

STATE POLICY AND INNOVATIONS IN REDUCING ROAD TRANSPORT INCIDENTS

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Abstract. This article discusses issues of ensuring road safety at a video conference chaired by President Shavkat Mirziyoyev on February 11, 2022. In 2021, approximately 2,500 people died in more than 10,000 traffic accidents. The article analyzes infrastructure modernization, digitalization, the "Safe Road and Safe Pedestrian" program, and measures to increase the accountability of leaders.

Key words: Security, Events, Infrastructure, Digitalization, Innovation, Responsibility, Strategy

On February 11, 2022, a videoconference meeting was held under the chairmanship of the President of the Republic of Uzbekistan Shavkat Mirziyoyev on measures to ensure human safety on the roads. At this video-selector meeting, it was determined to ensure human safety on the roads, strengthen traffic regulations, improve the activities of the road patrol service, modernize road infrastructure, improve traffic accident statistics and measures to reduce them, enhance pedestrian safety, increase public literacy on traffic rules, widely implement modern technologies - cameras and radars, and strengthen cooperation between local authorities and the public. In 2021, more than 10,000 traffic accidents occurred in our country, in which more than 9,000 people were injured. Most unfortunate of all, about 2,500 people died.

According to the analysis, 25 percent of road accidents are caused by poor road conditions and improper organization of infrastructure. For example, dozens of people die every year on the roads between Ror and Turakurgan, Jarkurgan and Denau, Samarkand and Guzar, and on the section of the A-373 road passing through the Yazyavan district. Unfortunately, such dangerous streets exist in every region, every district and city.

At the meeting, the regions where traffic accidents occurred were identified, and disciplinary measures were imposed on the officials. The head of the Namangan Regional Internal Affairs Department and the heads of the Namangan and Samarkand Regional Road Safety Departments have been dismissed from their positions. It was noted that transport accidents are also caused by the intentional disregard and inexperience of drivers for traffic rules, as well as the failure of drivers to comply with them. In this regard, it was noted that this year the national program "Safe Roads and Safe Riyadh" will be implemented in all regions.

The most effective way to manage transport flows is through digitalization. However, it was noted that work in this direction is insufficient. The Head of the state instructed to organize traffic comfortably for drivers and pedestrians. Road regulations must be in harmony with science. It is necessary to rationally set speed limits on the central streets of large cities. Specifically, the speed limit in front of schools and kindergartens must not exceed 30 kilometers. And on some busy streets, there is a need to reduce it from the current 70 kilometers per hour to 60 kilometers," said Shavkat Mirziyoyev.

The main goal of this videoconference was to ensure human safety on the roads, reduce accidents and casualties, radically reform the system, and increase the responsibility of managers. This meeting went down in history as the first major conference dedicated to road safety in Uzbekistan.

Resolution of the President of the Republic of Uzbekistan No. PP-7321 dated November 5, 2023, defines measures for the implementation of smart transport systems in cities, the creation



of their infrastructure, and the widespread use of digital technologies. This decision constitutes the practical basis for the technological solutions proposed in the project.

The "Road Traffic Rules," approved by Cabinet of Ministers Resolution No. 172 dated April 12, 2022, outline mandatory requirements for road users in the republic and specify mechanisms for control and punishment.

The textbook "Fundamentals of Traffic Safety Organization," written by K.Kh. Azizov, highlights important aspects such as traffic management technologies, the influence of the human factor, and the effectiveness of technical means. The book presents solutions suitable for the conditions of Uzbekistan and provides an analysis based on foreign experience.

In the work "Methods for Modeling Transport Flows in the City Center," prepared by S.E. Alimov, the scientific foundations for the analysis, modeling methods, and optimization of transport flows in central regions are presented.

The practical application of artificial intelligence and machine learning methods is analyzed in the manual "Using Neural Networks in Transport Stream Optimization," authored by S.Kh. Tursunov and E.G. Khamroev.

Violations of traffic rules by passengers pose a threat to their health, but drivers' failure to comply poses a serious danger not only to themselves but also to drivers of other vehicles, passengers, and especially drivers. The results of an in-depth study of the comprehensive measures being implemented in the field of ensuring road safety show that there are still a number of problems in regulating certain requirements and standards on highways. These problems hinder the effective management of forces and resources of state bodies to ensure the safe movement of vehicles and people. Therefore, the joint efforts of public administration, specialists, and society are necessary for the further improvement and organization of road safety. A transport flow is a complex representation of the number, density, and order of movement of vehicles moving on a specific road section. This concept occupies a special place in the road safety system. This is because improper flow management can lead to traffic jams, loss of time, environmental pollution, and hazardous situations.

Effectively controlled transport flow:

- ensures the full use of road capacity;
- coordinates the movement of motorists and drivers;
- prevents traffic jams;
- increases the overall efficiency of the transport system.

In urban conditions, the movement of transport flows depends on many dynamic factors that are constantly changing. Traffic continuity and efficiency largely depend on organizational factors such as the state of road infrastructure, the geometric structure of intersections, and the placement of traffic lights and road signs. In particular, the increase in the number of vehicles, the increase in traffic in Riyadh, and the slow movement of public transport slow down the flow of transport. When the flow order is disrupted, the distance between vehicles decreases, leading to intermittent movement. As a result, traffic jams arise, vehicles consume less fuel, and passengers spend more time on the road. Therefore, traffic control systems - for example, traffic lights, adaptive control, correctly drawn turning lanes - are important in keeping the flow balanced. Furthermore, the transport flow will consist not of identical vehicles, but of passenger cars, trucks, public transport, two-wheeled vehicles, and trucks. Each type of participant has a unique impact on the action. For example, because buses and trucks cannot move fast, they slow down the flow behind them. Riyadh, on the other hand, necessitates changing traffic light levels at intersections, which affects the overall flow.

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