

Putting a price tag on climate change

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The reality of climate change and energy policy are at odds in Bangladesh. The delta resides on low, arable land and is accordingly, highly susceptible to climate change. Under the latest Paris Accord of 2015, Bangladesh has made several commitments to reduce CO₂ [carbon dioxide] emissions though the government continues to heavily subsidise fossil fuels. A whopping 98.6 percent of electricity is produced burning fossil fuels, which release CO₂, directly causing climate change.

BURNING FOSSIL FUELS

As is the case in most countries, the main source of CO₂ emissions in Bangladesh is from burning fossil fuels by the power sector. Between 1970 to 2016, CO₂ emissions in Bangladesh grew at an annual average rate of 7.2 percent. In the latter years of this period (between 2004 and 2016), CO₂ emissions grew even more rapidly—at a rate of 9.2 percent annually. 44 percent of these carbon emissions are attributed to the power sector. Emissions from transport also grew annually, doubling its share in total

of energy production, massively scaled up.

These are the facts; Bangladesh is extremely vulnerable to climate change. Yet the government continues to heavily subsidise natural gas and fuel oil, providing an incentive for excessive consumption of fossil fuels. The goal and actions are contradictory. A session on carbon tax at a leading think tank in Bangladesh, the Policy Research Institute, corroborates, "These fossil fuel pricing policies are inconsistent with CO₂ reduction objective. This is a fundamental contradiction in environmental management in Bangladesh that must be addressed soon."

CARBON TAX TO CORRECT OUR CONTRADICTIONS

The government can put a price on carbon emissions, essentially a carbon tax, to correct this. Policymakers can use tools from the market system to impose a fee on the burning of carbon-based fuels. The policy would create a monetary disincentive to burning fuels that directly or indirectly release greenhouse gases and using renewable energy becomes economically rewarding. A profit can also be made from producing energy from alternative and non-emitting sources that do not incur such taxes. People or corporations are incentivised to produce lower carbon energy.

To move towards a carbon tax in Bangladesh, policymakers can draw from India's experience where the tax was introduced in stages. Initially, a tax was placed on domestic coal in 2010 and later broadened to include petrol and then, diesel. The rates were gradually adjusted to avoid shocks and to accustom taxpayers to the change. This approach is pragmatic—it would introduce the tax without it opposing or interfering with other policy objectives initially, especially in the production of natural gas. For an emerging economy, electricity generation will undoubtedly take priority and the government will not risk increasing costs. Taxation on kerosene may disproportionately affect the poor. Therefore, starting with a tax on petrol and diesel can be a more feasible approach.

Like many initiatives that raise costs, there may be resistance to more taxation. As of 2015, some 16 countries had introduced a carbon tax and some of their

experiences can be used as examples. One example that demonstrates the benefit of a carbon tax was just recently in the news. The Canadian government introduced a carbon tax on provinces that did not already have such taxes on October 23, 2018. Prime Minister Justin Trudeau aptly stated, "Starting next year, it will no longer be free to pollute anywhere in Canada". At \$10 of tax on each tonne, it will bring in USD 1.8 billion this year. 90 percent of that revenue will be rebated to the citizens as yearly "climate action incentive" payments. This tax system in Canada is net progressive. In fact, it will serve mostly as a net financial boost because around 70 percent of citizens will get more in rebates than they pay in taxes. There is a global push for carbon taxation, also reflected by the choice of winners of the Nobel Prize in Economic Sciences this year—Paul Romer whose work on climate change and technological innovation models directly support carbon taxation.

SOME ISSUES WITH A CARBON TAX

If there is a tax on gasoline and diesel, there will be a short-term negative effect on services that use these fuels intensively. Employment may temporarily dip in those sectors—however, the output and employment losses will only be temporary. It will be offset with the substitution of clean fuel and clean technology. Policymakers need to take into account the effect on income distribution in a country with high inequality. A carbon tax, by default, can act regressively. This can be countered by using the tax revenue to benefit low-income groups by reducing the taxes. Monitoring and learning from the Canadian experience that attempts to counter the regressive tendencies of a carbon tax is necessary.

Critics of this taxation will also cite the difficulty in calculating the price of carbon pollution. Adequate knowledge transfer will address this issue. It is even more difficult to get the buy-in of the private sector, who are focused on growth. Such policies will be ornamental without an integrated, economy-wide approach. Bangladesh's climate policy must not be limited to a carbon tax. There needs to be a comprehensive plan of complementary policies and the buy-in of the private sector. The plan should include increasing the amount generated from renewable, non-carbon emitting energy. Since stories of micro grids and solar panel permeating villages are highlighted, it feels like we are well on our way to sustainability. However, the reality is far from that as the amount of electricity produced using renewable energy is at a negligible 1.4 percent.

Most importantly, we need to eliminate the fuel oil subsidy at the pump gate through proper pricing policy. The carbon tax is a step towards making progressive changes to Bangladesh's climate policy and preparing for the future.

Local data and analysis have been collected from 'Towards A Carbon Tax' presentation by Dr. Sadiq Ahmed & Dr. Bazlul H. Khondker at Policy Research Institute (PRI).

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carbon emissions to 14 percent in 2016. These trends are a result of the boom in urbanisation and industrialisation in recent years. Any resident of urban centres can attest to increasing congestion, construction and with it, the use of electricity. As the economy grows, future emissions will increase and industrial production will have a more prominent role in emitting CO₂.

GLOBAL COMMITMENTS

The future seems bleak, with long-term effects on our country. In a landmark report published on October 7 last year, a UN panel of scientists (who pooled more than 6,000 scientific publications) stressed on the urgency of setting and meeting a goal of limiting the rise in temperatures to 1.5°C. Global warming above this will lead to mass property damage and loss of lives. To stay under 1.5°C, the world would have to reduce greenhouse gas emissions by 45 percent below 2010 levels, by 2030. We cannot pull this off in 11 years unless carbon dioxide is drastically reduced and all other cleaner alternatives

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