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The Trans-Caspian Pipeline: Turkmenistan's Path to EU Energy Security and Strategic Diversification

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ABSTRACT

The Russia-Ukraine conflict has intensified the European Union's (EU) need to diversify its energy sources, positioning Turkmenistan as a potential key supplier. With the world's fourth-largest natural gas reserves, Turkmenistan could play a pivotal role in global energy markets. However, governance challenges, an overreliance on China for gas exports, and infrastructural deficiencies hinder this potential. This study explores the strategic importance of the Trans-Caspian Pipeline (TCP), which could connect Turkmenistan's reserves to the EU's Southern Gas Corridor, enhancing Europe's energy security. The methodology involves a qualitative analysis of secondary data, including policy documents, academic literature, and geopolitical reports, to evaluate the challenges and opportunities associated with the TCP. The research highlights significant internal and external challenges, including geopolitical resistance from Russia and Iran, and economic and technical barriers to the pipeline's implementation. Despite these obstacles, regional collaborations, such as the 2021 Azerbaijan-Turkmenistan Memorandum of Understanding, indicate pathways forward. The analysis concludes that sustained investments, strong political

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will, and strategic international partnerships are essential for unlocking Turkmenistan's energy potential and addressing the EU's energy diversification goals.

KEYWORDS: *Turkmenistan, Energy Security, Trans-Caspian Pipeline, Geopolitics, EU*

Introduction

The global energy landscape has undergone profound transformations over the past decade, shaped by shifting geopolitical alignments, fluctuating market dynamics, and an accelerating global transition toward sustainability. Among these developments, the European Union's (EU) efforts to reduce its dependence on Russian natural gas have emerged as one of the most consequential geopolitical and economic shifts in recent years. The Russia–Ukraine conflict has starkly exposed Europe's vulnerability to energy disruptions, compelling the EU to diversify its energy imports and secure alternative suppliers capable of ensuring both stability and strategic autonomy (European Commission, 2023).

Turkmenistan, despite its relative isolation, occupies a unique position in this evolving context. With the world's fourth-largest natural gas reserves estimated between 14 and 19 trillion cubic meters (BP, 2023), and the Galkynysh field as one of its crown jewels, the country holds substantial potential to become a vital player in addressing global and European energy needs. Yet this potential remains largely unrealized due to enduring governance challenges, infrastructural deficiencies, and an economic model heavily dependent on a single buyer – China, which currently absorbs over 80% of Turkmenistan's gas exports (ADB, 2022). Consequently, the diversification of export markets has become both an economic necessity and a geopolitical imperative for Ashgabat (Pomfret, 2021).

Since independence in 1991, Turkmenistan's political and economic trajectory has been defined by centralized control, limited transparency, and the persistence of rentier-state dynamics (Beblawi & Luciani, 1987; Bohr, 2016). While this system has allowed the government to retain tight control over hydrocarbon revenues, it has simultaneously discouraged foreign investment and slowed the modernization of the energy sector. Nonetheless, the EU's pursuit of new energy partners, particularly within the Caspian region, has rekindled

interest in Turkmenistan as a potential contributor to Europe's diversification strategy. The Trans-Caspian Pipeline (TCP), a proposed subsea connection between Turkmenistan and Azerbaijan, represents the most tangible opportunity for Turkmen gas to reach European markets through the Southern Gas Corridor (SGC) (European Commission, 2023; World Bank, 2023).

This article argues that the TCP constitutes both a strategic opportunity and a geopolitical test for Turkmenistan and the EU. It advances the hypothesis that while the TCP could significantly enhance the EU's energy security and Turkmenistan's economic autonomy, its realization depends on overcoming persistent structural, political, and technical constraints. The study adopts a qualitative approach, analysing secondary data from academic, institutional, and policy sources to evaluate the internal and external factors shaping the feasibility of the TCP.

By situating Turkmenistan's energy policy within the broader framework of post-2022 European energy realignments, this paper contributes to the literature on energy geopolitics and diversification. It argues that the successful implementation of the TCP would not only serve as a milestone in EU–Central Asia relations but also redefine Turkmenistan's role from a peripheral energy supplier to a pivotal actor in Eurasian energy security.

Methodology

This study employs a qualitative research design grounded in interpretive analysis of secondary data. It draws upon a diverse range of sources, including official EU and Turkmen government publications, policy documents, energy industry reports, and scholarly works from peer-reviewed journals and institutional studies. The selection of materials follows a purposive sampling approach, prioritizing sources that directly address the geopolitical, economic, and infrastructural dimensions of the TCP. Analytical emphasis is placed on the intersection of energy security and regional politics, examining how internal governance structures, external pressures, and regional cooperation shape Turkmenistan's ability to engage with the EU's diversification strategy. The qualitative design allows for a context-sensitive interpretation of policy developments, recognizing that the feasibility of the TCP is not merely technical or economic, but deeply embedded in the geopolitical realignments of the post-2022 energy landscape.

Turkmenistan's Political, Economic, and Energy Context

Turkmenistan, often compared to North Korea for its isolation and closed political environment, remains one of the most enigmatic countries in the world. Information about the nation is tightly controlled, with international access and media freedom severely restricted (Human Rights Watch, 2023). Since gaining independence from the Soviet Union in 1991, Turkmenistan's political and economic trajectory has been shaped by its leaders' centralized authority and reliance on hydrocarbon revenues (Karrar, 2020).

Saparmurat Niyazov, Turkmenistan's first president, ruled from independence until his death in 2006. A former First Secretary of the Turkmen Communist Party, Niyazov made minimal changes to the Soviet-era political structure, rebranding the Communist Party as the Democratic Party and retaining much of its leadership (Kimmage, 2006). His presidency was characterized by a tightly controlled political system, marked by fraudulent elections. Niyazov was declared president for life in 1999 by the *Halk Maslahaty* (People's Council), a legislative body he created to consolidate power (Horák, 2014). Niyazov employed authoritarian tactics, including Stalinist purges, to maintain control. Following an assassination attempt in 2002, he restructured the national security apparatus, transferring significant authority to the Presidential Guard (Kimmage, 2006). The personality cult surrounding Niyazov was a defining feature of his rule. This pervasive control extended to all aspects of life, fostering an environment of loyalty and fear (Horák, 2014).

Following Niyazov's death, Gurbanguly Berdimuhamedow, his former personal dentist and deputy prime minister, assumed power. His ascension involved sidelining the constitutional successor, Ovazgeldy Ataev, through criminal charges (Horák, 2014). In 2007, Berdimuhamedow was elected president, securing 89% of the vote. Although initially seen as a reformer, Berdimuhamedow maintained many of Niyazov's policies (Karrar, 2020). He dismantled the *Halk Maslahaty*, transferring its powers to parliament, but deepened clan-based politics by favouring his own Ahal Teke clan (Kimmage, 2006). His leadership style, described by diplomats as deceptive and theatrical, entrenched centralized authority while creating potential instability due to the marginalization of other clans (Horák, 2014).

Berdimuhamedow has continued state control over media and public life, with no opposition parties allowed. Internet access remains limited, and social media platforms are banned (Human Rights Watch, 2023). Despite initiating

a de-Niyazovization process, Berdimuhamedow mirrored many of his predecessor's methods, blending state control with selective modernization efforts. In March 2022, Gurbanguly Berdimuhamedow transferred power to his son, Sardar Berdimuhamedow, through an orchestrated election (Karrar, 2020). This marked the establishment of Turkmenistan's first dynastic succession, solidifying the Berdimuhamedow family's grip on the country's political system (Horák, 2014).

Turkmenistan's economic structure aligns closely with the characteristics of a rentier state, a concept originally coined by Hussein Mahdavi and later expanded by Hazem Beblawi and Giacomo Luciani. A rentier state derives most of its revenue from external rents, primarily hydrocarbon exports, and is characterized by several key features (Beblawi & Luciani, 1987). In Turkmenistan, these include the dominance of oil and gas revenues, limited industrialization, a small workforce in the energy sector, and the concentration of resource wealth in the hands of the government, particularly the presidency (Pomfret, 2021).

The Turkmen economy is heavily reliant on natural gas exports, with oil playing a secondary role. The country's industrial base remains underdeveloped, making Turkmenistan one of the least industrialized nations in Central Asia (ADB, 2022). Employment in the hydrocarbon sector is limited to a small portion of the population, despite the sector's outsized role in generating national income (Pomfret, 2021). Crucially, the financial benefits from oil and gas exports are almost exclusively controlled by the government, with the president exercising significant authority over revenue allocation and management (ADB, 2022).

This dependency on hydrocarbon exports makes Turkmenistan vulnerable to external economic shocks. The lack of economic diversification exacerbates the country's reliance on a few key trading partners, limiting its geopolitical flexibility (Pomfret, 2021). Until 2009, Russia was Turkmenistan's largest energy customer. However, following a shift in trade dynamics, China has become Turkmenistan's dominant partner (BP, 2023). Hydrocarbon exports constitute 90% of total exports, 50% of government revenue, and 30% of GDP. Despite this wealth, the country remains economically fragile due to a lack of diversification and an overreliance on the Chinese market, which accounts for 44% of Turkmenistan's trade. Exports to China rose from $6.6 billion in 2017 to $8.8 billion in 2023, reflecting the country's deep economic dependency (ADB, 2022).

Corruption and an inhospitable business environment deter foreign investment, with companies frequently encountering difficulties repatriating prof-

its (Karrar, 2020). Turkmenistan's unwillingness to sign production-sharing agreements with Western firms further limits its economic potential (Pomfret, 2021). Declining hydrocarbon revenues between 2013 and 2016, coupled with inflation reaching 294% in 2017, have exacerbated economic hardships, including food shortages and the abolition of state subsidies for gas, electricity, and water (ADB, 2022).

Following independence, Turkmenistan's economic strategy centred on the extraction and export of energy resources, particularly natural gas. However, the country's landlocked geography, coupled with limited energy infrastructure, posed challenges for accessing international markets (Pomfret, 2021). The discovery of the Galkynysh field in 2006, the world's second-largest gas reserve with reserves of 4–14 trillion cubic meters, significantly boosted Turkmenistan's resource base (BP, 2018). The government outlined ambitious plans to increase gas production to 250 billion cubic meters (bcm) annually by 2030 under its oil and gas development program (ADB, 2022).

Initially reliant on Soviet-era pipelines, Turkmenistan's export routes were limited. The collapse of agreements with Russia in the 1990s left Turkmenistan dependent on exports through the Central Asia Center (CAC) pipeline to Ukraine (Horák, 2014). Payment difficulties in Ukraine and regional competition from neighbouring gas-rich countries such as Russia and Kazakhstan further complicated Turkmenistan's energy strategy (Karrar, 2020). The 2009 CAC pipeline explosion marked a turning point, pushing Turkmenistan to pivot towards China. The construction of the Central Asia-China Pipeline (CACP) allowed Turkmenistan to diversify its exports, although this shift resulted in heavy reliance on a single buyer. Exports to China accounted for over 80% of Turkmen gas sales, underscoring the country's urgent need for diversification (BP, 2023).

Domestically, outdated infrastructure and limited technological capacity remain significant obstacles. Despite Berdimuhamedow's open-door foreign policy, which aimed to diversify exports, the absence of LNG facilities and strained relationships with some neighbours constrained progress (Pomfret, 2021). However, improvements in regional diplomacy, particularly with Azerbaijan and Uzbekistan, offered avenues for collaboration (ADB, 2022).

Under Saparmurat Niyazov's leadership, Turkmenistan's gas policies were characterized by rigid state control. Niyazov personally approved all energy-related agreements, ensuring that decisions aligned with his administration's political objectives (Horák, 2014). His successor, Gurbanguly Berdimuhamedow,

has maintained this approach, with the presidency retaining ultimate authority over critical gas sector decisions (Kimmage, 2006). Although several state bodies nominally manage Turkmenistan's energy sector, decision-making is concentrated in the hands of the president.

The management of the gas sector also reflects the influence of clan-based politics. During Niyazov's era, the Yomud clan from the Balkan region dominated the industry due to its proximity to the Gubkin State University of Oil and Gas, which trained much of the sector's workforce. However, Berdimuhamedow gradually replaced the Yomud clan with members of the Ahal Teke clan, consolidating his political power. The Ahal Teke clan now oversees most aspects of the gas industry, from planning to execution (Horák, 2014).

For years, subsidies such as free gas, electricity, and water formed part of a social contract between the government and citizens, ensuring political compliance in exchange for economic benefits (Karrar, 2020). However, the state's overreliance on hydrocarbons leaves it vulnerable to market fluctuations and external pressures. Turkmenistan's gas strategy prioritizes maximizing export revenues by diversifying its customer base. Initially focused on post-Soviet states, particularly Russia and Ukraine, Turkmenistan has shifted toward new markets, with China now serving as its primary customer (BP, 2023). While this strategy has broadened its export horizons, it also reflects a pragmatic approach to depoliticizing energy deals, as Turkmenistan seeks to avoid entangling its gas trade in international disputes (Pomfret, 2021).

Turkmenistan possesses some of the largest natural gas reserves in the world. According to BP's 2018 Statistical Review of World Energy, the country holds an estimated 14–19.5 trillion cubic meters (tcm) of gas reserves, with the Galkynysh field alone accounting for 4–14 tcm (BP, 2018). The country also boasts over 20,000 kilometres of pipelines, with most of its reserves located in the eastern regions, including the Amu Darya and Murgab basins. Offshore reserves in the Caspian Sea, such as the Magtymguly deposit, further enhance Turkmenistan's energy potential (ADB, 2022).

Gas production in Turkmenistan has fluctuated significantly over the years. During the Soviet era, the country produced as much as 81.9 billion cubic meters (bcm) annually. However, production declined sharply in the 1990s due to reduced exports and economic instability, reaching a low of 11 bcm in 1998 (Pomfret, 2021). By 2008, production had rebounded to 50 bcm, driven by rising exports. In 2017, Turkmenistan produced 62 bcm, with plans to increase

Table 1: Turkmenistan's Gas Pipelines

Pipeline Name	Countries Connected	Operational Capacity
Central Asia-Central Pipeline (CAC)	Turkmenistan, Uzbekistan, Kazakhstan, Russia	45 bcm annually
Korpedzhe–Kurt Koi Pipeline (KKKP)	Turkmenistan, Iran	8 bcm annually
Dauletabad–Khangiran Pipeline	Turkmenistan, Iran	12 bcm annually
Central Asia-China Pipeline (CACP)	Turkmenistan, Uzbekistan, Kazakhstan, China	55 bcm annually (existing lines); proposed additional 30 bcm through Line D
East-West Pipeline (EWP)	Domestic (Eastern gas fields to Caspian Sea within Turkmenistan)	30 bcm annually
TAPI Pipeline	Turkmenistan, Afghanistan, Pakistan, India	33 bcm annually

Source: author

output to 187.7 bcm by 2020. However, Turkmenistan increased its gas production only by 6.9% and exports by 12.6% in 2023, achieving a total production of 80.6 bcm (BP, 2023). The primary markets for Turkmen gas included China, Russia, Iran, Azerbaijan and Uzbekistan (ADB, 2022).

Turkmenistan's energy policies are shaped by strict state control and regulations that limit foreign involvement. By law, international companies must sell gas to Turkmengaz, the state-owned entity, at fixed prices that are often below global market rates (Pomfret, 2021). Foreign companies are required to process gas within Turkmenistan, and production-sharing agreements (PSAs) are rarely issued. Instead, the government prefers joint activity agreements, which allow limited collaboration while maintaining state control (Horák, 2014).

To date, only two foreign companies have received PSAs for onshore fields. British Burren Energy, later acquired by Italy's ENI, and China National Petroleum Corporation (CNPC) were granted contracts to develop gas fields in the Burun area of the Nebit Dag region and Bagtyyarlyk, respectively. CNPC's involvement reflects Turkmenistan's growing reliance on Chinese investments and expertise (BP, 2023).

Figure 1: Turkmenistan's Gas Pipelines and Export Routes

Source: Ministry of Foreign Affairs of Turkmenistan

Turkmenistan has historically avoided building pipelines for its customers, adhering to a "selling gas at borders" policy. This approach shifts the responsibility of transportation and infrastructure development to buyers, reducing the state's financial burden but limiting its influence over downstream markets (ADB, 2022).

In the early years of independence, Turkmenistan relied on third-party intermediaries like ITERA to manage gas exports to post-Soviet countries. Founded in 1992 by Igor Makarov, an ethnic Russian from Turkmenistan, ITERA facilitated barter and cash transactions during a period of economic instability in the region. In 2015, the company was rebranded as ARETI International Group, which continues to play a prominent role in Turkmenistan's gas industry. Reports suggest that ARETI's CEO maintains close ties with Berdimuhamedow, reflecting the intertwining of business and political interests in the sector (Horák, 2014).

Turkmenistan's landlocked geography necessitates the use of pipelines for exporting its vast natural gas reserves. The country has developed an extensive pipeline infrastructure to connect its resources to international markets. Currently, Turkmenistan operates four major pipelines and is involved in discussions for constructing additional routes (Pomfret, 2021; ADB, 2022).

1. Central Asia-Central Pipeline (CAC)

The Central Asia-Central Pipeline (CAC) is one of the oldest and most significant gas export routes for Turkmenistan. Built by the Soviet Union, construction began in 1967 and was completed in the 1980s. The pipeline connects Turkmenistan's gas fields to Russia's Siberian pipeline network and spans 5,000 kilometres (Horák, 2014; Kimmage, 2006).

The CAC pipeline comprises five branches and serves as an export route for both Turkmen and Uzbek gas. It is divided into two main sections: the first runs from the Caspian Sea region to Russia, while the second links Turkmenistan to Uzbekistan, Kazakhstan, and eventually Russia. The pipeline's maximum capacity is 90 billion cubic meters (bcm) annually, but due to aging infrastructure, its operational capacity is limited to 45 bcm (Karrar, 2020).

In 2003, Gazprom and Turkmenistan signed a 25-year agreement under which Gazprom would purchase up to 80 bcm of Turkmen gas annually. Gazprom also committed $1 billion to maintain the pipeline (BP, 2023). Turkmenistan gradually negotiated higher prices for its gas, from $44 per 1,000 cubic meters in the early 2000s to European rates of $240–350 per 1,000 cubic meters by 2009. However, an explosion on April 9, 2009 halted exports, with some experts attributing the incident to Russia's reluctance to pay high prices amid declining European demand (Energy Institute, 2023; Pomfret, 2021).

The 2009 explosion and subsequent termination of gas contracts with Russia in 2016 severely impacted Turkmenistan's economy, highlighting the vulnerabilities of over-reliance on a single export route. By 2016, Turkmenistan faced significant financial challenges, including a 19% currency devaluation. The Energy Institute's statistical reference book reports that Turkmenistan exported 4.7 billion cubic meters of gas to Russia in both 2022 and 2023 through CAC (Energy Institute, 2023).

2. Korpedzhe–Kurt Koi Pipeline (KKKP) and Dauletabad–Khangiran Pipeline

The Korpedzhe–Kurt Koi Pipeline (KKKP) marked Turkmenistan's first significant attempt to bypass Russian-controlled routes. Built in 1995 and operational by 1997, the pipeline connects Turkmenistan's Korpedzhe field to Iran's northern regions, addressing Iran's domestic supply gap between its

southern reserves and northern population centres. The pipeline has an annual capacity of 8 bcm, and its construction was 80% financed by Iran (Kimmage, 2006; ADB, 2022).

The Dauletabad–Khangiran Pipeline, completed in 2010, supplements the KKKP by connecting the Dauletabad field in Turkmenistan to Iran's Khangiran gas refinery. This pipeline has a maximum capacity of 12 bcm (Pomfret, 2021; BP, 2023).

Gas exports to Iran have been fraught with challenges. In 2007, Turkmenistan demanded price increases, which led to a temporary halt in exports. While deliveries resumed in 2009 after renegotiations, disputes over unpaid debts and pricing escalated in 2017. Turkmenistan claimed Iran owed $1.8 billion, while Iran filed a complaint with international arbitration, citing high prices and quality issues. These disputes effectively ended Turkmen gas exports to Iran (Horák, 2014; Karrar, 2020).

3. Central Asia-China Pipeline (CACP)

The Central Asia-China Pipeline (CACP) is Turkmenistan's most significant recent pipeline project. Built by the China National Petroleum Corporation (CNPC) at an investment of over $14 billion, the pipeline became operational in 2009. Described by president Berdimuhamedow as the "pipeline of the century", the CACP connects Turkmenistan's eastern gas fields to China's West-East gas pipeline system (BP, 2023; Energy Institute, 2023).

The CACP includes three operational lines (A, B, and C) with a combined capacity of 55 bcm per year, sourced primarily from Turkmenistan. A proposed fourth line (D) would pass through Uzbekistan, Tajikistan, and Kyrgyzstan to increase capacity by an additional 30 bcm, though construction has been delayed (ADB, 2022).

Turkmenistan exported over 30 bcm of gas to China in 2023, but the total revenue declined to $9.6 billion compared to $10.25 billion the previous year. CNPC plays a vital role in Turkmenistan's gas sector, holding a production-sharing agreement for the Bagtyyarlyk field, which contains 1.3 tcm of reserves (BP, 2023; Kimmage, 2006).

Turkmenistan faces mounting competition from Russia in the Chinese gas market. Over 76% of Turkmenistan's gas exports are directed to China, primarily delivered through the Central Asia-China pipeline, an infrastructure project financed jointly by Turkmenistan and China that also transports gas from Ka-

zakhstan and Uzbekistan. Following the Russia-Ukraine war, the damage to the Nord Stream pipelines and the EU's strategic plan to phase out Russian gas imports by 2027 have compelled Russia to seek dominance in alternative markets, particularly China (Energy Institute, 2023; Pomfret, 2021).

4. East-West Pipeline (EWP)

The East-West Pipeline (EWP) is a strategic domestic project designed to connect Turkmenistan's eastern gas fields to the Caspian Sea. Construction began in 2010 and was completed in 2015, with the Turkmen government investing $2 billion. The pipeline has a capacity of 30 bcm and serves as a precursor to the proposed Trans-Caspian Pipeline (TCP), which aims to transport Turkmen gas to European markets via Azerbaijan (ADB, 2022; BP, 2023).

Although the EWP currently lacks an export component, its construction aligns with Turkmenistan's goal of diversifying gas exports (Pomfret, 2021; Horák, 2014).

5. Projected Pipeline: TAPI - Turkmenistan-Afghanistan-Pakistan-India (TAPI) Pipeline

The Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline is an ambitious project aimed at transporting Turkmen gas to South Asia, connecting Turkmenistan's Dauletabad field with Afghanistan, Pakistan, and India. Proposed in the early 1990s, the pipeline represents a significant step in diversifying Turkmenistan's export markets while promoting regional energy cooperation (ADB, 2022; Energy Institute, 2023).

Initially proposed by Bridas, an Argentine energy firm, in 1993, the TAPI project faced early challenges, including disagreements with the Turkmen government. These issues culminated in the termination of Bridas' contracts and property confiscation. Subsequently, Turkmenistan engaged the American energy company Unocal in 1995. However, Unocal withdrew in 1998 due to concerns over instability in Afghanistan following U.S. military strikes against Al-Qaeda (Kimmage, 2006; BP, 2023).

The pipeline is designed to transport 33 bcm of gas annually: 5 bcm for Afghanistan and 14 bcm each for Pakistan and India. The 1,700 km pipeline is projected to provide Afghanistan with $500 million in annual transit fees, contributing to its economic stability. The estimated cost is $7.6 billion (Energy Institute, 2023).

However, the pipeline's route through Afghanistan poses significant security challenges due to ongoing political instability and the presence of insurgent groups. Ensuring the safety of the pipeline in these regions remains a critical concern. Tensions between India and Pakistan over Kashmir further complicate the project's realization. Additionally, Turkmenistan's limited experience in building international pipelines raises concerns about its ability to lead such a complex venture (Pomfret, 2021; Karrar, 2020).

Trans-Caspian Pipeline (TCP)

The Trans-Caspian Pipeline (TCP) is central to Turkmenistan's aspirations to connect its vast gas reserves to European markets. Envisioned as a 300 km subsea pipeline linking Turkmenistan's Turkmenbashi port to Baku, Azerbaijan, the TCP would integrate Turkmen gas into the Southern Gas Corridor (SGC), ultimately reaching Europe via Turkey (Pirani, 2018; European Commission, 2021).

Introduced by the United States in 1996, the TCP was initially estimated to cost $3 billion, with a proposed capacity of 30 bcm – 14 bcm for Europe and 16 bcm for Turkey. Supported by U.S. financing, American companies Enron and Unocal completed a feasibility study in 1999, a consortium including General Electric and Bechtel was formed. However, disputes over the Kapaz/Sardar oilfield in the Caspian Sea between Azerbaijan and Turkmenistan halted progress. The discovery of Azerbaijan's Shah Deniz gas field further shifted investor interest away from the TCP (Roberts, 2003; Cohen, 2019).

Efforts to revive the project intensified in the 2000s. The EU's introduction of the Nabucco pipeline project in 2002 renewed interest in Turkmen gas as a supply source. In 2007, Berdimuhamedow visited Brussels to discuss potential cooperation, leading to a pledge from Turkmenistan to supply 10 bcm of gas to Europe. However, Ashgabat's reluctance to formalize agreements and the unresolved Kapaz/Sardar dispute with Azerbaijan impeded progress (European Commission, 2015; BP, 2023).

The EU granted the European Commission a mandate to negotiate the TCP in 2011, recognizing it as a Project of Common Interest (PCI). This designation enabled EU budgetary support for the project. The TCP is envisioned as a critical extension of the SGC, connecting Turkmen gas to the Baku-Tbilisi-Erzurum pipeline, the Trans-Anatolian Pipeline (TANAP), and the Trans-Adriatic Pipeline (TAP). TANAP and TAP have capacities of 23 bcm and 10 bcm, respective-

ly, with planned expansions to accommodate additional volumes (Pirani, 2018; European Commission, 2021).

The TCP is crucial for Europe's energy diversification strategy, particularly following the Russia-Ukraine conflict. However, the high cost of Turkmen gas – estimated at $400 per 1,000 cubic meters due to production and transit expenses – poses challenges. Alternatives, such as LNG or CNG, have been considered but are deemed less viable due to higher costs (Horák, 2014; Roberts, 2020).

The TCP has faced staunch opposition from Russia and Iran, which view it as a threat to their energy dominance. Historically, the unresolved legal status of the Caspian Sea hindered progress. The 2018 Caspian Sea Legal Convention, clarifying pipeline construction rights, marked a turning point, enabling bilateral agreements between Azerbaijan and Turkmenistan. Despite these developments, Turkmenistan's approach remains cautious. Ashgabat has not committed to funding the TCP, instead adopting a "wait-and-see" strategy. Turkmenistan expects external parties to finance and construct the pipeline before committing to gas exports. Additionally, scepticism about the EU's coherence and commitment to the project persists in Ashgabat (Pomfret, 2021; Energy Institute, 2023).

The construction of the East-West Pipeline (EWP) within Turkmenistan has bolstered hopes for the TCP's realization. The EWP connects eastern gas fields to the Caspian Sea, positioning Turkmenistan for eventual integration into the SGC. Azerbaijan's expansion of the South Caucasus Pipeline to 26 bcm further supports this potential (Kimmage, 2006; BP, 2023).

Joint working groups involving Azerbaijan, Turkey and Turkmenistan signal renewed interest in the TCP. However, significant political will and financial commitment from both Turkmenistan and the EU are required to overcome logistical and geopolitical challenges (Cohen, 2019; Pirani, 2018).

Internal Challenges

a) One of the most critical internal challenges is Turkmenistan's reputation for failing to respect contractual obligations under international law. Numerous cases have been documented where Turkmenistan unilaterally cancelled contracts with foreign companies, seized their assets, or refused to pay for services rendered. In some instances, top managers of international firms operating in Turkmenistan faced imprisonment or

met suspicious ends. This behaviour has led to a lack of trust among international investors, further exacerbated by a judicial system that prioritizes political directives over adherence to national and international laws (Horák, 2014; Pomfret, 2021).

b) Turkmenistan's official communications also suffer from inconsistency and unreliability, creating significant barriers to collaboration. Contradictory statements from government officials, as seen in the case of the TAPI pipeline, make it difficult to verify information. Limited access for international journalists further compounds this issue, restricting independent reporting and analysis. This lack of transparency undermines confidence in the country's ability to deliver on large-scale projects like the TCP (Roberts, 2003; Cohen, 2019).

c) A lack of sufficient investment in Turkmenistan's gas industry is another major obstacle. Despite possessing vast gas reserves, Turkmenistan's gas infrastructure remains underdeveloped, requiring substantial financial and technological investments. The absence of a favourable business climate and high levels of corruption deter foreign companies from investing in the sector, leaving Turkmenistan without the resources needed to exploit its potential (European Commission, 2015; Kimmage, 2006).

d) The country also suffers from a shortage of skilled labour due to the legacy of former President Saparmurat Niyazov's restrictive educational policies, which led to the closure of universities and faculties. This brain drain has left Turkmenistan without the expertise necessary to operate and manage its gas fields effectively. To address this gap, Turkmenistan must rely on foreign specialists, increasing project costs and complicating collaboration with international partners (Pirani, 2018; Roberts, 2020).

e) Technical barriers further exacerbate the challenges. Many of Turkmenistan's onshore gas fields contain significant amounts of hydrogen sulphide and carbon dioxide, making extraction both technically difficult and prohibitively expensive. Without advanced technology, these fields cannot be exploited efficiently, limiting Turkmenistan's ability to meet its gas export potential (BP, 2023; Pomfret, 2021).

f) Turkmenistan's political system remains fragile due to intense competition among clans vying for dominance in key economic sectors. The complete domination of the Ahal Teke clan in critical industries has marginalized other groups, increasing the risk of internal power struggles.

Amid worsening economic conditions, these tensions could escalate into serious political instability, potentially threatening the country's ability to deliver on international commitments like the TCP (Horák, 2014; Pirani, 2018).

External Challenges

Externally, Turkmenistan faces staunch opposition from Russia and Iran, both of which view the TCP as a threat to their energy dominance. For decades, these two countries used the unresolved legal status of the Caspian Sea as a pretext to block pipeline projects. Although the signing of the Caspian Sea Convention in 2018 resolved key legal ambiguities, Russia and Iran retain the ability to raise objections based on environmental concerns. This provision allows them to delay or obstruct the TCP under the guise of ecological protection (Pomfret, 2021; Energy Institute, 2023).

a) In the past, Russia viewed the TCP as a direct challenge to its dominance in the European energy market, as it would provide an alternative source of gas to EU countries. Gazprom, Russia's state-owned energy giant, relied on maintaining its monopoly in Europe. Moscow has taken various steps to counter the TCP, including promoting alternative projects like the Turkish Stream pipeline and leveraging its military presence in the Caspian Sea. Russia's Caspian Flotilla, comprising 26 warships, has demonstrated its capabilities in regional conflicts, signalling to Turkmenistan and the EU that Moscow will act decisively if its interests are threatened (Roberts, 2003; Cohen, 2019).

b) Iran, similarly, opposes the TCP and any U.S.-backed energy project in the region. Tensions between Iran and Turkmenistan, particularly over unpaid gas debts, have further strained relations. Despite the Caspian Sea Convention theoretically resolving legal disputes, Iran continues to cite environmental risks as a reason to block the TCP, delaying progress on the project (Horák, 2014; BP, 2023).

c) Geopolitical tensions further complicate the TCP's prospects. Russia's aggression in Ukraine demonstrates its willingness to use ethnic minorities as a pretext for intervention in neighbouring states. Turkmenistan's population includes approximately 300,000 ethnic Rus-

sians (4.25% of the population)[2], giving Moscow a potential lever to destabilize the country if it perceives its interests are under threat. Additionally, instability along Turkmenistan's border with Afghanistan, fuelled by Taliban activity, raises security concerns for the region (Energy Institute, 2023; Pirani, 2018).

d) The EU's internal divisions also hinder progress on the TCP. Turkmenistan perceives the EU as lacking a unified strategy, with member states often holding divergent priorities. This incoherence undermines the EU's ability to negotiate effectively, leading Ashgabat to question the seriousness of European commitments (European Commission, 2021; Roberts, 2020).

e) Economic feasibility poses another challenge for the TCP. The high cost of transporting Turkmen gas to Europe, estimated at $400 per 1,000 cubic meters, makes it less competitive than Russian, Azerbaijani or Algerian gas. These price disadvantages reduce the attractiveness of Turkmen gas for European buyers and complicate efforts to secure funding for the pipeline (Horák, 2014; BP, 2023).

f) Turkmenistan's dependence on transit and export partners further complicates its external energy strategy. More than 80% of Turkmen gas exports currently go to China via the Central Asia–China pipeline, creating an asymmetric relationship in which Ashgabat is highly dependent on a single buyer (BP, 2023; ADB, 2022). This reliance limits Turkmenistan's bargaining power, as Beijing is able to dictate pricing terms and delay expansion projects such as Line D of the Central Asia–China pipeline. Moreover, Turkmenistan lacks independent access to international markets due to its landlocked geography and must rely on transit countries, including Uzbekistan, Kazakhstan, Iran and potentially Azerbaijan, to deliver gas abroad. This dependence not only constrains its energy sovereignty but also increases exposure to geopolitical frictions beyond its direct control (Pomfret, 2021; European Commission, 2023).

[2] Official demographic data published by the Government of Turkmenistan is widely regarded as unreliable and often contested in scholarly and policy analyses. For this reason, the present study employs alternative estimates concerning the size of the Russian minority in Turkmenistan, drawing on secondary sources and expert assessments rather than official statistics.

Turkmenistan-EU Relations

The EU has pursued a dual strategy of bilateral and multilateral engagement with Central Asian countries, aiming to deepen economic and political ties. Turkmenistan, with its vast natural gas reserves and strategic location, occupies a crucial position in this framework. However, EU-Turkmenistan relations are shaped by a delicate balance of energy interests, human rights concerns, and geopolitical complexities (European Commission, 2007; Pirani, 2018).

The EU launched its first comprehensive strategy for Central Asia in 2007 under the German EU Council Presidency, marking a significant step toward stronger regional engagement. The *Strategy for a New Partnership with Central Asia* emphasized energy and transportation cooperation as priority areas. With Central Asia being home to significant oil and gas resources – particularly in Kazakhstan, Turkmenistan and Uzbekistan – the EU has sought to support these nations in connecting their energy supplies to global markets. This approach aligns with the EU's broader goal of fostering economic growth and stability in the region (Horák, 2014; European Commission, 2007).

High-level diplomatic interactions have reinforced the EU's commitment to Central Asia. The EU High Representative for Foreign Affairs and Security Policy meets with Central Asian foreign ministers annually. The most recent EU–Central Asia Ministerial Meeting, held on October 23, 2023 in Luxembourg, marked an active engagement between Turkmenistan and the EU. Turkmen Foreign Minister Rashid Meredov participated in the meeting, emphasizing cooperation priorities and long-term partnership goals. The meeting reinforced the EU's commitment to strengthening ties with Central Asia, including Turkmenistan, by addressing shared challenges in security, connectivity, trade, environmental issues and education, in alignment with the updated EU Central Asia strategy announced in 2019 (European Commission, 2023; Pomfret, 2021).

Bilateral relations between the EU and Turkmenistan are governed by an interim agreement on trade and trade-related matters, which came into force in 2010. However, the broader Partnership and Cooperation Agreement (PCA), signed in 1998, remains unratified by the European Parliament due to concerns over Turkmenistan's human rights record. The EU has set specific conditions for ratification, including the release of political prisoners, greater civil liberties, and access for the International Committee of the Red Cross to Turkmenistan (Cohen, 2019; Roberts, 2003).

Despite these challenges, energy cooperation has been a cornerstone of EU-Turkmenistan relations. In 2008, the two parties signed a Memorandum of Understanding (MoU) on energy cooperation, underscoring Turkmenistan's potential role in the EU's energy diversification strategy. In July 2019, the EU officially inaugurated a full Delegation in Turkmenistan, making it the 142nd such office globally. The formal agreement to establish this Delegation was signed in Ashgabat by Federica Mogherini, the EU High Representative for Foreign Affairs and Security Policy at the time, and Turkmen Foreign Minister Rashid Meredov. Prior to this development, the EU's activities in Turkmenistan were managed through a Liaison Office (Pirani, 2018; European Commission, 2015).

The EU's efforts to reduce reliance on Russian gas have amplified its interest in Turkmenistan's energy potential. The TCP, an undersea pipeline project connecting Turkmenistan's Turkmenbashi port to Azerbaijan's Sangachal terminal, is central to this vision. In 2011, the EU initiated negotiations with Azerbaijan and Turkmenistan to advance the TCP project. High-profile visits by European Commission President José Manuel Barroso and EU Energy Commissioner Günther Oettinger to Ashgabat reaffirmed the EU's commitment to the pipeline. In 2015, the Ashgabat Declaration was signed by representatives from Azerbaijan, Turkmenistan, Turkey and the EU, signalling broad support for the TCP and financing initial environmental studies (European Commission, 2021; Horák, 2014).

The TCP has been designated a Project of Common Interest (PCI) by the EU, aligning it with the EU's Energy Security and Solidarity Plan. As an eastern extension of the SGC, the TCP is a strategic priority for the EU. Turkmenistan's participation in the SGC Advisory Council meetings further underscores its potential role in the corridor. However, geopolitical and logistical obstacles have delayed the pipeline's realization (BP, 2023; Pomfret, 2021).

In 2024, significant progress was made in EU-Turkmenistan energy cooperation through high-level engagements. The 7th EU-Turkmenistan Interparliamentary Meeting, held in Brussels in November, emphasized a shared commitment to strengthening collaboration in the energy and trade sectors, highlighting the importance of fostering deeper ties. Earlier in April, the Turkmenistan-EU Energy Dialogue brought together a working group in Brussels to focus on critical issues such as technology exchange, diversification of gas supply routes and environmental considerations, including methane emission standards. These developments reflect a mutual dedication to advancing their energy partnership and addressing shared challenges (Roberts, 2020; Energy Institute, 2023).

Annual Joint Committee meetings between the EU and Turkmenistan serve as a platform for reviewing progress in bilateral cooperation. The 22nd EU-Turkmenistan Joint Committee meeting, held on December 19, 2023 in Brussels, brought together key representatives from both sides to discuss Turkmenistan's macroeconomic status, its pursuit of World Trade Organization membership, energy export strategies, environmental efforts and collaboration in transport, education, and research. The Turkmen delegation, led by Finance and Economy Minister S. Joraev, included officials from significant national sectors, while the EU delegation comprised representatives from the European External Action Service and relevant European Commission directorates (European Commission, 2023; Pirani, 2018).

However, the EU's concerns over Turkmenistan's human rights record remain a significant barrier to deepening ties. In 2006, the EU imposed an embargo on purchasing Turkmen gas, citing these concerns. While negotiations on the TCP resumed in 2011, progress has been contingent on Turkmenistan addressing issues such as political repression and lack of civil liberties (Cohen, 2019; Roberts, 2003).

Azerbaijan's Role in Unblocking Challenges for the Trans-Caspian Pipeline (TCP)

Azerbaijan holds a critical yet ambivalent role in the realization of the TCP project. As a geographically indispensable transit country and a key player in the Caspian region, Azerbaijan's decisions and policies significantly influence the feasibility of this pipeline. However, the history of tensions, unresolved disputes and conflicting interests between Azerbaijan and Turkmenistan, coupled with external geopolitical pressures, complicates Azerbaijan's involvement in unblocking challenges for the TCP (Horák, 2014; Roberts, 2020).

Azerbaijan and Turkmenistan have a contentious history regarding territorial disputes in the Caspian Sea, particularly over the Kapaz/Sardar field, which both countries claim. Despite Azerbaijan's agreements with Russia and Kazakhstan in 2001 and 2003 on dividing their respective Caspian waters, no similar agreement was reached with Turkmenistan. This unresolved dispute has repeatedly hampered cooperation between the two countries (Cohen, 2019; Pomfret, 2021).

In 2001, tensions escalated when Turkmenistan accused Azerbaijan of operating the Azeri-Chirag-Gunashli fields, which Turkmenistan claimed ownership of. Diplomatic relations soured, leading Turkmenistan to close its embassy in Baku, citing financial difficulties. During the 2002 Caspian Sea Summit, this animosity became public, with Turkmen President Saparmurat Niyazov and Azerbaijani President Heydar Aliyev engaging in a heated verbal exchange (Pirani, 2018; European Commission, 2007).

Azerbaijan has repeatedly proposed joint development of disputed fields to mitigate tensions and foster cooperation. Heydar Aliyev extended such an offer to Niyazov in 2001, and the same proposal was reiterated by Azerbaijan in 2009 under Ilham Aliyev's presidency. However, these offers were consistently rejected by Turkmenistan, which instead sought resolution through international arbitration. The conflict intensified in 2012 when Azerbaijan's border patrol blocked a Turkmen vessel attempting geological sampling in the Kapaz/Sardar field, further straining relations (Roberts, 2020; Horák, 2014).

A significant breakthrough occurred on January 21, 2021 when the presidents of Azerbaijan and Turkmenistan signed a MoU to jointly develop the field, now renamed "Dostluk", meaning "friendship" in both languages. This agreement marked a pivotal step toward resolving the protracted dispute and opened avenues for collaborative energy projects in the Caspian region. The MoU outlines the framework for joint exploration and exploitation of the Dostluk field, emphasizing mutual benefits and regional energy security. The agreement also reflects a broader commitment to enhancing bilateral relations and economic cooperation between Azerbaijan and Turkmenistan (Cohen, 2019; BP, 2023).

The resolution of this dispute through the MoU has the potential to facilitate further collaborative ventures in the Caspian Sea, contributing to regional stability and economic development. It also underscores the importance of diplomatic engagement in addressing complex territorial and resource-related disputes (Pomfret, 2021; Energy Institute, 2023).

Despite its critical role as a transit country for the TCP, Azerbaijan has demonstrated limited enthusiasm for the project. Azerbaijani President Ilham Aliyev has emphasized that the TCP's success hinges on Turkmenistan's initiative. At a press conference with German Chancellor Angela Merkel in 2018, Aliyev stated that as the owner of the gas, Turkmenistan must take the lead in advancing the project. He highlighted Azerbaijan's proactive role in developing its energy infrastructure, such as the Southern Gas Corridor (SGC), and indi-

cated that Turkmenistan should follow a similar path if it seeks to export gas through Azerbaijan (Pirani, 2018; Roberts, 2020).

Azerbaijan's Energy Minister Parviz Shahbazov further underscored this position, asserting that the supplier country, Turkmenistan, must negotiate agreements with consumer nations. Azerbaijan, as a transit state, views its role as secondary and contingent on Turkmenistan's readiness to commit to the project. Economic considerations also play a significant role in Azerbaijan's cautious approach. The price of Turkmen gas in European markets is expected to be higher than Azerbaijani gas due to production and transit costs. This economic disadvantage diminishes Azerbaijan's incentive to actively promote the TCP, as Turkmen gas could compete with Azerbaijani gas exports in the European market (Cohen, 2019; European Commission, 2023).

Despite these challenges, Azerbaijan remains an essential partner for the TCP. Its existing infrastructure, including the South Caucasus Pipeline (SCP), the Trans-Anatolian Pipeline (TANAP) and the Trans-Adriatic Pipeline (TAP), forms the backbone of the Southern Gas Corridor, which Turkmen gas would need to connect to European markets. Azerbaijan's willingness to increase the capacity of these pipelines demonstrates its capability to facilitate the TCP if political and economic obstacles are overcome (BP, 2023; Pomfret, 2021).

Azerbaijan's strategic location and established energy partnerships with the EU position it as a key intermediary in negotiations between Turkmenistan and European stakeholders. Its participation in regional dialogues and initiatives, such as the Joint Working Group with Turkmenistan and Turkey, indicates its potential to play a constructive role in addressing logistical and technical challenges for the TCP. In May 2024, Turkish Energy Minister Alparslan Bayraktar and Azerbaijani Economy Minister Mikayil Jabbarov signed an agreement to strengthen cooperation in the gas sector. A key component of this agreement is the transit of Turkmen gas to Turkey through Azerbaijan and Georgia, underscoring both nations' commitment to facilitating the TCP's realization (Roberts, 2020; Energy Institute, 2023).

In November 2021, Turkmenistan, Iran and Azerbaijan entered into a trilateral gas swap agreement, facilitating the annual transfer of 1.5 to 2 bcm of Turkmen gas to Azerbaijan via Iran. Under this arrangement, Turkmenistan supplied gas to Iran's northeastern regions, and Iran delivered an equivalent volume to Azerbaijan. Deliveries commenced in January 2022, with initial volumes of 5–6 million cubic meters (mcm) per day, increasing to 7 mcm per day by March 2022. In 2023, Azerbaijan imported approximately 1.517 bcm of natu-

ral gas from Turkmenistan, marking a 77% increase from the 857 million cubic meters imported in 2022 (BP, 2023; Horák, 2014).

An alternative option to the TCP is a sub-sea pipeline between Azerbaijan and Turkmenistan's offshore platforms. Malaysian company Petronas operates offshore blocks in Turkmenistan's part of the Caspian Sea. The proposed project would involve constructing a 78-kilometer connector pipeline linking the Petronas-operated Magtymguly field in Turkmenistan's waters to the BP-operated oil and gas gathering facilities at the Azeri-Chirag-Gunashli (ACG) field in Azerbaijani waters (Roberts, 2020; European Commission, 2021).

This pipeline system is expected to transport approximately 5 billion cubic meters (bcm) of natural gas annually to Azerbaijan's existing gas processing facilities at Sangachal, with an estimated cost of $400–600 million, thereby integrating Turkmen gas into the Southern Gas Corridor and enhancing the energy supply to European markets. The proposed subsea pipeline represents a strategic effort to diversify energy export routes from the Caspian region, reducing reliance on traditional transit countries and contributing to regional energy security (Cohen, 2019; Energy Institute, 2023).

Conclusion

This study set out to examine whether the Trans-Caspian Pipeline (TCP) represents a viable and strategic mechanism for enhancing both Turkmenistan's energy diversification and the European Union's energy security. The analysis has confirmed the initial hypothesis: while the TCP embodies significant strategic potential, its realization depends less on resource availability than on overcoming entrenched political, technical and geopolitical constraints. Turkmenistan's vast gas reserves and geographical position give it the capacity to become an essential energy partner for Europe; however, its rentier-state structure, lack of transparency and limited infrastructural capacity continue to impede meaningful progress.

The findings underscore that the main barriers to the TCP's implementation lie in governance weaknesses within Turkmenistan and the persistent geopolitical resistance from Russia and Iran. Moscow and Tehran's opposition, framed under environmental or legal pretexts, reflects their broader strategic interest in maintaining regional dominance and preventing the EU from gaining direct access to Caspian energy resources. At the same time, the EU's fragmented pol-

icy approach and slow decision-making process undermine the credibility of its commitments in Ashgabat's eyes, further delaying progress.

Nevertheless, the study demonstrates that the regional environment is not static. Initiatives such as the 2021 Azerbaijan–Turkmenistan Memorandum of Understanding and trilateral cooperation frameworks with Turkey signal emerging opportunities for pragmatic engagement. The construction of Turkmenistan's East–West Pipeline and Azerbaijan's integration within the Southern Gas Corridor provide the physical and diplomatic foundations for a future connection to Europe. These developments validate the argument that the TCP's feasibility will depend on a cumulative process of confidence-building, incremental technical cooperation and sustained political will rather than a single diplomatic breakthrough.

Ultimately, the TCP stands as both a test and an opportunity for Eurasian energy governance. For the EU, it represents a critical pathway to achieve strategic autonomy and energy diversification beyond Russian gas. For Turkmenistan, it offers a chance to reorient its economic dependence away from China and integrate more deeply into global markets. The analysis confirms that the success of the TCP – and by extension Turkmenistan's emergence as a credible supplier for Europe – will rely on aligning domestic reform, regional cooperation and coherent international engagement. In this respect, the TCP remains not only a pipeline project but a litmus test of political maturity, regional trust, and the evolving architecture of Eurasian energy interdependence.

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Transkaspijski plinovod: Put Turkmenistana prema energetskoj sigurnosti Europske unije i strateškoj diversifikaciji

SAŽETAK

Rusko-ukrajinski sukob intenzivirao je potrebu Europske unije da diversificira svoje energetske izvore, čime se za Turkmenistan otvara mogućnost da postane njezin ključni dobavljač. Sa četvrtim najvećim zalihama prirodnog plina na svijetu, Turkmenistan bi mogao odigrati središnju ulogu na globalnom energetskom tržištu. Ipak, izazovi upravljanja, prevelika ovisnost o izvozu plina u Kinu, te infrastrukturne manjkavosti ometaju ostvarenje ovog potencijala. Ova studija istražuje stratešku važnost transkaspijskog plinovoda (TKP), koji bi mogao povezati turkmenistanske zalihe s Južnim plinskim koridorom Europske unije, osnažujući europsku energetsku sigurnost. Korištena metodologija podrazumijeva kvalitativnu analizu sekundarnih izvora, uključujući policy *dokumente, akademsku literaturu i geopolitičke izvještaje, kako bi procijenila izazove i prilike povezane s TKP-om. Istraživanje naglašava značajne unutarnje i vanjske izazove, koji uključuju geopolitički otpor Rusije i Irana, te ekonomske i tehničke barijere implementaciji plinovoda. Unatoč ovim preprekama, regionalna suradnja – poput Memoranduma o razumijevanju potpisanog 2021. između Azerbajdžana i Turkmenistana – pokazuje put prema naprijed. Analiza zaključuje da su kontinuirane investicije, snažna politička volja, kao i strateška međunarodna partnerstva presudni za otključavanje turkmenistanskog energetskog potencijala i ispunjavanje ciljeva energetske diversifikacije Europske unije.*

KLJUČNE RIJEČI: *Turkmenistan, energetska sigurnost, Transkaspijski plinovod, geopolitika, Europska unija*