

Briefing on Matarbari LNG Terminal (onshore)

December 2022

The Matarbari LNG Terminal (onshore) (the terminal) is a proposed land-based LNG import terminal in Matarbari, Cox's Bazar, on the southeastern coast of Bangladesh.¹ This terminal would open up Bangladesh to decades of dependency on fossil fuels. **This briefing details issues faced by local communities, environmental and climate impacts of the project, and potential financial risk.**

The project's implementing agency, government-owned Rupantarita Prakritik Gas Company Limited (RPGCL), is currently seeking bidders to develop the project on a 'Build Own Operate and Transfer' (BOOT) basis for 20 years.²

As of 12 September 2022, the bidding consortiums includes the following Japanese companies, among others:³

- **Mitsui & Co.** Ltd.
- Consortium of **Summit** Corporation, **Mitsubishi** Corporation and **Jera** Co. Inc.
- Consortium of **Sumitomo** Corporation and **Chugoku** Electric Power Co. Inc.

Tokyo Gas conducted a feasibility study and prepared a request for proposal documents to select the final bidder.⁴ According to RPCGL Annual Report 2021-22, the last date for the submission of a bid is 12 February 2023, and land acquisition is ongoing.⁵

Adverse impacts on communities

The coastal island of Matarbari is rife with stories of local community members' displacement and loss of livelihoods due to the construction of fossil fuel projects. The Matarbari (Phase 1) coal plant's construction filled up and narrowed the local Kohelia river, resulting in more than 2,000 fishermen losing their livelihoods.⁶ Community members say they are yet to be fully compensated for the loss of their homes and livelihoods located at the site of the Matarbari (Phase 1) project.⁷

Any further construction of fossil-based projects is expected to have a similar impact. Local communities have received notice to relocate from their homes and farms to make way for the construction of the terminal.

¹ The project's expected capacity is 1000 mmscfd (Million standard cubic feet of gas per day). <http://www.rpgcl.org.bd/site/page/61c113c4-a002-4eb9-b31c-573e54d98bdc/%E0%A6%8F%E0%A6%B2%E0%A6%8F%E0%A6%A8%E0%A6%9C%E0%A6%BF--%E0%A6%AA%E0%A7%8D%E0%A6%B0%E0%A6%95%E0%A6%B2%E0%A7%8D%E0%A6%AA%E0%A6%B8%E0%A6%AE%E0%A7%82%E0%A6%B9>

² 19 May 2021, Project Finance International "Shortlist due for Matarbari LNG"

³ Ibid.

⁴ 2021-01 FE - [Japan firm to study feasibility of Matarbari LNG Terminal](#)

⁵ RPCGL Annual Report 2021-22, p54.

⁶ Daily Star, 'The killing of Kohelia' (25 Jan 2021).

⁷ <https://fossilfreechattogram.com/the-problem/>

Here's what they have to say:



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OUR HOMESTEAD AND SALT AND FISH FARMS FALL IN THE AREA BEING ACQUIRED FOR THE LNG TERMINAL. WHAT WILL WE DO NOW?

— HAMID HOSSAIN, FISH FARMER, MATARBARI, CHATTOGRAM.

“LNG টার্মিনাল প্রকল্পের মধ্যে আমাদের বসতবাড়ি পড়ছে, পুকুর পড়ছে, লবণ ও মাছ চাষের জমি পড়ছে, আমরা এখন কি করবো!”
হামিদ হোসেন, মাছ চাষী ও জমির মালিক, মাতারবাড়ি, চট্টগ্রাম।

MARKET FORCES



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170 ACRES OF LAND IS BEING ACQUIRED FOR THE LNG TERMINAL. WE'VE BEEN PUT ON NOTICE ON 6 SEPTEMBER 2022 TO RELOCATE, BUT NO DISCUSSIONS [WITH THE COMMUNITY] HAVE TAKEN PLACE BEFORE OR AFTER.

— NOMAN, LAND OWNER, MATARBARI, CHATTOGRAM.

“১৭০ একর জমি নেওয়া হয়েছে LNG টার্মিনাল এর জন্য। আমাদের ৪ ধারার নোটিস দেয়া হয়েছে ৬/৯/২২ তারিখে, কিন্তু নোটিস দেবার আগে বা পরে কোন আলোচনা করা হয়নি।”
- নোমান, জমির মালিক, মাতারবাড়ি, চট্টগ্রাম।

MARKET FORCES

Risks from air pollution caused by the terminal

Bangladesh is the world's most polluted country according to both IQAir⁸ and Air Quality Life Index (AQLI),⁹ two leading global air quality monitoring platforms. Bangladesh experiences 73,000 avoidable deaths every year related to the negative health impacts of air pollution from burning fossil fuels.¹⁰ LNG terminals are known to lead to poorer air quality. Air pollutants associated with LNG terminals, such as methane, nitrogen oxides, volatile organic compounds, ozone and particulate matter, “exacerbate the health risks that already face heavily burdened communities”.¹¹

If built, the terminal will also enable the burning of gas in newly built power plants. Burning gas to produce power results in toxic gases and particulate matter which cause premature deaths and other health impacts like chronic bronchitis, cardiovascular disease and asthma.¹² Studies on LNG import in neighbouring India find life cycle emissions intensity is as high as 855 kilograms carbon dioxide equivalent for every megawatt hour of power produced on average.¹³ The LNG build out in Matarbari will lock-in Bangladesh to deadly air-pollution related health impacts for decades.

Climate change posing physical and transitional risks

More than half of Bangladeshis live in areas deemed highly vulnerable to climate impacts.¹⁴ Devastating cyclone Sitrang claimed 36 lives in October 2022, with a million people having to relocate for safety.¹⁵ In a scenario where global warming is limited to 2°C by 2050, the entirety of Matarbari Island is projected to be inundated,¹⁶ demonstrating unacceptable risk to any physical LNG infrastructure.¹⁷

⁸ <https://www.iqair.com/world-most-polluted-countries> accessed 27 January 2021

⁹ <https://aqli.epic.uchicago.edu/country-spotlight/bangladesh/> accessed 27 January 2021

¹⁰ <https://www.pnas.org/content/116/15/7192/tab-figures-data> Lelieveld, J., Klingmüller, K., Pozzer, A., Burnett, R. T., Haines, A., & Ramanathan, V. (2019). Effects of fossil fuel and total anthropogenic emission removal on public health and climate. *Proceedings of the National Academy of Sciences*, 116(15), 7192-7197. Table 1 - Lelieveld et al. (2019) quantify excess mortality and years of life lost (YLL) from air pollution.

¹¹ [Climate and Health Risks of Liquefied Natural Gas” - Physicians for Social Responsibility](#), p7

¹² <https://link.springer.com/article/10.1007/s11356-016-7258-0>; see also: https://energyandcleanair.org/wp/wp-content/uploads/2021/12/SFOC-Air-Quality_Health-Impacts_Gas-Power_.pdf

¹³ <https://pubs.acs.org/doi/10.1021/acs.est.7b05298>

¹⁴

<https://www.strausscenter.org/wp-content/uploads/Country-Brief-Fragility-and-Climate-Risks-in-Bangladesh-2018.pdf>

¹⁵ <https://www.newagebd.net/article/184871/sitrag-exposes-coast-more-to-sea>

¹⁶ <https://coastal.climatecentral.org/>

¹⁷ <https://www.climatelinks.org/resources/climate-risk-profile-bangladesh>

Financial risk of investing in LNG assets

LNG is a volatile and expensive fuel for Bangladesh to rely on for its energy security. Spot LNG prices have almost quadrupled between January 2021 to June 2022.¹⁸ In 2020, well before the global energy crisis hit due to the invasion of Ukraine, Bangladesh cancelled LNG tenders due to high prices.¹⁹ In August 2022, a 3.6 gigawatt LNG to power project was cancelled on the grounds of high LNG prices.²⁰ As of October 2022, the Bangladesh government could not afford to import LNG due to high prices in the spot market.²¹ Even long term forecasts project LNG prices in the Asian market to remain above US\$10 per mmscfd until 2029.²²

According to the Institute for Energy Economics and Financial Analysis, unaffordability of LNG and fuel supply insecurity “may cause new import terminals to go unused, potentially costing billions of dollars in stranded assets.”²³ According to the International Energy Agency’, in the Net Zero Emissions by 2050 (NZE2050) scenario, “there is no further need for additional [LNG] capacity beyond what exists or is under construction.”²⁴ In NZE2050, LNG trade halves by the mid-2030s, before declining sharply to 2050.

Any company seriously considering investing in new LNG infrastructure should consider these risks, as the latest energy analysis and science project major declines in fossil fuel use and heightened risk of stranded fossil fuel assets in the coming decades.

Recommendations

Bangladesh has 100% renewable energy capability²⁵ and according to the government, potential for up to 30 GW of solar energy within 20 years.²⁶

We urge you to reconsider bidding for the terminal given the significant financial, reputational and transitional climate risk.

¹⁸

<https://www.bloomberg.com/news/articles/2022-08-01/global-gas-crunch-leaves-bangladesh-facing-blackouts-until-2026>

¹⁹

<https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/natural-gas/102320-bangladesh-cancels-nov-lng-tender-likely-to-cancel-dec-on-high-prices-offered>

²⁰ <https://en.prothomalo.com/bangladesh/ptkzj7h291>

²¹

<https://thefinancialexpress.com.bd/trade/govt-unable-to-import-spot-gas-for-forex-constraint-1666578488>

²² Asia LNG Spot Price Won't Fall Below \$10 Until 2029: S&P Global Bloomberg Terminal

²³

<https://www.tbsnews.net/bangladesh/energy/unaffordability-lng-may-leave-new-import-terminals-redundant-jeefa-477866>

²⁴ <https://www.iea.org/reports/world-energy-outlook-2022> p383

²⁵ <https://www.uts.edu.au/sites/default/files/2019-08/Bangladesh%20Report-2019-8-17.pdf>

²⁶ <https://thediplomat.com/2022/06/behind-bangladeshs-carbon-catastrophe/>