India’s net zero commitment at COP26 and coal sector commercialization: A Strategic Road ahead

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Abstract

The linkages between climate change and conflict are receiving growing attention in already fragile social and political systems. At the COP26 Summit in Glasgow, the fossil fuel dependent Indian economy committed to be carbon neutral by 2050 without mentioning the interventions for coal sector whereas the fact is that the country needs to brace for a paradigm shift to meet the 1.5°C target. In 2015, with the amendment of the CMSP (Coal Mines Special Provisions) Act, the ministry of coal initiated the process of commercialization of coal mines. Currently, 55% of the country’s energy depends on this strategic fuel. The demand for coal in the power sector is expected to grow by 5% annually. Due to the rising demand for coal as a primary source of energy for the industrial and manufacturing sectors, the commercialization of coal blocks will have serious inter-sectoral impact on Indian economy, especially on the power sector. Currently, 55% of the country’s energy depends on this strategic fuel. The demand for coal in the power sector is expected to grow by 5% annually. Due to the rising demand for coal as a primary source of energy for the industrial and manufacturing sector, coal demand will increase by an even higher percentage. Coal will continue to be the strategic resource in India due to the limited availability of petroleum & natural gas, nuclear power, eco-conservation restriction on hydel and renewable energy projects. Therefore, the national development plan reinforces the need to integrate coal commercialization through the formulation of a Green Growth policy.

Introduction

At the COP26 Summit in Glasgow, the fossil fuel dependent Indian economy committed to be carbon neutral by 2050 without mentioning the interventions for coal sector whereas the fact is that the country needs to brace for a paradigm shift to meet the 1.5°C target. The announcement is ambitious however no mention of the strategies for ‘phasing out’ of coal, not even for unabated coal, is not directing the country towards low carbon trajectory.

The government had decided to open up coal mining for private players in 2020, the government added, “This (monopoly on coal mining in India) has suffocated our potential. We are introducing commercial coal mining. It will ensure that more coal is available in the market, and we are not dependent on other countries for our coal requirements.”

Since coal is crucially linked with a number of industrial and service sectors, the commercialization of coal blocks will have serious inter-sectoral impact on Indian economy, especially on the power sector. Currently, 55% of the country’s energy depends on this strategic fuel. The demand for coal in the power sector is expected to grow by 5% annually. Due to the rising demand for coal as a primary source of energy for the industrial and manufacturing sector, coal demand will increase by an even higher percentage. Coal will continue to be the strategic resource in India due to the limited availability of petroleum & natural gas, nuclear power, eco-conservation restriction on hydel and renewable energy projects.

Findings

Recently in India, private sector firms were allowed to mine coal for their own use ( captive mining) in cement, steel, power, and aluminium sector. In 2015, with the amendment of the CMSP (Coal Mines Special Provisions) Act, the ministry of coal initiated the process of commercialization of coal mines.

The first trend of commercialization is supposed to be complete within 2020. Under the act, the bidders are expected to share 4-15% of their revenue from coal mining with the government. The government will reinvest this revenue-share for developing the existing and abandoned coal mines. According to the recent announcement, the government is planning to invest Rs. 50,000 crores (US$ 7.09 billion) in infrastructure development with special focus on the CIL’s enhanced target of 1 billion tonnes of coal production by 2023-24 and coal production from private blocks. This is to enhance competition, transparency, and productivity after the economic loss due to lockdown.

The next issue is generation of profit from the ailing coal mines, given the environmental and ecological regulations in India, irrespective of regulated price or market price. Even if they manage to make profits, there is the mandatory transfer of 4-15% of revenue share to the government. There is a high chance that revenue maximizing firms will under-report and evade the revenue share. So, commercialization should consider the alternative methods of generating hefty revenue as well as evasion penalties. There could be higher chances of violating the environmental restriction of coal extraction and supply. Another crucial aspect is the willingness to purchase coal by manufacturing and industrial units with an upward revision in coal price. They may choose to buy coal from neighboring countries if the revised price is not appropriate in India.

Conclusion

Most importantly, the methodology of the commercialization should consider the dynamic inter-sectoral issues to propose more comprehensive strategic reform for coal blocks in India. For instance, in India, 80% of power generation is based on coal, and therefore, restructuring and reformation of coal suppliers will have a direct effect on the power sector. To make this commercialization a profitable venture, private entities have to increase coal price. An increase in coal price will increase the financial burden on the power sector, which is already financially depressed. As a way out of the financial burden, the power sector may either increase the electricity price, or restructure the sector by further commercialization. If the government chooses neither, it has to determine an optimal percentage of profit that is supposed to transfer from private entities of coal bidders so that the same amount could be transferred to the power sector for restructuring as well as compensation for sick coal blocks. The decision-makers also should take into account the public-private-social interests to determine this optimum percentage share of the revenue from coal bidders.

Projected carbon emissions from fossil fuels and amounts in the ground

Objective and methodology

Because of economic growth and a strong increase in global energy demand the demand for fossil fuels and therefore also greenhouse gas emissions are increasing, although climate policy should lead to the opposite effect. The coal market is of special relevance as coal is available in India and often the first choice to meet energy demand. In this paper we assess possible interactions between climate policies and the commercialization of coal market. Possible market adjustments between demand regions through market effects are investigated with a qualitative assessment of the commercialization measures. We investigate the direct causation on the power sector in the backdrop of climate policy and market constraints. We find that market adjustment effects in the coal market can have significant positive and negative impacts on the effectiveness of climate policies.

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