

The Impact of the Middle East Conflict on Sustainable Transport Choices in Romania: A Quantitative Study

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Abstract

This study aims to explore how the Middle East conflict, particularly the increasing fuel prices generated by this war, affects Romanian citizens' mobility behavior and the shift towards sustainable transportation. A quantitative approach was used, involving a survey of 131 participants. The data were analyzed with cross-tabulations and non-parametric statistical methods, such as Chi-square and Kendall's tau-c, to assess immediate changes in transportation modes, financial obstacles to electric vehicle adoption, and the long-term maintenance of eco-friendly habits. The results indicate a complex economic impact. High fuel prices significantly reduce personal car use, encouraging a shift to public transport. Additionally, there is a strong „habit stickiness” effect; those who adopted sustainable practices due to the crisis are committed to maintaining them, even if fossil fuel prices decrease. Conversely, while high operational costs should promote green mobility, financial difficulties hinder EV and hybrid purchases, causing economically impacted consumers to postpone significant investments, whereas those less affected are ready to buy immediately. This study uniquely highlights the conflict between the desire for sustainability and financial constraints, challenging traditional models that assume high prices will speed up EV adoption among vulnerable groups. The research suggests that policymakers and automotive industry leaders should acknowledge the unfairness of relying solely on high fuel prices to drive a green transition. Instead, they should focus on enhancing public transit infrastructure and creating targeted state subsidies or affordable leasing options to assist financially struggling consumers.

Keywords

European Green Deal; sustainable transition; public transport; mobility; EV adoption; energy crisis

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Introduction

There have been 7 years since the first European Green Deal agenda was created. Progressive, multiple modifications took place, improving the agenda, the solutions, the collaboration, and the legislation at the European and country level. In this period, a lot of researchers wrote scientific papers about the implementation of the Green Deal in diverse countries, its benefits, barriers, and challenges.

In response to growing ecological crises and social movements advocating for a safer environment, numerous European nations began creating environmental ministries, bureaucracies, and policies during the 1970s (Haas & Sander, 2020). These days, despite an overall decrease in carbon emissions shown by the EU as a whole, transport-related emissions have increased since 1990, and from Haas & Sander's (2020) perspective, without a significant change in the power dynamics, achieving substantial decarbonization and moving away from car-focused transportation development will remain unattainable.

However, the transition toward sustainable transport is currently facing unprecedented challenges due to external shocks. Global geopolitical crises, particularly recent armed conflicts and the ensuing volatility in global energy markets, have fundamentally altered the economic landscape of daily mobility (Steffen & Patt, 2022). Sudden spikes at the pump expose citizens to high levels of transport vulnerability, inadvertently pushing them toward alternative mobility solutions out of economic necessity (Mattioli et al., 2018).

While recent studies have extensively covered the impact of the Ukraine war on residential energy consumption, this paper addresses a critical gap by empirically analyzing how the newer Middle East conflict and its resulting fuel price volatility specifically impact the daily transportation choices of Romanian citizens. Therefore, the specific research problem addressed in this paper is to evaluate how the current geopolitical context, specifically the conflict in the Middle East and the resulting surge in fuel prices, impacts the sustainable transportation tendencies of Romanian citizens. To explore this problem, the authors chose a quantitative approach, conducting an empirical study via a cross-sectional online survey to analyze the extent to which these external economic shocks drive a transition toward sustainable mobility.

Following this introduction, the review of the scientific literature provides a background on sustainable transport and the socio-economic impacts of geopolitical crises. Next, the research methodology section details the research design, specific objectives, hypotheses, and data collection. This is followed by the results and discussion section, which presents the statistical findings. Finally, the conclusions provide a synthesis of the main contributions and suggest possible practical implications.

1. Review of the scientific literature

Today, the transportation sector is responsible for almost 20% of the global greenhouse gas emissions (GHG), having a major impact on climate change (European Commission, 2024). In 2023, the transport sector had the highest increase in GHG emissions, 3.7% vs 2022, as it is presented by the European Commission (2024) in its report. Engines with internal combustion have evolved from Euro 2 to Euro 6, but it seems that this is not enough and that the problem should be attacked from more fronts. In this context, Rimpas et al. (2025) evaluated the role of electric vehicles (EVs) in achieving the ambitious target of carbon neutrality by 2050 at the European level. Even though the benefits of EVs, such as minimal maintenance, reduced GHG emissions, and high energy efficiency are highlighted, persistent challenges including range limitations, inadequate charging infrastructure, and the environmental impact of battery production, still exist (Rimpas et al., 2025). Therefore, hybrid electric vehicles (HEVs) are mentioned as a transitional option, Rimpas et al. (2025) extending the analysis also to the application of alternative fuels, including biodiesel, bioethanol, and hydrogen.

Motowidlak (2022) wanted to pinpoint and evaluate the key factors influencing the sustainability of the electromobility system compared to individual car transport within the European Union. Therefore, the analysis done by Motowidlak (2022), highlighted the significance of national and regional policies in promoting the adoption of electric vehicles, the need of further development of charging infrastructure, and the necessity of the development of an EV battery supply chain system.

Expanding the scope beyond technical barriers, in the specialized literature, there are also research that has heavily focused on emerging alternative technologies, innovative transport methods, and sustainable supply chain management (SSCM). Manoharan et al. (2019) highlighted Hydrogen Fuel Cell Vehicles (HFCVs) for their higher energy conversion efficiency, longer driving ranges, and faster refueling times, making them ideal for heavy-duty and long-distance public transport. Meanwhile, Olabi et al. (2021) discussed the use of hydrogen fuel cells in the automotive sector and discovered that although HFCVs offer notable operational benefits, their widespread adoption relies on addressing existing infrastructural and economic challenges related to the production of clean hydrogen.

The idea of Mobility as a Service (MaaS) has become increasingly popular as a strategy for sustainable urban development. According to Jittrapirom et al. (2017), MaaS involves combining different public and private transportation options, such as buses, ride-hailing, and bike-sharing, into one digital, on-demand platform. This integration can greatly decrease reliance on private cars and encourage the use of multiple modes of transit. In contrast, Cruz & Sarmiento (2020) reviewed the real environmental consequences of digital mobility platforms and discovered that in the absence of a robust public transport system serving as the main framework, shared micro-mobility services could replace walking or cycling, potentially compromising long-term sustainability objectives.

Furthermore, achieving true sustainability in transportation requires a fundamental shift in how materials are managed throughout their entire lifecycle. Hao et al. (2021) wrote about sustainable supply chain management in the electric vehicle (EV) sector and found that establishing strong reverse logistics networks for decommissioned electric vehicle batteries is essential to reducing the environmental hazards posed by hazardous waste. Extending this to a broader circular economy perspective, Tavana et al. (2024) created a sustainable circular supply chain model for EV battery production, showing that the integration of Internet of Things (IoT) and big data can reduce both total costs and carbon emissions, while also ensuring the supply of essential materials despite uncertainties.

Moving from technical barriers, challenges progresses and solutions to external socio-economic shocks, recent literature emphasizes the profound impact of geopolitical crises on transport behavior. For example, Kuzemko et al. (2022) examined how European energy policies reacted to significant geopolitical disruptions, finding that abrupt interruptions in fossil fuel supply and the resulting energy crises serve as key drivers, hastening the political movement towards electrification and energy self-reliance. However, in contrast, the International Energy Agency (2022) investigated the vulnerabilities of the global supply chain, finding that geopolitical tensions severely restrict access to critical raw materials needed for battery production, thus inflating EV prices and potentially slowing down mass market adoption.

Alves & Costa (2024) examined how the 2022 energy crisis affected daily travel patterns in 25 European Union nations. By evaluating the link between oil market inflation, caused by the Russian invasion of Ukraine, and mobility data, they found that the extended rise in diesel and gasoline prices led to a notable increase in public transportation usage. Their research indicates that during severe geopolitical conflicts, elevated fuel prices serve as a key driver, prompting a temporary or lasting change in behavior towards public transit, especially in areas with high housing costs and low rates of alternative fuel adoption. On the other hand, Campisi et al. (2020) analyzed urban mobility patterns in Sicily during the COVID-19 pandemic. It revealed that crises significantly disrupt sustainable transportation, as heightened anxiety and safety concerns led many users to switch back to private cars. Nonetheless, the research also indicated that crises foster a favorable view of micromobility, such as walking and cycling. This suggests that sustainable urban planning during emergencies should focus on developing individual, non-motorized infrastructure.

Focusing on the regional perspective, recent studies have explored the specific effects of overlapping geopolitical crises on Romania's sustainability objectives. Drăgoi et al. (2023) investigated the obstacles faced by green energy and sustainable development in Romania due to the energy crisis caused by the war in Ukraine. They found that although geopolitical pressure significantly encourages a balanced national energy mix, Romania's progress is still limited by infrastructure issues. To fully realize its green mobility potential, a more predictable legal framework and targeted subsidies are necessary.

In a similar vein, Panton (2023) evaluated Romania's preparedness for transitioning to net-zero during these challenging times, considering the significant fluctuations in fossil fuel prices. Their study revealed that the environmental costs associated with fossil fuels are still undervalued in Romania relative to the EU average. They concluded that adopting gradual, tax-based decarbonization strategies is crucial to encourage the public to adopt efficient energy practices and sustainable transportation options.

Recent empirical studies focusing solely on the sustainable behavior of Romanian citizens during the Ukraine war reveal that the geopolitical crisis accelerated sustainable actions at the household level, mainly due to economic pressures. Toader et al. (2023) examined the impact of the energy crisis caused by the Ukraine conflict on Romanian households, finding that the significant rise in electricity prices led consumers of various generations to voluntarily implement energy-saving measures. Their research emphasized that this economic constraint heightened public interest in renewable energy sources and prosumer systems, thus unintentionally fostering sustainable development. Building on this, Stancu et al. (2025) reviewed the specific factors promoting sustainable behavior in the Romanian residential context following the unprecedented energy shock caused by the disruption of gas supplies. They found that the crisis not only stimulated immediate energy curtailment behaviors, such as reducing unnecessary daily consumption, but also significantly increased the purchase of energy-efficient appliances among citizens who developed a higher awareness of sustainability goals during this turbulent period.

2. Research Methodology

This research is based on a quantitative method, being an empirical research grounded on a cross-sectional survey. The main objective of this study is to assess both the real impact and the projected one of the Middle East conflict and its economic implications on the transportation choices of Romanian citizens, analyzing the extent to which these external economic shocks drive a transition towards sustainable mobility. Of course, to be able to achieve this objective, there were other secondary objectives formulated:

O1: To assess the immediate impact of fuel price increases on urban mobility behavior.

O2: To determine the influence of economic pressure on the intention to transition to energy-efficient vehicles.

O3: To analyze the long-term retention of sustainable transport behaviors adopted during the crisis.

H1: Individuals who frequently reduce personal car trips due to rising fuel costs exhibit an increased frequency of public transport use.

H2: A higher financial impact of transport costs on the household budget is positively associated with the intention to purchase a hybrid or electric vehicle in the near future.

H3: Individuals who perceive the crisis as an accelerator for their sustainable transition intend to maintain these new transport habits even if fuel prices decrease.

The current research was conducted via an online survey, which was distributed only to Romanian citizens through email and social media. Participation was entirely voluntary, and anonymity was guaranteed. The data collection instrument was the questionnaire, and the author used the snowball method, resulting in 131 valid responses. The questionnaire was split into 3 sections. The first one collected socio-demographic information about the respondents, such as age, education, type of combustion for the car that they own, etc. The second section was dedicated only to the respondents who had a car and collected information about the changes that had already appeared in their behavior after the war in Iran started. This section is customized to measure the real impact of the war from Iran on Romanian citizens' mobility behavior. The third section, dedicated to all the respondents, analyzed the projected impact of the war from Iran on the Romanians' behavior, collecting information about their behavior regarding mobility in the future. The first and third sections of the questionnaire contained a combination of items on ordinal and nominal scales, while the second section was based only on items on an ordinal scale.

Table no. 1 reflects the insights about the sample of this research. The sample of the study is mostly formed from people between 25 and 54 years old (78,6%), most of them having a higher education, 48,1% finished a Bachelor's degree, while 43,5% finished a Master's degree, and 2,3% finish a PhD. The sample contained 54,2% males and 45,8% females, and almost all of them (85,5%) lived in an urban area. When it comes to the type of car owned, it is visible that 69,4% own a car with classic combustion, while 15,3% don't have a car and only 10,7% have a hybrid car or an electric one (4,6%).

Table no. 1. Socio-demographic characteristics of the respondents

Characteristics		Respondents (N = 131)	Percent
Age	Under 25 years	11	8.4
	25-34 years	43	32.8
	35-44 years	25	19.1
	45-54 years	35	26.7
	55-65 years	17	13
Education	High School	8	6.1
	Bachelor's degree	63	48.1
	Master's degree	57	43.5
	PhD	3	2.3
Gender	Male	71	54.2
	Female	60	45.8
Residential environment	Urban	112	85.5
	Rural	19	14.5
Type of car owned	I don't have a car	20	15.3
	Car with normal combustion (Petrol/Diesel/LPG)	91	69.4
	Hybrid car (classic or Plug-in)	14	10.7
	100% electric car (EV)	6	4.6

Source: Processed by the authors based on research results

Data were gathered throughout March 2026 and subsequently analyzed with the Statistical Package for the Social Sciences (SPSS).

3. Results and discussions

To assess the first objective and hypothesis, evaluating the immediate impact of fuel price increases on urban mobility behavior, a cross-tabulation analysis was conducted to determine the relationship between the frequency of reducing personal car trips and the frequency of public transport utilization. For the spe-

cific testing of H1, individuals who neither own a personal vehicle nor ever use public transit were considered to have structural missing values. Therefore, the correlation analysis was correctly conducted on a valid sub-sample of 86 respondents who actively decide between private and public transportation.

The findings (Table no. 2) show a noticeable change in behavior. Most respondents (86.0%) who did not cut back on car trips because of fuel prices continued using public transport at the same rate. In contrast, as car trip cancellations became more frequent, the use of public transit increased significantly. Notably, 64.9% of those who sometimes reduced car trips indicated they used public transport „somewhat more often,” while 83.3% of those who often canceled car trips said they used public transport „much more often than before.”

A Chi-square test of independence indicated a highly significant association between the two variables ($\chi^2(6) = 86.63$, $p < .001$). Given the specific rectangular structure of the cross-tabulation matrix (3x4) and to ensure a rigorous, conservative evaluation of the relationship, Kendall's tau-c was utilized. The test demonstrated a strong, positive, and statistically significant correlation ($\tau_c = 0.520$, $p < .001$). The results offer strong empirical support for H1, demonstrating that people who often cut back on personal car travel because of increasing fuel prices show a notable rise in the use of public transportation. These results are in line with the conclusions from Alves & Costa (2024) and Mattioli et al. (2018) research.

Table no. 2. Cross-tabulation: Reduction of car trips vs. Public transport usage

Reduction of car trips	Usage of Public Transport: Less often	Usage of Public Transport: Same as before	Usage of Public Transport: Somewhat more often	Usage of Public Transport: Much more often	Total
Did not reduce	4.70%	86.00%	9.30%	0.00%	100%
Occasionally reduced	10.80%	18.90%	64.90%	5.40%	100%
Frequently reduced	0.00%	0.00%	16.70%	83.30%	100%

Source: Processed by the authors based on research results

To test the second hypothesis, the authors conducted an analysis on a valid sub-sample of 87 respondents, excluding those with no intention to purchase. A Chi-square test of independence confirmed that the distributions across categories are significantly different, indicating a clear statistical association between the variables ($\chi^2(4) = 13.68$, $p = .008$). However, the ordinal symmetric measure, Kendall's tau-c, revealed that this relationship is not linear or positively monotonic ($\tau_c = 0.031$, $p = .723$). Therefore, H2 was rejected.

The cross-tabulation (Table no. 3) shows an unexpected but economically logical pattern explaining the lack of a consistent correlation. Contrary to expectations, those whose budgets weren't impacted by rising costs showed the highest readiness to buy immediately (25.6% planning a purchase in under a year), likely due to available funds. In contrast, only 9.5% of those „somewhat affected” planned a purchase within a year, with 57.1% extending their timeline to 1-3 years. Notably, all respondents „significantly affected” delayed their purchase to 1-3 years. This finding highlights a key market barrier: although high operational costs (like fuel) might encourage a shift to green mobility, the lack of financial liquidity prevents financially strained consumers from making large investments in EVs/Hybrids. Thus, financial pressure delays rather than speeds up the purchase timeline.

This research matches the results from Das & Sharma's (2025) paper, where they highlighted that the initial cost of electric vehicles (EVs) presents a significant financial obstacle in price-sensitive markets, deterring potential buyers even though they offer reduced operational expenses. Data from this paper shows that this upfront cost barrier compels financially struggling consumers to postpone purchasing and remain exposed to changes in fossil fuel prices, while wealthier individuals with sufficient funds can switch right away.

Table no. 3. Cross-tabulation: Financial impact vs. Timeframe for EV/Hybrid adoption

Budget affected	Time horizon for acquisition: 3-5 years	Time horizon for acquisition: 1-3 years	Time horizon for acquisition: Less than 1 year	Total
No, the budget was not affected	43.60%	30.80%	25.60%	100%
Yes, somewhat	33.30%	57.10%	9.50%	100%
Yes, significantly	0.00%	100.00%	0.00%	100%

Source: Processed by the authors based on research results

Lastly, moving to the next objective, the correlation analysis was conducted on the full valid sample of 131 respondents. The cross-tabulation (Table no. 4) highlights a strong „habit stickiness” effect among early adopters. Specifically, of those who said the crisis „significantly accelerated” their shift to green mobility,

a vast majority (84.2%) are committed to keeping their new habits („Yes, I will maintain”) even if prices decrease in the future. Conversely, among those who claimed the crisis had „no effect” on their behavior, 84.4% have „not adopted any changes or remain undecided,” showing a complete absence of a sustainable transition.

A Chi-square test confirmed the statistical significance of these behavioral divergences ($\chi^2(9) = 84.71$, $p < .001$). To evaluate the strength of this ordinal relationship, Kendall's tau-c was applied, revealing a strong, positive, and highly significant correlation ($\tau_c = 0.451$, $p < .001$).

These findings lead to the acceptance of H3. The data offers strong empirical proof that the ongoing geopolitical and energy crisis serves not just as a temporary disturbance, but as an irreversible driver for sustainable mobility. Once consumers surpass the initial resistance to adopting green transport options due to external financial pressures, the change in behavior usually becomes permanent, demonstrating resilience against possible future declines in fossil fuel prices.

Supporting the theoretical premises advanced by Stancu et al. (2025) and Toader et al. (2023) regarding the Romanian residential sector, the results complete the framework and build beside it, confirming that significant economic disruptions serve as a long-term driver for sustainable mobility, transforming consumer awareness and encouraging lasting eco-friendly behaviors that extend beyond the immediate crisis.

Table no. 4. Cross-tabulation: Crisis impact vs. Intention to maintain sustainable habits

The impact of crises on the transition to sustainable mobility	I have not adopted any changes / Undecided	Probably not	Probably yes	Yes, I will maintain	Total
It discouraged me	57.10%	0.00%	42.90%	0.00%	100%
No effect	84.40%	0.00%	9.40%	6.30%	100%
It got me thinking	55.30%	8.50%	19.10%	17.00%	100%
It has significantly accelerated	13.20%	0.00%	2.60%	84.20%	100%

Source: Processed by the authors based on research results

Conclusions

This research empirically examined the changes in Romanian citizens' mobility behavior caused by recent geopolitical crises, more specifically by the conflict in the Middle East, offering a detailed insight into how financial strain affects the shift towards sustainable transportation.

A summary of the key findings indicates that economic shocks have a complex, dual impact on consumer behavior. In the short term, increasing fuel prices effectively discourage personal car use, leading to a notable and direct shift to public transportation. Additionally, this compelled change in behavior demonstrates significant „habit stickiness”; consumers who sped up their shift towards sustainability because of the crisis are determined to continue these environmentally friendly practices even if fossil fuel prices drop in the future. Also, the results showed that consumers whose overall budgets are negatively impacted by inflation are forced to delay their EV/Hybrid acquisitions to the medium term, leaving immediate adoption exclusively to affluent segments with available liquidity.

This work highlights the conflict between the desire for sustainability and economic capacity, challenging traditional price-driven models. It shows that while macroeconomic shocks can encourage green habits, inflation and reduced purchasing power may trap vulnerable consumers in fossil-fuel dependency. The findings are crucial for policymakers and automotive stakeholders, suggesting that relying solely on high operational costs to drive a green transition is unfair and inefficient. Instead, policymakers should redesign state subsidies, like vehicle scrappage programs, to support financially strained consumers with better financing or leasing options for EVs. Additionally, ongoing investments in public transport infrastructure are essential as the most viable and immediate sustainable alternative for the public.

Although this paper provides valuable empirical insights, it has certain limitations, including the cross-sectional nature of the data and the specific sample size (131 respondents). Future studies might use longitudinal designs to assess if the claimed „habit stickiness” results in sustained long-term behavior after the crisis. Moreover, broadening the geographical focus to compare mobility patterns across various European regions could further confirm the influence of the capital barrier on the transition to green mobility.

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References

- Alves, A. & Costa, N. M. (2024). Changes in Fuel Prices and the Use of Public Transport: Insights from the European Union following the Invasion of Ukraine. *European Journal of Geography*, 15(4), 232–243. <https://doi.org/10.48088/ejg.a.alv.15.4.232.243>.
- Campisi, T., Basbas, S., Skoufas, A., Akgün, N., Ticali, D. & Tesoriere, G. (2020). The impact of covid-19 pandemic on the resilience of sustainable mobility in sicily. *Sustainability*, 12(21), 1–25. <https://doi.org/10.3390/su12218829>.
- Cruz, C. O. & Sarmiento, J. M. (2020). “Mobility as a service” platforms: A critical path towards increasing the sustainability of transportation systems. *Sustainability*, 12(16). <https://doi.org/10.3390/SU12166368>.
- Das, A. & Sharma, Dr. S. K. (2025). Identifying and Ranking Barriers to Electric Vehicle Adoption among First-Time and Second-Time Potential Buyers in India: A Delphi-AHP Approach. *Journal of Asia Entrepreneurship and Sustainability*, 21(3). <https://doi.org/10.53555/jaes.v21i3.77>.
- Drăgoi, A. E., Calanter, P., Gramaticu, M., Dumitrescu, A. & Aluculesei, A. C. (2023). The Challenges for Green Energy in Romania under Current Energy Crisis. *Amfiteatru Economic*, 25(64), 528–542. <https://doi.org/10.24818/EA/2023/64/728>.
- European Commission. (2024). *GHG emissions of all world countries – 2024 report* (EUR 40020 EN). Retrieved January 9, 2026, from https://edgar.jrc.ec.europa.eu/report_2024.
- Haas, T., & Sander, H. (2020). Decarbonizing transport in the European Union: Emission performance standards and the perspectives for a European green deal. *Sustainability*, 12(20), 1–15. <https://doi.org/10.3390/su12208381>.
- Hao, H., Sun, Y., Mei, X., & Zhou, Y. (2021). Reverse logistics network design of electric vehicle batteries considering recall risk. *Mathematical Problems in Engineering*, 2021, 1–16. <https://doi.org/10.1155/2021/5518049>.
- International Energy Agency. (2022). *Securing clean energy technology supply chains*. <https://www.iea.org/reports/securing-clean-energy-technology-supply-chains>
- Jittrapirom, P., Caiati, V., Feneri, A. M., Ebrahimigharehbaghi, S., Alonso-González, M. J., & Narayan, J. (2017). Mobility as a service: A critical review of definitions, assessments of schemes, and key challenges. *Urban Planning*, 2(2), 13–25. <https://doi.org/10.17645/up.v2i2.931>.
- Kuzemko, C., Blondeel, M., Dupont, C., & Brisbois, M. C. (2022). Russia’s war on Ukraine, European energy policy responses & implications for sustainable transformations. *Energy Research & Social Science*, 93, 102842. <https://doi.org/10.1016/j.erss.2022.102842>.
- Manoharan, Y., Hosseini, S. E., Butler, B., Alzhahrani, H., Senior, B. T. F., Ashuri, T., & Krohn, J. (2019). Hydrogen fuel cell vehicles; current status and future prospect. *Applied Sciences*, 9(11), 2296. <https://doi.org/10.3390/app9112296>.
- Mattioli, G., Wadud, Z., & Lucas, K. (2018). Vulnerability to fuel price increases in the UK: A household level analysis. *Transportation Research Part A: Policy and Practice*, 113, 227–242. <https://doi.org/10.1016/j.tra.2018.04.002>.
- Motowidlak, U. (2022). Conditions for the sustainable development of electromobility in the European Union road transport from the perspective of the European Green Deal. *Prace Komisji Geografii Komunikacji PTG*, 25(4), 7–25. <https://doi.org/10.4467/2543859xpkg.22.018.17142>.
- Olabi, A. G., Wilberforce, T. & Abdelkareem, M. A. (2021). Fuel cell application in the automotive industry and future perspective. *Energy*, 214. <https://doi.org/10.1016/j.energy.2020.118955>.
- Panton, A. (2023). Making romania fit and resilient for the net-zero transition. *Selected Issues Papers*, 2023(063), 1. <https://doi.org/10.5089/9798400263736.018>.
- Rimpas, D., Barkas, D. E., Orfanos, V. A., & Christakis, I. (2025). Decarbonizing the Transportation Sector: A Review on the Role of Electric Vehicles Towards the European Green Deal for the New Emission Standards. *Air*, 3(2), 10. <https://doi.org/10.3390/air3020010>.

- Stancu, S., Hristea, A. M., Kailani, C., Cruceru, A., Bălă, D., & Pernici, A. (2025). Exploring influencing factors of energy efficiency and curtailment: Approaches to promoting sustainable behavior in residential context. *Sustainability*, 17(10), 4641. <https://doi.org/10.3390/su17104641>.
- Steffen, B., & Patt, A. (2022). A historical turning point? Early evidence on how the Russia-Ukraine war changes public support for clean energy policies. *Energy Research & Social Science*, 91, 102758. <https://doi.org/10.1016/j.erss.2022.102758>.
- Tavana, M., Sohrabi, M., Rezaei, H., Sorooshian, S. & Mina, H. (2024). A sustainable circular supply chain network design model for electric vehicle battery production using internet of things and big data. *Expert Systems*, 41(7). <https://doi.org/10.1111/exsy.13395>.
- Toader, C. S., Rujescu, C. I., Feher, A., Sălășan, C., Cuc, L. D. & Bodnár, K. (2023). Generation Differences in the Behaviour of Household Consumers in Romania Related to Voluntary Measures to Reduce Electric Energy Consumption. *Amfiteatru Economic*, 25(64), 509–527. <https://doi.org/10.24818/EA/2023/64/710>.