seat. Scale up the solar home success through cooperatives, village micro-grids and local ownership models. Pair them with a national awareness drive, because the evidence shows knowledge drives adoption.

5. Think regionally. Deepen cross-border power trade and technology partnerships with India, Nepal and Bhutan, turning neighbors' hydropower and experience into our advantage.

The choice is ours

The green energy revolution is often framed as an environmental duty. For Bangladesh, it is something more urgent: a matter of economic sovereignty. Every unit of power generated from our own sun, fields and wind is a unit we no longer buy with scarce dollars, and a shield against the next global price shock.

The village rooftops have already shown what Bangladeshis can achieve. The task now is to give that spirit a national architecture: coherent policy, patient capital, a modern grid and genuine community ownership. Get these right, and Bangladesh will not merely meet its 2030 target. It could become South Asia's model of a climate-vulnerable nation that turned its greatest risk into its greatest opportunity.

Dr. Mohammad Monirul Islam, *Energy Sector Professional.*