# Chapter-10
# India-China Energy Cooperation

**Dr. Pandurang Sudamrao Dabhade**
Assistant Professor
Department of Economics
V.N. Patil Law College, N3 Cidco, Chhtrapati Sambhajinagar.
**Email:** rjdabhade2013@gmail.com

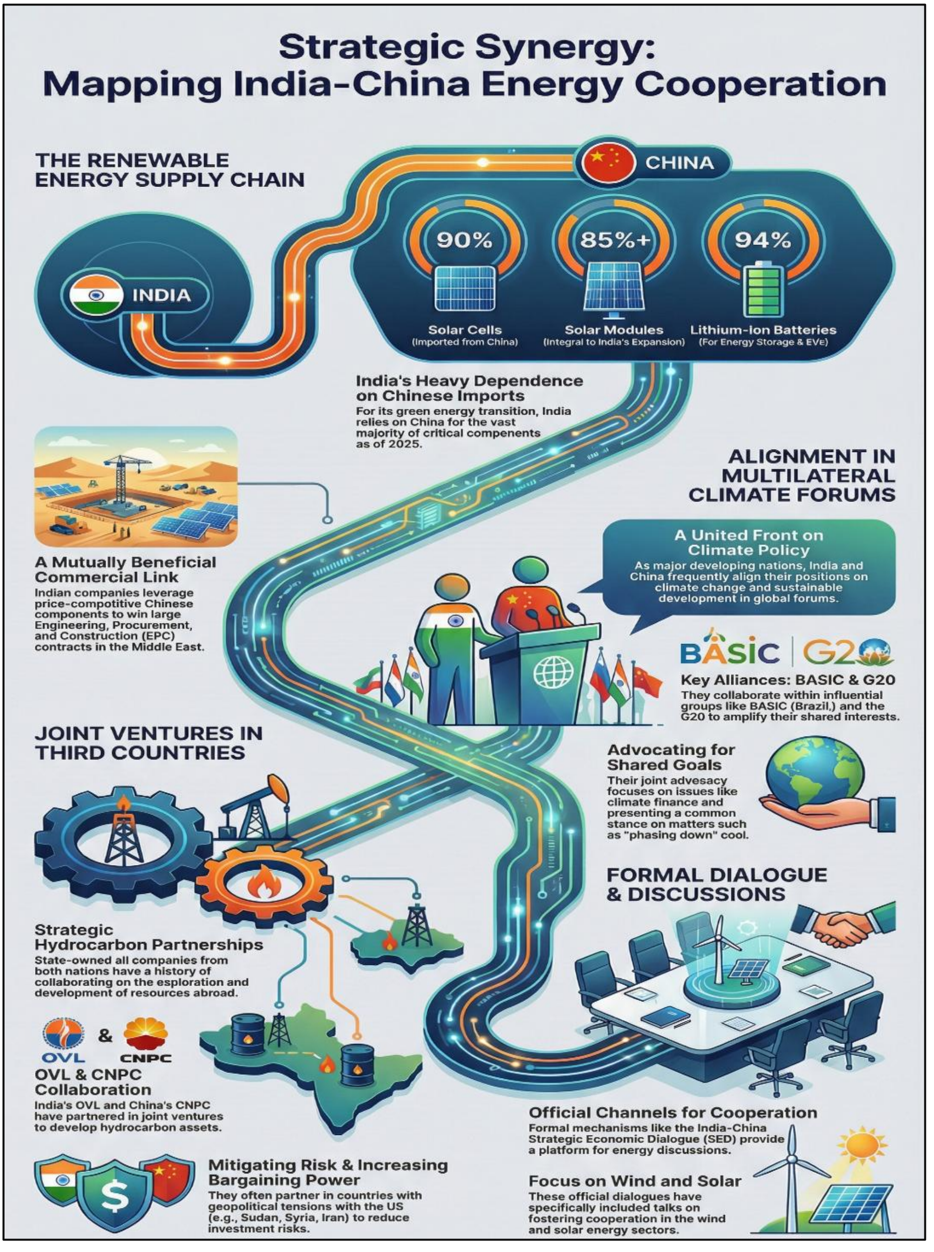
**Abstract**:

China and India significantly drive the increasing global energy demand. Given energy's central role in geopolitics, both nations face complex energy security challenges shaped by the political landscape. This paper examines China's and India's trade relationships across various global regions. A notable development in India-China energy cooperation involves the joint bid by India's Oil and Natural Gas Corporation (ONGC) and the China National Petroleum Corporation (CNPC) for Petro-Canada's Syrian assets. In September of this year, Petro-Canada signaled its intention to divest its 38 percent stake in the Al Furat field, which yields roughly 70,000 barrels of oil per day, constituting half of Syria's total oil production. This marks the first instance of Indian and Chinese firms collaborating to secure interests in an international energy venture. Since 2004, Indian firms have encountered competition from Chinese firms in overseas bidding endeavors, with India losing to China in three separate instances when vying for hydrocarbon assets abroad. The first instance occurred in Angola, where India bid for Shell's 50 percent stake in Angola's Block 18 field. As part of its $600 million offer, India pledged $200 million to aid Angola's railway construction project. However, China surpassed this bid with a $2 billion offer. The bidding rivalry resurfaced when India sought to acquire Petrokazakhstan, a Canadian oil firm operating in Kazakhstan. In this case, China again secured the deal by offering $4.2 billion to Petrokhazakhstan, exceeding India's $3.9 billion offer. The third instance involved India's energy interests in Ecuador, where India and China competed for Encana's stakes, with China ultimately emerging as the victor.

**Keyword:** China, Energy Cooperation, India, India-China Relations

## Introduction:

The growing demand for hydrocarbon resources suggests that both countries are competing for the same suppliers, with Saudi Arabia, Iran, and Russia being primary targets. They're also eyeing the untapped potential of Central Asian resources. Intense competition for these limited resources could be detrimental, escalating tensions and driving up prices. As Mani Shankar Aiyar, the former Petroleum Minister, pointed out, both sides are keen to avoid "mindless rivalry."While opinions on India-China relations vary, most analysts tend to downplay the possibility of energy cooperation. Many believe that shared energy interests will inevitably lead to competition and conflict. However, to understand the potential for unhealthy competition, these perceptions must be viewed in a broader context. The historical experience of the 1962 conflict and China's military alignment with Pakistan largely inform these conclusions. These perceptions are significant when defining and addressing any major issue between the two countries. However, bidding wars and outbidding situations should be viewed strictly from a commercial perspective, rather than as signs of political rivalry.




The Angola experience made it clear to both sides that greater collaboration was needed for future international energy exploration. This realization spurred bilateral meetings and exchange visits. In August 2005, a high-ranking team, led by Mr. Talmiz Ahmed, traveled to China, and another high-level visit was planned for mid-January 2006, primarily to explore potential avenues for cooperation. Collaboration between these two nations has the potential to significantly reshape the global energy market. First, by pooling financial and technological resources, a joint venture would create a major state-backed bilateral energy initiative, directly addressing the energy security concerns of two of the world's largest energy consumers. Second, other countries heavily reliant on imports might be encouraged to form similar joint ventures, or an Asian regional initiative could emerge, spearheaded by India and China. Third, this collaboration could negatively impact energy producers hoping to capitalize on competition between India and China. Many energy analysts have observed Russia and Bangladesh attempting to exploit this rivalry. For instance, both India and China have expressed interest in acquiring a 20 per cent stake in Yuganskneftgaz (a Yukos subsidiary taken over by the Russian government). Bangladesh also hopes to benefit from the India-China competition for natural gas. Despite India's closer proximity, Bangladesh has shown interest in exporting natural gas to China to strengthen its negotiating position. Such tactics by producers would be harder to sustain if India and China jointly pursue energy exploration. Fourth, joint efforts could potentially lower the value of equity stakes, as it has been observed that China tends to pay considerably higher prices for overseas equity purchases due to competitive bidding. Given the critical importance of energy security in today's world and the ever-increasing energy demands of both India and China, closer cooperation and collaboration in their pursuit of energy resources would be mutually advantageous. Key areas for potential cooperation include: Most global energy exploration and development projects demand significant capital investment and advanced technology. Collaborative efforts between the two nations, combining their financial resources and technological expertise, could lead to enhanced resource production. Hydrocarbon transportation routes (oil and gas pipelines) represent another promising area for collaboration, enabling them to transport energy through the most direct routes, minimizing investment costs. Considering China's reliance on the Indian Ocean sea lanes for the majority of its hydrocarbon imports, cooperation with India to ensure supply security would be of paramount importance.

India's Sakhalin gas production shares could be exchanged for Chinese supplies from the Middle East, reducing transportation distances and costs for both countries. Finally, India and China could potentially bring together other energy-importing nations in the Asia-Pacific region. This unified front could then address the issue of rising energy costs and advocate for the elimination of the Asian premium on oil exports to the region. India's Petroleum Minister, Mani Shankar Aiyar, suggested that collaboration between India and China could lead to the creation of a pipeline network. This network would tap into the energy resources of Russia, Central Asia, and the Middle East, potentially evolving into a central hub for energy supply to other Asia-Pacific countries in the future. Moreover, with investments in renewable and nuclear energy expected to increase in the region, initiatives aimed at fostering 'Asia-Pacific cooperation' in these areas could greatly assist member states in meeting their growing energy demands.

**Objective:**

- Study of India's Energy Cooperation with China.
- Study of India and China Relations with Global Perspectives.

**China's Energy Security**

China was traditionally self-sufficient with its oil reserves, but since 1993 it has been a net oil importer. China's rapid economic growth has led to a dramatic increase in energy consumption which has raised great concern regarding its energy security. In addition, its stagnantly domestic production has also led to a growing hunger for imported oil. Whole volumes have been written about what energy security means for China.

**China's Energy Supply**

China possesses considerable coal reserves but faces limitations in oil and natural gas resources. By the end of 2017, China's proven oil reserves amounted to 2.57 billion barrels, making up 1.5 percent of the world's total. The R/P ratio stood at 18.3, lower than the global average of 50. China's oil production experienced a 3.8 percent decrease, settling at 3,846 thousand barrels per day, which is 4.2 percent of the world's total. Oil consumption reached 14,277 thousand barrels daily, accounting for 14.5% of global oil consumption. China's total proven natural gas reserve is 5.5 trillion cubic meters, equivalent to 2.8% of the world's total, and the R/P ratio was 36.7 until 2017. In 2017, natural gas consumption saw a substantial 26% increase, reaching 26.58 billion cubic meters, or 7.3% of the global total. The same year, natural gas imports totaled 9.2 billion cubic meters. China's proven coal reserves are 138,819 million tons, accounting for 13.4% of the world's total, with an R/P ratio of just 39. Finally, coal consumption in mainland China was 1938 million tons of oil equivalent, showing a modest growth rate of 0.5%.

**China's Energy Consumption**

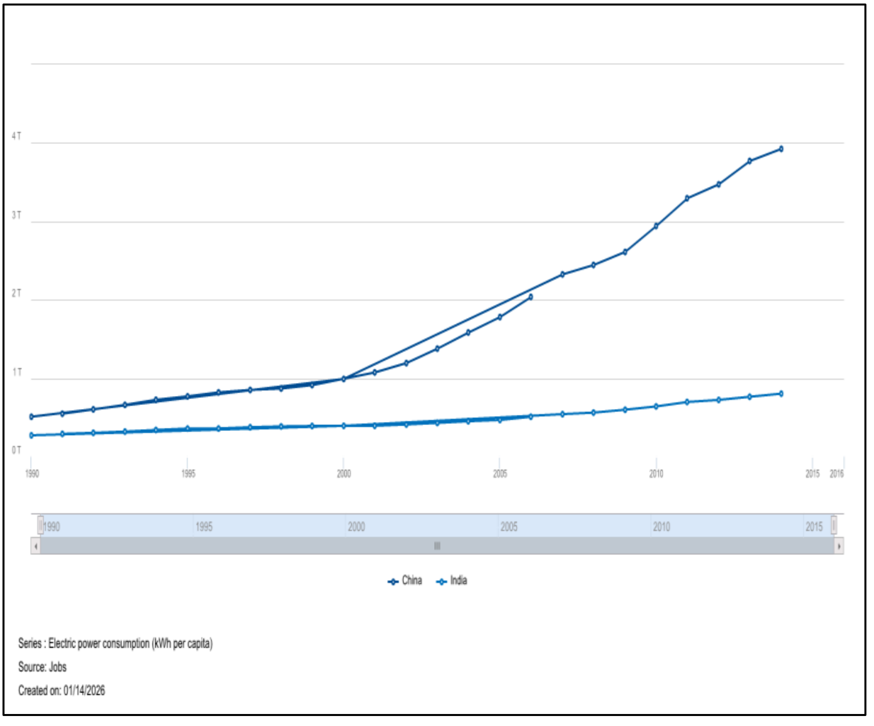
The focal point of global energy consumption has shifted from traditional Western countries to the Asia-Pacific region. Many developed nations in Europe and the United States have entered the post-industrialization era. In recent years, the growth in energy consumption demand in OECD countries has slowed, leading to a decrease in their global share. Data from the International Energy Agency (IEA) reveals that total energy demand in OECD countries experienced a 0.3% decline in 2015 compared to 2014, and an annual reduction of 0.3% from 2005 to 2015, falling from 61% in 1971. Within this, the United States accounted for 16 percent, a drop of 13% from 29% in 1971. The surge in global energy demand is primarily driven by rapidly growing emerging economies, with China and India contributing half of this growth. China's energy consumption rose by 4.4 percent in 2016 and 3.1 percent in 2017. Although the increase was slight, it peaked at 3132 million tons of oil equivalent, holding the top position globally with a substantial proportion of 23%. China's total energy consumption has increased significantly, but the consumption structure is imbalanced. Oil constitutes 20.70% of total consumption, natural gas only 7.00%, and new energy a mere 3.30%.

Coal, a traditional energy source for China, accounted for 59.10% of total consumption, although its rate has been declining over the past decades.

**India's Energy Supply**

India currently holds the position of the fourth-largest energy consumer, accounting for approximately 5.6% of global primary energy consumption. The nation consumes 4690 thousand barrels of oil daily, covering 4.8% of the global energy market. The figure for natural gas is 54.2 billion cubic meters daily, representing 1.5% of the global energy market. According to the BP energy report in 2017, the demand gap for oil reached 154.6 million tons, indicating that 70%-80% of oil could not be supplied without increasing its imports. The figure for natural gas is 22.5 billion cubic meters, with 30%-40% dependent on imports.

**India and China's Energy Per Capita Consumption**




Source: https://data.worldbank.org

**Data and Methodology**

Data Energy import data, sourced from BP Statistics and World's Top Exports, provides information on the significance of different countries in their trade relationship with China and India. China and India share seven countries among their top 10 crude oil importing countries: Saudi Arabia, Angola, Iraq, Iran, Kuwait, Venezuela, and the United States. However, Russia's role differs greatly between the two countries. Russia is the top crude oil exporter to China but ranks only 15th for India. In 2018, 90.6% of China's crude oil imports came from the top 15 exporters; the figure is 93.2% for India. The top five exporters accounted for 54% of China's crude oil imports and 66% of India's.

Therefore, China's crude oil sources are more diversified. It is worth noting that the US, which exported very little crude oil to China and India in 2014, has become a major exporter to both. For natural gas imports, the overlap is relatively small; China and India share only two major importing countries: Australia and Qatar. Furthermore, India imports no natural gas via pipelines.

**Methodology**

This study uses a model to quantitatively examine China and India's energy trading relationships with various regions of the world. It also uses current events as references to conduct case studies on how political situations can affect China and India's energy security.

China and India together accounted for nearly 87 per cent of the world's proposed coal-based power projects in the first half of 2025, according to a new analysis. The findings highlight how the global energy transition is being pulled in two opposing directions: while many countries are phasing out coal, Asia's two biggest economies are still expanding it alongside renewables.

**India and China account for 87% of new coal power proposals in 2025.**

Together, China and India proposed almost 88% of new global coal power capacity in early 2025. China added 21 GW of new coal capacity in six months, the most in almost a decade. India commissioned 5.1 GW of new coal plants, with 92 GW of proposals in the pipeline. Both countries are quickly expanding renewables, but still view coal as vital for energy security. The report, released by Carbon Brief and based on data from the Global Energy Monitor's (GEM) Global Coal Plant Tracker, shows that between January and June this year, China proposed 74.7 gigawatts (GW) of new coal capacity and India 12.8 GW. By contrast, only about 11 GW of new projects were proposed across the rest of the world combined. The analysis suggests that while China and India continue to add record amounts of solar and wind energy, they are also increasing their reliance on coal for energy security and industrial demand, complicating the global pathway to meeting climate goals.

**China's increase in coal proposals**

The report notes that almost all new coal-fired plants commissioned or for which construction

started in the first half of 2025 were concentrated in Asia, with China leading. The country brought online 21 GW of coal capacity in six months, the highest level in nine years. If this rate continues, total additions could reach 80 GW by the end of the year, the largest since 2016. This increase, analysts say, results from China's energy crisis in 2021-22, which led policymakers to prioritise coal to prevent shortages. However, the report also points out that despite the construction boom, coal use did not rise proportionally. China's carbon dioxide emissions fell by about 1 per cent in the first half of 2025, thanks to rapid growth in renewables including solar, wind and hydropower. Many of the new coal plants are effectively being built as standby capacity, designed to run only during periods of peak demand.

**India's "dual track" strategy**

India presents a different situation. By March 2025, renewable energy capacity in the country had surpassed 220 GW, a milestone that reinforces its 2030 target of 500 GW. Yet coal remains central to India's power mix, supplying around 70 per cent of electricity generation. The Carbon Brief analysis shows that India plans to add around 90 GW of coal capacity in the next seven years, roughly 60 per cent more than earlier targets. In the first half of this year, India commissioned 5.1 GW of new coal plants, compared with 4.2 GW in the same period last year. Following record proposals in 2024, total proposed capacity reached 92 GW by July 2025. Coal plant retirements, meanwhile, have been slow: just 0.8 GW were shut down this year. Delays in enforcing pollution control rules, including sulphur dioxide emission standards, are further extending the lifespan of ageing plants. This dual track, or heavy investment in renewables alongside continued reliance on coal, has led to India being described as moving on "two parallel paths" in the energy transition.

**Global division in coal's future**

The trends in China and India contrast sharply with other regions. In Europe, coal is on its way out, with Ireland shutting its last coal plant in June 2025 and many EU countries planning complete phase-outs between 2029 and 2033. In Latin America, the report finds that new coal proposals have almost disappeared, effectively signaling the end of coal's future in the region. This divergence poses a major challenge for the Paris Agreement target of limiting warming to 1.5°C. Achieving that goal requires halting all new coal development, but the latest data show that Asia's biggest economies are extending coal's life.

**Energy security vs climate goals**

The report stresses that China and India's strategies are not driven simply by a desire to "burn more carbon", but by domestic priorities. For China, coal provides a safeguard against shortages, while in India it remains the backbone for base load electricity and industrial growth. Both countries are simultaneously scaling up renewables, China by adding dozens of gigawatts of wind and solar every year and India by accelerating large-scale solar and wind projects. Yet the parallel growth of renewables and coal underlines a complicated reality: the energy transition in the world's two largest developing economies is anything but linear. Their choices in the next decade will profoundly shape not only their own emissions trajectories, but also the global chances of meeting climate goals.

**Conclusion:**

India and China might consider cooperating in the area of 'tar sand' exploration or gas hydrate exploration, since these sources may become very important as future major energy sources. Further exploration of potential cooperation between India and China is warranted, as more mutually beneficial areas likely exist. The perceived competition between the two countries is unlikely to materialize for many reasons. They have been collaborating for decades to resolve past political and territorial disagreements. Consequently, neither can afford to encourage new disagreements or allow existing irritants to persist in the years ahead. Furthermore, there are additional challenges, such as the threat of US sanctions related to investments in Iran, where political and economic cooperation is essential for both countries to ensure energy supply. The benefits resulting from energy cooperation between the two Asian giants far outweigh those of competition. Joint Initiatives for Regional Development and Connectivity: India should explore regional cooperation initiatives with China that focus on infrastructure development and connectivity, particularly in South Asia. By engaging in mutually beneficial projects like cross-border transport corridors, energy grids, and clean energy partnerships, India can capitalize on China's expertise and funding while preserving strategic autonomy.

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