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Exporting Gas, Exporting Emissions:

The Externalization of Climate Costs through the Southern Gas Corridor

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Abstract

This article examines the structural tension between Azerbaijan's international climate commitments and its expanding role as a major natural gas exporter to Europe. Since hosting COP29 in 2024, Azerbaijan has positioned itself as an active participant in global environmental governance while simultaneously accelerating hydrocarbon production, developing new gas fields (including Absheron Phase II, Babek, and non-associated gas at ACG), and deepening its strategic energy partnership with the EU through the Southern Gas Corridor (SGC) and Trans Adriatic Pipeline (TAP). Drawing on the concept of "exported emissions," the article argues that while European states may reduce territorial emissions by substituting Azerbaijani gas for more carbon-intensive fuels, a substantial share of the associated methane emissions—generated during extraction, processing, compression, and transmission—remains externalized to Azerbaijan and other points along the supply chain.

The analysis assesses whether existing environmental, health and safety, and human rights safeguards imposed by EU legislation, EBRD, EIB, IFC, OECD, and Equator Principles standards, as well as the new EU Methane Regulation (2024/1787), are adequate to address this challenge. It finds that although TAP operates under one of the most extensive formal governance frameworks applied to energy infrastructure, effective implementation depends heavily on independent monitoring, transparency, and civic space—all of which are significantly constrained in Azerbaijan and, to varying degrees, in Georgia and Türkiye. Restrictions on civil society, journalists, and human rights defenders limit the ability of independent actors to verify compliance, creating a gap between formal regulatory commitments and actual environmental and social outcomes.

The article concludes that Azerbaijan's declining performance in the World Economic Forum's 2026 Energy Transition Index—driven by weaknesses in institutional and regulatory "Transition Readiness" rather than technical system performance—illustrates a broader dilemma facing hydrocarbon-exporting states: the credibility of climate commitments ultimately hinges not only on renewable energy targets, but on methane governance, transparency, and protection of the civic space needed to hold gas export infrastructure accountable throughout its operational lifecycle.

Keywords: Azerbaijan; Southern Gas Corridor; Trans Adriatic Pipeline; European energy security; SOCAR; exported/embodied emissions; methane emissions; energy transition; COP29; civic space; resource governance; human rights and environmental accountability

Introduction

In recent years, Azerbaijan has sought to position itself as an active participant in global environmental governance. The country hosted the United Nations Climate Change Conference (COP29) in 2024,¹ and the World Urban Forum (WUF13)² and the official global commemoration of World Environment Day in 2026.³ At the World Environment Day ceremony in Baku, government representatives emphasized the need for urgent collective and individual action to address climate change, strengthen environmental resilience, and support sustainable development.⁴

Despite these commitments and international engagements, Azerbaijan's climate strategy is characterized by a fundamental structural contradiction. On the one hand, the government has committed itself to reducing greenhouse gas emissions, improving methane management, and advancing renewable energy development. On the other hand, it continues to pursue the expansion of hydrocarbon production and natural gas exports as a central pillar of the country's economic growth and national development.⁵ This dual-track approach creates a fundamental tension between Azerbaijan's international climate commitments and its continued dependence on hydrocarbon-driven growth, raising important questions about the long-term compatibility of fossil fuel expansion with sustainable development and climate transition objectives.

From a political economy perspective,⁶ the expansion of natural gas exports provides substantial economic, social, and geopolitical benefits. It generates export revenues, strengthens Azerbaijan's strategic partnerships with European states, enhances its geopolitical influence in regional energy markets, and contributes to economic stability and employment. At the same time, continued reliance on hydrocarbon exports reinforces structural dependence on fossil fuels, creates incentives to postpone economic diversification, and complicates the implementation of long-term decarbonization strategies. In authoritarian contexts,⁷ the concentration of resource revenues may also strengthen state control over political and

¹ <https://unfccc.int/cop29>

² <https://wuf.unhabitat.org/wuf13>

³ <https://www.worldenvironmentday.global/>

⁴ <https://www.unep.org/news-and-stories/press-release/planet-swelters-world-environment-day-2026-focuses-urgent-climate>

⁵ Crude Accountability (2025), Report on "Analysis & Policy Implications of Azerbaijan's Energy Strategy: Gas Laundromat, Sanctions Exposure, and Transition Pathways," <https://crudeaccountability.org/wp-content/uploads/analysis-policy-implications-of-azerbaijan-energy-strategy.pdf>

⁶ Ibadoghlu, Gubad (2025A), The Politics of Energy and Climate Commitments: Azerbaijan's Post-COP29 Fossil Fuel Strategy, Available at SSRN: <https://ssrn.com/abstract=5261615> or <http://dx.doi.org/10.2139/ssrn.5261615>

⁷ Ibadoghlu, Gubad (2025B), The Mechanisms And Tools Of Authoritarian Control In Resource-Rich States: A Case Study Of Azerbaijan. Available at SSRN: <https://ssrn.com/abstract=5219272> or <http://dx.doi.org/10.2139/ssrn.5219272>

economic institutions, reducing incentives for political and economic reform. As a result, hydrocarbon wealth in Azerbaijan can contribute not only to carbon lock-in but also to the persistence of governance structures that constrain political pluralism, civic participation, and public accountability.

At the same time, the growing integration of Azerbaijani gas into European energy markets has generated a broader framework of environmental, health and safety, and human rights obligations. Through engagement in the Southern Gas Corridor (SGC) and related infrastructure, Azerbaijani gas exports are increasingly subject to compliance with international standards established by the European Union,⁸ the European Bank for Reconstruction and Development (EBRD),⁹ the European Investment Bank (EIB),¹⁰ the OECD,¹¹ and other international institutions.¹² These frameworks require environmental impact assessments, methane monitoring and reporting, protection of biodiversity, stakeholder consultation, community health and safety safeguards, grievance mechanisms, and respect for human rights throughout the project lifecycle. Effective implementation and monitoring of these commitments, however, depend upon transparent governance, independent oversight, access to information, and the ability of civil society organizations, researchers, and media institutions to participate in environmental accountability processes, which are often lacking in the Azerbaijani context.

This article is devoted to a discussion of the environmental implications of natural gas production and export, the concept of “exporting emissions” through international gas trade, and the extent to which existing environmental, health and safety, and human rights safeguards are capable of addressing the challenges associated with continued fossil fuel expansion in Azerbaijan. While these issues cannot be entirely separated from broader political economy and governance dynamics, the primary focus of this article is environmental: assessing whether current methane mitigation efforts and regulatory frameworks are sufficient to reconcile Azerbaijan’s climate commitments with its expanding role as a major natural gas exporter.

⁸ https://environment.ec.europa.eu/law-and-governance/environmental-assessments/environmental-impact-assessment-eia_en

⁹ <https://bankwatch.org/wp-content/uploads/2025/05/GET-greener-Strengthening-the-EBRDs-Green-Economy-Transition-approach.pdf>

¹⁰ <https://www.eib.org/en/publications/eib-environmental-assessment>

¹¹ <https://www.oecd.org/en/topics/policy-issues/environmental-policies-and-evaluation.html>

¹² <https://www.ohchr.org/en/documents/thematic-reports/ahrc6147-priority-actions-towards-breathing-clean-air-protecting-public>

Expanding Gas Production in the Post-COP29 Era

Following Russia's full-scale invasion of Ukraine in February 2022, Europe faced growing challenges in securing energy supplies and reducing its dependence on Russian hydrocarbons. In this new geopolitical environment, Azerbaijan's economic and strategic importance to the West increased significantly. Within a relatively short period, Azerbaijan emerged as one of the European Union's key energy partners. The country's subsequent hosting of COP29 further demonstrated its ambition to position itself as an active participant in global climate governance. In this way, Azerbaijan's engagement in international climate diplomacy has coincided with efforts to deepen existing energy partnerships and secure new markets for its hydrocarbon exports.

The growing importance of Azerbaijan's energy sector has been reflected in the rapid expansion of state-owned energy assets. The State Oil Fund of Azerbaijan's (SOFAZ) assets reached USD 73.5 billion, representing a 22.5 percent increase compared to the beginning of the year,¹³ while Azerbaijan's total sovereign foreign-currency assets are projected to rise to approximately USD 93 billion in 2026.¹⁴ At the same time, the State Oil Company of Azerbaijan (SOCAR), whose total assets were estimated at approximately USD 56.75 billion in 2025, has expanded investments across Europe,¹⁵ the Middle East,¹⁶ Africa,¹⁷ and Central Asia,¹⁸ contributing to the internationalization of Azerbaijani capital in the energy sector.

The post-2022 geopolitical environment has further intensified the contradiction between Azerbaijan's climate commitments and its hydrocarbon development strategy. While Azerbaijan has sought to present itself as a responsible stakeholder in global climate governance through hosting COP29 and supporting methane reduction initiatives,¹⁹ it has simultaneously accelerated investments in new gas fields, export infrastructure, and long-term supply agreements with European partners. The resulting expansion of gas production capacity is expected to increase export revenues, strengthen the country's geopolitical influence, and further consolidate the role of hydrocarbons in the national economy. However, it also risks locking both Azerbaijan and its energy partners into a prolonged dependence on fossil fuels, thereby increasing the importance of addressing methane emissions and other upstream environmental impacts associated with natural gas production and transportation.

¹³ <https://www.oilfund.az/en/fund/press-room/news-archive/1759>

¹⁴ <https://www.trend.az/azerbaijan/business/4195095.html>

¹⁵ <https://www.euronews.com/2026/05/12/socar-acquisition-of-italys-italiana-petroli-finalised-after-eu-clearance>

¹⁶ <https://socar.de/en/2025/01/socar-acquires-stakes-in-tamar-project/>

¹⁷ <https://caucasusbusinessjournal.com/news/socar-africa-investment-ivory-coast-baleine-field-2026>

¹⁸ <https://interfax.com/newsroom/top-stories/117554/>

¹⁹ <https://cop29.az/en/pages/cop29-declaration-on-reducing-methane-from-organic-waste>

President Ilham Aliyev stated in an interview²⁰ with Euronews in Davos, Switzerland on January 20, 2026 that Azerbaijan currently exports natural gas to 16 countries, including 10 member states of the European Union. He further noted that Azerbaijan ranks among the world's leading countries in terms of the geographical reach of its pipeline gas exports.

Looking ahead, Azerbaijan intends to further increase gas production through the development of new fields and expanded investment in existing projects, particularly in the post-COP29 period. A second natural gas well is expected to be commissioned at the Azeri-Chirag-Gunashli (ACG) field, the country's largest hydrocarbon project. BP has announced²¹ the commencement of commercial production of non-associated gas at ACG, where recoverable gas reserves are estimated at approximately 4 trillion cubic feet, with the potential to reach 6 trillion cubic feet. Non-associated gas refers to natural gas produced independently of crude oil extraction rather than as a by-product of oil production.

Additional expansion is anticipated through the Babek and Absheron gas fields. BP is expected to assume operatorship of the Babek field,²² while production from the second phase of the Absheron project is projected to reach approximately 4–4.5 billion cubic meters annually by 2028–2029.²³ According to President Aliyev, Azerbaijan plans to bring an additional 8 billion cubic meters of annual gas production online by 2030 through the development of five existing and several new fields.²⁴ Recent investment agreements and planned contracts are expected to support this expansion strategy and further strengthen Azerbaijan's role as a major regional gas supplier.

The expansion strategy is further supported by a series of new investment agreements and large-scale energy projects. According to information presented by SOCAR during 2026 Baku Energy Week, the Azeri-Chirag-Gunashli (ACG) field block has produced approximately 623 million tons of oil and 252.6 billion cubic meters of associated gas since the commencement of operations.²⁵ These figures highlight the continuing strategic importance of the ACG complex for Azerbaijan's hydrocarbon sector and export revenues.

²⁰ <https://president.az/en/articles/view/71342>

²¹ <https://www.bp.com/en/global/corporate/news-and-insights/press-releases/acg-celebrates-first-non-associated-gas.html>

²² <https://www.reuters.com/business/energy/bp-set-take-over-offshore-natural-gas-project-azerbaijan-sources-say-2026-05-28/>

²³ <https://totalenergies.com/azerbaijan/absheron-ffd-esia>

²⁴ <https://president.az/en/articles/view/69161>

²⁵ <https://en.apa.az/energy-and-industry/azeri-chirag-gunashli-oil-production-reaches-623-million-tons-509810>

Within the framework of 2026 Baku Energy Week²⁶ and the First Azerbaijan–United States Economic Dialogue held in June 2026,²⁷ Azerbaijan signed a number of new agreements focused primarily on energy development and the exploitation of critical minerals. The Ministry of Economy of the Republic of Azerbaijan and SOCAR concluded agreements and memoranda with major companies and institutions from the United States, Türkiye, Serbia, San Marino, and France, covering energy, investment, digital technologies, and broader economic cooperation. The total value of these agreements was reported at approximately USD 7.5 billion, underscoring the continued attractiveness of Azerbaijan’s energy sector to international investors.²⁸

Particular attention has been devoted to the expansion of the Absheron gas field. Under agreements signed between SOCAR, TotalEnergies, XRG, and BOTAŞ, annual gas production from the second phase of the Absheron project is expected to increase to between 4 and 4.5 billion cubic meters.²⁹ During the first phase, the field produced approximately 1.5 billion cubic meters of gas annually, most of which was directed toward domestic consumption. The second phase is therefore expected to substantially increase Azerbaijan’s export capacity. Gas production under the second phase is scheduled to continue until at least 2029.

The commercial arrangements associated with the project further illustrate Azerbaijan’s long-term export strategy. Under the signed agreements, approximately 50 percent of the gas produced from the Absheron field—equivalent to around 33 billion cubic meters over the contract period—will be supplied to the Turkish market over a fifteen-year period. Beginning in 2029, approximately 2.25 billion cubic meters of gas per year are expected to be delivered to BOTAŞ through the Baku–Tbilisi–Erzurum pipeline.³⁰

Preparatory work for the second phase of the Absheron project commenced in April 2026 under the leadership of TotalEnergies. According to the final shareholder agreement signed in August 2023, ownership of JOCAP, the operating company of the field, is divided among SOCAR (35 percent), TotalEnergies (35 percent), and ADNOC of the United Arab Emirates (30 percent).³¹ Together, these developments demonstrate that Azerbaijan's long-term energy

²⁶ <https://exhibitstandbuilder.com/events/baku-energy-week-2026-baku/>

²⁷ <https://az.usembassy.gov/first-azerbaijan-u-s-economic-dialogue/>

²⁸ <https://azerbaijan.az/en/news/19432>

²⁹ <https://www.reuters.com/business/energy/socar-totalenergies-adnoc-botas-sign-absheron-phase-two-gas-sales-agreement-2026-06-01/>

³⁰ <https://interfax.com/newsroom/top-stories/117856/>

³¹ <https://corporate.totalenergies.no/news-overview/azerbaijan-totalenergies-sells-15-interest-absheron-gas-field-adnoc>

strategy remains heavily oriented toward expanding natural gas production and exports, despite its parallel commitments to climate mitigation and methane emissions reduction.

As the above discussion demonstrates, Azerbaijan, in partnership with major Western energy companies, continues to expand hydrocarbon production and increase investments in energy projects both domestically and abroad. This expansion not only increases oil and natural gas output but also contributes to growing methane emissions associated with extraction, processing, transportation, and export activities. Consequently, the environmental footprint of Azerbaijan's hydrocarbon sector extends beyond the volumes of energy produced and exported, encompassing significant greenhouse gas emissions that accompany the continued expansion of fossil fuel development.

Although Azerbaijan is not among the world's largest gas producers, it has developed one of the most geographically diversified pipeline export networks among hydrocarbon-exporting states, supplying natural gas to multiple European and regional markets through the Southern Gas Corridor and related infrastructure.

However, expanding the geographical reach of gas exports also expands the environmental footprint associated with Azerbaijan's hydrocarbon sector. Greater export volumes require additional extraction, processing, compression, transmission, and transportation activities, all of which generate greenhouse gas emissions, particularly methane. Consequently, the expansion of export markets should be assessed not only as an economic and geopolitical achievement but also in terms of its environmental and climate implications. In this sense, the growing geographical reach of Azerbaijani gas exports may simultaneously increase the country's strategic importance and its contribution to transboundary climate impacts through the production and export of emissions embedded within the natural gas supply chain.

Environmental, Human Rights, Health and Safety Gaps in Gas Export from Azerbaijan

In 2025, Azerbaijan produced approximately 38.6 billion cubic meters of marketable natural gas, of which more than 25 billion cubic meters were exported to foreign markets. Around 12.9 billion cubic meters were delivered to European countries through the Trans Adriatic Pipeline (TAP) and related infrastructure.³² Azerbaijani natural gas reaches European consumers through the SGC, a 3,500-kilometre pipeline network stretching from the Caspian Sea to the Italian coast, and connecting Azerbaijan's Shah Deniz Phase II gas field to Türkiye and European markets.³³

Following Russia's full-scale invasion of Ukraine in 2022 and the subsequent efforts to reduce Europe's dependence on Russian energy supplies, TAP is widely presented as a strategic energy infrastructure project that contributes to European energy security by diversifying natural gas supply routes and reducing dependence on a limited number of suppliers. However, the significance of TAP extends beyond questions of energy security. The project must also be assessed through the lens of environmental sustainability, climate commitments, human rights, public health, occupational safety, and long-term decarbonization objectives. A comprehensive evaluation therefore requires consideration of the full gas supply chain, including upstream extraction activities, methane emissions, social impacts, and governance challenges associated with natural gas exports from Azerbaijan to Europe.

The Environmental, Social, and Cultural Heritage Overview³⁴ forms part of TAP's commitment to providing stakeholders with clear, relevant, and accessible information concerning the project's impacts and mitigation measures. This commitment is derived from TAP's Values and Code of Conduct³⁵ and must be implemented in accordance with the national regulatory requirements of the project's three host countries (Greece, Albania, and Italy), as well as relevant European Union legislation and internationally recognized environmental and social standards.

In particular, TAP is required to comply with several international frameworks governing environmental and social risk management:

- European Bank for Reconstruction and Development (EBRD) Performance Requirements (2014);³⁶

³² <https://interfax.com/newsroom/top-stories/115521/>

³³ <https://www.tap-ag.com/about-tap/the-big-picture/the-southern-gas-corridor>

³⁴ <https://www.eib.org/attachments/registers/80089582.pdf>

³⁵ <https://www.tap-ag.com/about-tap/tap-code-of-conduct>

³⁶ <https://www.ebrd.com/home/who-we-are/ebd-values/ebd-environmental-social-sustainability/reports-and-policies/performance-requirements.html>

- International Finance Corporation (IFC) Performance Standards (2012);³⁷
- European Investment Bank (EIB) Environmental and Social Standards (2022);³⁸
- Equator Principles III (2013);³⁹ and
- Organization for Economic Cooperation and Development (OECD) Common Approaches on Environmental and Social Due Diligence (2012).⁴⁰

The requirements established under these frameworks apply throughout the planning, design, construction, and operational phases of the pipeline. Key governance mechanisms include stakeholder engagement and consultation, grievance management procedures, environmental and social impact assessments, biodiversity and cultural heritage assessments, land easement and acquisition procedures, and environmental and social impact management during both construction and operation.

From the perspective of EU law and international lender standards, TAP and related gas infrastructure are subject to a dense framework of environmental and social obligations. The EU Environmental Impact Assessment Directive⁴¹ requires major projects likely to have significant environmental effects to be assessed before approval, including impacts on the environment, human health, and public participation. The EIB Environmental and Social Standards⁴² require early and meaningful stakeholder engagement, while EBRD Performance Requirement 10 emphasizes transparent engagement with workers, affected communities, and other stakeholders.⁴³

TAP's Environmental and Social Management Manual⁴⁴ and Operations Environmental Standards Manual⁴⁵ show that the project adopted formal procedures for environmental management, contractor control, monitoring, cultural heritage protection, pollution prevention, emergency preparedness, and health and safety. These documents are important because they demonstrate that TAP was not merely a commercial pipeline project, but also a lender-supervised infrastructure project expected to comply with EBRD, EIB, IFC, OECD, and Equator Principles standards.⁴⁶ However, the existence of management plans does not by itself demonstrate effective implementation. A critical assessment must therefore examine whether

³⁷ <https://www.ifc.org/en/insights-reports/2012/ifc-performance-standards>

³⁸ <https://www.eib.org/en/publications/eib-environmental-and-social-standards>

³⁹ https://equator-principles.com/app/uploads/The_Equator_Principles_III_June2013.pdf

⁴⁰ <https://legalinstruments.oecd.org/public/doc/280/280.en.pdf>

⁴¹ https://environment.ec.europa.eu/law-and-governance/environmental-assessments/environmental-impact-assessment-eia_en

⁴² <https://www.eib.org/en/publications/eib-environmental-and-social-standards>

⁴³ <https://bankwatch.org/wp-content/uploads/2025/04/The-role-of-stakeholder-engagement-in-the-EBRD.pdf>

⁴⁴ <https://www.tap-ag.com/sustainability/lenders-requirements/environmental-and-social-management-plan>

⁴⁵ <https://www.tap-ag.com/sustainability/lenders-requirements/esch-management-operations>

⁴⁶ <https://equator-principles.com/about-the-equator-principles/>

biodiversity protection, land restoration, compensation, grievance mechanisms, occupational safety, and community health protections were actually implemented and independently verified throughout construction and operation.

The adoption of Regulation (EU) 2024/1787 on methane emissions⁴⁷ significantly changes the analytical context. The Regulation aims to reduce methane emissions not only within the EU but also across global fossil fuel supply chains connected to the EU market. It introduces requirements related to methane measurement, monitoring, reporting, verification, leak detection and repair, and restrictions on venting and flaring. This is particularly relevant for Azerbaijani gas exports because methane emissions occur upstream during extraction, processing, compression, transmission, and pipeline transport before the gas reaches European consumers.

From a human rights perspective, TAP-related standards require more than technical environmental compliance. EIB and EBRD standards require meaningful consultation, disclosure of information, fair compensation, protection of affected communities, grievance mechanisms, and respect for health and safety. The EIB framework also requires human rights considerations to be integrated into environmental and social assessment processes. This means that pipeline assessments should include land rights, livelihood impacts, access to remedy, treatment of affected communities, and the ability of civil society actors to raise concerns without intimidation.

The significance of these environmental and social safeguards is reinforced by the scale and complexity of TAP's financing structure. In December 2018, TAP achieved financial closure, securing a total financing package of €3.9 billion.⁴⁸ At the time, this represented one of the largest project-finance transactions completed for a European infrastructure project. The financing package was provided by a consortium consisting of the EIB, the EBRD, and seventeen commercial banks. Additional support was provided through export credit agencies and public financial institutions, including Bpifrance, Euler Hermes, and SACE. The EIB alone contributed €700 million, while the EBRD approved financing of up to €1 billion.⁴⁹

The involvement of major multilateral financial institutions provided the project with an additional degree of political and financial legitimacy. However, such support also raised expectations regarding transparency, accountability, environmental performance, stakeholder engagement, and respect for human rights. As a result, TAP became subject not only to

⁴⁷ <https://eur-lex.europa.eu/eli/reg/2024/1787/oj/eng>

⁴⁸ <https://www.eib.org/en/press/all/2019-004-trans-adriatic-pipeline-tap-completes-successful-eur-3-9-billion-project-financing>

⁴⁹ <https://energyindustryreview.com/oil-gas/tap-completes-successful-euros-3-9-billion-project-financing/>

financial scrutiny but also to heightened public and civil society expectations concerning its compliance with international environmental, social, and governance standards.

The involvement of major multilateral lenders subjected the project to extensive environmental and social due diligence requirements. These included environmental and social impact assessments, stakeholder engagement obligations, ongoing monitoring and reporting requirements, and compliance with lender-specific environmental and social standards. As a result, TAP has often been cited as an example of a large-scale infrastructure project operating under one of the most comprehensive environmental and social governance frameworks currently applied to energy infrastructure. However, despite the existence of extensive governance mechanisms, significant concerns remain regarding the broader environmental, social, and human rights implications of the SGC project; these mechanisms do not automatically guarantee effective implementation. The SGC project is an example of the gap that can emerge between formal compliance requirements and actual outcomes on the ground.

This challenge became evident during the financing process for the SGC. Prior to the approval of EIB financing, a coalition of twenty-seven environmental and civil society organizations sent an open letter⁵⁰ to the EIB urging the Bank not to support the project. The organizations argued that the SGC was inconsistent with the European Union's long-term climate objectives and decarbonization strategy. They also warned that declining gas demand could increase the risk of stranded assets and questioned the compatibility of deepening energy cooperation with Azerbaijan in light of concerns regarding human rights, democratic governance, and political freedoms.

Additional criticism focused on the transparency of the project's governance structure, public participation procedures, and environmental decision-making processes. In Italy, local communities and authorities expressed concerns regarding environmental impacts and failure to consult adequately with the public.⁵¹

To strengthen transparency and accountability, periodic assessments should be conducted by independent civil society organizations and subject-matter experts. Such monitoring should extend beyond the planning, design, and construction phases to encompass the operational phase of the pipeline, ensuring continuous evaluation of environmental commitments, biodiversity protection measures, community welfare, public health, and human rights safeguards. Independent monitoring and public reporting can further enhance stakeholder

⁵⁰ https://bankwatch.org/press_release/ngos-urge-the-european-investment-bank-not-to-finance-the-southern-gas-corridor

⁵¹ [Italian authorities overrun communities in a bid to enable Europe's dash for gas - Bankwatch](#)

trust and provide an important mechanism for verifying compliance with international environmental, social, and governance standards.

Such oversight should continue beyond the planning, design, and construction phases and remain active throughout the operational life of the pipeline. Independent monitoring and public reporting can strengthen transparency, improve accountability, increase public trust, and provide an additional mechanism for evaluating compliance with environmental, social, climate, health, safety, and human rights commitments.

These concerns underscore the importance of robust public oversight mechanisms throughout the lifespan of the project. While lenders and project operators maintain formal monitoring and reporting systems, civil society actors provide an additional layer of accountability by independently evaluating whether environmental, social, and human rights commitments are effectively implemented in practice. Environmental organizations, academic experts, ecologists, human rights defenders, and local community groups should play a critical role in identifying implementation gaps, assessing environmental performance, monitoring community impacts, and scrutinizing compliance with human rights obligations.

However, the ability of civil society organizations (CSOs) to perform this function is often constrained by structural and political barriers. Large-scale infrastructure projects such as the SGC and the TAP are frequently treated as strategic national priorities and fast-tracked through political decision-making processes. As a result, local communities and CSOs often face significant difficulties in obtaining access to detailed project information, including procurement data, financing arrangements, environmental assessments, and project-related decision-making processes. Even where information is publicly available, it is frequently fragmented, highly technical, or difficult to access, limiting the ability of affected communities to develop a comprehensive understanding of the project's broader economic, environmental, and social implications.

These information asymmetries have important consequences for public participation. Without timely access to relevant information, communities are less able to engage meaningfully in consultations, seek remedies through grievance mechanisms, or influence project design and implementation in ways that reflect local development priorities. Consequently, formal stakeholder engagement processes may satisfy procedural requirements while providing limited opportunities for substantive participation.

An additional challenge stems from the constrained civic space that characterizes several source and transit countries along the SGC project. In Azerbaijan,⁵² the source country of the project, as well as in Georgia⁵³ and Türkiye,⁵⁴ independent civil society organizations, human rights defenders, investigative journalists, and environmental activists have faced varying degrees of political pressure, administrative restrictions, and legal obstacles.⁵⁵ Such conditions reduce the capacity of civil society actors to conduct independent monitoring, engage in public advocacy, disseminate findings, or participate effectively in policy debates concerning the environmental, social, and governance implications of the project. Restrictions in these countries affecting freedom of association, freedom of assembly, independent media, and human rights advocacy limit the capacity of civil society organizations to conduct oversight activities, communicate findings, and engage in public debate regarding project impacts.

As a result, civil society participation often remains confined to a relatively narrow consultative role within the governance framework of large-scale energy infrastructure projects, such as SCG and TAP. Although CSOs may contribute to stakeholder engagement processes and environmental monitoring initiatives, they are rarely integrated into formal oversight mechanisms or decision-making structures. Their ability to influence project implementation is further constrained by limited access to information, including detailed procurement records, financial arrangements, environmental assessments, and project-level compliance data. Consequently, civil society actors in those countries frequently lack the information and institutional access necessary to independently assess whether project commitments are being fulfilled in practice.

Moreover, where independent monitoring is permitted, its scope is often restricted to environmental and social compliance indicators. CSOs are seldom granted the mandate, resources, or access required to evaluate broader issues such as fiscal transparency, governance risks, corruption vulnerabilities, energy dependency, geopolitical implications, or the long-term developmental consequences associated with large-scale gas export infrastructure. This creates a significant accountability gap, whereby projects may satisfy procedural compliance requirements while remaining largely insulated from independent scrutiny regarding their wider economic, political, and societal impacts.

⁵² Samantha Custer, Divya Mathew, Bryan Burgess, Emily Dumont, Lincoln Zaleski (2023) Azerbaijan: Measuring civic space risk, resilience, and Russian influence, Civic Space Country Report, <https://docs.aiddata.org/reports/civic-space/country-reports/aze/azerbaijan-civic-space-2010-to-2021.html>

⁵³

<https://hrc.ge/files/4101.%20Shrinking%20Civic%20Space%20and%20the%20Erosion%20of%20Freedom%20of%20Expression%20in%20Georgia.pdf>

⁵⁴ <https://www.stgm.org.tr/en/civic-space-shrinking-state-closing-its-doors-civil-society>

⁵⁵ <https://www.hrw.org/world-report/2025>

Under these circumstances, independent oversight should not be regarded as a supplementary element of project governance but rather as a critical component of accountability. Effective monitoring requires regular assessments conducted by independent CSOs, including ecologists, environmental rights advocates, human rights defenders, and academic experts. Such oversight should extend beyond the planning, design, and construction phases to encompass the operational phase of the pipeline, when many environmental, social, health, and safety impacts continue to emerge and evolve. Independent monitoring and public reporting can strengthen transparency, improve accountability, enhance public trust, and provide an additional mechanism for evaluating compliance with environmental, social, climate, health, safety, and human rights commitments throughout the project lifecycle.

Conclusion

The findings of this article highlight a growing tension between Azerbaijan's climate commitments and its expanding role as a strategic supplier of natural gas to European markets. Since the signing of the Memorandum of Understanding on a Strategic Partnership in the Field of Energy between Azerbaijan and the European Union in 2022,⁵⁶ the country has become an increasingly important component of Europe's energy security architecture. At the same time, Azerbaijan has sought to strengthen its international environmental profile through initiatives such as hosting COP29 and supporting methane reduction efforts.⁵⁷ However, the continued expansion of hydrocarbon production, the development of new gas fields, and growing investments in export infrastructure raise important questions regarding the compatibility of these policies with long-term climate objectives.

This deterioration is reflected in the World Economic Forum's 2026 Energy Transition Index (ETI), in which Azerbaijan fell 15 positions compared to its 2024 ranking, placing 53rd among 120 countries with a score of 58.3.⁵⁸ Notably, the decline was driven primarily by a weakening of the country's performance in the Transition Readiness pillar rather than in the System Performance pillar. The Transition Readiness component evaluates the extent to which countries possess the institutional, regulatory, economic, and technological capacities necessary to support a successful energy transition. It encompasses key dimensions such as the enabling environment, energy system structure, human capital, innovation capacity, governance and institutional quality, regulatory frameworks, and investment conditions. Azerbaijan's declining performance in this pillar suggests persistent structural and institutional constraints, which may hinder the country's ability to achieve a sustainable and effective transition toward a low-carbon energy system.

The analysis demonstrates that the environmental implications of natural gas exports extend far beyond the point of final consumption. While European countries may reduce territorial emissions by substituting natural gas for more carbon-intensive fuels, a substantial share of the associated environmental burden remains embedded within the production and transportation process. Methane emissions generated during extraction, processing, transmission, venting, flaring, and pipeline transportation represent a significant component of the overall climate footprint of Azerbaijani gas exports. Consequently, European energy imports increasingly rely on a system in which part of the environmental costs of energy consumption are effectively externalized to producer and transit countries.

⁵⁶ https://ec.europa.eu/commission/presscorner/detail/en/ip_22_4550

⁵⁷ <https://cop29.az/en/pages/cop29-declaration-on-reducing-methane-from-organic-waste>

⁵⁸ https://reports.weforum.org/docs/WEF_Energy_Transition_Index_2026.pdf

This observation challenges conventional approaches to climate accounting that focus primarily on territorial emissions. The concept of embodied or exported emissions suggests that the environmental consequences of energy consumption should also include emissions generated throughout the supply chain. In the case of Azerbaijan, the SGC not only facilitates the export of natural gas but also transfers a substantial share of the upstream greenhouse gas emissions associated with that gas. The climate footprint of Azerbaijani exports therefore cannot be assessed solely through combustion-related carbon dioxide emissions but must also account for methane emissions occurring throughout the hydrocarbon value chain.

The article further demonstrates that methane mitigation should not be viewed exclusively as a technical challenge. It is equally a question of governance, regulatory oversight, transparency, and accountability. International frameworks governing the SGC—including EU environmental legislation, Regulation (EU) 2024/1787 on methane emissions, EBRD and EIB environmental and social standards, and related stakeholder requirements—establish important obligations concerning methane monitoring, environmental protection, community health and safety, stakeholder engagement, and human rights safeguards. Nevertheless, the effectiveness of these frameworks ultimately depends on robust implementation, independent monitoring, transparent reporting, and meaningful public participation.

In this regard, the role of civil society organizations, independent researchers, local communities, and the media remains particularly important. Effective monitoring of environmental, health and safety, and human rights commitments requires access to information, public scrutiny, and institutional accountability. Without these mechanisms, it becomes considerably more difficult to verify emissions data, assess environmental impacts, and ensure compliance with international standards and lender requirements. At the same time, the assessment of TAP should move beyond procedural compliance with lender requirements and the mere existence of formal environmental and social safeguards. The effectiveness of the project's governance framework depends not only on the adoption of management systems and monitoring procedures, but also on the extent to which their implementation can be independently verified in practice. This, in turn, requires an open and enabling environment in which civil society organizations, affected communities, journalists, and independent experts are able to participate meaningfully in oversight, accountability, and public decision-making processes. The protection of civic space is therefore not merely a democratic principle but also a practical prerequisite for ensuring transparency, independent monitoring, and the effective implementation of environmental, social, and human rights commitments.

More broadly, TAP's long-term contribution to European energy policy should be evaluated against evolving climate objectives, methane-emission reduction commitments, public health

protections, human rights standards, and the principles of a just and sustainable energy transition. While the project may satisfy formal environmental and social governance requirements, a comprehensive assessment must also consider its wider environmental, social, and political implications, including the consequences of continued fossil fuel dependence and the extent to which the project aligns with the European Union's long-term decarbonization agenda.

Ultimately, Azerbaijan's experience illustrates a broader dilemma confronting many hydrocarbon-exporting states. While natural gas exports provide substantial economic benefits, strengthen geopolitical partnerships, and contribute to regional energy security, they also generate environmental costs that increasingly challenge national and international climate objectives. As Azerbaijan continues to expand its role in European energy markets, the credibility of its climate commitments will depend not only on renewable energy targets, and just transition but also on its ability to reduce methane emissions, strengthen environmental governance, and ensure that hydrocarbon expansion does not undermine the country's long-term transition toward a more sustainable and low-carbon future.

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