Legal Challenges of Insurance and Customs Tariffs in Land Transportation of Oil and Gas: A Study in the Context of Iran, Iraq, Afghanistan, and Pakistan

1. Ahmad Momeni Rad*: Associate Professor, Department of Public Law, Law and Political Sciences Faculty, Tehran University, Tehran, Iran
2. Mojtaba Rooholamini : MA student, Department of Oil and Gas Law, University of Tehran, Tehran, Iran

*Correspondence: momenirad@ut.ac.ir

Abstract

The transportation of oil and gas by land across Iran, Iraq, Afghanistan, and Pakistan plays a pivotal role in regional energy security, yet it is confronted by complex legal challenges. This study examines the twin dimensions of insurance and customs tariffs, both of which directly determine the financial and operational feasibility of cross-border energy logistics. The findings reveal that insurance systems across the region suffer from underdevelopment, limited international participation, and persistent disputes over liability and claim settlement. In Iran, sanctions restrict access to global insurers and force reliance on domestic providers with limited capacity. Iraq struggles with post-conflict uncertainty, corruption, and inadequate enforcement mechanisms, while Afghanistan faces underdeveloped markets and dependence on foreign reinsurance. Pakistan, despite having a stronger insurance sector, is constrained by politicized regulations and limited harmonization with regional standards. Customs tariffs represent another layer of legal complexity. Iran's exemptions favor state enterprises but create barriers for private actors. Iraq's enforcement remains inconsistent due to corruption and weak border institutions. Afghanistan's commitments under transit agreements are undermined by local tariff practices and its slow progress toward World Trade Organization standards. Pakistan's tariff policies under the Afghan Transit Trade Agreement are marked by disputes and politicization, despite partial alignment with international trade rules. The comparative analysis demonstrates that while all four countries share weaknesses in harmonization, corruption, and instability, each faces distinct challenges. These legal shortcomings not only inflate costs and reduce predictability but also undermine regional cooperation and the development of energy corridors. The study concludes that legal reforms, harmonization of frameworks, and depoliticized administration are essential for achieving secure and efficient regional energy transportation.

Keywords: Oil and gas transportation; insurance challenges; customs tariffs; Iran; Iraq; Afghanistan; Pakistan; regional cooperation; energy security.

Received: 05 June 2025
Revised: 28 August 2025
Accepted: 06 September 2025
Published: 30 September 2025

Citation: Momeni Rad, A., & Rooholamini, M. (2025). Legal Challenges of Insurance and Customs Tariffs in Land Transportation of Oil and Gas: A Study in the Context of Iran, Iraq, Afghanistan, and Pakistan. *Legal Studies in Digital Age,* 4(3), 1-13.

1. Introduction

The global economy continues to rely heavily on oil and gas as primary sources of energy, and their secure, efficient, and cost-effective transportation remains a matter of international concern. While maritime and pipeline routes receive substantial scholarly and policy attention, the role of land-based transport is equally critical in connecting landlocked regions and facilitating energy flows across politically sensitive territories. Land transportation of oil and gas allows for greater flexibility in routes, provides alternatives during maritime disruptions, and connects resource-rich countries with key consumer markets in the region. In Western and South Asia, the complex geography, cross-border trade dependencies, and fragile political relations make land transportation not only a logistical issue but also a matter of legal and institutional importance (Al-Hassan, 2019).

Iran, Iraq, Afghanistan, and Pakistan occupy a strategic position in this context. These four countries are geographically interconnected, forming a corridor that bridges Central Asia, the Middle East, and South Asia. Iran's centrality as a major oil and gas producer with access to both the Persian Gulf and overland trade routes gives it a pivotal role in regional energy logistics. Iraq, with its vast oil reserves and rebuilding efforts in the post-conflict era, seeks to diversify its transport routes and strengthen its trade ties with neighboring states (Hosseini, 2023). Afghanistan, despite its limited production capacity, plays an essential role as a transit hub due to its location between Central Asia and South Asia, making its territory indispensable for certain land-based routes (Rezaei et al., 2019). Pakistan, with its ports in Gwadar and Karachi and its transit agreements, functions as the final gateway for land shipments toward broader global markets, thereby positioning itself as a critical node in energy transportation corridors (Khodayari, 2023).

The interaction among these four states illustrates both the potential and the risks of regional energy cooperation. Their shared borders, diverse legal frameworks, and varying levels of infrastructure development create opportunities for economic integration but also expose them to regulatory contradictions and political disputes. The absence of harmonized standards for insurance policies and customs tariffs intensifies uncertainty, raising costs for exporters, insurers, and governments alike (Nasiri et al., 2021). These challenges are particularly acute in a sector such as oil and gas, where the financial stakes are high, the risks are substantial, and the geopolitical environment is volatile.

Insurance is one of the most crucial legal and financial mechanisms in the transportation of energy resources. It provides risk mitigation for exporters, transporters, and governments by ensuring compensation in cases of loss, damage, or political disruption. However, across Iran, Iraq, Afghanistan, and Pakistan, the absence of regionally coordinated insurance frameworks has led to legal ambiguities and inefficiencies. For instance, Iranian energy exporters face limitations in accessing international insurers due to sanctions and restrictive trade environments, which force them to rely on domestic insurers with limited global credibility (Unctad, 2021). Similarly, Afghanistan suffers from an underdeveloped insurance infrastructure, which increases reliance on costly foreign reinsurance mechanisms and inflates transport costs for exporters (Rezaei et al., 2019). The lack of uniformity in contract law and risk allocation mechanisms among these states further complicates matters, as insurers and exporters often find themselves entangled in disputes over liability and claim settlements (Imani, 2020).

Customs tariffs represent another layer of legal and economic complexity in energy transport. They directly influence the overall cost structure, profitability, and competitiveness of cross-border oil and gas trade. In practice, tariffs vary widely across the four countries, reflecting divergent fiscal policies, political interests, and trade strategies. For instance, Iran has employed tariff adjustments both as an economic tool and as a policy response to sanctions, while Iraq continues to struggle with inconsistent tariff enforcement due to institutional weaknesses and corruption (Hosseini, 2023). Afghanistan's reliance on customs duties as a significant source of revenue creates incentives to impose restrictive tariffs, which sometimes conflict with regional transit trade agreements (Rezaei et al., 2019). Pakistan, although more integrated into international trade regimes, also engages in tariff policies that reflect both protectionist measures and its geopolitical balancing acts (Rahimi, 2021). These variations result in double taxation, lengthy administrative procedures, and disputes that discourage long-term energy transport cooperation (Al-Hassan, 2019).

From a broader regional perspective, the lack of harmonization in insurance regulations and customs tariffs undermines trust among the four countries. While organizations such as the Economic Cooperation Organization (ECO) have attempted to promote legal and economic integration, their efforts often fall short due to weak institutional enforcement and limited political will (Akbarzadeh, 2018). The inconsistency in applying international norms—such as those derived from World Trade Organization agreements and international transport conventions—further exacerbates the fragmentation. Countries in the region have at times adopted unilateral measures that prioritize domestic political or fiscal interests at the expense of collective regional gains (Azizi, 2022). This environment creates fertile ground for disputes, discourages foreign investment, and limits the efficiency of transport corridors that are otherwise crucial for the region's energy security.

The problem is compounded by legal ambiguities surrounding the resolution of disputes. In many cases, conflicts over insurance claims or tariff payments remain unresolved due to the absence of effective arbitration mechanisms or the unwillingness of parties to recognize regional jurisdiction (Abbasi, 2020). While bilateral agreements exist between some of the states, such as those between Iran and Pakistan, these often suffer from vague provisions and inadequate enforcement mechanisms (Khodayari, 2023). Afghanistan's fragile legal system adds another layer of uncertainty, as transporters face inconsistent application of customs regulations and limited access to fair dispute resolution (Rezaei et al., 2019). In Iraq, legal reforms are ongoing, but institutional weaknesses persist, making the enforcement of insurance contracts and tariff regulations problematic (Hosseini, 2023). Without clearer legal frameworks and stronger institutions, disputes will continue to disrupt trade, increase transaction costs, and reduce investor confidence.

The absence of harmonization is not merely a technical or legal issue; it is also deeply political. National governments in Iran, Iraq, Afghanistan, and Pakistan often prioritize sovereignty and short-term fiscal gains over long-term regional integration. For example, customs authorities sometimes impose tariffs as a tool of political leverage, while insurance regulators may adopt restrictive policies to protect domestic firms against foreign competition (Mousavi, 2019). These choices, while rational from a national perspective, contribute to the fragmentation of the regional transport system and undermine collective efficiency. The result is a cycle in which exporters, insurers, and consumers all face higher costs and increased risks (Fazeli, 2020).

Despite these challenges, the potential benefits of regional cooperation remain significant. A harmonized legal framework for insurance and customs tariffs could lower transport costs, reduce disputes, and enhance the competitiveness of the region's energy exports. Lessons can be drawn from other regions where standardization has facilitated smoother energy flows, such as in parts of the Commonwealth of Independent States (CIS), where efforts at legal convergence in insurance policies have improved contract enforcement and reduced disputes (Jalali, 2021). However, translating these lessons into practice requires political will, institutional capacity, and sustained dialogue among the four countries.

This study therefore aims to review and analyze the legal challenges related to insurance and customs tariffs in the land transportation of oil and gas among Iran, Iraq, Afghanistan, and Pakistan. The research objective is to identify the sources of legal ambiguity, highlight the consequences of lack of harmonization, and explore potential frameworks for resolving disputes and enhancing cooperation. Guiding questions include: How do divergent insurance regulations and customs tariffs impact the efficiency of land-based energy transportation in the region? What are the main institutional and legal barriers to harmonization? To what extent can regional mechanisms, such as arbitration centers or multilateral agreements, provide solutions to these challenges?

By addressing these questions, the article seeks to contribute to both academic debates and policy discussions on regional energy cooperation. The findings are expected to shed light on how legal reform and institutional development could facilitate more secure, efficient, and cost-effective transportation of oil and gas across the four countries. Ultimately, overcoming these legal challenges is not only a matter of reducing costs and risks for exporters and insurers but also a step toward building trust, promoting regional integration, and enhancing energy security in a region marked by both opportunity and volatility.

2. Theoretical and Legal Framework

The transportation of oil and gas across national borders is governed by a complex matrix of international conventions, trade rules, and national legislations. International transport law provides the foundation for regulating contractual relationships, liability, and dispute settlement in cross-border energy trade. Among the most important instruments is the Convention on the Contract for the International Carriage of Goods by Road (CMR), which has been widely adopted in Europe and parts of Asia. Although Iran, Iraq, Afghanistan, and Pakistan have not fully harmonized their domestic legal frameworks with the CMR

Convention, its provisions serve as a benchmark for defining the obligations of carriers, the liability regime in cases of loss or damage, and the recognition of standardized documents across borders. The World Trade Organization (WTO) rules also influence the regulatory environment by promoting principles of non-discrimination, transparency, and tariff predictability in international trade (Azizi, 2022). Similarly, UNCITRAL's efforts in developing model laws on arbitration, electronic commerce, and cross-border insolvency have indirectly shaped the legal environment for energy transport contracts, particularly by offering mechanisms for resolving disputes in a consistent and predictable manner (Abbasi, 2020).

The interaction between these international instruments and domestic legal systems in the four countries reveals a fragmented picture. Iran, for instance, has attempted to align parts of its commercial law with UNCITRAL recommendations, especially in the area of arbitration, but sanctions and geopolitical constraints limit its integration into the global transport law regime (Unctad, 2021). Iraq has made efforts to modernize its trade and customs regulations in line with WTO principles, yet enforcement remains inconsistent and often subject to political interference (Hosseini, 2023). Afghanistan, as a country in transition, continues to struggle with the institutional capacity required to apply international conventions, which undermines the reliability of its commitments under bilateral and regional agreements (Rezaei et al., 2019). Pakistan has been more proactive in incorporating WTO-related rules and bilateral agreements into its legal framework, but weaknesses persist in dispute resolution and the uniform application of transport laws (Khodayari, 2023). These divergences highlight the need for a stronger conceptual framework that bridges international transport law with regional realities in order to facilitate energy trade.

Regional agreements and bilateral treaties are central to understanding the legal foundations of oil and gas transportation among Iran, Iraq, Afghanistan, and Pakistan. Historically, the Economic Cooperation Organization (ECO) has sought to create a platform for harmonizing transport and trade policies in the region. ECO has promoted initiatives for common tariff structures and cross-border facilitation measures, though its effectiveness has been limited by weak institutional mechanisms and lack of political will (Akbarzadeh, 2018). Bilateral treaties, such as those between Iran and Pakistan, have addressed specific issues in energy transport, yet scholars note that these agreements often contain vague provisions and lack robust enforcement clauses (Khodayari, 2023). Similarly, agreements between Afghanistan and its neighbors on transit rights are undermined by inconsistent application and frequent disputes over tariffs and customs procedures (Rezaei et al., 2019). Iraq has pursued limited bilateral agreements on transport cooperation, but political instability and administrative corruption continue to erode their implementation (Hosseini, 2023). In practice, therefore, the legal instruments intended to govern cross-border energy transport often fail to provide the predictability and security required by exporters, insurers, and consumers.

Insurance law constitutes a fundamental pillar of energy transportation, given the high levels of risk associated with cross-border oil and gas trade. Basic principles of insurance law in transportation emphasize the duty of utmost good faith, the clear definition of perils covered, and the allocation of liability between insurers and transporters. In the absence of a harmonized regional framework, each of the four countries has developed its own approach to insurance regulation, resulting in significant disparities. For example, Iranian exporters have long faced difficulties in accessing international insurers due to sanctions, which forces them to rely on domestic insurance providers that lack the global reach and reinsurance capacity necessary for large-scale coverage (Mousavi, 2019). Afghanistan's insurance infrastructure remains underdeveloped, leaving exporters reliant on costly foreign reinsurance, a situation that directly inflates the cost of energy transportation (Rezaei et al., 2019). In Iraq, the legal framework for insurance is still evolving, but conflicts of interest between insurers and exporters remain a recurring challenge (Imani, 2020). Pakistan, while possessing a more developed insurance sector, faces legal ambiguities in the interpretation of transport insurance contracts and claim settlements (Fazli & Hashemi, 2020). These disparities reflect the broader absence of uniform insurance standards, which complicates risk allocation and creates persistent uncertainty for energy traders.

Scholars emphasize that the absence of coordinated regional insurance policies exacerbates the difficulties of claim settlement. Without harmonized rules, disputes often arise regarding jurisdiction, applicable law, and the interpretation of contractual obligations (Fazeli, 2020). The lack of regional insurance cooperation not only delays compensation but also increases litigation costs and discourages investment in cross-border energy transport infrastructure. Comparative experiences, such as the efforts of CIS countries to standardize insurance policies, suggest that harmonization can reduce transaction costs and improve the reliability of transport contracts (Jalali, 2021). However, attempts to replicate such frameworks in Western and South Asia face political, institutional, and legal barriers.

Customs law and tariff principles form another essential component of the legal framework for energy transport. Customs tariffs are not merely fiscal instruments; they are also tools of economic policy and political negotiation. International trade law, particularly under WTO rules, emphasizes the need for transparency, predictability, and non-discrimination in tariff structures (Azizi, 2022). Yet in practice, Iran, Iraq, Afghanistan, and Pakistan apply highly divergent tariff policies that reflect their domestic priorities and geopolitical considerations. Iran often uses tariff exemptions or adjustments as a response to sanctions pressure, balancing the need for revenue with the imperative of keeping trade routes open (Unctad, 2021). Iraq's tariff enforcement remains inconsistent, largely due to corruption and weak border management institutions (Hosseini, 2023). Afghanistan's heavy reliance on customs duties as a revenue source incentivizes the imposition of restrictive tariffs, sometimes in contradiction to regional transit trade agreements (Rezaei et al., 2019). Pakistan's tariff regime is shaped by its geopolitical role as a transit hub, but disputes over double taxation and inconsistent application of customs law persist (Rahimi, 2021). These differences produce significant uncertainty for exporters and transporters, often resulting in increased costs, delays, and disputes (Al-Hassan, 2019).

The conceptual framework for this study is built on the interconnection between energy security, transport law, and regional cooperation. Energy security requires not only the availability of resources but also the reliability of transport routes. Land transportation of oil and gas across Iran, Iraq, Afghanistan, and Pakistan is inseparable from the legal frameworks governing insurance and customs tariffs, since these determine the predictability of costs, the resolution of disputes, and the willingness of investors to finance infrastructure. Transport law, in this sense, is not a neutral technical instrument but a key determinant of regional energy flows (Abbasi, 2020). Insurance law ensures financial security against risks, while customs law regulates fiscal obligations at borders. Together, these legal domains shape the operational environment of energy logistics.

Regional cooperation represents the missing link that can reconcile national interests with the collective need for secure and efficient energy transportation. Without harmonized legal frameworks, each state pursues its own priorities, resulting in fragmentation and inefficiency. Scholars have argued that multilateral cooperation on tariff stability can reduce uncertainty and foster trust among regional actors (Azizi, 2022). Similarly, the development of regional arbitration centers for resolving disputes could enhance predictability and encourage investment (Abbasi, 2020). By situating the legal challenges of insurance and customs tariffs within the broader framework of energy security, this study highlights the necessity of viewing transport law as a driver of regional integration rather than as a set of isolated national regulations.

The theoretical and legal framework thus emphasizes that the resolution of legal challenges in energy transport requires a multi-layered approach. At the international level, alignment with WTO rules, UNCITRAL principles, and conventions such as CMR provides a basis for harmonization. At the regional level, strengthening organizations such as ECO and improving bilateral agreements can offer platforms for cooperation. At the national level, reforms in insurance law and customs administration are necessary to build trust and reduce transaction costs. The interdependence of these layers underscores the importance of a holistic approach that connects global norms, regional frameworks, and domestic laws. Without such an integrated perspective, the persistent legal ambiguities, lack of harmonization, and dispute potential will continue to undermine the efficiency and security of oil and gas transportation across Iran, Iraq, Afghanistan, and Pakistan.

3. Legal Challenges in Insurance

The landscape of insurance regulation in Iran reveals a blend of state oversight and structural limitations that have significant implications for the transportation of oil and gas. The Central Insurance of Iran serves as the supervisory authority for domestic insurers, setting standards for policy structures and overseeing risk allocation in energy-related transport contracts. While this regulatory role provides a measure of stability within the domestic market, it does not fully address the requirements of international compliance. Due to sanctions and limited access to global financial markets, Iranian insurers are largely excluded from reinsurance arrangements with major international firms (Unctad, 2021). This exclusion not only limits their capacity to cover high-value cargoes such as oil and gas but also undermines the confidence of foreign stakeholders in the legal enforceability of Iranian insurance policies (Mousavi, 2019). Exporters are often compelled to accept higher premiums or reduced coverage, which increases transaction costs and weakens Iran's competitiveness in regional energy logistics. The lack of transparent procedures for claim settlement further complicates the situation, as insurers and exporters frequently encounter disputes over liability and compensation (Imani, 2020).

A recurring challenge within the Iranian framework is the gap between domestic law and international insurance practices. Although Iran has sought to modernize its legal infrastructure, the absence of alignment with globally accepted standards such as those promoted by the International Association of Insurance Supervisors creates structural inefficiencies. This misalignment restricts the recognition of Iranian insurance certificates in international trade corridors, forcing exporters to seek alternative arrangements in jurisdictions with more predictable enforcement mechanisms (Fazeli, 2020). Moreover, the restricted participation of foreign insurers in Iran's market reduces competition and innovation, leaving domestic insurers with limited incentives to expand product diversity. These weaknesses ultimately manifest as barriers to efficient energy transport, since insurers cannot provide the level of comprehensive risk coverage required for cross-border operations (Abbasi, 2020).

In Iraq, the legal environment for insurance remains shaped by the country's post-conflict reconstruction process. The fragility of institutions and the uneven application of commercial laws create uncertainty for both domestic and foreign insurers (Hosseini, 2023). While Iraq has opened parts of its market to foreign insurers, participation is still restricted by regulatory ambiguities and political instability. Coverage limitations are a persistent issue, with foreign insurers often reluctant to underwrite high-risk cargoes due to concerns about legal enforcement and security conditions (Al-Hassan, 2019). In practice, this results in gaps in coverage for oil and gas shipments, leaving exporters exposed to risks that cannot be adequately insured under existing frameworks. The absence of a consistent mechanism for resolving conflicts of interest between insurers and transporters further exacerbates the situation, leading to prolonged disputes and costly arbitration processes (Imani, 2020).

Another dimension of Iraq's challenges is the lack of a cohesive framework for regulating cross-border insurance cooperation. Although Iraq has expressed interest in integrating with regional energy transport initiatives, legal inconsistencies between national laws and regional agreements undermine these efforts (Khodayari, 2023). For example, tariffs and premiums imposed on energy cargoes transiting through Iraq differ from those applied in neighboring countries, making it difficult to establish uniform insurance contracts that cover multi-country routes. This fragmentation increases transaction costs and reduces the attractiveness of Iraq as a reliable transit hub for regional energy logistics. The lack of trust in Iraq's insurance market is also evident in the limited recognition of its insurance policies outside its borders, which forces exporters to seek additional coverage in other jurisdictions (Azizi, 2022).

Afghanistan's insurance market presents even greater structural deficiencies. As a landlocked country with limited financial infrastructure, Afghanistan relies heavily on foreign insurers and reinsurance arrangements to provide coverage for energy transport. The domestic insurance sector remains underdeveloped, with few local providers capable of underwriting significant risks (Rezaei et al., 2019). This dependence on external reinsurance inflates the costs of coverage, which are ultimately passed on to exporters and consumers. The absence of robust regulatory institutions further weakens the enforceability of contracts, as disputes often arise without clear legal mechanisms for resolution (Nasiri et al., 2021). Legal fragmentation is a serious concern, as multiple, sometimes conflicting, regulations govern the insurance sector, reflecting the influence of different political actors and external advisors over the past two decades.

The weak institutional environment in Afghanistan also undermines the transparency of insurance operations. Exporters frequently encounter difficulties in obtaining timely compensation for losses, especially when disputes cross into international jurisdictions. The lack of harmonized standards makes it difficult to integrate Afghan insurance policies into broader regional frameworks, further isolating the country from cooperative initiatives (Jalali, 2021). The reliance on foreign insurers also exposes Afghanistan to vulnerabilities associated with global political shifts, as changes in sanctions regimes or geopolitical tensions can directly impact the availability of reinsurance. These challenges collectively limit Afghanistan's role as a reliable transit country for oil and gas, despite its geographic importance.

In Pakistan, the insurance sector is more developed compared to its neighbors, but it faces its own set of legal challenges. The state plays a significant role in regulating tariffs and premiums, which creates rigidity in the market and limits the flexibility of insurers to adapt to changing risk environments (Khodayari, 2023). Although Pakistan has attempted to align parts of its insurance framework with international standards, full harmonization with regional practices remains elusive. The discrepancies between Pakistan's tariff structures and those applied in Iran, Afghanistan, and Iraq create inefficiencies for exporters who must navigate multiple, often inconsistent, insurance regimes (Azizi, 2022). This lack of coordination increases transaction costs and undermines efforts to build a coherent regional transport corridor.

Another issue in Pakistan is the limited scope of coverage offered for high-risk energy cargoes. While domestic insurers provide basic protection, specialized coverage such as war risk insurance often requires engagement with international providers. This reliance introduces additional costs and administrative complexity, as exporters must negotiate multiple contracts across different jurisdictions (Fazli & Hashemi, 2020). Moreover, Pakistan's legal framework does not always provide clear guidance on the allocation of liability in cross-border disputes, leaving exporters vulnerable to lengthy arbitration processes (Abbasi, 2020). The absence of a regionally recognized arbitration mechanism further complicates these disputes, as parties often resort to international tribunals with higher costs and longer timelines.

Across all four countries, several common issues emerge that underscore the fragmented nature of insurance regulation in regional energy transport. Liability disputes are a recurring theme, often stemming from the absence of harmonized definitions of carrier obligations and insurer responsibilities (Imani, 2020). Exporters and insurers frequently clash over the interpretation of contractual terms, leading to prolonged litigation and increased transaction costs. Cross-border risk allocation presents another challenge, as each country applies different standards for determining liability in cases of loss or damage. Without a unified framework, exporters must navigate a patchwork of legal systems, which creates uncertainty and discourages long-term investment (Nasiri et al., 2021).

War risk insurance represents a particularly significant challenge in the region. The geopolitical volatility of Iran, Iraq, Afghanistan, and Pakistan makes energy cargoes especially vulnerable to risks associated with armed conflict, terrorism, and political instability. While international insurers can provide coverage for such risks, their participation in these markets is often limited by sanctions, security concerns, and regulatory uncertainties (Unctad, 2021). As a result, exporters are left with inadequate coverage options or excessively high premiums, both of which undermine the efficiency of land-based energy transport. The inability of domestic insurers to provide comprehensive war risk coverage further exacerbates this problem, leaving significant gaps in the protection available to stakeholders (Fazeli, 2020).

Finally, issues of corruption and transparency pervade the insurance sectors of all four countries. In Iran and Iraq, opaque regulatory processes and political interference undermine the credibility of insurers (Hosseini, 2023). In Afghanistan, weak institutions and fragmented regulations create opportunities for rent-seeking behavior, which further inflates costs and reduces efficiency (Rezaei et al., 2019). In Pakistan, while institutions are comparatively stronger, political considerations often influence tariff-setting and dispute resolution, limiting the transparency of the system (Khodayari, 2023). These governance challenges contribute to an environment of mistrust that discourages foreign investment and undermines regional cooperation (Akbarzadeh, 2018).

Taken together, these findings reveal that the insurance systems governing energy transport in Iran, Iraq, Afghanistan, and Pakistan suffer from structural weaknesses, legal ambiguities, and political interference. The absence of harmonized regional frameworks forces exporters and insurers to operate in fragmented markets, increasing costs, disputes, and risks. Addressing these challenges requires a coordinated approach that strengthens domestic institutions, aligns national laws with international standards, and fosters regional cooperation. Without such reforms, the legal challenges in insurance will continue to impede the development of secure and efficient land-based energy transport corridors across these four strategically important countries.

4. Legal Challenges in Customs Tariffs

In Iran, the customs regime for oil and gas transportation reflects the dual pressures of maintaining state revenue while ensuring the continued flow of strategic exports. The Iranian government has historically applied customs exemptions for energy exports, recognizing that oil and gas form the backbone of its foreign exchange earnings (Unctad, 2021). These exemptions are designed to support state-owned enterprises and guarantee stable revenues, but they create distortions in the treatment of private sector actors. Smaller exporters and logistics companies often face tariff barriers that raise costs and complicate their participation in the market (Mousavi, 2019). The discrepancy between state-supported exemptions and private sector tariffs undermines competition and prevents the emergence of a more diverse energy transport industry (Azizi, 2022).

The impact of international sanctions further complicates Iran's customs system. Restrictions on financial transactions and trade channels have forced customs authorities to adopt ad hoc measures that are not always consistent with international standards (Unctad, 2021). As a result, exporters encounter delays and unexpected charges at border points, as customs officials exercise discretion in applying exemptions and calculating tariffs. This environment creates opportunities for rent-seeking behavior and contributes to perceptions of corruption within the customs administration (Jafari, 2017). Moreover, the lack of alignment with World Trade Organization principles—particularly in terms of transparency and predictability—reduces the confidence of international partners in Iran's customs framework (Azizi, 2022). For oil and gas transporters, these uncertainties translate into higher transaction costs and an increased reliance on informal networks to facilitate cross-border movement (Abbasi, 2020).

In Iraq, customs enforcement is characterized by inconsistency and systemic weaknesses. Border management institutions remain fragile, and the application of customs regulations often varies from one checkpoint to another (Hosseini, 2023). Exporters of oil and gas regularly report unpredictable tariff assessments and lengthy delays caused by bureaucratic inefficiencies. The problem is exacerbated by corruption within customs agencies, where informal payments are frequently required to expedite procedures (Al-Hassan, 2019). Such practices inflate transportation costs and undermine trust in the legal system governing cross-border trade.

The weakness of Iraq's border management is also evident in the lack of coordination between central and regional authorities. In some cases, regional administrations apply tariff rules differently from the central government, creating legal ambiguity and administrative duplication (Imani, 2020). This inconsistency discourages foreign investors and exporters who require predictable tariff regimes to manage their costs effectively. Iraq's reliance on customs revenue as a fiscal tool also leads to frequent changes in tariff rates, which further undermines stability in energy transport contracts (Nasiri et al., 2021). The absence of strong institutions capable of enforcing uniform rules across the country perpetuates a cycle of inefficiency and corruption that damages Iraq's position as a potential energy transit hub (Abbasi, 2020).

Afghanistan presents a unique case due to its dependence on transit trade for revenue and its fragile institutional framework. While Afghanistan has signed multiple transit trade agreements with its neighbors, including Iran and Pakistan, the implementation of these agreements is frequently undermined by the imposition of local tariff barriers (Rezaei et al., 2019). Provincial authorities often establish additional levies that conflict with national commitments, creating a fragmented customs landscape that complicates cross-border energy transport. Exporters find themselves caught between conflicting legal obligations, as official agreements promise tariff reductions while local practices impose additional costs (Jalali, 2021).

The country's challenges are compounded by its slow progress toward World Trade Organization accession, which requires significant reforms in customs transparency and tariff predictability (Azizi, 2022). Afghanistan's inability to meet WTO standards undermines its credibility in regional negotiations and limits its ability to harmonize tariff policies with neighboring states. This legal fragmentation makes it difficult to establish consistent transit corridors for oil and gas, despite Afghanistan's geographic importance as a connector between Central and South Asia (Rezaei et al., 2019). The weak institutional environment also facilitates corruption, as customs officials frequently impose discretionary charges that deviate from established agreements (Nasiri et al., 2021). Such practices not only inflate costs but also discourage long-term investment in transit infrastructure (Fazeli, 2020).

In Pakistan, the customs framework is shaped by its dual role as both an importer of energy and a key transit hub for regional trade. The Afghan Transit Trade Agreement (ATTA) serves as a cornerstone of Pakistan's trade policy, but its implementation has been fraught with disputes (Khodayari, 2023). Afghan traders often accuse Pakistani authorities of imposing excessive tariffs and delays, while Pakistani officials point to smuggling and misuse of transit privileges as justification for stricter enforcement (Rezaei et al., 2019). These tensions create uncertainty for oil and gas transporters who rely on predictable customs procedures to manage costs.

Pakistan's efforts to comply with World Trade Organization rules have led to improvements in transparency, but gaps remain in the enforcement of tariff reductions and dispute resolution (Azizi, 2022). For example, exporters continue to face double taxation in certain corridors, as customs authorities apply overlapping duties at different border points (Rahimi, 2021). The problem is particularly acute in the energy sector, where the high value of cargoes attracts stricter scrutiny and higher administrative costs (Al-Hassan, 2019). Moreover, political considerations often shape tariff policy, as Pakistan uses customs regulations as leverage in its negotiations with Afghanistan and Iran (Khodayari, 2023). This politicization of tariffs undermines trust and limits the effectiveness of bilateral and regional agreements.

Across all four countries, common issues in customs tariffs hinder the development of an efficient and predictable framework for energy transport. One of the most pressing challenges is the lack of tariff harmonization. Each country applies its own set of rules, exemptions, and charges, making it nearly impossible to establish uniform contracts for cross-border oil and gas shipments (Akbarzadeh, 2018). Exporters must navigate a patchwork of legal systems, which increases administrative burdens and inflates costs (Azizi, 2022). The absence of a regional body capable of enforcing standardized tariffs perpetuates this fragmentation and undermines the competitiveness of land-based transport corridors.

Double taxation is another recurring problem, particularly in the corridors linking Afghanistan, Pakistan, and Iran. Exporters frequently face situations where the same cargo is taxed multiple times as it passes through different jurisdictions (Rahimi, 2021). This practice not only violates principles of fair trade but also reduces profit margins and discourages investment in energy logistics (Mousavi, 2019). The lack of effective dispute resolution mechanisms exacerbates the issue, as exporters have little recourse when faced with overlapping tariffs (Abbasi, 2020).

Administrative inefficiencies are also pervasive across the region. In Iran, exporters often report delays due to inconsistent application of exemptions (Jafari, 2017). In Iraq, bureaucratic red tape and the absence of digitalized customs systems lead to prolonged clearance times (Hosseini, 2023). In Afghanistan, overlapping regulations from provincial and national authorities create confusion and delays (Rezaei et al., 2019). In Pakistan, customs disputes under the ATTA framework are often resolved slowly, creating backlogs that disrupt the flow of goods (Khodayari, 2023). These inefficiencies contribute to a climate of unpredictability that undermines regional cooperation.

Finally, political influence over tariff policies remains a critical barrier to harmonization. Governments in all four countries use customs tariffs as tools of political leverage, often adjusting rates or exemptions in response to geopolitical developments. Iran, for example, modifies tariff exemptions to mitigate the effects of sanctions (Unctad, 2021). Iraq changes tariff rates to address short-term fiscal needs, regardless of the impact on regional trade (Hosseini, 2023). Afghanistan imposes local levies to satisfy provincial authorities, undermining national commitments (Rezaei et al., 2019). Pakistan uses tariffs as instruments of negotiation in its relations with Afghanistan and Iran (Khodayari, 2023). This politicization of customs policies prevents the establishment of stable, long-term frameworks for energy transport (Akbarzadeh, 2018).

The cumulative effect of these challenges is a fragmented and unpredictable customs environment that raises costs, discourages investment, and limits the potential for regional integration. Without significant reforms aimed at harmonizing tariffs, improving transparency, and depoliticizing customs administration, the legal challenges in this domain will continue to impede the efficiency of land-based oil and gas transportation across Iran, Iraq, Afghanistan, and Pakistan.

5. Comparative Analysis

The examination of Iran, Iraq, Afghanistan, and Pakistan reveals several striking similarities in the legal challenges surrounding insurance and customs tariffs in the transportation of oil and gas. Across all four countries, weak legal harmonization emerges as a persistent obstacle to efficient regional cooperation. Each state maintains its own regulatory framework for insurance and tariffs, often shaped by domestic political priorities rather than regional commitments (Azizi, 2022). This lack of alignment means that energy exporters and transporters face inconsistent rules as they move cargo across borders, resulting in higher transaction costs and frequent disputes (Abbasi, 2020). Corruption also remains a shared problem, with discretionary practices by customs officials and insurance regulators undermining transparency in Iran, Iraq, Afghanistan, and Pakistan (Hosseini, 2023). In each case, exporters report additional payments and informal negotiations as necessary steps to secure timely clearance or insurance claim settlements, which inflates costs and erodes trust in legal institutions (Al-Hassan, 2019). Added to this is the element of regional instability, as political volatility and conflict spillovers affect the predictability of transport routes and the enforceability of legal frameworks (Rezaei et al., 2019).

Despite these similarities, significant differences also shape the ways in which each country experiences and responds to legal challenges. In Iran, the most defining factor is the impact of international sanctions, which restrict access to global financial systems and limit participation in international insurance markets (Unctad, 2021). This forces Iranian exporters to rely on domestic insurers with constrained reinsurance capacity, resulting in reduced coverage and higher costs (Mousavi, 2019). Iran also employs tariff exemptions strategically, prioritizing state-owned enterprises while imposing barriers on smaller private actors (Jafari, 2017). This dual system both stabilizes state revenues and undermines market competitiveness.

Afghanistan, by contrast, is marked by institutional fragility and an underdeveloped legal system. Its insurance market is highly dependent on foreign reinsurance, and its customs system is fragmented by conflicting local and national regulations (Rezaei et al., 2019). Transit agreements signed with neighboring states are frequently undermined by the imposition of local tariff barriers, reflecting weak central authority and the persistence of provincial autonomy (Jalali, 2021). Unlike Iran, Afghanistan's challenge is not sanctions but the lack of institutional coherence needed to implement international norms such as those associated with World Trade Organization accession (Azizi, 2022). This fragility discourages long-term investment and isolates Afghanistan from regional energy initiatives.

Iraq faces a distinct set of challenges tied to its post-conflict reconstruction context. Legal uncertainty and inconsistent enforcement characterize both its insurance and customs frameworks (Hosseini, 2023). Corruption within customs administration and the uneven application of tariff rules across different border points weaken Iraq's attractiveness as a transit hub (Al-Hassan, 2019). Insurance coverage remains limited, as foreign insurers are reluctant to underwrite high-risk cargoes without reliable enforcement mechanisms (Imani, 2020). Yet, unlike Afghanistan, Iraq possesses significant oil reserves and growing export capacity, making the development of a coherent legal framework critical to its economic recovery.

Pakistan's position is shaped by its relatively stronger institutions and its role as a gateway to international markets. The Afghan Transit Trade Agreement forms the foundation of its customs policy, yet its implementation has been marred by disputes with Afghanistan (Khodayari, 2023). While Pakistan has made greater progress in aligning with World Trade Organization principles, it still faces problems of double taxation, politicized tariff policies, and delays in dispute resolution (Rahimi, 2021). Its insurance market is more developed than those of its neighbors, but challenges remain in extending comprehensive coverage for high-risk energy cargoes (Fazli & Hashemi, 2020). Unlike Iran, Afghanistan, and Iraq, Pakistan's relative institutional strength allows it to play a more decisive role in shaping regional trade frameworks, although this often results in political leverage rather than cooperative harmonization (Akbarzadeh, 2018).

The combined effect of these similarities and differences is a fragmented environment that undermines regional cooperation. Weak legal harmonization and corruption reduce trust among states, while divergent national contexts—sanctions in Iran, fragility in Afghanistan, reconstruction in Iraq, and trade leverage in Pakistan—create conflicting priorities (Nasiri et al., 2021). Instead of aligning their frameworks to support integrated energy corridors, these states often adopt unilateral measures that reflect domestic concerns. This behavior perpetuates inefficiencies, discourages foreign investment, and prevents the creation of stable, predictable corridors for oil and gas transport (Abbasi, 2020).

The lack of harmonized legal frameworks also complicates efforts to develop regional infrastructure projects. For example, attempts to create standardized transit corridors under the Economic Cooperation Organization have struggled to gain traction, as each country insists on retaining discretion over tariffs and insurance regulations (Akbarzadeh, 2018). Without convergence in legal regimes, physical infrastructure such as pipelines, highways, and border facilities cannot achieve their intended efficiency. Disputes over liability in insurance contracts or double taxation at customs checkpoints interrupt the flow of goods and undermine the broader vision of integrated energy cooperation (Fazeli, 2020).

These legal challenges have direct implications for larger geopolitical initiatives such as the Belt and Road Initiative (BRI). China's interest in establishing secure energy corridors through Iran, Pakistan, and Central Asia depends on predictable legal environments (Azizi, 2022). Yet, the persistence of insurance disputes, tariff inconsistencies, and corruption reduces the attractiveness of these routes. For instance, the China–Pakistan Economic Corridor, a flagship BRI project, faces delays and cost overruns partly due to customs inefficiencies and disputes over transit rules (Khodayari, 2023). Iran's sanctions-related restrictions further complicate BRI integration, as insurers and investors remain wary of exposure to secondary sanctions (Unctad, 2021).

The competition between Chabahar port in Iran and Gwadar port in Pakistan further illustrates the impact of legal fragmentation. Chabahar, supported by Indian investment, aims to provide Afghanistan and Central Asia with an alternative to Pakistani routes. Gwadar, under Chinese development, is positioned as a central hub of the BRI. Yet both projects are constrained by inconsistent tariff regimes and weak insurance frameworks in their connecting corridors (Jafari, 2017). For Afghanistan in particular, reliance on either corridor is undermined by its own fragmented customs regime and underdeveloped insurance sector (Rezaei et al., 2019). Instead of competing corridors creating efficiency through diversification, they reproduce existing legal uncertainties and political tensions (Hosseini, 2023).

Energy security across the region is directly shaped by these legal challenges. Reliable and affordable transport of oil and gas requires predictable costs, enforceable insurance coverage, and transparent customs procedures. In the absence of harmonization, each country's vulnerabilities undermine collective security. Iran's sanctions limit its ability to integrate with global markets, Afghanistan's fragility isolates it from reliable trade networks, Iraq's reconstruction struggles delay legal reforms, and Pakistan's politicization of tariffs discourages trust (Mousavi, 2019). As a result, regional consumers and exporters face inflated costs, unreliable delivery schedules, and heightened political risk.

The comparative analysis makes clear that while the four countries share common challenges of weak harmonization, corruption, and instability, their individual contexts create unique barriers to cooperation. Iran's difficulties are primarily external, shaped by sanctions and global financial exclusion (Unctad, 2021). Afghanistan's are internal, rooted in fragile institutions and fragmented governance (Rezaei et al., 2019). Iraq's stem from its transitional status as a post-conflict state, with corruption and weak enforcement undermining progress (Hosseini, 2023). Pakistan's challenges lie in its politicized but comparatively stronger framework, which it uses strategically in regional negotiations (Khodayari, 2023). These differences not only prevent harmonization but also complicate attempts to build trust, as each state perceives the others as pursuing unilateral advantage.

The implications for regional energy cooperation are profound. Without legal convergence, projects such as energy corridors, port developments, and BRI-related initiatives will continue to fall short of their potential. The comparative analysis underscores that the future of energy security in Western and South Asia depends not only on physical infrastructure but also on the reform and harmonization of insurance and customs laws. Only through such convergence can the region transform its geographic position from a source of vulnerability into a foundation for energy cooperation and integration.

6. Conclusion

The analysis of legal challenges in insurance and customs tariffs for land-based transportation of oil and gas across Iran, Iraq, Afghanistan, and Pakistan demonstrates the central role that law and regulation play in shaping the effectiveness of regional energy logistics. While the four countries occupy a strategically interconnected corridor, their fragmented legal frameworks, divergent national priorities, and weak institutional capacities have prevented the creation of a predictable and secure environment for energy trade.

The findings reveal that, despite their shared interests in facilitating energy flows, these states continue to operate within legal regimes that are largely inward-looking and resistant to harmonization. Insurance systems remain underdeveloped, with limited international participation and recurring disputes over liability and claims settlement. Customs tariffs are marked by inconsistency, politicization, and double taxation, undermining the competitiveness of transport corridors. These shortcomings collectively discourage investment, raise costs, and reduce the reliability of land-based routes that are otherwise critical to regional integration.

At the same time, the comparative analysis shows that each country faces unique challenges: Iran's struggles are shaped by international sanctions and limited access to global markets, Afghanistan suffers from institutional fragility and fragmented governance, Iraq continues to rebuild under conditions of legal uncertainty and corruption, and Pakistan's relatively stronger institutions are weakened by the politicization of tariff policy. These differences create conflicting priorities and prevent the emergence of a shared regional vision for energy transport.

The broader implication is that the region's geographic potential as a hub for energy transit cannot be realized without fundamental reforms in the legal domain. Harmonizing insurance regulations, aligning customs tariffs, and depoliticizing administrative processes are essential steps toward building trust and efficiency. More importantly, these reforms are necessary for integrating regional corridors into global initiatives, whether through new trade agreements, infrastructure projects, or international partnerships.

Ultimately, the study underscores that energy security in this region is not only a question of resource availability or infrastructure development but also of legal clarity, institutional strength, and cooperative governance. Addressing the persistent challenges in insurance and customs tariffs offers a pathway not just to more efficient energy transport, but also to greater regional stability, trust, and economic interdependence. Without such steps, the promise of transforming shared geography into shared prosperity will remain unfulfilled.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

Acknowledgments

Authors thank all who helped us through this study.

Conflict of Interest

The authors report no conflict of interest.

Funding/Financial Support

According to the authors, this article has no financial support.

References

Abbasi, M. (2020). Challenges of establishing a regional arbitration center for energy transportation disputes among Iran, Iraq, Afghanistan, and Pakistan. *Journal of International Law Studies*, *12*(3), 45-60.

Akbarzadeh, M. (2018). The role of ECO in harmonizing common tariffs: A case study of energy transportation. *Regional Economic Cooperation Review*, *7*(2), 99-115.

Al-Hassan, A. (2019). Impact of customs tariffs on energy transportation costs in Western Asia. *Energy Economics Journal*, *15*(4), 120-134.

Azizi, R. (2022). Multilateral cooperation and tariff stability: Regional agreements in energy export. *International Trade Journal*, *28*(1), 77-92.

Fazeli, H. (2020). Complexities of claims settlement in absence of regional insurance policies in energy transport. *Insurance Studies Quarterly*, *10*(2), 55-69.

Fazli, H., & Hashemi, K. (2020). The Complexities of Claim Payments in the Absence of Regional Insurance Policies. *Quarterly Journal of Insurance Studies*, *10*(2), 55-69.

Hosseini, M. (2023). Legal challenges of energy transportation between Iran and Iraq: A regional framework analysis. *Middle East Energy Law Review*, *4*(1), 22-40.

Imani, N. (2020). Legal analysis of conflict of interest between insurers and exporters in energy transport contracts. *Journal of Energy Law*, *9*(3), 101-115.

Jafari, S. (2017). Lack of transparency in land energy export laws at Iran-Iraq borders. *Border Trade Studies*, *6*(1), 88-104.

Jalali, P. (2021). The Experience of CIS Countries in Standardizing Energy Transport Insurance. *Eurasian Legal Studies*, *5*(4), 65-81.

Khodayari, A. (2023). The Weakness of Iran-Pakistan Bilateral Agreements in Energy Transport. *Quarterly Journal of Regional Cooperation*, *13*(2), 33-47.

Mousavi, R. (2019). International Insurance Interactions and their Impact on Iran's Energy Transport Costs. *Iranian Journal of Insurance Research*, *8*(2), 25-40.

Nasiri, M., Hashemi, A., & Tavakkoli, B. (2021). Iran's Challenges in International Insurance Cooperation for Energy Exports. *Journal of International Economic Studies*, *14*(1), 77-92.

Rahimi, H. (2021). Tariff Disputes and Commercial Risk in Energy Transport. *Quarterly Journal of Trade and Customs*, *9*(3), 44-59.
Rezaei, M., Moradi, F., & Ghasemi, S. (2019). *Afghanistan's Insurance Infrastructure and its Impact on Transport Costs*. World Bank Regional Report.
Unctad. (2021). Impact of sanctions on regional insurance cooperation.