

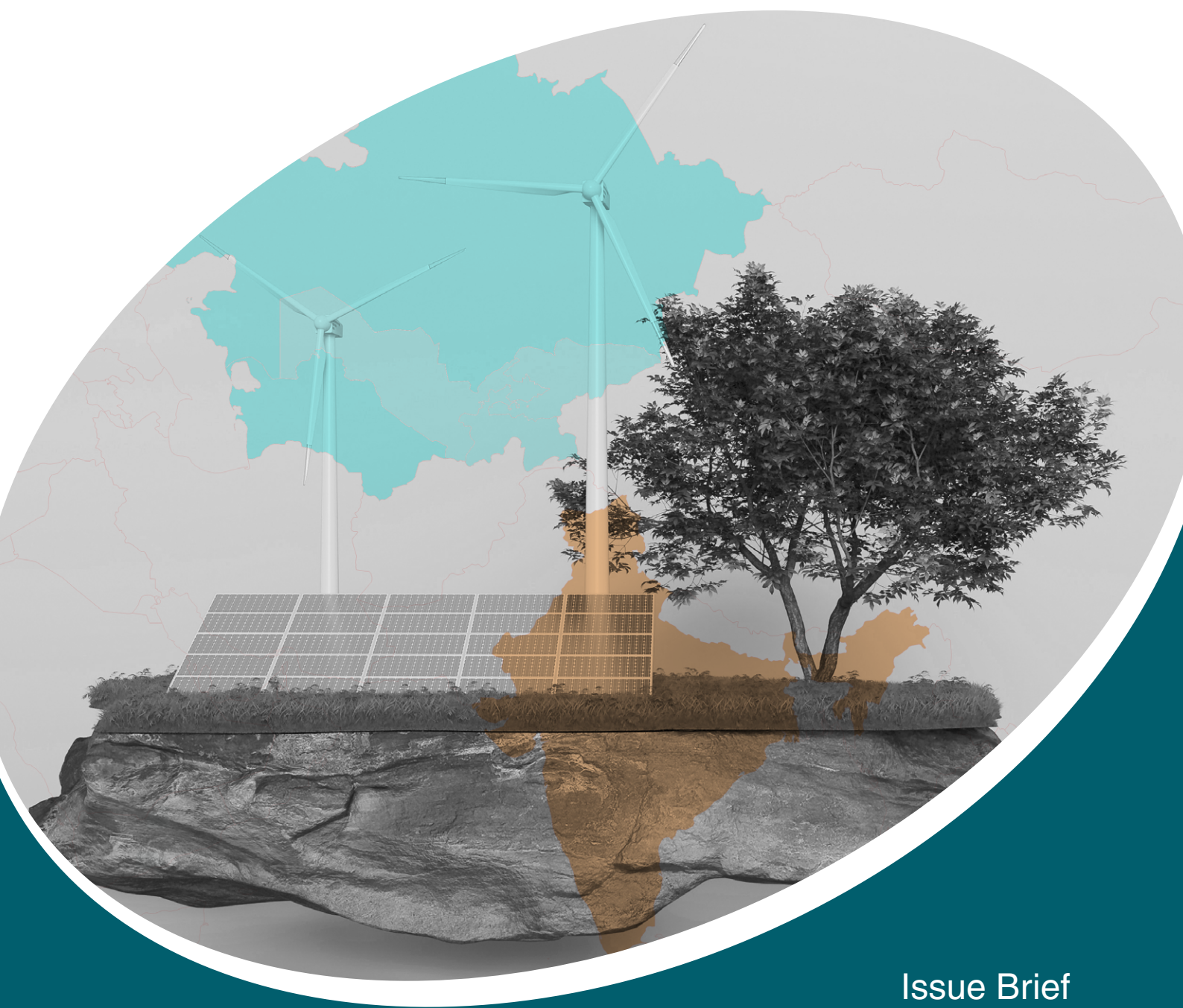


India-Central Asia Energy Relations:

Prospects and Barriers

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| Mihir Vikrant Kaulgud



Issue Brief

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ISSUE BRIEF

India-Central Asia Energy Relations: Prospects and Barriers

| Mihir Vikrant Kaulgud

ABSTRACT

Central Asian countries hold strategic and geoeconomic significance for India, especially for energy cooperation. This issue brief critically examines the prospects of the India-Central Asia energy trade. The existing literature highlights two limitations regarding this trade. First is the limited connectivity to the region, and second is the presence of great powers like the US, Russia, and China. This issue brief argues that Central Asia's decaying Soviet-era energy infrastructure is another important limitation. The Indian government and scholars ignore this limitation because they focus too narrowly on Central Asian energy reserves. Existing connectivity projects, like the TAPI pipeline or the INSTC corridor, would only connect India to Central Asia's doorstep. They do not address India's dependency on Soviet-era pipelines to be further connected to Kazakhstan and Uzbekistan, its key regional energy partners. Therefore, a flourishing energy partnership with Central Asia becomes difficult given the region's limited energy system. To materialise India's energy ambitions in the region, policymakers must also account for the infrastructure that would allow Central Asian energy to be efficiently extracted and transported to India.

Keywords: India, Central Asia, Energy, EnergyTrade, Connect Central Asia, Connectivity

INTRODUCTION: TAKING OFF FROM COP26

Following the Soviet Union's dissolution, the five Central Asian States [CASs—Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan—were formed. The year 2022 marks 30 years of India's diplomatic relationships with the independent CASs. However, relations between India and the CASs have remained tepid until recently (Economist Intelligence Unit [EIU], 2019). When the CASs were first formed, India offered credit to Uzbekistan, Kazakhstan, and Tajikistan (Singh, 1995) as development assistance. India also offered technical training and consulting for construction ventures (Ibid.). However, India did not follow up on these initial connections with the region, given its lack of economic or political assertiveness (Stobdan, 2020). In 2012, India adopted the Connect Central Asia policy, articulating its cooperating strategy with the region (Ministry of External Affairs, 2012). However, Narendra Modi's visit to all five CASs in 2015 initiated a significant growth in India-Central Asia relations. During this visit, 21 agreements were signed to enhance defence, trade, and energy links (Economist Intelligence Unit, 2019). More recently, the third India-Central Asia Dialogue at the Foreign Ministers' Level was held in December 2021 in New Delhi (Ministry of External Affairs, 2022). It served as a platform for exchanging views on issues of mutual strategic interest. Prime Minister Narendra Modi hosted the first India-Central Asia Summit on January 27, 2022, inviting the five countries' Presidents. According to the Indian Ministry of External Affairs (2022), the Summit "is a reflection of India's growing engagement with the Central Asian countries." It testifies to the importance of "a comprehensive and enduring India-Central Asia partnership" for the Indian and Central Asian leaders (Ibid.).

There are two key pillars of India's growing engagement with the CASs. The first is defence and security. The CASs and India are concerned with the security situation in Afghanistan affecting regional stability. The main objectives are to prevent the potential spillover of Islamic extremism into the mostly Islamic CASs and to combat drug trafficking networks (Campbell, 2013). The second pillar is economic and commercial interests. The two most prominent sectors are energy exports from Central Asia to India and India's investments in capacity building within the CASs (Joshi, 2010; pp. 13-14).

This issue brief focuses on the energy dimension of India-Central Asia relations. It argues that Central Asia's vast energy resources and India's growing energy demand combine to form India's aspirations of expanding energy relations with the region. These aspirations fall under the economic opportunities India is keen to pursue in Central Asia. The issue brief argues that the Indian government and scholars are focused quite narrowly on the energy reserves, i.e., stocks of different resources like natural gas and uranium. Due to their narrow focus, they do not account sufficiently for the energy infrastructure within Central Asia, namely pipelines that would allow energy sources to be efficiently extracted and transported to India. Even the scholars who note limited connectivity as a challenge ignore the decaying Soviet-era infrastructure servicing Central Asia. The issue brief argues that taking this infrastructure adds another limitation to consider when evaluating whether India can materialise its ambitions vis-a-vis Central Asian energy reserves. In doing so, the issue brief reveals the limitations of proposed connectivity projects like the INSTC or the TAPI pipeline.

CENTRAL ASIA’S ENERGY RESERVES

Central Asia is rich in energy resources in terms of hydrocarbons and renewable energy. Much of the energy resources remained untapped during the Soviet era. Following the Soviet Union’s end, Central Asia gained significance for its energy potential (Lone, 2017). However, these energy resources are not evenly distributed across the CASs. Kazakhstan, Turkmenistan, and Uzbekistan have a substantial amount of hydrocarbons— coal, oil, and natural gas. Central Asia is home to an estimated 4% of the world’s natural gas reserves and approximately 3% of oil reserves (Ibid.). Hydrocarbons are found both on-shore and off-shore in the Caspian Sea (Ibid.).

Figure 1: Available Energy Resources by Country



Resources	Kazakhstan	Kyrgyzstan	Tajikstan	Uzbeakistan	Turkmenistan
Coal (bt)	31.3	0.9	3.6	3.3	-
Natural Gas (tcm)	2.4	0.006	0.006	1.8	7.5
Oil (bb)	30	0.04	0.01	0.594	0.6
Hydro (GW)	20	26	50	1.7	-

bt = billion tons,
 tcm = trillion cubic meters,
 bb = billion barrels,
 MW = megawatts.

Source: Mehta et al. (2021)

Coal and oil are primarily found in Kazakhstan (Malik & Jan, 2016). Crude oil reserves and production have not been significant enough for the energy market. Coal is a valuable asset for local energy needs. It does not feature in exports because it is bulky and relatively low in value. However, it serves to free up natural gas assets for exporting. Natural gas reserves are spread across Turkmenistan, Uzbekistan, and Kazakhstan. The region also holds uranium and the potential for its enrichment, which is necessary for nuclear power. Kazakhstan and Uzbekistan are major uranium producers. Together, they produce 20% of the world's uranium ore. Central Asia is also rich in cobalt, an essential mineral for wind power and lithium-ion batteries crucial for electric vehicles and storing solar power (Vakulchuk & Overland, 2021). Tajikistan and Kyrgyzstan have immense potential for generating hydroelectricity (Campbell, 2013). Therefore, the region also holds considerable strategic importance in terms of both traditional energy sources and transitioning from hydrocarbon-based energy production to renewables.

INDIA'S INTEREST IN CENTRAL ASIAN ENERGY RESERVES

The first India-Central Asia Summit in January 2022 included a Round-Table on Energy and Connectivity, reflecting India's top priorities in the region besides security. According to a report by the International Energy Agency [IEA], India's energy demand has doubled since 2000 (IEA 2021). It is expected to increase exponentially with growth in population and the economy. Between 2021 and 2040, India will see the largest increase in energy demand of any country (Ibid.). The report also mentions the dependence on imports, especially regarding oil and gas, since domestic production has not kept pace with the growing demand. Natural gas imports have risen to 50% of the total demand in 2021. India's dependence on imported crude oil has been rising, and currently stands at around 75%. Kothari (2020) writes that India's primary interest is increasing its energy partnership with Central Asia to meet its growing energy demands. Stobdan (2020, p. 261) also writes that Central Asia's "hydrocarbon riches offered alluring possibilities of meeting India's thirst for energy – a reason why India always placed high priority for getting a toehold in Central Asia ever since the countries of the region had gained independence following the Soviet collapse."

Furthermore, from an energy security perspective, India not only wants to guarantee energy sources but also diversify its import sources and reduce dependence on a few select producers. Besides hydrocarbons, the region could be tapped as a source of uranium for India's civilian nuclear programme. Tajikistan and Kyrgyzstan can also export hydroelectricity and the surplus generated.

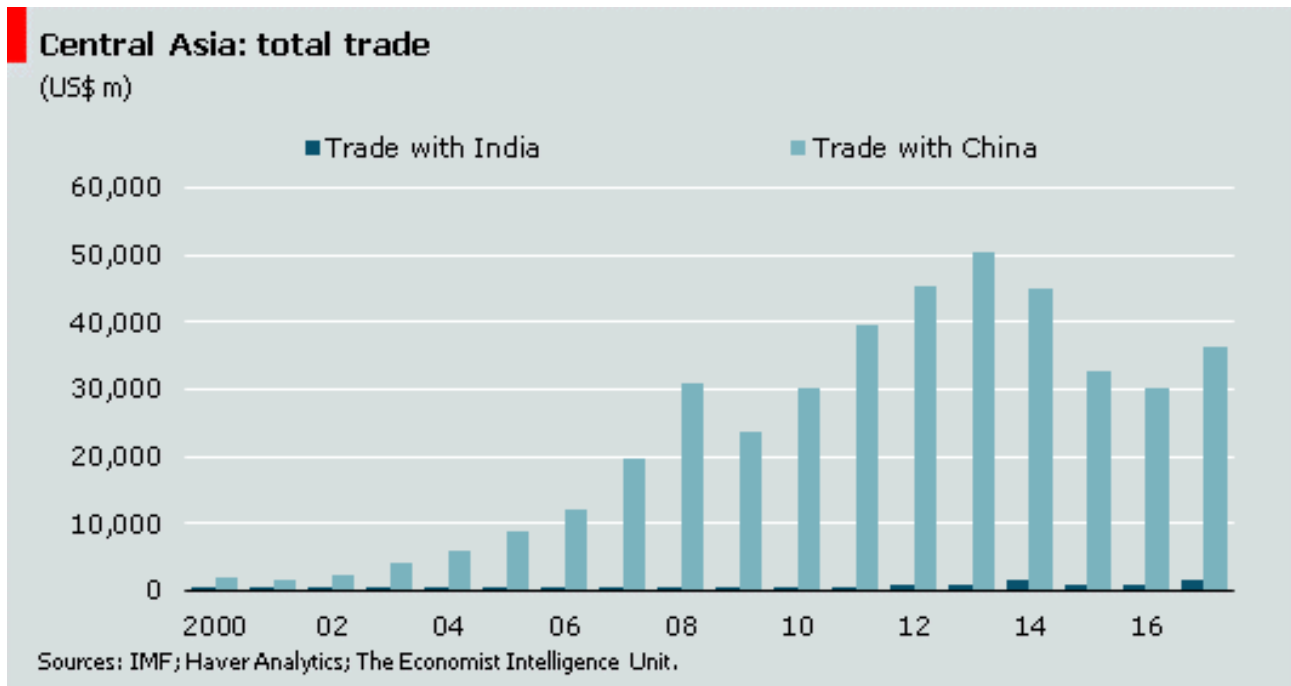
India's key energy partner in the region is Kazakhstan. As India's largest trade partner in Central Asia, it accounted for 70% of India's total trade with the entire region in 2017-2018. There have been significant steps towards energy cooperation between the two countries. In January 2009, India's ONGC Mittal Energy Limited [OMEL] and KazMunaiGaz [KMG] signed an agreement to explore the Satpayev oil block in the Caspian Sea. Drilling operations began on 7 July 2015. Furthermore, an MOU exists between the National Company KazAtomProm and the Nuclear Power Corporation of India Limited for uranium supply to India under a civil nuclear cooperation agreement.

LIMITATIONS TO AN INDIA-CENTRAL ASIA ENERGY PARTNERSHIP

An often ignored crucial limitation is the energy infrastructure within Central Asia itself. The energy infrastructure in Central Asia is a legacy of the Soviet Union. During the Soviet Era, the energy sector was centralised for the whole region across all the Central Asian Soviet Republics under the ‘United Energy System of Central Asia.’ The industrialisation and electrification of the region were undertaken during Soviet times. The pipelines were either meant for regional use (in case of gas) or export to present-day Russia and Ukraine (in case of oil) (Asian Development Bank [ADB], 2010). Many of these same pipelines continue to be used today. By current standards, they are outdated and decaying. They are neither affordable nor reliable (Mehta et al., 2021). For instance, it is estimated that 70% of power generation infrastructure in Kazakhstan requires rehabilitation (Central Asia Regional Economic Cooperation Program, 2016).

Moreover, nearly 65% of power sector infrastructure is more than 20 years old, while 31% of the equipment is more than 30 years old (Ibid.). Turkmenistan and Uzbekistan also rely on Soviet-era ‘vintage’ pipelines to export gas, mostly leading to the Russian Federation or other countries of the former Soviet Union (ADB, 2010). Hydropower is also a legacy of the United Energy System of Central Asia. The hydropower “transmission system was built as a regional electric power grid to export hydropower from the Kyrgyz Republic and Tajikistan to the rest of the region and allow power interchange among all the countries” (Ibid., p. 56). Without pipeline networks, gas and hydropower will remain ‘stranded.’ If these resources are stranded, they will not have a lot of export value, no matter how plentiful they are. Because of old infrastructure, CASs are experiencing electricity shortages, despite having many energy resources (Pannier, 2021).

Analyses of India’s potential to establish energy linkages with Central Asia focus on two significant limitations (Jacob, 2022; Stobdan, 2020; EIU, 2019). The first one is connectivity to the region. Several analysts agree that poor connectivity is a significant barrier to India expanding its foothold in Central Asia (Joshi, 2010; Stobdan, 2020; Kothari, 2020; Jacob, 2022; Jha, 2016; Kurbanov & Khoshimova, 2022). India and Central Asia have no direct land or sea connection. Several methods have been tabled. The most promising is the International North-South Transport Corridor, which would use the Chabahar and Bandar Abbas ports in Iran to access Central Asia and beyond. The second challenge is that China’s established presence in Central Asia makes India seem like a latecomer to the region. China is already competing with extra-regional powers like Russia in what has been called “The New Great Game” of vying to increase influence in the region (Jackson, 2020; Stronski & Ng, 2018; Jha, 2018). Despite being superseded by China economically, Russia still plays the dominant security role in the region. Russia remains “an important factor for India’s accessibility to Central Asian energy and atomic fuel reserves” (Stobdan, 2020, p. 268). China became the biggest investor in the region with the Belt and Road Initiative [BRI]. It has successfully deployed the Central Asia-China Gas Pipeline [CAGP] and the Kazakhstan-China oil pipeline to import Central Asian oil and gas. China holds a territorial advantage of sharing a land connection with Central Asia. With its significantly larger investment capacity and its effective BRI strategy, China has arguably solved the issue of decaying Central Asian infrastructure. It has built multiple pipelines and demonstrated an ability to funnel money and sway governments to upgrade the domestic infrastructure as needed. Figure 2 illustrates China’s unquestionable upper hand over India. India will find it challenging to respond to China’s entrenched competitive advantage in the region.

Figure 2: Central Asia: Total Trade with India and China

Source: EIU (2019)

Discussions of limited connectivity tacitly adopt the Indian government's narrow focus on Central Asian energy reserves. This narrow focus stipulates that India only needs to establish a connection between itself and Central Asia to tap its energy reserves. This perspective assumes that connection to the closest node in the Central Asian energy system would be India's 'gateway' to the other energy reserves. For example, the Turkmenistan-Afghanistan-Pakistan-India [TAPI] pipeline is one way in which a modern pipeline would connect India and Central Asia (Wani, 2020, pp. 22-23). The TAPI pipeline directly links India to the Galkynysh gas fields in Turkmenistan. It extends neither to Uzbekistan nor Kazakhstan, India's largest energy partner in the region. With the Taliban's consolidation of power in Afghanistan, and India-Pakistan relations remaining tense, the TAPI pipeline coming to fruition seems uncertain at best. Even if the TAPI pipeline becomes functional, India would still depend on the dilapidated Soviet infrastructure to connect it to Kazakh and Uzbek energy reserves. Therefore, Central Asia's internal energy infrastructure challenge is still not addressed. The International North-South Transport Corridor [INSTC] also does not address this issue. It assumes that Central Asian energy can efficiently and reliably make it to Iranian ports for export to India.

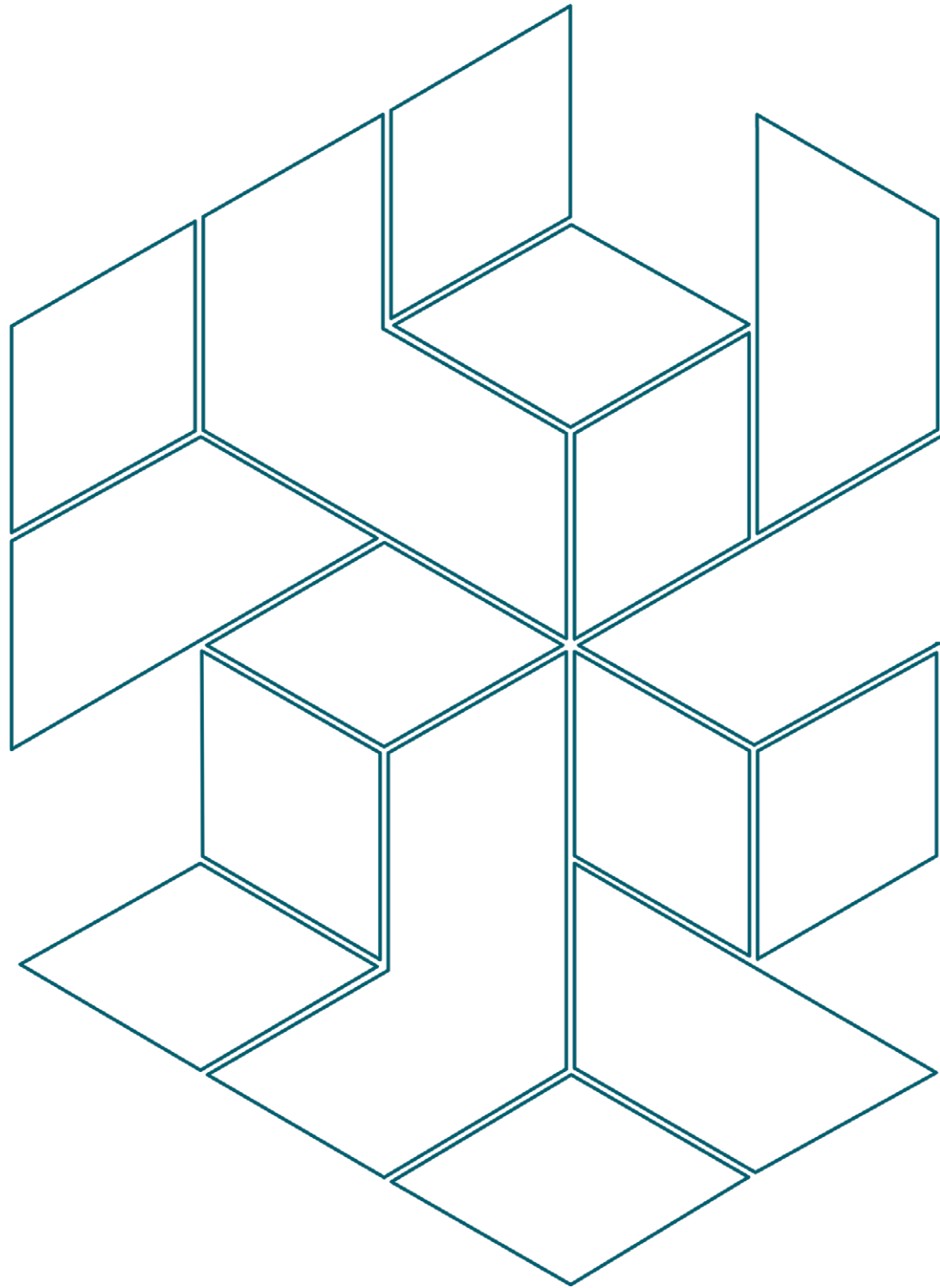
Many commentators have doubts about the concrete manifestations of India's overtures toward Central Asia and the alleged potential this region holds for economic benefit. The EIU claims that other than opportunities for trade and investment, India's growing engagement with Central Asia is partly to display a response to China's BRI initiative (EIU, 2019). Another contention is that India's efforts to engage with the region and assert itself as an influential player are "more aspirational than actual" and that the "discursive activity by far exceeds the reality of bilateral relationships" (Campbell, 2013, p. 10). Happymon Jacob (2022) strikes a somewhat balanced tone when he writes that India is relatively irrelevant in the region. However, "the disadvantages of non-engagement could be costly in the longer run" (Ibid.).

Central Asia's Soviet-era energy infrastructure barrier only adds to these commentators' doubts. Indian scholars and policymakers must account for the Central Asian energy system and its lingering Soviet legacy before touting the immense potential the Central Asian region has for transporting energy. The root of this issue is that the focus is quite narrowly on the energy reserves. However, to form effective economic and trade linkages with Central Asia based on energy, analysts must also account for the infrastructure that allows energy sources to be efficiently extracted and transported. India's energy policy toward Central Asia will not progress well without a holistic approach. It will only perpetuate the discursive importance of the region without concrete actions. Perhaps this indicates that India should look elsewhere, or within, for reliable energy sources, including renewables. It can also continue to nurture its relationship with Central Asia. However, it should adopt a realist perspective instead of triumphalism, which acknowledges that a flourishing energy partnership with the region is still some ways away.

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