# ROADS TO PROGRESS, FROM CANADA TO UZBEKISTAN

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Days before we landed in Tashkent, we were advised by a prominent Uzbek filmmaker to avoid the Uzbek roads due to concerns about road safety. To a group of budget-constrained student researchers on a packed schedule, advising us not to use inter-city roads would be advice given and advice ignored, regardless of its merit. Our first drives consisted of adrenaline and confusion, swaying drastically to avoid road-length potholes, and being instructed to leave the vehicle to fill up with gas. Staring at glaring "Metan" signs at roadside stops, we began to live within the dichotomy of infrastructure, slowly putting together the pieces that this isn't gas, but methane, and that the road we were travelling was the *only* way to get from Samarkand to Bukhara.

The filmmaker recounted a night returning from Samarkand, taking the train instead of the car, only to wake up to multiple road fatalities in a major crash. Discussing further, we shared our plan to drive from Muynaq and Nukus, where we were advised to fly at *all costs*. Growing up in Canada, the only times we were ever urged to avoid roads were because of excessive big-city traffic, like on our home highway, highway 401, the world's busiest highway.

The Canadian highway system includes multiple robust transnational projects, connecting far towns to bustling cities. Crossing over 7800 kilometres, the Trans Canada Highway serves every major city in the country of 40 million.[1] Although a similar population mass to Uzbekistan's 35 million, Canada spans much wider and is much less dense than Uzbekistan. This disparity leads to a grand similarity between the two countries, tough terrain making the building of infrastructure difficult. Canada is home to the Canadian Shield, an ever-expanding rock formation that represents the foundation of Canada's heartland. The shield's area in square kilometres is approximately the same area as the entirety of Australia. Formed three billion years ago by Paleoproterozoic orogens that formed the crust like rock formations, the shield can be split into seven subdivisions labelled provinces, just like Canada's internal state boundaries.[2] Much of the country's natural resources are plentiful throughout the seven shield provinces - some specializing in uranium, others in copper and zinc.

Breaking through this immovable continent of compounded rock to better connect the country. What once seemed impossible later turned into the economic engine that has powered Canada to global relevance. Once considered "foolish", Canada still proceeded to build one of the world's largest highway and railway networks.[3] From driving across the entire country, and comparing

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[1] David Berry, "Trans-Canada Highway," The Canadian Encyclopedia, January 4, 2021, https://www.thecanadianencyclopedia.ca/en/article/trans-canada-highway.
[2] I. D. Bastow et al., "Precambrian Plate Tectonics and the Formation of the Canadian Shield: Seismic Evidence from Hudson Bay," 2010 (December 2010): T31F-04, https://ui.adsabs.harvard.edu/abs/2010AGUFM.T31F..04B.
[3] Craig Baird, "Building The Railroad Through The Canadian Shield," Canadian History Ehx, June 24, 2021, https://canadaehx.com/2021/06/24/building-the-railroad-through-the-canadian-shield/.

our experience to the country's train system as well as the roads, we've experienced that the road infrastructure within Uzbekistan is in need of vast and concentrated improvement.

Journeys long and short - From homes to town centres, Nukus to Urgench, and Samarkand to Tashkent, one thing remained consistent. Excessive potholes and uneven road conditions were present everywhere that we drove. Major roads, dirt paths and city streets alike each exhibited inconsistent terrain. More so than the dangers of the potholes themselves, the residual effects are considerably more concerning. While the terrain itself may be inconsistent, drivers' approaches to handling the conditions were proven quite uniform. Driving with the normal degree of caution, given the road conditions, would considerably slow down any journey. Based on the informal conversations we have had, Uzbek drivers habitually tend to compensate for the added time spent over bumps by ignoring speed limits and continuously increasing speed, both in uneven and smooth areas of the road. Secondly, most drivers attempt to swerve to avoid potholes with erratic evasive maneuvers that could potentially be more dangerous than the holes themselves. The two-lane highways that exist also encourage drivers of faster cars to overtake a slow-moving truck in the oncoming lane. While this could theoretically save time, these movements are sudden and hard to predict for other drivers and even the vehicle's occupants. With the combination of major speed and position fluctuations, Uzbek roads have a less-than-ideal safety standard.

Our observations regarding safety have been corroborated by a recent report from The United Nations Economic Commission for Europe, which reports that 63 individuals are killed per 100,000 vehicles as of 2021, and that 6.7 per 100,000 inhabitants die in Uzbek road accidents.[4] The World Health Organization estimates that the approximate cost of road accidents to Uzbek GDP, to a 2.8% share. According to data published by the State Statistics Committee on the number of road accidents and victims, after a dip in road accidents from 2018 through 2020, in 2021 the country saw the number of deaths up to more than 10,000 per year. Additionally, the number of registered Uzbek vehicles increased by 250% between 2001 and 2021. As more vehicles hit the road, Uzbekistan must respond to ensure the safety of its road infrastructure.[5]

Beyond safety, the Uzbek road infrastructure system limits the country's productivity from logistical perspectives. The World Bank reports that the capacity of Uzbek roads must increase by 486% by 2030, and 1385% by 2050 in order to meet the capacity needs for road freight travel. While the Belt and Road initiative is building stronger rail links for international transport, internal transport, and

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[4] United Nations Economic Commission for Europe, *Road Safety Performance Review: Uzbekistan* (United Nations, 2025), https://doi.org/10.18356/9789213589199.

[5] "National Road Development Project," *Asian Development Bank*, June 30, 2025.

off-rail transport are in need of attention. A suboptimal road network could pose strong challenges for domestic regional cooperation, private enterprise, and supply chain management.[6] Additionally, the development of new roads or the improvement of existing ones should be prioritized in areas where trade volume is expected to increase. Central Asian nations, particularly Kazakhstan, have experienced rapid increases in freight trains and trucks passing through their borders. This is due in part to the war in Ukraine blocking off Russian freight routes, but also as a result of increasing trade volume between China and European nations, coupled with a deprioritization of sea travel due to instability and potential backlogs in areas like the Red Sea and Suez Canal. This global mechanism will present important opportunities for Uzbek markets and for foreign investment in Uzbek projects. PPPs and investments by stakeholders like the European Bank for Reconstruction and Development (EBRD) are already exploring sustainable infrastructure projects in Uzbekistan.[7] A 2023 EBRD report highlighted that Uzbekistan's roads would become an important part of the southernmost of three corridors of the Trans-Caspian trade route, which form the three most sustainable alternatives between China and Europe.[8]

It is certainly encouraging that we were informed by professors and our drivers that the Uzbek government has planned to address infrastructure and invest specifically in road infrastructure. In October of 2023, President Shavkat Mirziyoyev signed a "Presidential Resolution" with a goal quoted as "creating favourable conditions for citizens and enhancing transport and logistics connectivity within the national economy." [9] Among the emerging projects, the government has committed to the construction of expressway-like roadways that connect Tashkent to Samarkand and the Andijan region, and received assistance from multiple intergovernmental organizations to finance these developmental road improvements, including focused attention on the Khorezm Region. All in all, between 2017 and 2022, the Uzbek government received $519 million from a combination of the Asian Development Bank, Islamic Development Bank, The World Bank, The Saudi Development Fund and Kuwait Arab Economic Development Fund, and The Asian Infrastructure Investment Bank (AIIB) to varying degrees. The Asian Infrastructure Investment Bank, originally only contributing $ 2 million, has proposed a $200 million investment to improve roads in the Karakalpakstan and Khorezm

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[6] World Bank, "Uzbekistan Infrastructure Governance Assessment," Text/HTML, World Bank, accessed July 28, 2025, https://documents.worldbank.org/en/publication/documents-reports/documentdetail/en/099120723131526176.
[7] Anton Usov, "The Central Asia Link," European Bank for Reconstruction and Development (EBRD), February 22, 2024, https://www.ebrd.com/home/news-and-events/news/2024/the-central-asia-link.html#.
[8] "Sustainable Transport Connections between Europe and Central Asia," European Bank for Reconstruction and Development, June 30, 2023, 14, https://doi.org/https://transport.ec.europa.eu/transport-themes/international-relations/study-sustainable-transport-connections-central-asia_en.
[9] "Report on the Progress of Road Construction Projects Presented," The Government Portal of the Republic of Uzbekistan, accessed July 28, 2025, https://gov.uz/news/view/42213.

regions in 2024, signalling a strong increasing trend in foreign funding for Uzbek road infrastructure projects (200). As a result of economic liberalizations in the country, Uzbekistan has also been added to the EU's Generalized System of Advanced Preferences, a move that removed widespread tariffs and accelerated trade relations between Uzbekistan and Europe.[10]

Specifically, the Uzbek government has allocated an estimated $4.28 billion to the new Tashkent-Andijan link, which spans over 3000 kilometres and balances a mix of new construction and improving existing road conditions. This project spans 6 lanes wide, 314 kilometres long, including a nearly 7-kilometre tunnel that would qualify as one of the longest 200 tunnels in the world. While this project is aiming to be finished by 2030, plans for a stronger link between Samarkand and Tashkent have long been confirmed, plans are more ambiguous.[11] Feasibility studies undertaken by foreign companies scale the project similarly to the new Tashkent-Andijan link. However, some sources indicate that the project is classified as in need of investment. Delayed from before Covid due to high fees on investment, the bids from new investors were accepted in January 2025. Reportedly, construction has started on both major road projects, with further capacity to build out from Samarkand to Bukhara in the future. Exact figures on the cost of the country's Tashkent to Samarkand road are hard to come by, but as the distance and terrain are quite similar, similar costs should be expected.[12] In measuring the intended impact of the Tashkent-Andijan project, the government suggests a 2.6% GDP increase, as well as travel times slashed in half, with 40% decreases in traffic accidents.[13] Even then, with all of this investment and intent, sources like The World Bank note concerns surrounding infrastructure project scale. They cite that among public-private partnerships surrounding infrastructure development, almost 75% of the catalogue consists of small-scale projects under $1 million, calling the plan's efficiency into question.[14]

When compared to our experience on roads in Uzbekistan, we were quite impressed with the country's railroad infrastructure. Riding the Sharq, Afrosiyab and Bukhara-Nukus overnight sleeper train, we felt as though Uzbek commuter rail infrastructure offers more connectivity than Canadian and American counterparts, especially in the regional corridors. Despite the lack of air conditioning in

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[10] "Sustainable Transport Connections between Europe and Central Asia," European Bank for Reconstruction and Development, 44.
[11] Gov. Portal Repub. Uzb., "Report on the Progress of Road Construction Projects Presented."
[12] Pavel Goryachkin, "Construction of Toll Roads from Tashkent to Andijan and Samarkand Set to Begin in 2025," Kursiv Media Uzbekistan, February 4, 2025, https://uz.kursiv.media/en/2025-02-04/construction-of-toll-roads-from-tashkent-to-andijan-and-samarkand-set-to-begin-in-2025/.
[13] Shexroz Jalg'ashev, "Tashkent-Andijan Route Becomes Faster with New Highway," Qalampir.Uz, February 3, 2025, https://qalampir.uz.
[14] World Bank, "Uzbekistan Infrastructure Governance Assessment."

some of the slow-speed lines, the overall experience was still clean, organized, and efficient. Unlike Canada and the United States with their huge landmasses, Uzbekistan (448,900 $km^2$) is much closer to European countries like France (543,941 $km^2$) or Spain (498,485 $km^2$). A similar combination of rail and car connection could work fairly well in the future. However, with a limited budget and ambition to invest in car-centric, rail, and aviation infrastructure, more analysis is needed to prioritize funding projects that will bring the most significant improvements for Uzbek citizens.

It is certainly commendable that Uzbekistan is investing heavily in its road system: from the establishment of the Ministry of Transport (2019) to the "Strategy for Development of the Transport System until 2035." These initiatives coming from the nation's highest office signal a resolution to improve the road system.

Yet, the task of improving connectivity should be given to rail, considering the already elaborate system spanning the length of the country. The road system, on the other hand, should focus more on regional and last-mile connectivity for villages and smaller towns like Qarshi and Muynak. In the mid-20th century, the Canadian federal government prioritized national integration through the Trans-Canada Highway Act of 1949, which committed joint federal-provincial funding to construct a continuous road from coast to coast. This act ensured not only connectivity between urban centers but also accessibility for rural and remote communities—something Uzbekistan should emphasize as it develops links between regional cities, towns, and villages. For a growing town like Qarshi, there are currently limited public transit options available. Our commute there took almost double the predicted time provided by Yandex Maps due to the road conditions. Similarly, the only non-driving option to get to Muynak, a city at risk of depopulation and vulnerable to the environmental conditions of the Aral Sea, is the thrice-weekly 19-seat plane that shuttles in from Nukus. Investments into roadways like this will facilitate the growing economies of towns like Qarshi, while connectivity for towns like Muynak will benefit the local residents greatly, with easier access to outside resources. Recently, the government of Uzbekistan has been shifting their attention from international coordinators to reconstructing and improving its regional road network.[15] The aforementioned AIIB is notably investing specifically in the Republic of Karakalpakstan and the Khorezm Region of Uzbekistan, where connectivity is much needed by the local communities.

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[15] "AIIB, Uzbekistan Cement Long-Term Partnership With Landmark Agreements at 9th AIIB Annual Meeting," accessed July 28, 2025, https://www.aiib.org/en/news-events/news/2024/AIIB-Uzbekistan-Cement-Long-Term-Partnership-With-Landmark-Agreements-at-9th-AIIB-Annual-Meeting.html.

Needless to say, safety should be the other top priority. Canada's early inclusion of safety regulations, such as mandatory seatbelts, graduated licensing, and road weather monitoring systems, helped reduce road fatalities over time: areas where Uzbekistan can accelerate progress by embedding safety design and policy into current construction projects. According to the presidential office, significant attention is given to improving the current condition of the road.[16] "The Head of State noted that the most important issue is the quality maintenance of roads." Weight limitations, a system of monitoring heavy vehicles, and a betterment of pedestrian safety are all being put in place. ARUP is assisting in Uzbekistan's first private-public partnership model for the improvements to the Tashkent Andijan Road.[17] Additionally, the EBRD is providing US$238 million to upgrade the single-carriageway category-II road into a dual-carriageway category-I road, providing more space for emergency stops and reducing the need for drivers to overtake in the oncoming lane.

Attention should also be given to the urban infrastructure. In cities like Tashkent and Samarkand, with a rapidly growing population, fixing congestion bottlenecks with smarter traffic flow, overpasses, and signal optimization should be the first order of business. As development costs are still relatively low and changes are more adaptable to citizens, the city governments should invest in bus lanes, multimodal hubs, and micromobility infrastructure like bike lanes. Bukhara, specifically, where the car-inaccessible narrow streets of the old city meet with the growing development of the business district, needs to find a balance of infrastructure between pedestrians, buses, and cars. The recently introduced stricter road penalties for Uzbek drivers,[18] along with the newly centralized system for obtaining driver's licenses are commendable in improving driver discipline. The Uzbek government should build on recent measures and increase policing control over their roads. The system of private speed cameras that we experienced on Uzbek roads can be easily dodged with a radar system, and works only to decrease citizen's trust in the government. Increased government policing and centralized rules would be more efficient in the long run, and trump up trust in the government. As lessons from Canada and Europe show, if traffic rules are consistently obeyed, roads become safer and congestion is minimized.

Understandably, the government wants to upgrade the major roads that also act as the tourism corridor. Namely, the Tashkent, Samarkand, Bukhara, Khiva, and Nukus corridor and the plans to add tolls for some of the upgraded highways. Although the optics of an impressively large infrastructure

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[16] Presidential Press, "Information on Road Sector Projects Presented," accessed July 28, 2025, https://president.uz/en/lists/view/8123.
[17] "Tashkent to Andijan Road Upgrade," accessed July 28, 2025, https://www.arup.com/en-us/projects/tashkent-to-andijan-road-upgrade/.
[18] "New Traffic Laws: Drivers Face License Suspension for Exceeding 12 Penalty Points," Kun.uz, February 21, 2025, https://kun.uz/en/news/2025/02/21/new-traffic-laws-drivers-face-license-suspension-for-exceeding-12-penalty-points.

project for tourists visiting Uzbekistan, the hard question of whether it should trump the other priorities above. Currently, the flight connections and the fast-growing Afrosiyab high-speed are already the preferred mode of transportation for tourists. A higher standard of maintenance, with improved signage for these roads, should come first before other technological investments.

Lastly, it is important to ensure the sustainability of funding for maintenance over the long run. One notable Canadian misstep was the lack of sustained investment in long-term maintenance, particularly in northern regions and aging urban expressways, leading to high repair costs decades later. Uzbekistan can avoid this by building dedicated road maintenance budgets into its infrastructure plans from the outset. Part of the existing problem is that roads from the 1950s and 1960s are rarely, if not ever, maintained, and deteriorate rapidly in the harsh Uzbekistan environment out west. A partnership between the government, private sector, and civil society is recommended.

Like many other industries in Uzbekistan, there is a sense of vitality and willingness to invest. As the country's road infrastructure undergoes massive change, it is important for each decision to be nuanced with the future in mind. In our home country of Canada, it is often felt that changes to existing transportation systems are next to impossible due to the historical complexities and red tape. Uzbekistan sits at an important time with flexibility and will to create a robust system for generations to come.

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