



# Energy Factor of the International North-South Transport Corridor Project

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## ABSTRACT

This study offers a comprehensive assessment of the energy potential of the International North-South Transport Corridor (INSTC) member states and its impact on the economic integration of Central Asia within Greater Eurasia. The research compares the logistics parameters of the INSTC with alternative routes, analyzes the member states' resource base for oil, gas, coal, and uranium, determines the balance of export-import energy flows, and identifies the infrastructural and institutional constraints hindering the corridor's potential. The methodology is based on statistical analysis (Statistical Review of World Energy, 2025; World Nuclear Association, 2024), the comparative geographical method, and rank analysis. The findings demonstrate that the length of the INSTC (7,200 km) is half that of the route through the Suez Canal, reducing transit time by 30-50% and transport costs by 25-30%. The member states control a substantial share of global energy resources: Kazakhstan ranks second in the world in uranium reserves (815,000 tonnes, 13% of global reserves) and first in production (45% of global output); Russia, Turkmenistan, and Iran are among the global top four in natural gas reserves; and India acts as a major net importer, generating sustainable effective demand. The study concludes that the INSTC can overcome Central Asia's "landlocked curse", transforming the region from an isolated periphery into a transit hub. However, the energy potential remains unrealized without modernization of Caspian ports, synchronization of customs procedures, and political coordination among the participants. The uranium potential of Kazakhstan and Uzbekistan opens prospects for the development of nuclear energy in Asia using the INSTC as a logistics link. For this purpose, it would be advisable to conduct quantitative modeling of freight flows in the future.

**Keywords:** North-South Transport Corridor, Central Asia, Energy Factor, Uranium, Caspian Region, Greater Eurasia

**JEL Classifications:** Q3, Q4

## 1. INTRODUCTION

Over the past 5 years, the International North-South Transport Corridor (INSTC) has evolved from a peripheral logistics project discussed primarily by niche experts into one of the central elements of the Eurasian economic architecture. The reason for this shift lies not only in the geopolitical upheavals after 2022, which made traditional Western routes less predictable, but also in fundamental economic logic: approximately 75% of the world's energy reserves are concentrated in Eurasia, and these resources require efficient, diversified, and secure delivery routes to the growing markets of South Asia (Hussain et al., 2024).

The INSTC, connecting Northern Europe through Russia, the Caspian region, Central Asia, and Iran with India, represents a natural meridional axis for such a linkage. In an era of increasing global fragmentation, supply chain reconfiguration, and the weaponization of transit routes, the ability to offer a reliable, cost-effective, and geopolitically neutral transport alternative is becoming a critical determinant of economic competitiveness and national security.

The INSTC corridor is located at the center of other important logistics routes. It connects India and China through Central Asia and Turkey through Iran and Azerbaijan, thereby forming

the Eurasian transport framework. This framework unites Russia, Iran, India, Azerbaijan, Armenia, Belarus, Kazakhstan, Oman, Syria, Tajikistan, Turkmenistan, and Turkey, and serves as a key link in both intercontinental and intraregional trade. In the future, through the implementation of the corridor, it will be possible to connect Central Asian countries with Eurasia via Russia and Turkey. Beyond connectivity, the corridor offers a platform for deeper economic integration, including coordinated infrastructure investments, harmonized customs procedures, joint energy projects, and the creation of special economic zones along its route — all of which can generate significant multiplier effects for participating states. The ongoing shift toward regionalization in global trade, accelerated by the COVID-19 pandemic and subsequent geopolitical shocks, further enhances the relevance of the INSTC as a shorter, more resilient alternative to lengthy maritime routes.

The problem, however, is that the academic and expert discussion on the INSTC is conducted primarily along two dimensions: logistics (ports, railways, throughput capacity, containerization rates) and geopolitics (sanctions regimes, China's influence through the Belt and Road Initiative, competition with the Suez Canal, and the role of Turkey as an emerging transit hub). The energy dimension of the corridor — the structure of reserves and production along the route, the profile of exporters and importers, the potential for nuclear energy, and the specific logistics of uranium shipments — remains on the periphery of attention. This is a significant gap, for at least three reasons. First, energy resources account for the majority of export revenues for most INSTC member states, meaning that the corridor's commercial viability depends critically on its ability to handle energy cargo efficiently. Second, the asymmetry between resource-rich northern/central segments and resource-deficient southern destinations (India and Pakistan) creates a natural, self-reinforcing economic logic for the corridor. Third, the emergence of nuclear energy as a strategic priority in South Asia and the Middle East opens a niche for uranium logistics — a high-value, security-sensitive cargo that requires specialized handling and offers premium margins. Without understanding which resources, in what volumes, and between which countries can move along the INSTC, any reasoning about its strategic significance remains incomplete. The interplay between energy flows and transport logistics creates a two-way relationship: energy exports fund infrastructure modernization, while improved logistics unlock new energy markets.

The purpose of this study is to demonstrate that the INSTC should be viewed not merely as a transport artery, but as an emerging energy cluster — a spatially defined system of energy production, processing, transit, and consumption that derives its coherence from the corridor's geography. To this end, we analyze the resource base of the member countries for oil, gas, uranium, and coal, and compare it with the export-import flows of energy resources, which, given infrastructural and institutional constraints, hinder the realization of this potential. The focus is on the Central Asian states — Kazakhstan, Uzbekistan, Turkmenistan — for which the INSTC can become a tool to overcome the “landlocked curse”. For these countries, geography has historically been a

liability: isolation from global maritime trade routes increased transport costs, reduced competitiveness, and limited economic diversification. The INSTC offers a pathway to transform this liability into an asset by positioning Central Asia as a strategic transit hub between Russia, China, Iran, and South Asia. The study also examines Russia's role, given its interest in supplying energy resources to South Asia and Africa while bypassing routes controlled by geopolitical rivals. By synthesizing statistical data, logistics assessments, infrastructure audits, and institutional analysis, this study aims to provide a comprehensive framework for understanding the INSTC as a transformative energy initiative rather than a passive transport route.

## 2. METHODOLOGY

The study draws on three groups of sources, each serving a distinct analytical function. The first group comprises statistical data on energy resource reserves, production, and consumption. For oil and natural gas, the Statistical Review of World Energy 2025 was used — a globally recognized dataset compiled annually by the Energy Institute, offering consistent time series and country-level granularity. For uranium, the World Nuclear Association report for 2024 serves as the primary source, supplemented by national production data and industry assessments. These datasets provide a reliable and internationally comparable foundation for assessing the resource potential of INSTC member countries. They allow us to rank countries by reserves and production, calculate shares of global totals, and identify patterns of concentration and scarcity along the corridor's axis.

The second group consists of analytical articles on the INSTC from peer-reviewed journals and authoritative industry publications, including works (Klementyeva, 2024; Bochkarev, 2025; Hussain et al., 2024; Singh, 2024). These sources offer diverse perspectives on the corridor's development trajectory, its competitive positioning relative to alternative routes (particularly the Suez Canal and China's Belt and Road Initiative), and the geopolitical factors shaping its evolution. Collectively, they reveal a consensus on the corridor's theoretical advantages but also highlight persistent disagreements regarding the pace and feasibility of its full implementation. Some authors emphasize infrastructural deficits as the primary bottleneck, while others point to institutional fragmentation, divergent national interests, or the impact of sanctions on Iranian nodes of the corridor.

The third group includes infrastructure reviews and proposals for the digitalization of the corridor, in particular study (Sarma, 2025) on transforming the INSTC into a “digital corridor”. Digitalization, as emerging research suggests, is a critical yet underexplored factor that can reduce transit times, enhance cargo security, lower transaction costs through the elimination of redundant customs procedures, and provide real-time tracking of energy shipments — a feature particularly valuable for high-value cargoes such as uranium or liquefied petroleum gases. The convergence of physical infrastructure upgrades with digital platforms represents a frontier in transport corridor research, with implications for the INSTC's ability to compete with more established routes.

Methodologically, the work is built on three sequential analytical procedures, each designed to isolate a specific dimension of the corridor's energy potential.

First, a comparative analysis was conducted of the logistics parameters of the INSTC and the main alternative route through the Suez Canal — comparing length, transit time, and transport costs based on data from (Bochkarev, 2025). This comparison establishes the baseline economic advantage of the corridor in purely spatial terms. It also allows us to assess the sensitivity of these advantages to various disruptions (e.g., canal closures, insurance cost spikes, or political instability in transit countries) and to model scenarios under which the INSTC could capture additional market share.

Second, a rank analysis was performed of the INSTC member countries in terms of proven reserves and production volumes of oil, gas, and uranium, with calculation of their shares of global indicators. This step quantifies the energy weight of the corridor's constituent states and reveals the concentration of specific resources within particular segments of the route. The analysis goes beyond simple ranking by also examining trends in production growth or decline, the ratio of reserves to production (R/P ratio), and the degree of export orientation in each sector. These refinements allow us to distinguish between countries with long-term export potential and those facing resource depletion or domestic demand growth that may reduce future export availability.

Third, based on the balance method, countries were classified as net exporters or net importers of energy resources, which made it possible to identify the asymmetry underlying the economic logic of the corridor. This classification is not merely descriptive — it directly informs the identification of natural pairing patterns between resource-rich and resource-deficient economies along the North-South axis. For each energy commodity (oil, gas, coal, uranium), we constructed a directional flow map that indicates the likely direction of shipments under optimal conditions. These flow maps, combined with existing trade data, reveal mismatches between current trade routes and the corridor's potential, highlighting specific opportunities for modal shift from maritime to overland transport.

### 3. RESULTS

Three results are key, each addressing a different dimension of the INSTC's energy potential: logistics, resource endowment, and trade asymmetry.

The first result concerns the quantitatively measurable logistics advantage of the INSTC. According to data (Bochkarev, 2025), the length of the corridor is 7,200 km, exactly half that of the route through the Suez Canal (16,000 km). This direct reduction in distance translates into operational benefits: Transit time is reduced by 30-50%, and transport costs by 25-30% compared to traditional maritime shipping. Importantly, these calculations find empirical confirmation: in 2024, the volume of freight traffic along the INSTC reached 26.9 million tonnes, exceeding the 2019 level by 19%, with more than 12.9 million tonnes attributed

to the railway component (Bochkarev, 2025). These figures indicate that the corridor is not merely a theoretical project but an increasingly utilized operational route. The growth trajectory suggests that if current trends continue and infrastructural bottlenecks are addressed, freight volumes could double by 2030, further strengthening the economic case for the INSTC. Moreover, the relatively high share of rail in total traffic highlights the importance of seamless interoperability between the railway networks of Russia, Kazakhstan, Turkmenistan, Iran, and other participating states — a condition that currently remains only partially fulfilled. Differences in rail gauge (broad gauge in Russia and Central Asia vs. standard gauge in Iran), inconsistent customs procedures, and uneven levels of terminal automation continue to erode the corridor's theoretical advantage. Nevertheless, the empirical traffic data demonstrates that even with these frictions, shippers are increasingly choosing the INSTC over longer routes — a choice driven primarily by time sensitivity and the desire to avoid congestion at the Suez Canal or Red Sea security risks.

The second result is the resource endowment of the member countries, which turns out to be exceptionally high, particularly for uranium and gas, but also significant for oil and coal. According to World Nuclear Association data as processed in (Lu, M., 2025; ZeroHedge, 2024), Kazakhstan ranks second in the world in proven uranium reserves (815,000 tonnes, accounting for 13% of global reserves) and first in production (21,800 tonnes in 2021, or 45% of global output). Russia ranks fourth in reserves (8% of global reserves) and sixth in production. Uzbekistan, although formally not a full member of the INSTC, is geographically and economically integrated into the Central Asian transport network; it ranks fifth in the world in uranium production (3,500 tonnes in 2021) and eleventh in reserves (Uzbekistan among top Uranium Miners in the world – WNA, 2026; Uzbekistan ranks 5<sup>th</sup> among top Uranium-Producing Countries, 2022). This concentration of uranium resources along the northern and central segments of the corridor is not coincidental — it reflects the geological inheritance of the region and creates a unique opportunity for the INSTC to serve as a dedicated logistics spine for the nuclear fuel cycle. Unlike oil or gas, uranium is a high-value, low-volume commodity: the annual output of Kazakhstan's uranium mines (approximately 22,000 tonnes) could be transported by a few hundred railcars, making it an ideal cargo for the corridor's current capacity constraints. Moreover, the security requirements for uranium shipments — tracking, tamper-proof seals, and escorted transit — align well with the corridor's potential for digitalization and standardized procedures.

In terms of natural gas, Russia, Iran, and Turkmenistan are among the global top four in proven reserves (Klementyeva, 2024), while India and Pakistan act as major net importers. This creates a classic energy bridge configuration: Surplus in the north and center, deficit in the south. For oil, Iran (4<sup>th</sup> place), Russia (6<sup>th</sup>), Kazakhstan (12<sup>th</sup>), and Azerbaijan (19<sup>th</sup>) are also present in the global top 20. Coal reserves are concentrated in Russia, Kazakhstan, and India, with the latter being both a major producer and importer. Taken together, these figures indicate that the INSTC traverses some of the most resource-rich territories on Earth, with the potential to handle not only conventional hydrocarbon flows but also specialized energy

commodities such as uranium. The diversity of energy resources along the corridor provides a hedge against commodity price volatility: when oil prices fall, uranium or gas shipments may sustain traffic volumes, and vice versa.

The third result is the asymmetry of export-import balances, which creates sustainable, long-term demand for the transit opportunities of the INSTC. The vast majority of countries along the route are net exporters of energy resources. This applies to Russia (oil, gas, coal, uranium), Kazakhstan (oil, coal, uranium), Azerbaijan (oil, gas), Turkmenistan (gas), and Iran (oil, gas). An exception, but a highly significant one, is India and Pakistan, which import a substantial share of the oil, gas, and coal they consume (Telegina et al., 2022). India's import dependence is particularly pronounced: it is the world's third-largest oil importer and fourth-largest LNG importer, with domestic production covering only a fraction of consumption. Pakistan faces chronic energy shortages and relies on imported LNG and coal to keep its power grid operational. The volume of India's exports to INSTC member countries amounted to approximately USD 20 billion in 2022, but the potential, according to the authors' estimates, reaches nearly USD 180 billion provided that existing infrastructural and regulatory problems are resolved (Anjum, 2025). This means that demand from India is not hypothetical — it is backed by purchasing power, industrial growth trajectories, and strategic energy security considerations — and it is constrained precisely by logistics limitations.

The implications of this asymmetry are far-reaching. First, it suggests that the primary barrier to the INSTC's full realization is not a lack of resources or demand (as is the case with many infrastructure projects that struggle to attract cargo), but rather a deficit of coordination, investment, and institutional trust. Second, the asymmetry is structural rather than cyclical: India's demographic and economic growth will continue to drive energy import demand for decades, regardless of global oil price fluctuations. Third, the corridor offers a diversification benefit to Indian and Pakistani importers, reducing their dependence on maritime chokepoints such as the Strait of Hormuz (through which a large share of Gulf oil and gas passes) or the Malacca Strait. Removing the barriers to INSTC utilization would unlock a virtuous cycle wherein increased freight volumes justify infrastructure spending, which in turn further reduces transit costs, shortens delivery times, and attracts additional cargo — including high-value manufactured goods that currently move via other routes. The asymmetry of energy balances thus functions as the corridor's economic anchor: it guarantees a baseline of traffic that can then support the development of more complex logistics services and multimodal offerings.

#### 4. DISCUSSION

Active interaction between Russia and India, China, Pakistan, Iran, and other Asian states is becoming the main driver for increasing the significance of transport routes from Europe to Asia and from Asia to Europe. This process also helps to stimulate the development of transit and multimodal corridors in the Caspian region. The growth of trade potential in this region is an important

prerequisite for the further economic development of Russia and the Central Asian states<sup>1</sup>.

As noted above, one of the main advantages of the Caspian corridor is its length: compared to the traditional route through the Suez Canal, the North-South corridor is twice as short (its length is 7,200 km instead of 16,000 km). According to the concept, this should reduce not only the delivery time of goods but also their cost.

It is obvious that the North-South corridor is capable of generating economic advantages not only for the states directly located along it, but also for the entire regional economy<sup>2</sup>.

The International North-South Transport Corridor (INSTC) represents a multimodal infrastructure that connects several regions of the Russian Federation, the Eurasian Economic Union, the SCO, and the Scandinavian countries with the countries of Central Asia and the Persian Gulf, and provides access to the Indian Ocean. This important transport corridor provides access to key destinations in the Eurasian region (Figure 1).

Today, the international transport corridor has every chance to become a key strategic trade route for the Russian Federation and the Central Asian states.

It should also be noted that the INSTC opens up broad opportunities for integration with other important latitudinal and meridional transport routes oriented in the East-West direction (Figure 2). The formation of the Eurasian transport framework will improve the economic prospects of many countries on the Eurasian continent, especially those that are landlocked, and will reduce transport costs and the negative consequences of "great distances". This direction is designed to eliminate the "landlocked curse" status of Central Eurasia, transforming it into an international transshipment point for goods and stimulating regional integration and trade cooperation within Greater Eurasia.

A number of states through which the INSTC passes possess significant energy potential. According to 2024 data, among the INSTC participants in the top 20 global leaders in oil reserves were: Iran in 4<sup>th</sup> place, the Russian Federation in 6<sup>th</sup>, Kazakhstan in 12<sup>th</sup>, and Azerbaijan in 19<sup>th</sup> (Figure 3).

Thus, the countries of the region account for just over 17% of global oil reserves.

The global leaders in oil consumption are also members of the INSTC or the Belt and Road Initiative (Figure 4). The Asian leaders here are China, India, and Russia.

1 The Zhanaozen–Kyzylkaya–Bereket–Etrek–Gorgan railway line, over 900 km long, connecting Kazakhstan, Turkmenistan, and Iran, is an example of transport infrastructure development in this region.

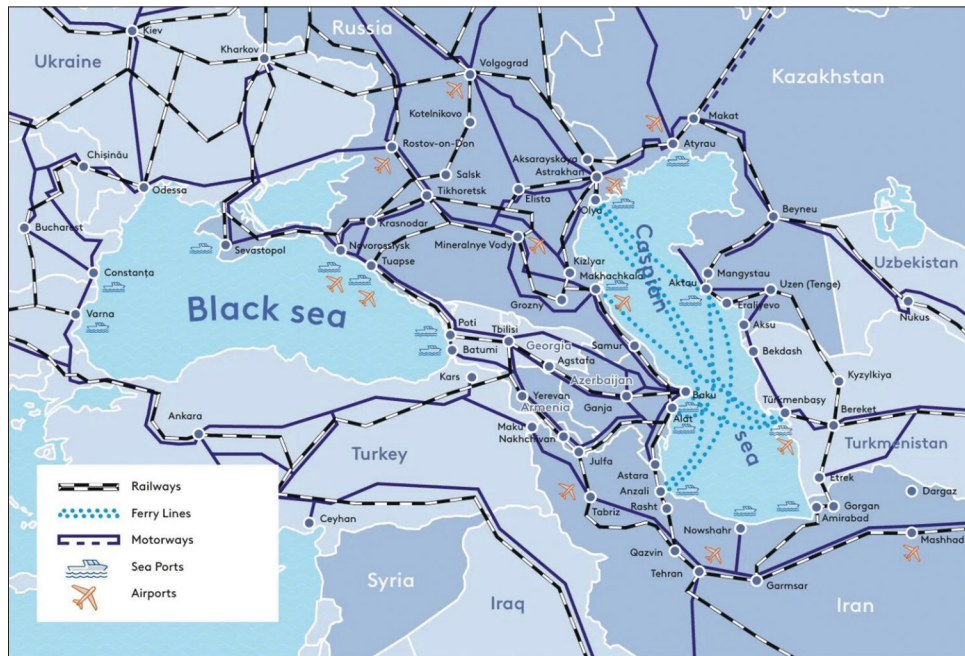
2 Free trade zones have been established around the INSTC. For example, in May 2018, a temporary agreement on the formation of a free trade zone was signed between the Eurasian Economic Union and Iran, and negotiations also began on concluding a treaty with India.

**Figure 1:** INSTC – Meridional corridor of the Eurasian transport framework



Source: (1, p. 4)

**Figure 2:** INSTC – component of the interconnected network of trade corridors in the Caspian region



Source: (Vinokurov et al., 2021, p. 5)

Figure 5 presents the top 20 global leaders in proven gas reserves, 2024, in billion m<sup>3</sup>.

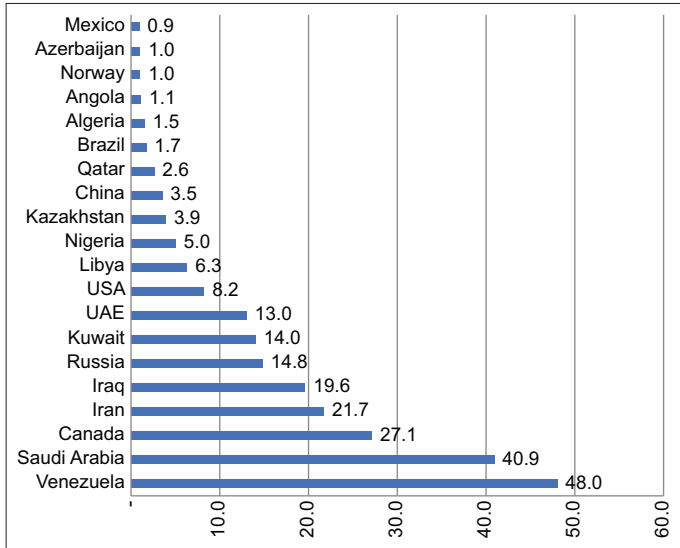
According to 2024 data, among the states through which the INSTC passes, the following were included in the top 20 global leaders in gas reserves: Russia in 1<sup>st</sup> place, Iran in 2<sup>nd</sup>, Turkmenistan in 4<sup>th</sup>, Azerbaijan in 13<sup>th</sup>, and Kazakhstan in 14<sup>th</sup> (Figure 5).

Thus, the countries through which the INSTC passes account for just under half of global gas reserves.

The global leaders in natural gas consumption among Asian countries are Russia, China, and Iran (Figure 6).

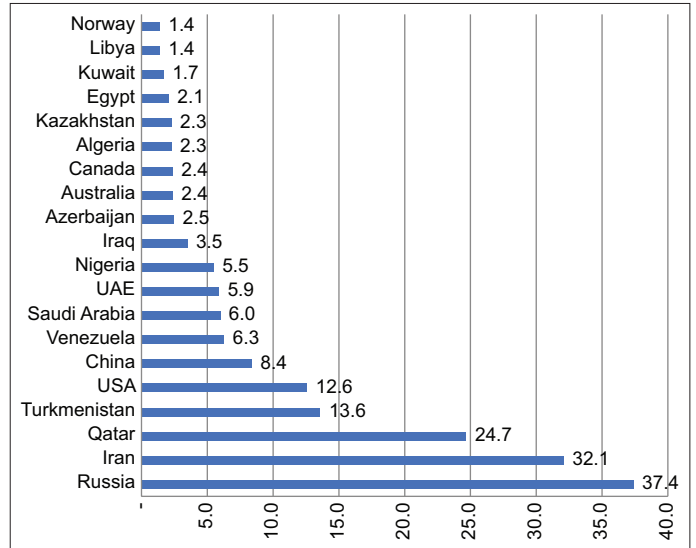
The top 20 global leaders in coal reserves also include member countries of the INSTC and the Belt and Road Initiative: Russia, China, India, and Kazakhstan (Figure 7).

**Figure 3:** Top 20 global leaders in proven oil reserves, 2024, billion tonnes



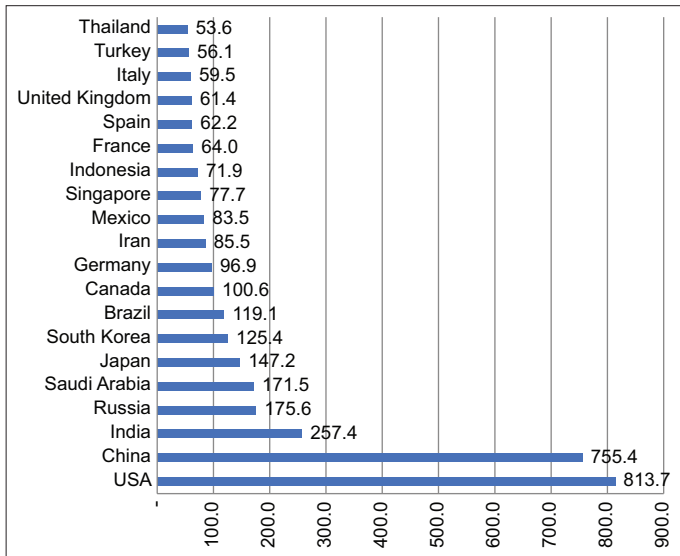
Source: Compiled by the authors based on (Statistical Review of World Energy 2025, 2026)

**Figure 5:** Top 20 global leaders in proven natural gas reserves, 2024, trillion m<sup>3</sup>



Source: Compiled by the authors based on (Statistical Review of World Energy 2025, 2026)

**Figure 4:** Top 20 global leaders in oil consumption, 2024, million tonnes

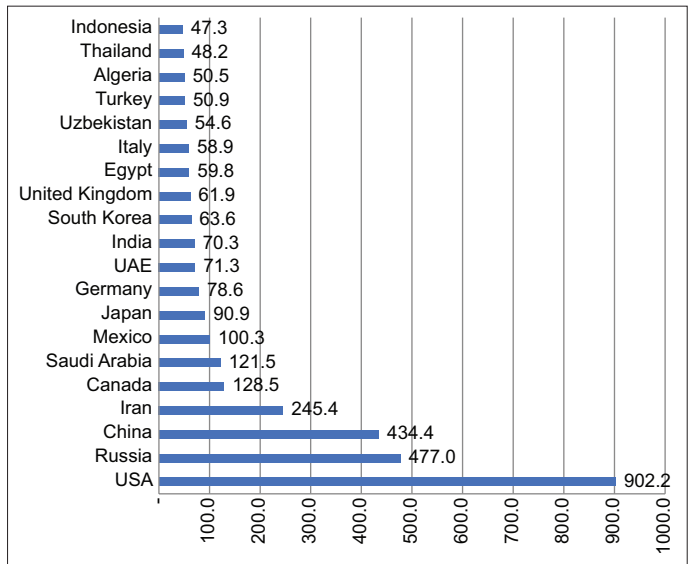


Source: Compiled by the authors based on (Statistical Review of World Energy 2025, 2026)

The global leaders in coal consumption are China, while among INSTC member countries they are India, Russia, and Kazakhstan (Figure 8).

The top 20 global leaders in uranium reserves also include member countries of the INSTC and the Belt and Road Initiative: Kazakhstan in 2<sup>nd</sup> place, Russia in 4<sup>th</sup>, China in 9<sup>th</sup>, and India in 13<sup>th</sup> (Figure 9). Moreover, INSTC countries are leading uranium producers. Globally, these are: Kazakhstan in 1<sup>st</sup> place, Uzbekistan in 5<sup>th</sup>, and Russia in 6<sup>th</sup> (World Uranium Mining Production, 2025). In the future, this could become a driver for accelerating the pace of nuclear power plant construction in Asia.

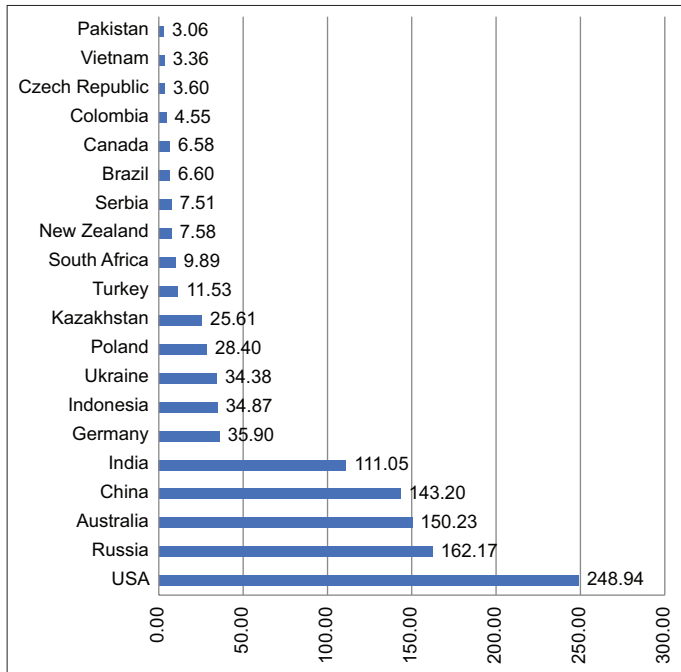
**Figure 6:** Top 20 global leaders in gas consumption, 2024, billion m<sup>3</sup>



Source: Compiled by the authors based on (Statistical Review of World Energy 2025, 2026)

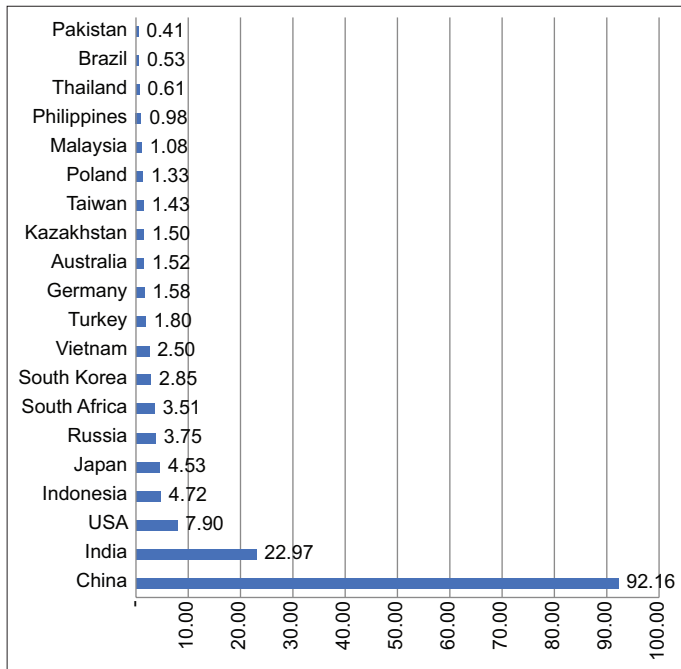
The export-import balance of the INSTC member countries is characterized by a persistent asymmetry: the vast majority of states along the route are net exporters of energy resources, while India and Pakistan, as the major exception, cover a significant share of their domestic consumption through imports. It is this configuration — exporters on the northern and central sections of the corridor and a major importer at the southern end — that creates the natural economic logic for the development of the INSTC, since Russia, Kazakhstan, Azerbaijan, Turkmenistan, and Iran gain direct and relatively short access to the growing Indian and Pakistani markets, while India and Pakistan, in turn, gain access to diversified sources of supply bypassing traditional maritime routes. In the system of promising gas transport routes

**Figure 7:** Top 20 global leaders in proven coal reserves, 2024, billion tonnes



Source: Compiled by the authors based on (World Uranium Mining Production, 2025)

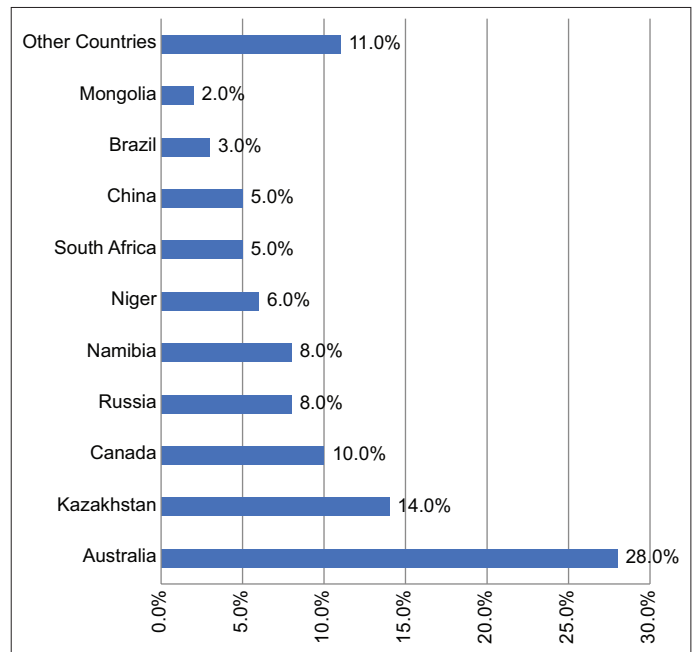
**Figure 8:** Top 20 global leaders in coal consumption, 2024, exajoules



Source: Compiled by the authors based on (World Uranium Mining Production, 2025).

in Greater Eurasia, an important place belongs to the TAP project (Turkmenistan-Afghanistan-Pakistan), which represents the first stage of the larger TAPI initiative (without the branch to India). The project envisages the construction of a gas pipeline approximately 1,400 km long from Turkmenistan’s Galkynysh field (resource base — up to 27.4 trillion m<sup>3</sup>) through the Afghan provinces of

**Figure 9:** Top 10 global leaders in proven uranium reserves, 2024, %



Source: Compiled by the authors based on (World Uranium Mining Production, 2025)

Herat and Kandahar to the Pakistani city of Multan. The design capacity is up to 30-33 billion m<sup>3</sup> of gas/year, of which Pakistan will receive about 15 billion m<sup>3</sup>, and the remaining volume (about 15-18 billion m<sup>3</sup>) is intended for the Afghan market and transit. From a geo-economic perspective, TAP is designed to provide Pakistan with access to cheap pipeline gas amid acute energy shortages, and Turkmenistan with export diversification bypassing Chinese monopsony. Nevertheless, TAP is forming a new latitudinal energy corridor “Central Asia – South Asia”, an alternative both to maritime LNG supplies and to the traditional orientation of Turkmen gas toward northern and eastern routes.

The transformation of the global economic order, manifested in the fragmentation of trade regimes, the regionalization of supply chains, and the revision of logistics priorities, is directly changing the requirements for transport and energy cooperation in the Eurasian space (Telegina and Khalova, 2023). In these conditions, the countries along the INSTC face not a declarative but a highly practical task: to bring infrastructure into line with new realities. The priority areas here include the modernization of inland waterways, increasing the security of container and cargo terminals in Caspian ports, upgrading border crossing points, as well as the development of logistics hubs and roadside service facilities.

The need to improve transport infrastructure along the entire length of the corridor is beyond doubt: It is precisely this condition that is key to increasing trade turnover, improving the economic performance of member states, and creating new sales markets. However, the main constraint lies not so much in the technical as in the institutional plane. The corridor crosses the borders of several states, and its effectiveness is directly proportional to the ability of the participants to coordinate their actions and work

within the framework of common interests — without this, even the most modern infrastructure will not deliver the expected integration effect.

Thus, an analysis of the INSTC's potential allows us to view it not merely as a transport route, but as a fundamentally new tool suitable both for improving existing logistics chains and for forming new energy clusters and projects. Provided that all participants take coordinated action, this corridor has every chance to become the center of large-scale energy development on the Eurasian continent in the coming decade.

## 5. CONCLUSION

The logistics advantage of the INSTC over the Suez Canal is no longer a hypothetical calculation but a confirmed fact: a twofold reduction in distance (7,200 km versus 16,000 km) in 2024 produced a tangible increase in traffic of almost 20% compared to the pre-crisis level. However, it would be a mistake to reduce the significance of the INSTC solely to geography or geopolitics. The economic meaning of the corridor is revealed through the structural asymmetry embedded in it by nature itself: on the northern and central sections are located net energy exporters (Russia, Kazakhstan, Azerbaijan, Iran), while on the southern end is the largest net importer, India.

It is this configuration that makes the INSTC not just a “road”, but an energy bridge. Moreover, unlike hydrocarbons, where routes are diversified, the uranium track (Kazakhstan — 45% of global output, Uzbekistan and Russia in the global top 10) remains for now a niche that the INSTC can occupy with virtually no competitors. Demand for uranium from the nuclear energy sectors of India, China, and South Asian countries will only grow, and whoever offers a short and secure logistics link in time will gain a long-term advantage.

Of course, it would be naive to ignore institutional barriers. Today, the main problem of the INSTC lies not even in the state of the Caspian ports or the quality of roads, but in the “grey zone” of coordination. Sanctions pressure on Iran blocks investment in key hubs (Chabahar, Bandar Abbas), while bureaucratic delays at border crossings nullify the gains from reduced mileage. Without customs synchronization and the unification of digital platforms (a transition to the “digital corridor” model), physical infrastructure will remain underutilized.

The corridor will face stiff competition from China's Belt and Road Initiative. In our view, one of the key ways to increase freight turnover in the modal direction is to focus on energy cooperation, particularly in the implementation of nuclear power plant construction projects.

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