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# **Sustainable Energy Horizons: Bangladesh's Renewable Future**

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# Sustainable Energy Horizons: Bangladesh's Renewable Future

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Renewable energy pertains to the energy generated from natural sources that can be renewed within a shorter time than a human lifespan. These resources, encompassing elements like biomass, solar energy, wind, oceanic waves, rainfall, and geothermal heat stored within the Earth's crust, are widely accessible across various locations. Their availability is virtually limitless. Importantly, they impose minimal adverse effects on both the climate and ecosystems. In contrast, fossil fuels like oil, coal, and natural gas are finite in quantity. They deplete as they are extracted, and even though natural processes form them, their replenishment lags behind our consumption. Burning fossil fuels releases more emissions compared to generating electricity from renewable sources. Shifting away from fossil fuels, the primary source of emissions, towards renewable energy is critical in addressing the climate crisis. Additionally, renewable energy offers various advantages, contributing to increased affordability over time, fairness, security, and the potential for job creation, benefiting individuals and the global

environment.

The energy sector of Bangladesh heavily relies on fossil fuels, both from within the country and through imports, playing a pivotal role in its energy generation. In 2022, a substantial majority, more than 98%, of the total energy production originated from sources such as natural gas, oil, diesel, and coal. In contrast, renewable energy sources contributed less than 2% to the overall energy mix. Over time, the dependence on fossil fuels has grown more pronounced. Despite this trend, Bangladesh introduced the Renewable Energy Policy in 2008, intending to capitalize on the potential of renewable energy resources and technologies. This policy set forth a target of achieving 5% of the total power demand from renewable sources by 2015, escalating to 10% by

2020. Regrettably, these aspirations were not achieved. Additionally, inconsistencies emerge among various governmental policies and plans, each setting distinct objectives.

To address the challenges posed by climate change, Bangladesh unveiled the Mujib Climate Prosperity Plan (MCP) in 2021. The MCP aims to bolster the country's resilience to climate impacts and strives to achieve 30% renewable energy by 2030 and at least 40% by 2041. Conversely, the Integrated Energy and Power Master Plan (IEPMP) introduces a clean energy target encompassing renewables and nuclear energy, intending to attain 40% by 2041. Furthermore, the government's annual budget documents also outline differing targets. Amidst these variations, the actual state of affairs reveals that progress toward transitioning to renewable energy in Bangladesh has been marked by slow advancement and uncertainty.

The expansion of renewable energy in Bangladesh faces several notable challenges.

The feasibility of integrating renewable energy into the country's energy landscape hinges on factors such as the prevailing market price and value of renewable energy, the comparative costs of renewable energy to other available energy resources, and the implementation of policies aimed at incentivizing the adoption of renewable energy while concurrently raising costs associated with fossil fuel usage. These policy measures are aligned with environmental objectives that aim to curtail fossil fuel consumption and promote the utilization of renewable resources.

In the present circumstances, the broader adoption of renewable energy encounters impediments arising from influential fossil fuel interests, inadequate governmental regulations, outdated infrastructural systems, the high initial costs associated with installation, the absence of well-developed battery storage solutions, limited

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awareness and understanding, as well as a dearth of supportive policies and financial incentives.

The analysis above underscores the need for strategic actions that must be prioritized to effectively steer Bangladesh's energy systems toward renewable sources and expedite the transition over the coming decade. Drawing inspiration from the viewpoints UN Secretary-General António Guterres articulated, the following critical measures are recommended.

First, it is essential to ensure convenient accessibility to renewable energy. This implies that renewable energy technology should be available to all members of society, not solely limited to those with financial means. Energy derived from renewable sources, such as solar and wind, can be harnessed, stored, and distributed as needed through vital technologies like battery storage systems. These systems possess the unique capability to rapidly absorb, retain, and redistribute electricity, thereby enhancing the flexibility of the energy infrastructure. Furthermore, integrating battery storage technologies can yield reliable and cost-effective power solutions in scenarios where traditional grid connections are absent, such as remote or isolated regions. Additionally, Bangladesh should explore the prospect of sourcing renewable energy from neighboring nations like India, Bhutan, and Nepal.

Secondly, the steady availability of essential raw materials and components is imperative for the sustained growth of renewable energy. This guarantees widespread access to vital elements and resources required for renewable energy systems. Moreover, effective management of the byproducts and waste generated through renewable energy processes assumes significance in establishing secure supply chains that safeguard ecological balance and well-being.

Third, establishing a fair and balanced arena for technologies harnessing renewable energy emerges as a pressing need. Swift amendments within domestic policy frameworks are essential to streamline and expedite projects related to renewable energy, thus encouraging investments from the private sector. To achieve this, it becomes imperative to devise policies and procedures that minimize market risks, facilitate investments, and extend incentives. This can be achieved by

simplifying planning, permitting, and regulatory processes while avoiding unnecessary hindrances and bureaucratic complexities. The adoption of solar and wind energy technologies can be accelerated through modern energy transmission infrastructure, well-defined and robust policies, transparent procedural frameworks, and the active support of the general public.

Fourth, redirecting energy subsidies away from fossil fuels and toward renewable energy sources. A significant barrier impeding the nation's transition to renewable energy is the substantial subsidies allocated to the fossil fuel industry. The financial burden associated with subsidizing fossil fuels encompasses not only direct financial assistance but also tax advantages and the concealed costs associated with public health and environmental repercussions, which are not factored into the pricing of fossil fuels. The continuation of fossil fuel subsidies is inequitable and inefficient. Instead, directing these subsidies towards renewable energy can significantly reduce emissions and hold the potential to cultivate sustainable economic growth, foster job opportunities, enhance public health outcomes, and promote more significant equity, especially for marginalized and vulnerable populations.

Fifthly, a critical component involves making substantial investments in renewable energy endeavors. To expedite the transition, it is imperative for financial systems, including both public and private institutions such as banks, to exhibit commitment and accountability. These institutions should prioritize directing their financial portfolios towards initiatives that accelerate the shift to renewable energy, thereby actively expediting the adoption and integration of renewable energy solutions.

Finally, the successful execution of a sustainable energy transition necessitates the judicious allocation of resources amidst competing industrial sectors and political constituencies. Recognizing stakeholders' varying degrees of political and economic influence in this process, a comprehensive understanding of how these factors intersect and impact the transition to renewable energy is essential. This comprehension is a cornerstone for formulating effective policies and strategies that facilitate a seamless and successful shift toward sustainable energy systems



*Note: The data presented within this article has been sourced from multiple references, with particular significance placed on an article published by SANEM.*

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Emerging Credit Rating Limited (hereinafter referred to as ECRL) began its journey in the year 2009 with the motive to deliver credible superior & quality credit rating opinion in various industry segments around Bangladesh. ECRL obtained credit rating license from Bangladesh Securities and Exchange Commission (BSEC) in June 2010 as per Credit Rating Companies Rules 1996 and also received Bangladesh Bank Recognition as an External Credit Assessment Institutions (ECAI) in October 2010 to do the rating of Banks, Financial Institutions and their borrowers and also from Insurance Development & Regulatory Authority (IDRA) in 2015 to do the rating of Insurance Companies & affiliated with Malaysian Rating Corporation Berhad.

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