Natural Gas Crisis in Bangladesh is LNG the Only Solution?

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Bangladesh's natural gas problem is getting worse day by day. We are struggling to fulfill our increasing energy demands due to falling production from important gas sources and the halting of new explorations. Liquefied Natural Gas (LNG) has been proposed as a possible remedy, but it is being proven to be a very costly short-term solution. Expert opinions may differ in various aspects of the country, but in this context, experts suggest that Bangladesh should immediately look at other options and make long-term investments in energy security plans.

Current Scenarioof Natural Gas Crisis:Due to the underperformance of its gas fields, the natural gas crisis in Bangladesh has been worsening. Examining the reports of Petrobangla and the statements from the Ministry of Power, Energy, and Mineral Resources, we can observe the frightening reality of our natural gas crisis. For instance, the Bangladesh Gas Field Company has an extraction capacity of 815 million cubic feet per day (MMcf/d). But for inadequacy of expertize, it currently produces only 555 MMcf/d. The Sylhet Gas Field Company and Bapex are facing similar shortfalls and producing below their total capacity, which is a genuine concern. Among multinational companies, Chevron-once the largest producer-has significantly reduced its gas extraction. This company's production has dropped from 1,512 MMcf/d to 1,170

MMcf/d. This has particularly negatively impacted the country's largest gas field, Bibiyana, where production has fallen from 1,200 MMcf/d to 997 MMcf/d.

The natural gas supply shortfall has notbeen adequately compensated by increasing the production from other gas fields or exploring new ones. International studies have suggested that Bangladesh has undiscovered natural gas reserves ranging from 32 trillion cubic feet (Tcf) to 42 Tcf, according to research by organizations like the US Geological Survey (USGS) and the Norwegian Petroleum Directorate (NPD). However, Bangladesh has severely lagged in exploration efforts. Despite vast foreseeable onshore and offshore reserves, the country has drilled fewer exploratory wells than neighboring India's Tripura state. Exploration activities have stalledsignificantly over all the 48 blocks of the country. Out of Bangladesh's 26 offshore blocks, 15 are located in deep water, and 16 are in shallow water. Indian company ONGC is conducting explorations in two offshore blocks.

The lack of seismic surveys has left much of Bangladesh's gas potential untapped, further amplifying the crisis. This underinvestment in exploration is a missed opportunity, especially given that a third of the country's onshore and all offshore areasremain unexplored.

How LNG is Being Used to Tackle the Crisis: In response to the growing demand for natural gas, Bangladesh has turned to importing LNG as a short-term solution. Since 2018, the Moheshkhali Floating LNG (MLNG) terminal has been operational. This installation has a regasification capacity of 500 million standard cubic feet per day (MMscf/d) and is pivotal in the country's LNG strategy. This terminal was developed by Excelerate Energy in collaboration with Petrobangla and the International Finance Corporation (IFC). It has mainly provided clean energy for power generation and industrial developmentto enhance Bangladesh's energy security.

Further investments in LNG infrastructure came up in 2019 when the Summit LNG terminal began operations offshore near Moheshkhali Island. This terminal has 500 MMscf/d regasification capacity. This investment was encouraged by the MLNG terminal's corporate financial success. Together, these two terminals have increased Bangladesh's natural gas supply by 25%, supporting the country's power sector. This sector remains the largest consumer of natural gas, consuming over 400 billion cubic feet (Bcf) annually. LNG has thus emerged as a crucial tool in bridging the supply-demand gap. In the 2021-22 fiscal year, Bangladesh imported 240.56 Bcf of LNG. However, this reliance on imported LNG presents challenges, including high import costs and vulnerability to global market fluctuations.

Other Ways to Tackle the Crisis: LNG has provided temporary relief, but it is not the only solution to Bangladesh's natural gas crisis. The country's significant untapped gas reserves represent an enormous opportunity.If explored and developed, it could provide long-term

energy security. As noted by experts, Bangladesh has around 34 Tcf of undiscovered gas, which could last the country over 30 years at current consumption rates. The government must address the bureaucratic delays and inefficiencies that have stymied exploration efforts. Cancelling seismic surveys and abandoning plans to drill more wells reflect a lack of long-term strategy.Bangladesh must prioritize investment in exploration and drilling.Additionally, Initiatives such as the 55 exploratory wells project, which was scrapped without explanation, should be revived. Renewing offshore exploration efforts in the Bay of Bengal is also significant.

Several studies have pointed out the presence of significant gas hydrate deposits in the Bay. Ramboll, a European oil and gas consultant, did one of the studies. Although methane extraction from these deposits remains a nascent technology, advances in this field could one day unlock vast energy potential.Exploring renewable energy sources like solar and wind could reduce the country's dependency on natural gas and imported LNG. Bangladesh has already made progress in solar and wind energy projects, but a more diversified energy portfolio will be vital to ensuring the country's energy resilience in the future.

Concluding Remarks:Bangladesh's reliance on the current amount of domestically produced natural gas and high-priced imported LNG is not sustainable in the long run. LNG can only help mitigate the current crisis. The country must look beyond short-term fixes and develop a comprehensive energy strategy. This strategy involves increased exploration of untapped reserves, investment in offshore drilling, developing technologies to extract methane from gas hydrates in the Bay of Bengal, and eventually shifting towards renewable energy.

The governing authorities should fast-track the approval of seismic surveys and remove bureaucratic hurdles that delay progress. Collaboration with international energy companies and service providers will be pivotal for the success of these initiatives.Bangladesh's long-term energy policy should focus on transitioning towards renewable energy. By diversifying its energy sources, the country can reduce its reliance on natural gas and improve its energy security. For a country with natural gas reserves and untapped potential, the path forward requires a blend of immediate action and visionary planning for a sustainable future.

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