CPD's Recommendations for the National Budget FY2023

Fiscal Measures to Support Green Transition for the Power Sector

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1. Introduction

Green fiscal policies are an important component of attempts to address global concerns and transition to an inclusive green economy. Such policies can assist in achieving the Paris Agreement by reflecting externalities in prices, aligning government expenditures with environmental goals, and boosting revenues (UN Environment Programme, 2022). Reaching global climate commitments requires a huge amount of investment. In the energy sector alone, about United States Dollar (USD) 3.1-5.8 trillion is required per year till 2050 to reach net-zero (Lenaerts, Tagliapietra, & Wolff, 2022). Removing fossil fuel subsidies has the potential to raise about USD 2.9 trillion annually (UN Environment Programme, 2022), and thus can contribute to the investment required to attain global goals.

As a party to the Paris Agreement, Bangladesh committed through its updated Nationally Determined Contribution (NDC) to reduce 27.56 Mt CO2e GHG emissions from the Business as Usual (BAU) level by 2030 in the unconditional scenario. In the conditional scenario, the country proposed reducing another 61.9 Mt CO2e GHG emissions in addition to the unconditional scenario which is subject to external support (Ministry of Environment, Forest and Climate Change, 2021). According to the update NDC of Bangladesh USD14.9 billion and USD21.6 billion are required to deliver unconditional and conditional commitment respectively. To achieve those GHG emission reduction targets in the power sector, Bangladesh needs to implement a variety of tax and regulatory measures.

There are not many fiscal measures to support the green transition in Bangladesh. Only a few tax benefits and green funds are now available for promoting green energy within the power sector. The *Renewable Energy Policy 2008* introduced a 15 per cent VAT exemption on all renewable energy equipment and related raw materials for producing renewable energy back in 2008. However, currently, VAT exemption only exists for the import and production of photovoltaic cells, solar modules, solar panels, and the production of solar batteries up to 60 amperes (as per SRO No. 141-Act/121/138-VAT). The policy has a provision for exemption of corporate income tax for companies producing renewable energy for 5 years, which can be extended after the end of the period. Two Bangladesh Bank funds currently support the green energy transition in Bangladesh: Refinance Scheme for bank and financial institutions, and Green Transformation Fund (GTF) for export-oriented industries (Bangladesh Bank, 2020).

2. Recommendations

Bangladesh can consider the following fiscal tools to promote the green energy transition in the power sector:

- **VAT Exemption:** The government should fully implement the commitments which it made in the *Renewable Energy Policy 2008.* Currently, VAT exemption exists on solar panels and batteries, but there are no exemptions on solar inverters which are a crucial component of solar power plants. Moreover, the import duty on inverters (HS 85044090) was raised by 37 per cent in the last budget of FY2022 (Begum, 2022). An extensive policy that considers VAT exemption on all types of equipment in a renewable power plant, especially solar power plants, should be considered from FY2023.

- **Incentive Tariff:** An incentive tariff can be considered for electricity generated from renewables according to the *Renewable Energy Policy 2008*, which allows electricity generated from renewable sources to be priced 10 per cent higher than the highest purchase price of electricity generated from fossil fuel sources.
- **Carbon Tax:** It is about time that Bangladesh started implementing a carbon tax as per its target in its 8th Five Year Plan. In the plan, the country has set a target to collect 5 per cent of its fuel price with carbon tax by 2025 and 15 per cent by 2041 (Bangladesh Planning Commission, 2020). It can bring two benefits for Bangladesh: (a) it will be a negative incentive for fossil fuel-based power generations, and (b) the revenue collected from the tax can be utilised for the development of green energy in Bangladesh. Bangladesh has the potential to raise about 1 per cent of GDP by charging USD 30 per ton of CO2 equivalent (World Bank, 2022). The tax can be levied upstream (at the import level, or on producers) to make it easier to implement for Bangladesh (World Bank, 2022). Bangladesh can identify a few products in the beginning: can start with only the petroleum products as Bangladesh Petroleum Corporation (BPC) has been operating without subsidy since the fiscal year 2015-16 (Finance Division, 2021); probably not on LNG as the country is already paying a lot for the import of LNG, currently which is about 11 times higher than the IOC production in the country (Moazzem & Fahad, 2022). Bangladesh can start a carbon tax as low as USD 1 (BDT 86) per ton of CO2 in the next fiscal year. In the long-term, the country can increase it and make it a revenue stream to fuel green power development. Ahmed and Khondker (2018) found that a carbon tax for oil products in Bangladesh would reduce a substantial amount of CO2 emissions and will also yield revenues. According to them, those revenues could be utilised to invest in clean technologies and infrastructures that will help offset the loss of output from carbon taxes (Ahmed & Khondker, 2018).
- **Gradual Phase-out of Fossil Fuel Subsidies:** The government should strongly consider implementing the directives given by the Primary Minister in gradual phasing out of subsidies from the power and energy sector. During FY2016-2017, the power sector subsidy was 56 Billion Taka, last fiscal year (FY2020-2021) it was 117 Billion Taka (USD 2.3 Billion) which could reach as high as 200 Billion Taka in the current fiscal year (FY2021-2022) (Rahman, 2022). It is to be noted that Indonesia removed fossil fuel subsidies following a global price hike in late 2014, ending up saving USD 15.6 Billon in 2015 that the country used for social development projects (International Institute for Sustainable Development, 2022). Bangladesh can also redirect their fossil fuel subsidies to the development of green energy. This can be a long-term solution for Bangladesh as the current situation isn't ideal for Bangladesh to remove fossil fuel subsidies.
- **Renegotiate Contractual Arrangements for Capacity Payment to Independent Power Producers (IPP):** Excessive electricity capacity payment is causing a huge expenditure burden on the government agency, the BPDB. Consequently, BPDB has been saddled with significant losses (BDT 43.52 Billion in FY2020; BDT 86.64 Billion in FY2021). To reduce the subsidy pressure in the power sector, the government should instruct the Ministry of Power Energy and Mineral Resources (MoPEMR) to renegotiate the contracts as regards capacity payment negotiated earlier with the independent power producers. The GoB should instruct the MoPEMR not to sign any new contracts or renew the contract in the power sector with provisions for capacity payment.

- **Feed-in tariff:** A formal feed-in tariff policy exclusively for renewable energy needs to be implemented in FY2023 to promote renewable energy in Bangladesh. Currently, an informal version of the feed-in tariff policy exists in Bangladesh. However, such a mechanism does not exclusively promote renewable energy. A clear incentive package has to be present in the policy so that it reaches all types of potential renewable energy producers regardless of their generation capacity.

References

Ahmed, S., & Khondker, B. (2018). *Towards a Carbon Tax in Bangladesh.*

Bangladesh Bank. (2020). *Sustainable Finance Policy for Bank and Financial Institutions .* Dhaka.

Bangladesh Planning Commission. (2020). *8th Five Year Plan.* Dhaka.

Begum, F. (2022, April 11). *Rooftop solar power and regulatory issues*. Retrieved from The Financial Express: https://thefinancialexpress.com.bd/views/rooftop-solar-power-and-regulatory-issues-1640965205

Finance Division. (2020). *Bangladesh Climate Fiscal Framework .* Dhaka.

Finance Division. (2021). *Bangladesh Economic Review 2021.* Dhaka.

International Institute for Sustainable Development. (2022, April 07). *Indonesia Uses Savings from Fossil Fuel Subsidy Reform to Finance Development*. Retrieved from IISD: https://www.iisd.org/articles/press-release/indonesia-uses-savings-fossil-fuel-subsidy-reform-finance-development

Lenaerts, K., Tagliapietra, S., & Wolff, G. (2022, April 07). *How much investment do we need to reach net zero?* Retrieved from Bruegel Blog: https://www.bruegel.org/2021/08/how-much-investment-do-we-need-to-reach-net-zero/

Ministry of Environment, Forest and Climate Change. (2021). *Nationally Determined Cobntributions (NDCs).* Dhaka. Retrieved December 24, 2021, from https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Bangladesh%20First/NDC_submission_20210826revised.pdf

Moazzem, K., & Fahad, A. (2022, April 10). *Gas-LNG Debate in Energy Supply.* Retrieved from CPD Power and Energy Study: https://cpd.org.bd/wp-content/uploads/2022/02/Presentation_Gas-LNG-Debate-in-Energy-Supply_final.pdf

Rahman, M. (2022, April 09). *The Financial Express*. Retrieved from Bangladesh's power subsidy to hit Tk 200b: https://thefinancialexpress.com.bd/national/bangladeshs-power-subsidy-to-hit-tk-200b-1637116485#:~:text=State%20subsidy%20on%20power%20poses,%2Dprice%20spiral%2C%20BPDB%20fears.

UN Environment Programme. (2022, April 07). *Green Fiscal Policy*. Retrieved from UN Environment Programme: https://www.unep.org/explore-topics/green-economy/what-we-do/economic-and-fiscal-policy/green-fiscal-policy

World Bank. (2022, April 10). *Policy Note on: Options for a carbon tax in Bangladesh.* Retrieved from World Bank: https://documents1.worldbank.org/curated/en/721381535709573696/pdf/Carbon-Taxation-in-Bangladesh.pdf