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# A Comparative Analysis of Factors Affecting the Chinese and Indian Oil Policies in the Middle East

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**ABSTRACT**

As a region rich in oil and gas resources, low energy prices, and a unique geopolitical position, the Middle East has been the focus of global attention, particularly for economic powers such as China and India. Due to the wide gap between energy supply and demand, especially for oil, the two countries have developed a special diplomacy for their energy supplies. Understanding the oil policies of Beijing and New Delhi as the main actors in the energy market of the Middle East is paramount for the leading oil-producing countries. By conducting a comparative analysis of the Delhi–Beijing oil policies in the Middle East, the present article will ask how domestic, regional, and international variables affect the Chinese and Indian oil policies in this region. The authors have compared the following critical variables in answer to this question: the legal structure and decision-making process, self-sufficiency levels, the geopolitical position toward the Middle East, oil diplomacy, the role of technology, and the international economic-political position of the two countries. Our findings show that the Beijing government has formulated its oil policy using a single, specific decision-making body in the energy sector. It has relied on expanding multilateral ties with other countries, long-term investments, long-term loans, expanding energy transfer pipelines, and long-term contracts to deepen its relations with oil-rich countries, particularly those in West Asia. On the other hand, India has based its diplomacy on short-term economic contracts, situation analysis, and needs assessment. It is, however, clear that both countries will continue to depend on oil from the Middle East in the medium term despite the threat of US sanctions.

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## 1. Introduction

Today, China and India have emerged as the two new economic powers, acting respectively as the second and fifth largest economies on the global markets. The two countries account for 21% and 26% of the overall global wealth, playing an irreplaceable role in the international political economy (IPE). New Delhi and Beijing make up more than half of Asia's gross domestic product (GDP) (Statistics Times, 2021). Hence, given their fast economic growth and large populations, both countries face vulnerabilities in energy security. The fast pace of economic growth always makes it challenging to strike the right balance between supply and demand. Although both countries have adopted new policies to diversify their energy supplies, the gap in supply and demand makes them increasingly dependent on oil. As a result, energy security is now on the foreign policy agenda of Delhi and Beijing. Recognizing the global energy security system is achieved only with the participation of India and China. Thus, for China and India, energy security is currently defined by their ability to adapt quickly to global markets.

As a region rich in oil and gas resources, low energy prices, and a unique geopolitical position in oil transportation, the Middle East has been the focus of global attention, particularly for economic powers such as China and India. This is why both countries have taken great strides by adopting unique tools, approaches, and policies to ensure their regional energy interests and security. Accordingly, the present research has conducted a comparative analysis of the Delhi–Beijing oil policies in the Middle East to answer how domestic, regional, and international variables affect the Chinese and Indian oil policies in this region. To this end, the following key variables have been compared to answer this question: the legal structure and decision-making process, self-sufficiency levels, the geopolitical position toward the Middle East, oil diplomacy, the role of technology, and the international economic-political position of the two countries. The findings of the article show that the Beijing government has formulated its oil policy using a single, specific decision-making body in the energy sector. It has relied on expanding multilateral ties with other countries, long-term investments, long-term loans, expanding energy transfer pipelines, and long-term contracts to expand its relations with oil-rich countries, particularly those in West Asia. On the other hand, India has based its diplomacy on short-term economic contracts, situation analysis, and needs assessment.

In this study, the legal structure of the two countries in the energy sector is examined first; next, the extent of their self-sufficiency or reliance on oil and their geopolitical position in the Middle East is scrutinized. Then, their oil diplomacy, macroeconomic strategies, and role on the international stage will be elucidated. Finally, efforts will be made to summarize the similarities and differences between their oil policies.

## 2. Literature review

The first source out of several mentioned is "China's Energy Strategy in the MENA Region (Besada and Slam, 2018). This paper delves into China's energy strategy in the Middle East and North Africa, focusing on Saudi Arabia and Iran. They believe that the Beijing government is seeking secure oil supplies and long-term participation in these countries with its extensive presence in the area. China is looking for sustainable oil supplies by pursuing a specific strategy to achieve its energy security.

The book China in the Middle East: The Wary Dragon (Scobell and Nader, 2016) examines China's economic, political, and security role in the Middle East. By assessing China's strategy in this region, the present research argues that Saudi Arabia and China are two powerful economic partners seeking security commitments in their relations. Beijing is also interested in maintaining and expanding its ties with Iran despite the US sanctions imposed on this country. Scobell names the efforts of Chinese politicians to create a balance in the Middle East and the pursuit of coherent policies as evidence of the country's attempts to commit itself to West Asia.

In 2007, the Brookings Institution published an extensive report called "India-GCC Relations: Delhi's Strategic Opportunity" (Kadira Pethiyagoda), examining India's policy toward West Asia. According to the author, for an extended period, India had no cohesive strategy toward the Middle East, particularly the Arab states of the Persian Gulf. However, Delhi's growing need for Middle East oil and China's rise to power in the region have forced India to reconsider a coherent policy in West Asia, especially its energy policy, by expanding its multilateral ties with the Persian Gulf states.

In their book India's Energy Future Designing and Implementing a Sustainable Power Mix, Kugelman et al. examined India's energy policy. The book is a collection of works by researchers on India and energy policy. In addition to examining India's existing energy structure,

the authors contemplate the scenarios ahead of Delhi, its growing reliance on oil, and its efforts to become self-sufficient. Apart from considering India's main challenges in the energy sector, like its domestic structure and managing relations with China, the collection of works examines significant developments in Asian energy markets and India's role in the region's geopolitics.

Finally, on the innovative aspect of this research, it must be mentioned that no comparative studies of the China–India oil policies in the Middle East have been carried out in books and articles in recent years. The present paper is a comparative study of the variables affecting the China–India oil strategy in the Middle East from various aspects and examines the similarities and differences between the Beijing and Delhi governments.

## 3. Legal structures and decision-making process

### 3.1. China's legal structure and decision-making process

China has planned its energy policy to achieve comprehensive, balanced, and sustainable economic, social, and environmental growth. It aims to create a secure, efficient, modern energy industry while moving toward clean, renewable energy. The Chinese government's legal framework for the energy sector has been formulated according to a hierarchy of national laws, ministerial regulations, opinions, actions, procedures, and local regulations. It has developed rapidly and efficiently. The country has invested in an infrastructure to organize and develop the performance of the energy sector. This includes electricity, coal, renewables, and energy conservation. The Oil and Natural Gas Pipeline Protection Law of 2010 sets out China's energy policy.

In an unprecedented move, the Chinese government set out its energy policy on a macro level to develop the energy sector over the next 10 to 20 years. The "Four Revolutions and One Cooperation Strategic Vision" was proposed by Xi Jinping in 2014 at the sixth meeting of the financial and economic group of the Communist Party as a turning point to solidify energy security. The new policy is concentrated on key issues, such as promoting the "Energy Consumption Revolution" by diversifying energy supplies, promoting the "Energy Technology Revolution" through industrial upgrades, promoting the "Energy System Revolution" with the rapid development of the energy sector, and full-scale international cooperation to ensure energy security (International Energy Charter, 2018).

Oil and natural gas development projects are managed and controlled by major regulatory agencies, including the National Development and Reform Commission (NDRC) and the National Energy Administration (NEA), through their offices in various provinces and cities. Overall, the state-owned crude oil import market is managed with automatic import licensing without quantitative restrictions. This model of oil policy accounts for 90% of China's total crude oil imports. In contrast, private companies are managed by the Ministry of Commerce with quota licensing. Therefore, the Ministry of Commerce publishes quotas, terms of application, and methods related to crude oil import quotas every year. To this end, China's energy security involves securing energy resources through government intervention in the market. This means that the government plays a crucial role in sustaining economic development, and the state-centered structure of its economy is evidence that the government relies on oil companies to meet its fuel needs (Lee, 2012). As a result, the Beijing government has organized its oil and gas assets into three state-owned companies: China National Petroleum Corporation (CNPC), Sinopec, and China National Offshore Oil Corporation (CNOOC). These state-owned companies dominate domestic and foreign oil activities in the country. The Chinese leaders set the policies of state companies. This allows the government to influence the formulation and implementation of energy policies and restrict the private sector (Elmahly, 2016).

As mentioned above, many oil companies are supervised by governments. Although eligible private entities can apply to the Ministry of Natural Resources (and its local counterparts) for a permit to explore or extract oil resources, they cannot own the resources (Yu, Jing, Shuning, and Paipai, 2021). Thus, China has adopted an integrated energy policy and neo-mercantilist approach to energy security; the government controls oil companies and follows set rules and regulations.

### 3.2. India's legal structure and decision-making process

At the start of the 1990s, India went through a significant shift in economic liberalization and began moving in three main directions following the reforms of this decade. Firstly, it canceled the need to obtain a license to create new capacities while significantly increasing existing ones. This indicated that domestic

private investors could invest in industries that the government previously controlled, including heavy industries, the automotive industry, and other sectors, thereby increasing the potential scope for private investment. Secondly, the industrial reform endeavored to limit the provisions of the laws on Monopolies and Restrictive Trade Practices (MRTP), facilitating the diversity of large companies or companies belonging to large business groups. Furthermore, thirdly, liberalization in the industry included foreign investment regulations (Ghosh, 2004). Hence, economic reforms helped promote investment in the private sector through fiscal integration and oil prices (Mohan, 2014).

Before the economic reforms of the 1990s and the implementation of neoliberal policies in the Indian economy, the government and national companies had a monopoly over the oil and gas sector. In 1999, the government passed the New Exploration Licensing Policy (NELP) bill, according to which land for hydrocarbons was explored through international competitive bidding, and domestic and foreign companies were given equal opportunities.

The government's vision for 2025 in the energy sector includes developing the hydrocarbon sector as a competitive global industry by capacity building and upgrading technology and ensuring oil security through strategic and defense considerations. Companies in the public sector, Oil and Natural Gas Corporation Limited and Oil India Limited are the primary actors and control an estimated 71.5% of production; the other 28.5% is run by private companies (Bhandari and Khaiten, 2020).

As set by the constitution, the regulation of oil fields, mineral oil resources, and oil and petroleum products is the responsibility of parliament which is the central legislature in India. As such, the rights to oil and gas exploration and production have been granted by the government of India to private contractors under the production sharing agreement, specifying the rights and obligations of the parties. This approach has been adopted to reduce the role of the government and grant more concessions to private companies in line with its neoliberal policies. This is why no attempts have been made to integrate energy policies by separate entities that oversee a particular type of energy source. Even ministries stress specific, limited policies rather than long-term, integrated strategies. The realities of domestic policies, socioeconomic concerns, and policymaking procedures have brought the process of building a transparent strategic framework for long-term energy development and exploration abroad to a standstill.

## 4. Self-sufficiency in energy

### 4.1. China's energy self-sufficiency

China is one of the largest energy producers in the world, with a total primary energy production of about 3.5 million tons per year since 2011. In 2017, its energy production increased by 3.6% compared to 2016: raw stone 69.7%, crude oil 7.6%, natural gas 5.4%, and non-fossil fuel 17.3% (International Energy Charter, 2018).

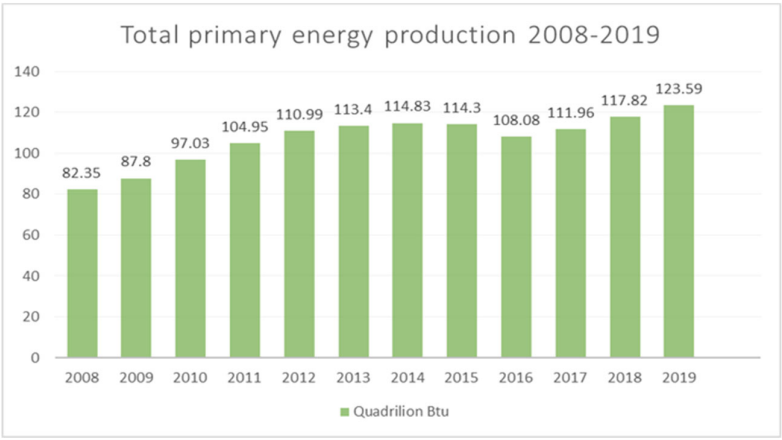


**Figure 1:** China's total primary energy production (2008–2019)

Source: Compiled by authors from Knoema

Proven oil and natural gas resources in China are relatively limited compared to coal, and domestic consumption is not fulfilled by oil and gas production at home. Therefore, China's crude oil production in 2017 was about 190 million tons, showing a drop of about 4.1% compared to the previous year (International Energy Charter, 2018). Due to this drop in domestic production and the rapid growth of refining capacity, China imported an estimated 618 million tons of oil in 2020, showing a rise of 7.4 % compared to 2019 (Huang and Han, 2022). This indicates China's fast-growing need for oil imports. The country continues to experience shortfalls in oil and gas production and feels the need to improve excavation through modern technologies. Based on China's energy consumption over the past decades, experts expect demand by this country to increase over the next 10 years. By 2035, China's primary energy demand will increase from 3 to 4 billion tons of oil and reach a peak by 2040 (Yu, Jing, Shuning, and Paipai, 2021).

### 4.2. India's energy self-sufficiency

It appears that the policy pursued by India for self-sufficiency in energy is along the same lines as China. India's coal supply has been overgrown since the early 2000s and remains the most significant energy and electricity generation source. India is the third largest consumer of oil in the world. Proven oil reserves are limited compared to domestic demand, and India's dependence was estimated at over 80% in 2018. This will increase significantly in the coming decades. Gross oil imports of more than 270 tons, worth $119 billion, account for 25% of India's total imports (Sati, Powell, and Tomar, 2022).

Nevertheless, India's combined imports of fossil fuels will triple over the next two decades. Oil is its most significant variable, reflecting the ongoing risks to India's energy security. Domestic oil and gas production continues to fall short of consumption, and total reliance on oil imports will be over 90% by 2040 compared to the current 75%. This continuous reliance on fuel imports creates vulnerabilities and fluctuations in price cycles, in addition to potential disruptions in supply (IEA, 2021).

## 5. The geopolitical position toward the Middle East

### 5.1. China's geopolitical position toward the Middle East

Relations between China and countries in the Middle East began in 1993, and the region has remained an essential source of energy security ever since. Following the US exit from Afghanistan, the Taliban coming to power in this country, and the reduced role of the region in the US foreign policy and security strategy plans, China has found an opportunity for an agency in this region. This will enable it to attain its strategic goals within the context of energy security. To this end, the Beijing government is trying to consolidate its strategic relations with the regional countries. It has signed comprehensive strategic partnerships with Saudi Arabia, Egypt, Algeria, and the UAE, in addition to a 25-year cooperation program with Tehran, significantly increasing its influence in the Middle East.

China's energy needs are growing rapidly. In 2020, Beijing overtook the US as the largest oil importer, showing a rise of 54% (CEIC, 2020). Almost half of its supply is provided by this region. The main attraction of the countries mentioned above for China lies in their enormous oil reserves, relatively low development of producing countries, lower costs of exploration, excavation, and refining, geographical proximity, and low transportation costs.

It should be noted, however, that China's regional strategy is not limited to oil contracts. Many of its large technology companies are participating in some of the most critical projects in the region, such as Smart Dubai 2012 and the Saudi National Transformation Plan (NPT) 2030. Hence, China exploits the void created to increase its economic influence through oil and gas imports, infrastructure investment, technology transfer, and arms sales. The change in Riyadh–Washington relations has posed a serious challenge to the energy security relationship between the two countries. Hence, Saudi Arabia is looking for a suitable partner and accepts China openly.

Despite this golden opportunity for Beijing, insecure oil and gas transfer through offshore pipelines, repeated price fluctuations in the energy market (International Energy Charter, 2018), regional crises, proxy wars, and ethnic conflicts have pushed China to adopt a new approach to transport safety.

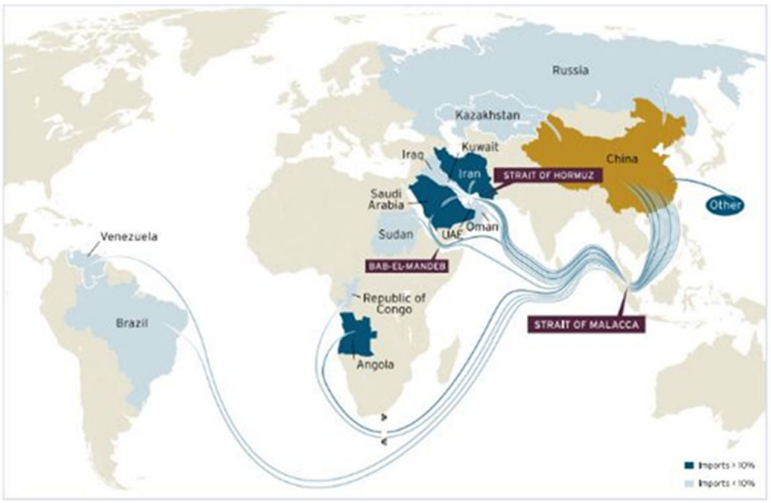


**Figure 2:** The energy transportation route to China

Source: Plumer, 2014

China's reliance on Middle Eastern oil and gas has increased the strategic significance of this region for Beijing, seeking to expand cooperation beyond the energy sector with infrastructural sea and rail projects within the framework of the Belt and Road Initiative (BRI). One of the most challenging issues for the Chinese government in importing oil and gas from this region is the geopolitical instability of the Middle East. China has taken new measures to deal with the growing threats. The *energy corridor* to transport oil and natural gas from Iran and Pakistan to China shows that the Beijing government has designed such projects to reduce its high dependence on critical points in sea transportation through which nearly 83% of its oil imports are transited (Aluf, 2021).

## India's geopolitical position toward the Middle East and transportation

Traditionally, India has maintained close ties with oil-producing countries in the Middle East due to its geographical location. The Middle East is India's leading oil provider (Ishida, 2007), and it has more accessible access to the region than China geographically. The geographical proximity of India to many Middle Eastern countries and easy access to maritime transport routes have created tremendous potential for cooperation. Nevertheless, the indifference shown by the two sides, as witnessed in the North–South Corridor[2] between India, Iran, and Russia, has led to many lost opportunities (Alislam Khan, 2013). Hence, India's relations with the Middle East have often revolved around energy, never going beyond this. It can be assessed that regular access to crude oil and natural gas at lower prices compared to the West and better payment conditions have played a pivotal role in defining Indian interests in the Middle East. Its share of imports from Africa fell from an estimated 17% in 2009–2010 to 13% in 2019–2020, and the share of South American countries rose from an estimated 6% to around 12% in 2019–2020. The Persian Gulf States, Africa, and South America supply more than 80% of India's 10 largest oil importers. The dominance of relatively cheaper suppliers in these areas indicates that crude oil supply decisions are being optimized at the refinery level rather than at the national level. Refinery economics, rather than geopolitics, influences crude oil supply decisions (Sati, Powell, and Tomar, 2022). To achieve this goal, India has made great efforts to strengthen its navy and maintain the security of its maritime transport in West Asia.

[2] The North–South Corridor is a multi-modal passageway which chiefly connects Mumbai (India) to Moscow and St Petersburg, as well as northern and western European countries through Iranian territory. Realizing such a goal will lead to the development of transit routes between European and northwestern European countries with the countries of the Caspian region, the Persian Gulf, Central Asia, South Asia, and Southeast Asia. This corridor will connect Asia and Europe and establish a transit route between northern Europe, Scandinavia, and Russia through Iran with the Arab states of the Persian Gulf, Indian Ocean Territories, and Southeast Asia.


**Figure 3:** The energy transportation route to India

Source: India Today, 2012

Overall, India's economic and trade interests in Central Asia encompass a wide range of sectors, including trade, investment, energy security, immigrant workers, counterterrorism, coastal security, and the development of ocean resources. In assessing Indian policies in the Middle East, geopolitical analysts and regional observers usually see India as a pleasant actor who avoids security issues and prefers to focus on its regional oil interests with no wish to interfere in regional affairs and expand full-scale relations (Pethiyagoda, 2017).

Nevertheless, the US withdrawal from Afghanistan and reduced interest by Washington in the Middle East has shaken India's peace of mind over the security of the Persian Gulf and active control of the Chinese agency. This has led India to adopt a new approach to regional geopolitical changes and make efforts to deepen relations with Middle Eastern countries. However, New Delhi has not adopted a lasting policy toward the geopolitics of this region to date.

## 6. Oil diplomacy in the Middle East

### 6.1. China's oil diplomacy in the Middle East

Stability in the Middle East is increasingly becoming one of China's strategic goals, emerging as a security and economic dialogue. Rapid growth by this country over the past 30 years and its limited domestic oil resources have turned China into a primary buyer in the oil market in recent years. It is now considered the biggest buyer of oil in the Middle East. The Persian Gulf provides over 40% of Chinese oil imports. As a result, this reliance on the region has increased its strategic value for Beijing, leading to recent changes in policy (Le Miere, 2020).

Many foreign policy decisions by Beijing toward the Persian Gulf region are based on the supply of energy for economic growth within the framework of its *Going Out* and *Diversification* strategies. It aims to provide extensive political and economic assistance to national oil companies and pave the way for Chinese companies to conclude contracts in the energy sector.

For a detailed explanation of China's oil policy, it should be noted that the country's foreign policy in the energy sector is based on neo-mercantilism. Therefore, authorities in Beijing have not limited themselves to oil and gas imports from oil-rich countries to implement their neo-mercantilist policy for an energy monopoly and hence, energy security. Instead, they have tried to make long-term investments in this sector for maximum energy security.

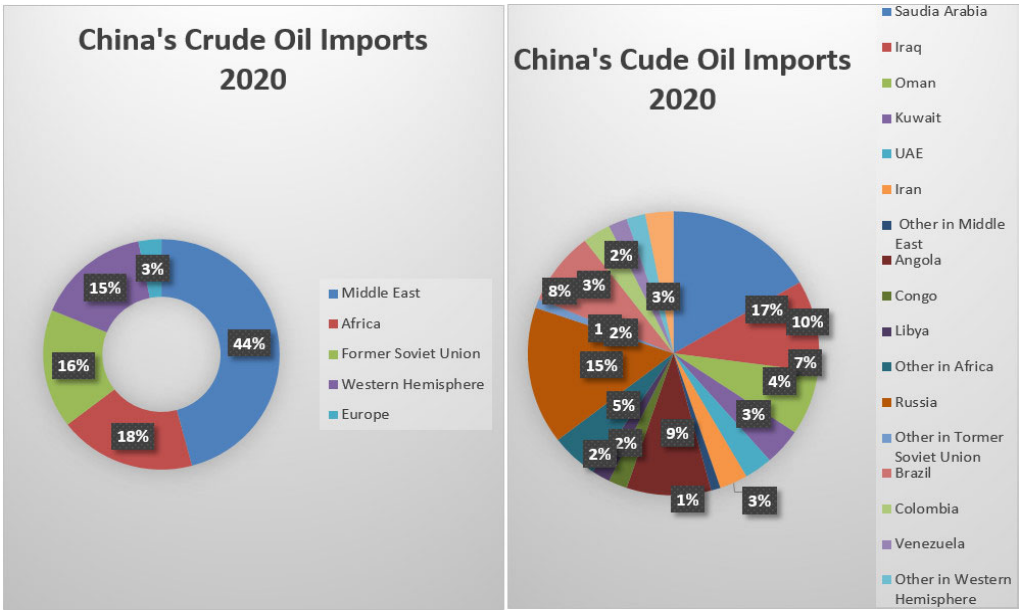


**Figure 4:** China's crude oil imports in 2020

Source: Compiled by authors from www.eia.gov, 2020

Huge investments by China in refineries, petrochemicals, new companies, and facilitated ownership through partnerships in the energy sector are indications of a neo-mercantilist policy by the Chinese government. Further, this policy can be seen in the enormous loans given by China to the Persian Gulf region, amounting to $23 billion granted through the Arab States Cooperation Forum for regional development. Hence, politicians in Beijing follow a three-pronged policy toward the Arab States of the Persian Gulf for energy security, as follows:

- Active diplomacy for long-term supplies of energy
- Efforts by Chinese oil companies to gain the right to invest and exploit regional oil fields
- Encouraging oil companies in the Persian Gulf States to invest in Chinese refineries and its energy market (Beng and Li, 2005)

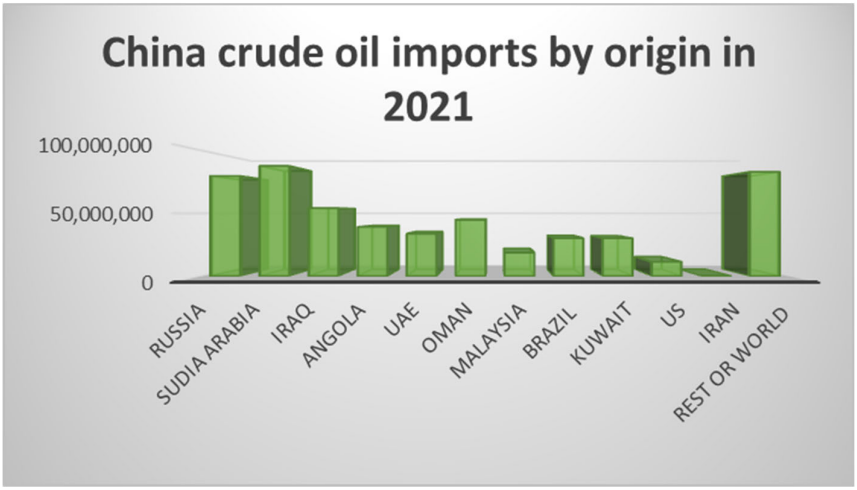


**Figure 5:** China's imports of crude oil from the region in 2021

Source: Compiled by authors from Aizhu, 2022

The *Look beyond China* policy has thus turned this country into an active player in the oil-rich states of the Persian Gulf (MacGillivray, 2018, P4). By strengthening its economic and trade ties with the oil-producing states of the Persian Gulf through energy diplomacy, China hopes to attain its objective in a region where the US has a strong presence. Authorities in Beijing are trying to gain a monopoly in the Persian Gulf energy market by creating economic dependence (Bagwandeen, 2014, p2), on the one hand, and creating a highlighted presence by Chinese companies through investing and expanding oil fields with the management of the government and its neo-mercantilist policy, on the other hand, to win the competition.

## 6.2. Indi's oil diplomacy in the Middle East

India is the third largest importer and consumer of oil in the world. It imports around 84% of its overall crude oil. Over 62% of its supplies come from countries in the Middle East, which are usually cheaper than Western countries (Narayanan, 2021). In an interview with Reuters, the Director of the International Energy Agency (IEA) stated that India's oil demand will increase from 4.4 to 6.0 million BPD by 2024. Therefore, like its oriental counterparts, the country greatly depends on oil from the Middle East, and Iraq is the biggest supplier of crude oil to India (Reuters, 2020).

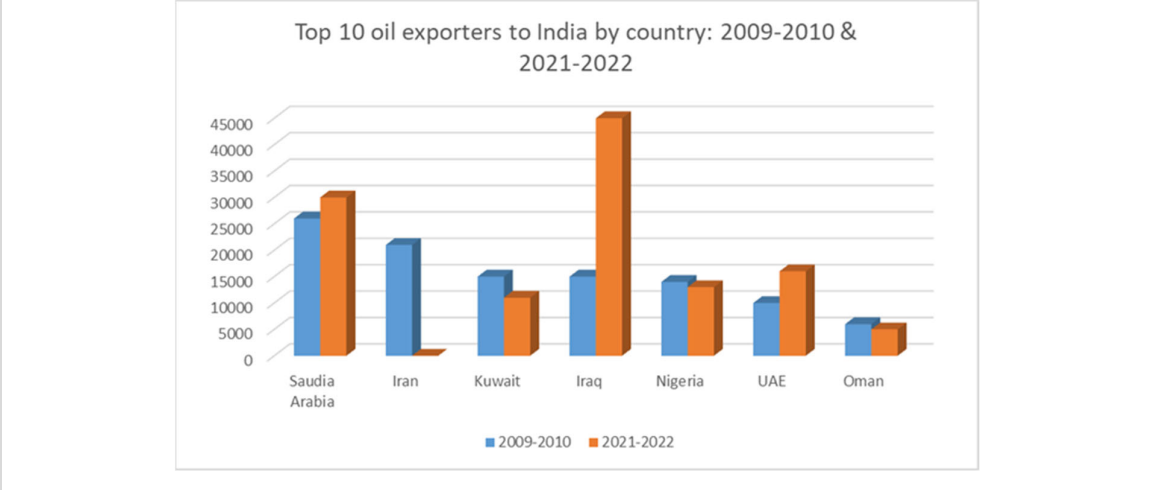


**Figure 6:** Countries exporting oil to India: 2009–2010 and 2021–2022

Source: Compiled by authors from the Ministry of Commerce and Industry, 2022

Given the situation in supply and demand, India has prioritized energy security in its energy policy. The main challenges of the energy policy include the following:

1) Increasing coal and electricity production;
2) Increasing hydrocarbon exploration and excavation;
3) Earning oil concessions abroad;
4) Restructuring and deregulating the energy sector;
5) Increasing anti-pollution measures;
6) An integrated energy policy approach.

This policy has not been successful due to separate approaches adopted by different institutions (Ishida, 2007, p12). Nevertheless, India has tried to diversify its oil suppliers to promote energy security. It imported crude oil from 27 countries in 2006–2007 and 42 countries in 2020. However, this cannot be considered a resource diversification because the share of the Persian Gulf States in India's crude oil imports has remained at 60% over the past 15 years (Sati, Powell, and Tomar, 2022).

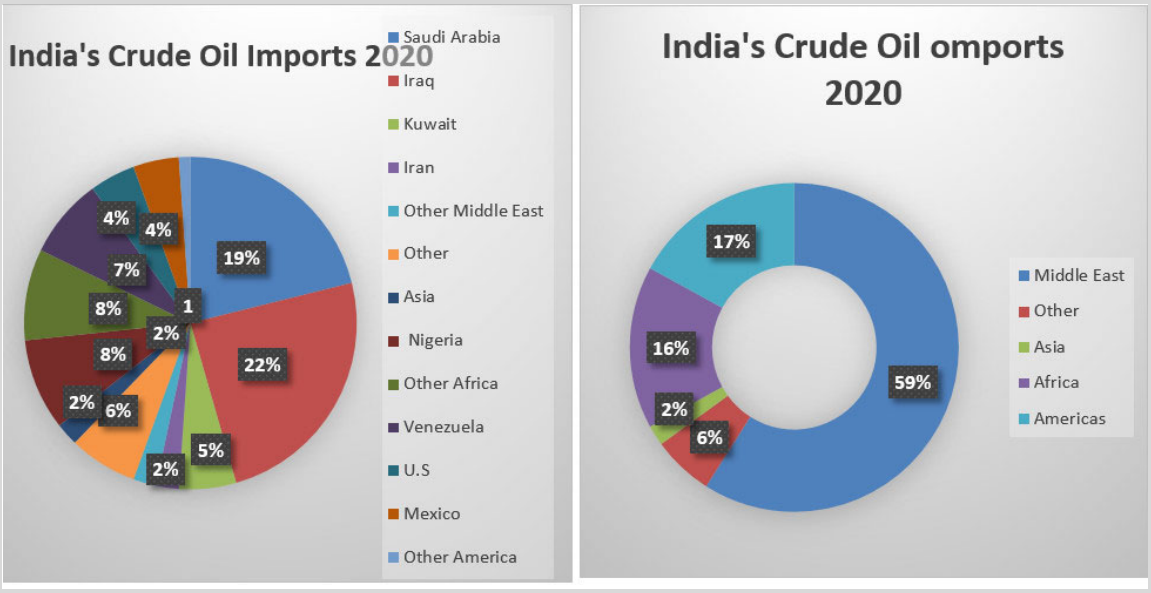


**Figure 7:** India's crude oil imports in 2020
Source: Compiled by www.eia.gov, 2020

Despite its reliance on oil from the Middle East, New Delhi has not compiled a clear political, economic, or even energy policy for its supplies of this vital and strategic fuel from this region. Except for Israel, India has shown no interest in pursuing a strategic union or close cooperation with any countries in the Middle East.

Since it adopted its economic liberalization policy in 1992, India has tried to become closer with Western countries, particularly the US and Israel. Therefore, it has sought to align itself with its political and security policies. India believes that good relations with the US are essential to good relations with the Arab States of the Persian Gulf. Moreover, this country has tried to conclude free trade deals with some of these Arab States, but its efforts have not gone beyond economic agreements (Alislam Khan, 2013). India procures its oil through cash purchases (e.g., Nigeria), short-term contracts (usually three months), or long-term contracts (e.g., one year with Saudi Arabia) (Hong, 2009).

India prefers a collection of little bilateral relations, first and foremost with these three countries, rather than a broader regional policy. It is reluctant to wave its traditional Middle East policy of focusing on a handful of bilateral relations, securing refugees and energy resources in the Persian Gulf, and avoiding a more prominent role in the region (Shaudhuri, 2018). Finally, India's efforts to secure its energy supplies have been occasionally hampered by its strained relations with energy suppliers, transit countries, and energy competitors. For instance, its hugely strained relations with Pakistan over the proposed pipeline crossing Turkmenistan and Iran to reach India, which must go through Pakistan, and its procrastination over the port of Chabahar in southern Iran, have all negatively affected India's oil diplomacy in the Middle East (Hong, 2009).

Presently, India is facing a sudden change in the geopolitics of the Middle East. US influence and interests in the Persian Gulf have diminished, and global oil and gas markets are being transformed. The Taliban is in power in Afghanistan, and China is now a leading actor in the Middle East. All these events have forced India to redefine its oil and energy policies in this region.

## 7. The role of technology in implementing oil policies

### 7.1. The role of technology in implementing China's oil policy

In 2016, China launched a sweeping energy revolution involving consumption, supply, technology, institutions, and international cooperation. It implemented guidelines and constraints to create a clean, low-carbon, safe, efficient, and modern energy system as part of its efforts (China Oil Consumption Cap Plan and Policy Research Project Main Report, 2019). Accordingly, the Beijing government is pursuing policies to optimize this structure by promoting diversification and energy substitution in the transport sector, restructuring and upgrading the petrochemicals sector, and controlling growing reliance on foreign oil by

implementing particular import–export policies for petroleum products and raw materials to safeguard its energy security and the environment through carbon offset and green policies.

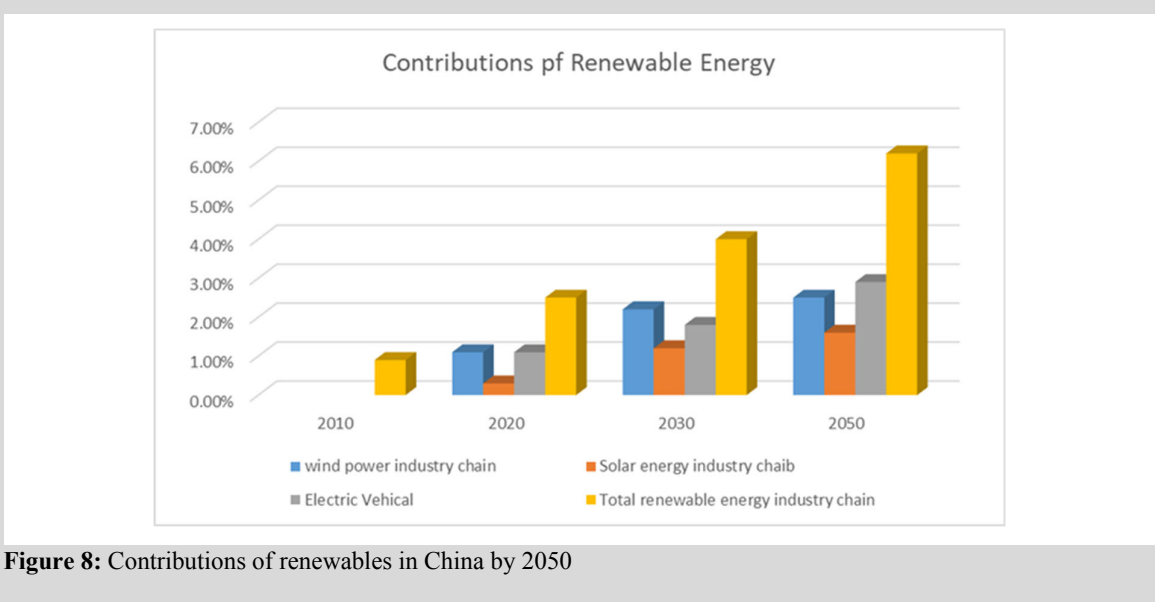


**Figure 8:** Contributions of renewables in China by 2050

Source: Energy Research Institute National Development and Reform Commission, 2015

In a world where fossil fuels make up the majority of energy supplies, concerns over the geopolitics of energy have grown significantly among the owners and consumers of oil and gas, and international trade models formed around them. The transition to clean energy is a significant shift in primary energy, moving from carbon fuels to low-carbon energy sources. Although the share of fossil fuels has remained around 80% for several decades, it will decrease to about 50% by 2050 (IEA, 2021). The Chinese government seeks to reduce its growing reliance on fossil fuels by adopting various measures in energy technology. It is working to reduce its oil consumption to 150 million tons by accelerating its replacement with renewables and new technologies. China is currently at the forefront of manufacturing electric vehicles, driven by rapid technological advances and business model innovations (China Oil Consumption Cap Plan and Policy Research Project Main Report, 2019). Despite all the measures taken by the government to reduce demand for oil and gas in line with the energy security policy, a wide gap continues to remain between the rate of decline in demand and supply and price fluctuations for fossil fuels (IEA, 2021).

## 7.2. The role of technology in implementing India's oil policy

The world is facing serious challenges in the energy sector. Those countries whose economies have been transformed over the most recent decades have a more significant hurdle to overcome. India is one country that is vulnerable and heavily dependent on its energy imports. This makes it all the more critical for this country to access renewable energy technologies for its socioeconomic development. In November 2010, Indian authorities introduced a plan for renewable electricity generation, examining several scenarios for its future development in the energy sector. However, these do not aim at substantially reducing carbon dioxide emissions. This scenario requires exploiting a total water capacity of 150 gigawatts and adding 63 gigawatts of nuclear capacity by 2031 (Remme et al., 2011). This makes India the third most attractive country in the world for technological investments. Following its economic liberalization in the 1990s, India concentrated on science and technology as critical factors for economic growth. Currently, it ranks 46$^{th}$ on the Global Innovation Index (GII), with an improvement compared to ranking 48$^{th}$ in 2020 (IBEF, 2022).

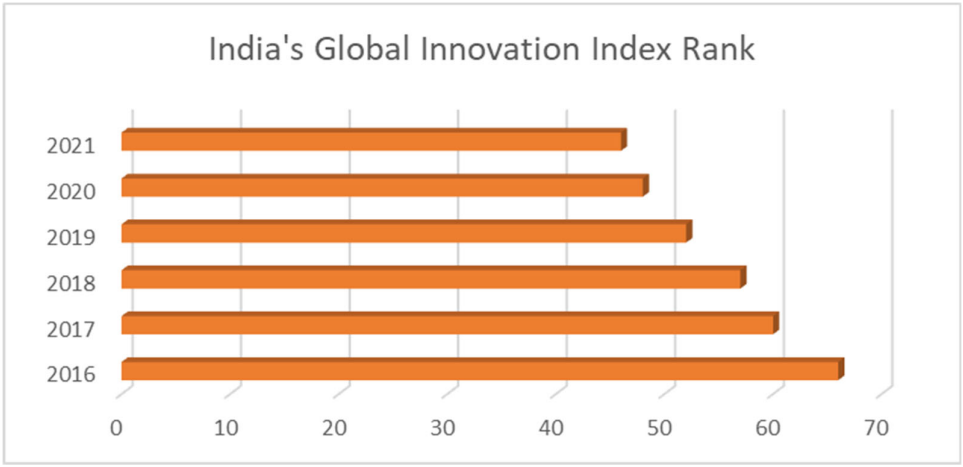


**Figure 9:** Global innovation index ranking for India

Source: Compiled by authors from IBEF, 2022

Technological progress and scientific research inevitably lead to progress in the entire oil and gas industry, a technologically advanced industry. The oil, equipment, and service-providing industries can further reduce production costs for an oil field with constraints. Ongoing research and development in oil technology in line with the world's energy requirements mean that costly oil resources will gradually reach a competitive threshold. This gradual mobilization of renewables makes it possible to maintain the balance in oil production and directly help stabilize the oil market (Babusiaux and Tour, 1999, PP12-121).

The electricity sector has great potential for change with innovative technologies. Digitization has had a significant impact on the operation of the power system. The smart grid network has ushered in a new age of optimization in production, transmission, and distribution levels. Given the growing importance of the smart grid, the Indian government set up the India Smart Grid Forum (ISGF) and an ISGF working group (Batra, 2021) in 2010 for intersectoral collaboration.

Companies have developed new technologies to advance exploration and drilling regularly, both domestically and internationally. Nevertheless, despite all the efforts to advance technology and reduce energy reliance, including oil, India will continue to depend heavily on crude oil for the foreseeable future since technological advances do not meet the country's demands for energy on the same scale.

## 8. The macroeconomic strategy and position in the global economy

### 8.1. China's macroeconomic strategy and position in the global economy

Market-based approaches to the global economy are formed primarily by developing trade and direct foreign investments, leading to economic power. The economic power of China has rapidly grown over the past three decades. The data provided by the International Monetary Fund (IMF) shows that this country's share of the global economic growth in 2021 reached nearly 8.1% (Statista, 2022) due to a series of economic reforms, which have turned China into the world's leading trading nation and exporter, operating in global manufacturing networks with an increasingly active presence in global financial flows. At the same time, it is essential to note that China's macro-policies and fundamental economic reforms are significantly different from those commonly used in industrialized economies. This significant difference reflects this country's specific institutional and economic environment (Sadeghian, White, and D'Arcy, 2013, P11).

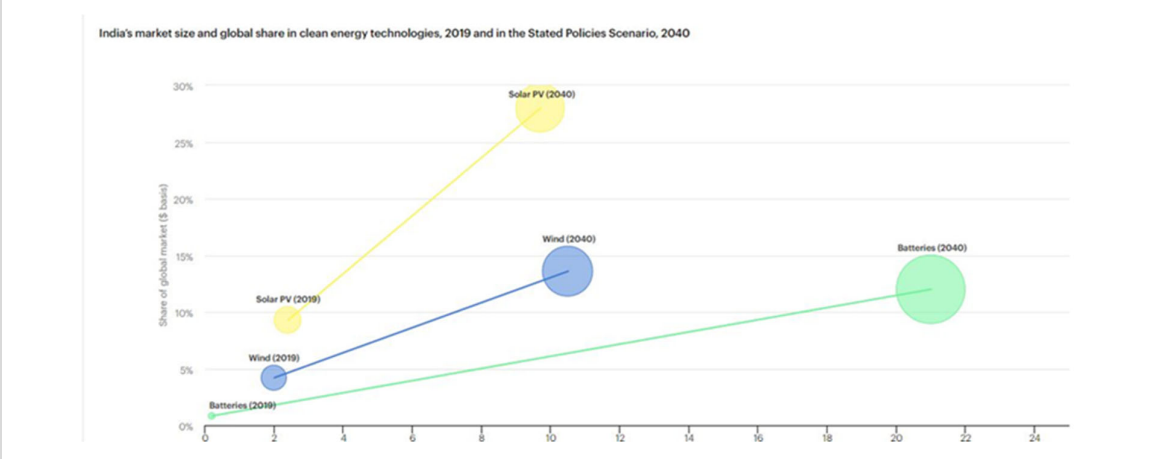


**Figure 10**: India's global share of clean energy technologies in 2019 and in the stated policies scenario by 2040

Source: India Energy Outlook 2021, 2021

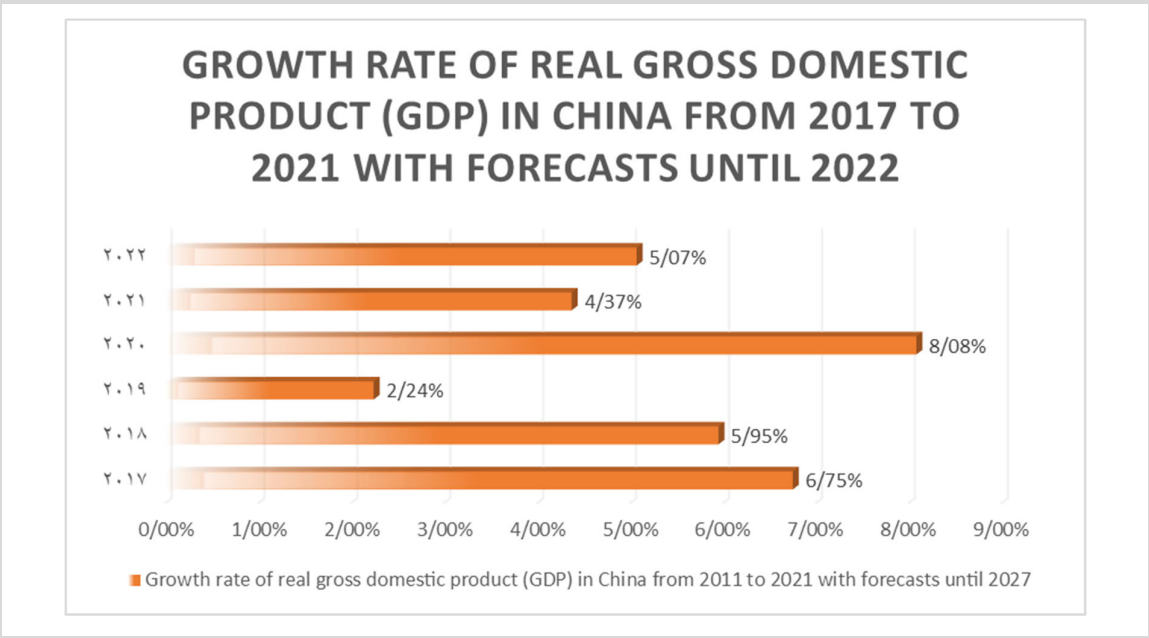


**Figure 11:** The growth rate of China's real GDP (2017–2021) and forecasts to 2022

Source: Compiled by authors from Statista, 2022

Hence, it is imperative to focus on China's achievements and assistance on the international stage and observe its growth. China's contribution to the world also lies in economic globalization and trying to make global economic governance more efficient. When economic globalization faces challenges, the government in Beijing upholds peaceful values and endeavors to meet the challenge in the form of joint developments and win-win situations. This strategy is visible in the win-win projects China has concluded with other countries and organizations. By August 2019, China had signed 195 MOUs with 136 countries and 30 international corporations (Fung, 2022), including the Iran–China 25-year Comprehensive Cooperation Agreement. Thus, the Beijing government has injected unremitting, dynamic energy into the global economy, and its economy continues to have the essential flexibility for sustainable growth and can resist global financial crises (Haoran, 2019). It can invest and extend widespread loans to support vulnerable countries. This

shows that GDP is one of the most important and undeniable indicators in assessing a country's economic power. As shown in Figure 11, China has forecast a high growth rate for its domestic GDP.

Since 2020, China has been among the progressive countries with the second highest domestic GDP worldwide after the US, with a GDP of $20.8 trillion. The Chinese government has achieved significant economic growth by adopting the right policies in recent years. Figure 11 shows that its rising GDP is even forecast in its future landscape.

Additionally, China is increasingly asserting itself on the international stage and looking to regain its centrality in the international system and the institutions of global governance by pursuing multilateral policies. It supports international agreements, such as the World Bank and Paris Climate Agreement, in line with its goals and interests. Ever since adopting the Open Door Policy and its strong presence on the world stage, the government in Beijing has been trying to align many of its domestic norms and regulations with the laws of other countries (Council on Foreign Relations (CFR), 2022). It has made efforts to work and comply with international institutions and be known as a good world citizen rather than an actor who disrupts the existing order. This can be seen in its decisions on US sanctions against Iran.

By calculating its profit and loss, China has concluded that ignoring US sanctions will endanger Beijing's economic and political interests and that the country will suffer much loss, which, at times, may be irrecoverable. Hence, as sanctions intensified, China's oil imports from Iran dropped significantly. The support for US sanctions against Iran can be interpreted as compliance with the world order.

## 8.2. India's macroeconomic strategy and position in the global economy

Until a few decades ago, India was seen as a developing country with a low economic ranking and little influence on global policies and the economy. Nevertheless, with the start of the new millennium and its eye-catching growth, India is redefining its image and perception of the international system. Its growing position in international politics has encouraged Indian policymakers to adopt a more active role in providing *public goodness* regionally and globally, such as poverty reduction, fighting the effects of climate change, and aiding global growth. As such, India has defined its objectives as increasing interaction with multilateral institutions and participation in global challenges, including development (Price, 2013).

The output of India's economic reconstruction after 1991 has been more robust macroeconomic policies, including financial consolidation and the independence of the Central Bank in pursuing monetary policies. It has also defined measures to guarantee these, including an ensured combination of growth, low inflation, sustainable balance of payments, and stable exchange rates. To support export regions, the best way to achieve these goals is to invest in infrastructure, such as roads, airports, electricity supply, energy, and communications (Bajpai, Sachs, 1998, P1939). In essence, the main objective of India's foreign policy has been to ensure its strategic independence in order to pursue its national interests. The country's serious concerns are its foreign security, domestic security, sustainable economic growth, energy growth, maritime security, and access to technology (Salma Bava, 2007, p3).

The oil and gas sector is one of the eight primary industries in India, playing a prominent role in decision-making for all other major economic sectors. India's economic growth is closely linked to its energy demands, and it is forecast that its reliance on oil and gas will increase with an annual average growth of 6.5%. As a result, this sector is ready for investment. The government has adopted several policies to meet the growing demand, allowing a 100% direct foreign investment in many energy sectors, including natural gas, petroleum products, and refineries. According to the IEA, primary energy demands are expected to almost double to 1,123 million tons by 2021, as the country's GDP is expected to increase to $8.6 trillion by 2040.

India has accepted its potential to shape the world order. New Delhi, a traditional leader of the Global South, is exceeding this role to become a more significant global actor. It is, therefore, seeking bilateral, regional, and global political and economic alliances, promising Delhi rich security gains. During the Cold War, India pursued a non-aligned foreign policy. Today, it appears to pursue policy alignment. What is of significance here is how these emerging powers intend to deal with their new position and strategies to promote their power and status. Being a nuclear power with a permanent seat on the United Nations Security Council raises the question of whether India will adhere to global norms or claim change in the order established since WWII. It must be noted that India wants to play a security role only within the framework of the United Nations and multilateralism (Salma Bava, 2007).

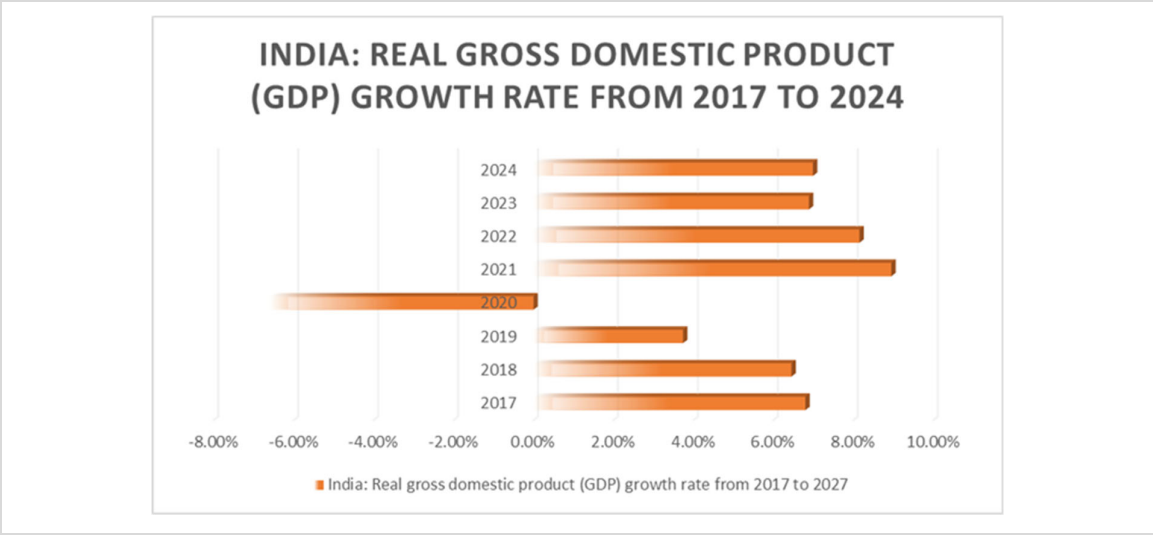


**Figure 12**: India's real GDP growth rate (2017–2024)

Source: Compiled by authors from Statista, 2022

This is one of the reasons why India has participated in US sanctions against some countries, including Iran, and UN efforts to ensure global peace. It must show itself as a dynamic country trusted and ready to perform a more significant part in securing global peace. It is, therefore, eagerly pursuing international norms and following the lead.

Often, this policy clashes with India's principles in domestic development. The country relies heavily on energy sources from abroad, and its efforts to secure its oil needs from outside its borders, especially the Middle East, are at odds with US policies in many cases. For instance, it reduced its oil imports from Iran in 2019 and 2020 to zero under pressure from Washington. This has also affected China's foreign policy.

## 9. Conclusions

Energy acts as the driving force for the economy. Consequently, India and China have focused on West Asia as the crucial artery of global energy in their foreign policy. Despite their similarities as the main actors in the Middle East energy market, the governments in Beijing and New Delhi have distinct differences in their oil diplomacy. As far as similarities are concerned, India has tried to set China as a model for its strategy in the energy sector. Similarly, its government has adopted different approaches to self-sufficiency in coal, investment in renewable technologies, and diversification of oil sources. On the other hand, significant differences also exist between the two countries in their oil policies.

The legal structure and decision-making process in the energy sector are notably different in Beijing and New Delhi. To a large extent, the Indian government has been unable to implement its monopoly policy like China due to its domestic legal and political structures, particularly in policymaking in the energy and oil sector, as it lacks an integrated structure and single decision-making body in this field. On the other hand, China's energy policy demonstrates the country's unique strategy for energy reliance and security. By investing heavily in renewables for the future, the Beijing government has been able to define its energy reliance to a certain extent, and it appears that the process will be completed in the future. It is estimated that India will be the first importer of oil in the coming years and replace China in the global energy market as the latter achieves self-sufficiency and reduces its imports of renewable fuels. The following figures clearly show the gap in oil imports and the future energy reliance on renewables between the two countries.

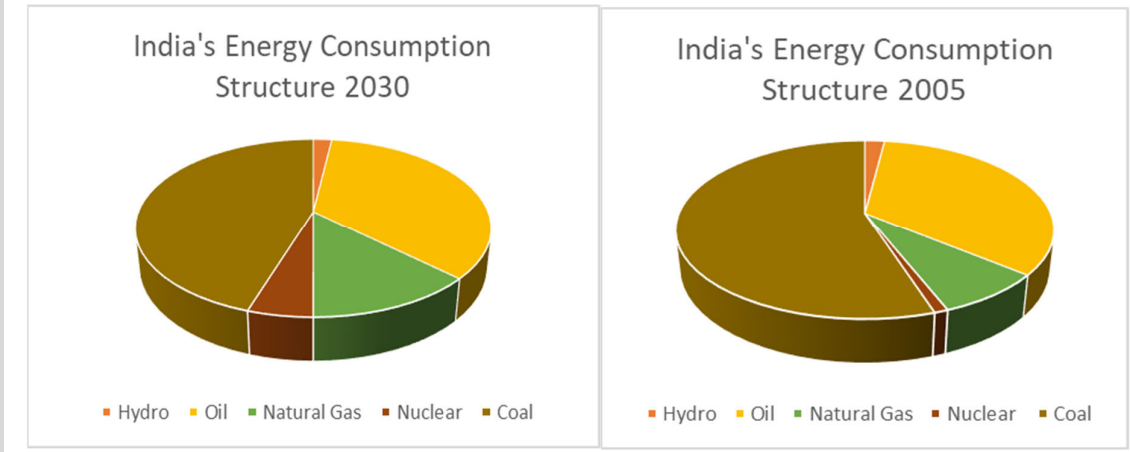


**Figure 13**: India's Energy consumption (2005–2030)

Source: Compiled by authors from IEE

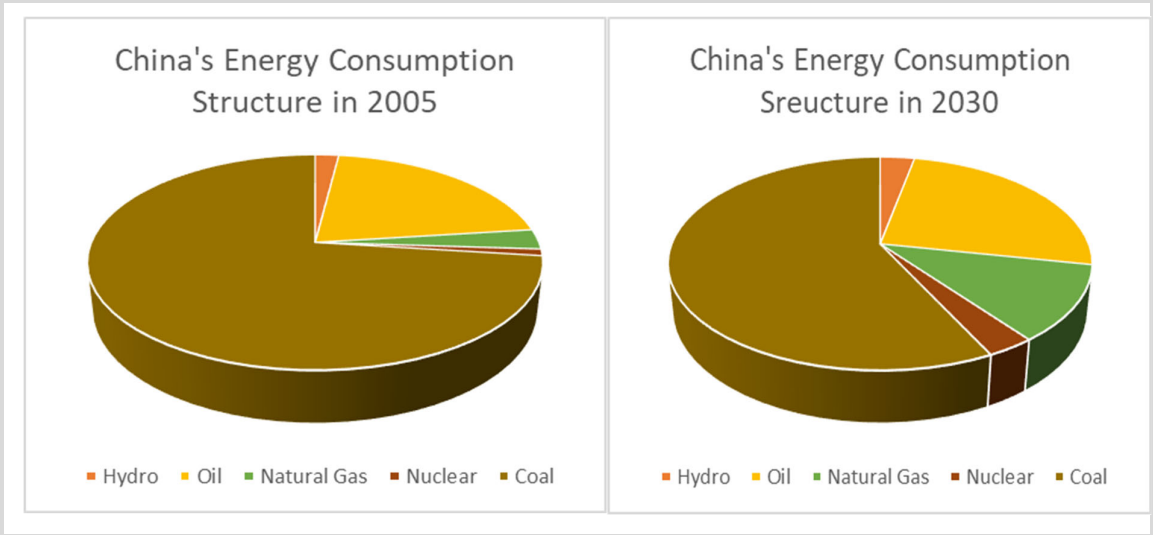


**Figure 14**: China's energy consumption (2005–2030)

Source: Compiled by authors from IEEJ

In addition to the above, which is influenced by domestic policy, the foreign policy of the two countries and its impact on the oil policy of Beijing and Delhi must be considered. The weight of US foreign policy in shaping India's political relations with West Asia and tensions with countries in the Middle East have significantly impacted the lack of comprehensive follow-up of its oil policies. On the contrary, with a single policymaking body and transparent decisions in the energy sector, the Chinese government has been able to expand relations with oil-rich countries, especially in West Asia. Beijing's unique oil policy is visible in its multilateral ties with other countries, long-term investments, long-term loans, expanding energy transfer pipelines, and long-term contracts like the 25-year agreement with Iran. India, however, pursues short-term agreements in its relations. This is evident in its failure to follow up on the Turkmenistan pipeline and the Chabahar project, indicating this country's lack of a specific regional strategy.

In terms of international sanctions and those sanctions imposed by the US on oil-producing countries, the two countries have shown that when it comes to choosing between compliance with global norms and their oil diplomacy, they both support the former and shape their oil policy around the norms of the international community. This approach is visible in

their reduced oil imports from Iran. Nevertheless, it should also be noted that both countries see oil sanctions as a short-term variable and do not embed this in their long-term strategies with oil-exporting countries. Thus, in many cases, Beijing and Delhi either seek exemptions from oil sanctions or circumvent them.

Furthermore, the geopolitical situation in the Middle East has changed with the withdrawal of the US from the region, providing ample opportunity for China to strengthen its agency in West Asia. India's growing reliance on oil from the region has pushed its policymakers to adopt a more comprehensive energy policy toward West Asia. As for the geopolitical situation of the Middle East, the ease and proximity of transport are an advantage for India. This ease of access to West Asia can be a great potential for India as opposed to China.

Last but not least, it appears that the central government in Beijing has been more successful than New Delhi in adopting a comprehensive, integrated oil policy in West Asia. Hence, expanding full-scale relations and long-term investments by China in the Middle East have transformed this country into one of the region's crucial economic and trade partners.

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