The Energy Dynamics of CPEC in China-Pakistan Relations

The all-weather friendship between China and Pakistan reached new heights when the two countries decided to collaborate on China-Pakistan Economic Corridor (CPEC). CPEC is a part of China’s One Belt One Road (OBOR) project which is a large investment project with close to $1 trillion invested across the globe. Some have even termed it as the revival of China’s ancient Silk Road. The $46 billion CPEC stretches from Xinjiang province of China to the port of Gwadar in Pakistan. This mega corridor has two infrastructure subparts, transportation, and energy. With $33 billion out of the total expected to be invested in power generation projects, energy assumes an important role in CPEC to the extent that it can be called the China-Pakistan Energy Corridor.

For China, the energy component of CPEC brings two significant benefits to its economy. The first benefit is that it opens a new trade route for its oil supplies from Central Asia. Oil is the second largest source of total energy consumption in China accounting for nearly 20%. China consumed 10.7 million barrels of oil per day (bbl/d) in 2014 which is expected to rise by about 2.6% annually to 20 million bbl/d in 2040, according to US Energy Information Administration. Imports meet more than 50% of its total oil requirement. By the first quarter of 2014, China had become the largest global net importer of oil, surpassing the United States. A significant increase in US shale oil production and rapid growth in domestic oil demand were the main reasons for this. Almost 80% of China’s total oil imports are currently transported from Strait of Malacca to Shanghai. This distance is roughly 16,000 kilometer and takes 2 to 3 months. With Gwadar in Pakistan becoming operational as a part of CPEC, the oil route can be reduced substantially to less than 5,000 kilometers. China plans to build oil storage facilities and a refinery at Gwadar Port, to facilitate transportation of oil via road and pipeline to mainland China through its Xinjiang region.

The second big benefit of CPEC to China is that it will help in shifting use of coal for power generation out of its national boundary. At present, coal accounts for roughly 70% of the total energy consumption in China. The country aims to cap domestic coal consumption at 4.1 billion metric tons by 2020 and move towards cleaner fuels. According to the energy sector’s five-year
plan released by National Development and Reform Commission (NDRC), by 2020 the share of coal in energy will be brought down to less than 58 percent in total energy consumption.

Reducing the share of coal is not an easy goal for China given its abundant coal reserves. The country has the highest production of coal in the world amounting to 2537 million tons, as per BP Statistics. It suffers from a grave overcapacity in coal production which has created large stock build-ups. One reason for this is that the demand for coal comes from the economic zones in the South-Eastern part of the country while most coal production zones are in North and North West China. High transportation cost of moving coal within the mainland makes imported coal more economically attractive for coastal areas creating regional imbalances in coal supply and demand. The government cognizant of this imbalance has framed several regulations to curb overcapacity. For instance, in Shaanxi province which is one of the biggest coal production areas of China, it has been decided to cut 20 million tons of coal capacity in 2017. Similarly, the Xinjiang province will shut down 117 small coal mines this year. With limited opportunities for using coal in the country, Chinese companies have been looking for growth opportunities abroad. According to the Coal Swarm Global Coal Plant Tracker, at the end of 2015 China became the largest funder of new coal power projects globally.

With this background, if one looks at the energy source of prioritized early harvest projects of CPEC; one finds that Chinese investment in Pakistan is heavily skewed towards coal as can be seen from Table 1. The description of these coal power plants mention that they will use imported coal from China. For China, these coal power plants of Pakistan provide a durable solution to the problem of domestic coal oversupply. Additionally, as coal power plants are a primary source of ambient air pollution shifting coal outside the country will help China in easing some of its air pollution concerns. It will also contribute to reducing the carbon emission intensity of its GDP.

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<th>Table 1 : Energy Source of the Prioritized Early Harvest Projects</th>
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<td>MW</td>
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On the face of it, OBOR has been hailed as a “green” initiative by China. China’s Ministry of Environment (MOE) published a “BRI Ecological and Environmental Protection Cooperation Plan” which details how China will assist the development of a global decarbonized energy future through a “green” BRI strategy. However, this plan sets very weak, non-quantifiable targets which indicate that the “Green” band is more cosmetic than a true driver of BRI’s investment priorities, according a report by Bloomberg New Energy Finance.

For Pakistan, the CPEC will directly address its domestic energy crisis. Pakistan faces an average shortfall of electricity of 4000 MW to 7000 MW per year. Chronic power shortage, in the form of load-shedding and power outages, costs the economy as much as 7 percent of GDP. Of the 21 agreements on energy, 14 of the early harvest projects will be able to provide up to 10,400 megawatts (MW) of energy. China’s competitiveness in high voltage direct current (HDVC) long distance transmission infrastructure will also be a boon for Pakistan. As a part of CPEC, an 878-kilometre long 4,000MW transmission line will be constructed for power dispersal from southern Pakistan to Lahore and Faisalabad in the North. Along with the direct benefits of boosting power supply, indirectly the construction and maintenance value chain of the energy related investments will create additional income and jobs in the economy through various multiplier effects.

Thus, there are mutual gains to both parties from this corridor. China also organized the Belt and Road Initiative (B&RI) forum last month which saw the participation of 110 official delegations and 29 heads of state including six of India’s neighbors (Pakistan, Sri Lanka, Nepal, Bangladesh, Myanmar and Afghanistan). India skipped the forum in protest as the CPEC includes several projects that are in Pakistan-occupied Kashmir. Only time will tell how China and Pakistan will engage with India on this initiative.

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Disclaimer: The views expressed in this blog are those of the author. They do not represent the views of NITI Aayog.