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FACTORS CAUSING ROAD TRAFFIC ACCIDENTS ON HIGHWAYS

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Abstract: The article mainly consists of 9 types listed in the Car-Driver-Road-Pedestrian-Environment system and current regulatory documents: collision, overturning, hitting a stationary vehicle, hitting obstacles The causes of road traffic accidents such as collision, running over (running over) pedestrians, running over (running over) a cyclist, running over (running over) a cart, running over (running over) animals, and other road traffic accidents and recommendations for their prevention are given.

Organization of traffic safety on highways is becoming one of the important problems today. The amount of damage caused by cars to the environment is increasing day by day, and the most important thing is that many people suffer and lose their lives as a result of traffic accidents on the roads. Despite a number of measures taken to prevent traffic accidents, it is not possible to reduce their number. This makes it a task for experts that it is necessary to take a very serious approach to the problems of road safety. In order to ensure the safety of movement, it is necessary to have a scientific approach to it, to analyze all its various processes. For this purpose, traffic safety experts need to know the main indicators of traffic, how road conditions affect traffic flows, traffic management through technical means of traffic flow management. they need to have.

Key words: Car, driver, road, pedestrian, environment, transportation, traffic accident, traffic safety, traffic speed, collision, rollover, collision with a standing vehicle, collision with obstacles, collision with a pedestrian, collision with a cyclist, collision with a cart, collision with animals.

Introduction. In the Address of the President of the Republic of Uzbekistan Sh.M. Mirziyoyev to the Oliy Majlis, he noted that in 2018 he plans to build new roads, further develop the transport and logistics infrastructure, and improve the quality of the services provided [1] :

- first, restoration of 180 kilometers of railways and electrification of more than 200 kilometers of railways;
- secondly, to launch the operation of the Tashkent-Urganch-Khiva high-speed train and the Tashkent-Samarkand-Bukhara-Urganch-Khiva tourist train, to commission the Tashkent South railway station and the new Khiva railway station;
- thirdly, electrification of the Bukhara-Miskin and Karshi-Kitab railway lines and construction of the Karshi-Shakhrisabz railway network;
- fourthly, to accelerate the construction of the Sergeli and Yunusabad metro lines in the city of Tashkent, and the underground metro that will run along the big ring road around the capital;
- fifthly, the creation of large transit routes on highways and railways through the construction of modern infrastructures that provide quality service.

As is known from history, the land of Uzbekistan has been a center of trade, economic, cultural relations and connecting various civilizations formed along the Great Silk Road. In the conditions of current globalization, the importance of Central Asia in international transportation is constantly

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growing. In this place, first of all, the potential of Uzbekistan, one of the leaders of the region, stands out.

Today, it is no secret that an efficient transportation system is a decisive factor of economic growth. Transport systems and communications are the basis of trans-Asian and trans-European transport through Central Asia. Despite the fact that there is no access to the sea, the convenient geographical location of Central Asia gives it a number of advantages.

In order for Uzbekistan to become a decisive transport and transit network of Central Asia, it is necessary to modernize and update the transport and communication infrastructure, diversify the structure of local and international transport services, form and develop new transport corridors, increase the quality of transport services and reduce their cost. is done [2, 3, 4].

Methods. The basic rights, freedoms and duties of people and citizens defined in the Constitution of the Republic of Uzbekistan serve as the basis for regulating all social relations that arise in the process of road traffic and ensuring its safety. Regulatory documents in the direction of ensuring traffic safety were developed in accordance with the requirements of the Constitution of the Republic of Uzbekistan.

Violation of the normal movement of vehicles on highways, city streets and squares may result in the death of people, physical injuries, as well as damage to vehicles and their loads, damage to artificial structures on the road or other Accidents causing material damage are called traffic accidents. According to this definition, there are two factors in a traffic accident, which are: death of people, bodily injury or significant material damage, as well as the presence of a vehicle in motion.

The following basic concepts are adopted in the Law on Traffic: The surface of the land area or artificial structure built or adapted for the traffic of road vehicles and used for the same purpose; Road traffic is a set of means that occurs during the movement of people and goods with or without vehicles within the roads; A road user is a person who directly participates in the process of road traffic as a driver, passenger or pedestrian; Road safety refers to the traffic situation, which reflects the level of protection of road users from road traffic accidents and their consequences; A road traffic accident is committed with the participation of at least one vehicle moving on the road, causing the death of people or damage to their health, damage to vehicles, road facilities, cargo, or other material damage. is said to the event; Ensuring road safety refers to activities aimed at preventing the causes of road traffic accidents and alleviating the severity of the consequences of such accidents; A vehicle is a device designed to transport people, goods or perform special work [2, 5, 6, 7].

Highways are a complex dynamic system consisting of a variety of human-controlled mechanical and non-mechanical vehicles, moving (or not moving) pedestrians. This system is called traffic [2, 8, 9].

Results and discussion. It is necessary to distinguish the work of motor transport, the work of the driver, the organization of the movement of vehicles and pedestrians on the road. The first two issues are mainly dealt with by automobile companies, and with the next one by road companies, traffic safety bodies and authorities.

Highways are a complex dynamic system consisting of a variety of human-controlled mechanical and non-mechanical vehicles, moving (or not moving) pedestrians. This system is called traffic. The problems and special aspects of traffic are determined primarily through the "Car-driver-road-pedestrian-environment" system. They, in turn, operate in the environment.

The system includes the following organizational parts: A (car), H (driver), Y (road), P (pedestrian), M (environment).

These organizational parts not only operate in the environment, but each of them is closely related to the environment. "Environment" means the integrated influence of the environment on road

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traffic safety, and it consists of the following factors: weather (metrological appearance, precipitation, wind, temperature); natural landscape (plains, hills, mountains, underground water, etc.); mechanical (noise, dust, vibration, contamination with gas emissions, etc.) [2, 10, 11].

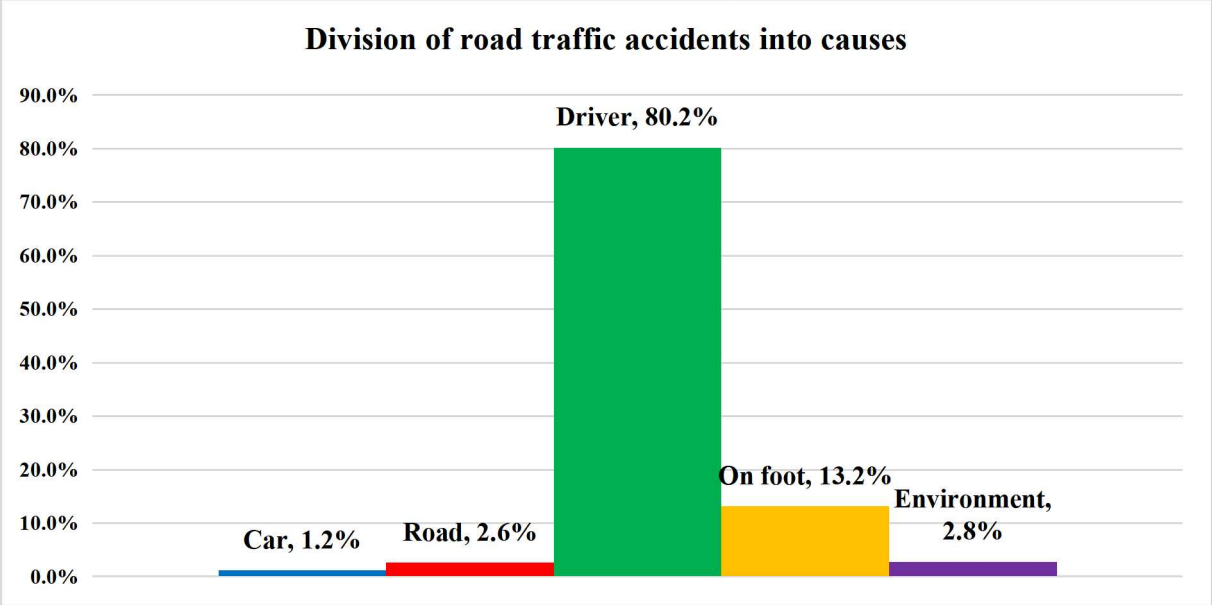


Figure 1. Division of road traffic accidents into causes in the car-driver-road-pedestrian-environment system.

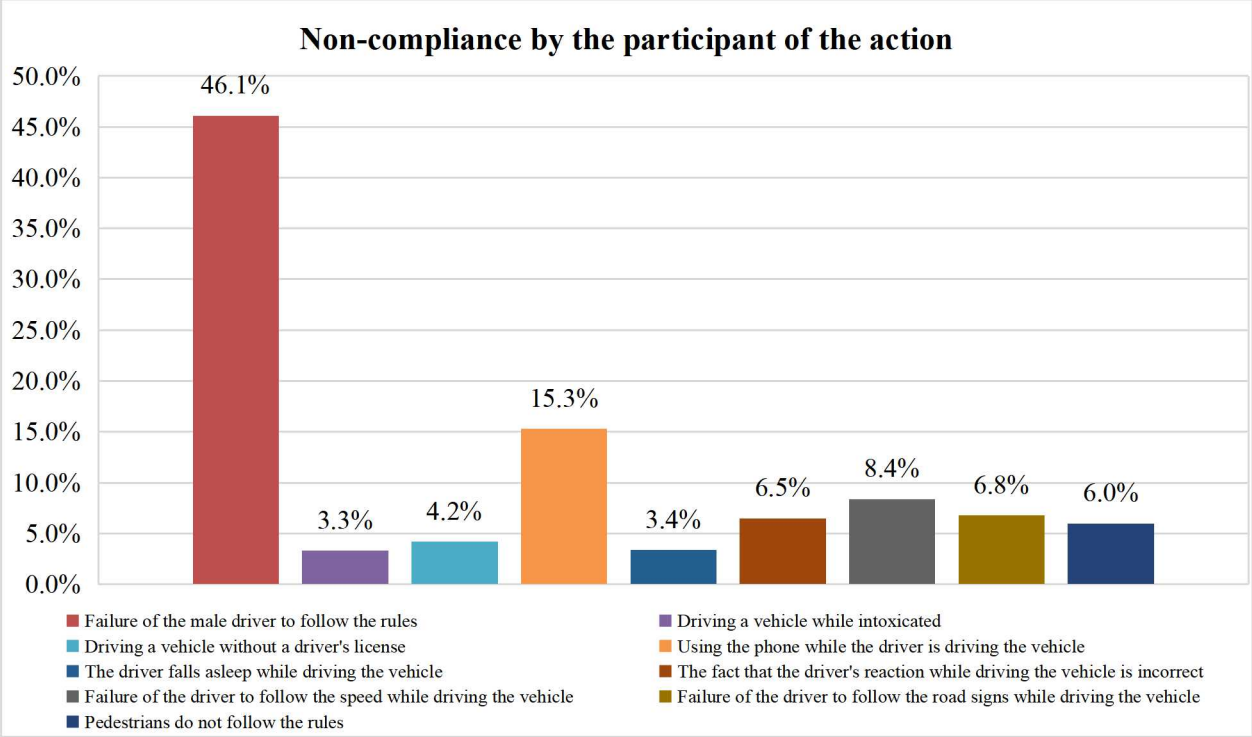


Diagram 2. Failure of the participant to follow the rule.

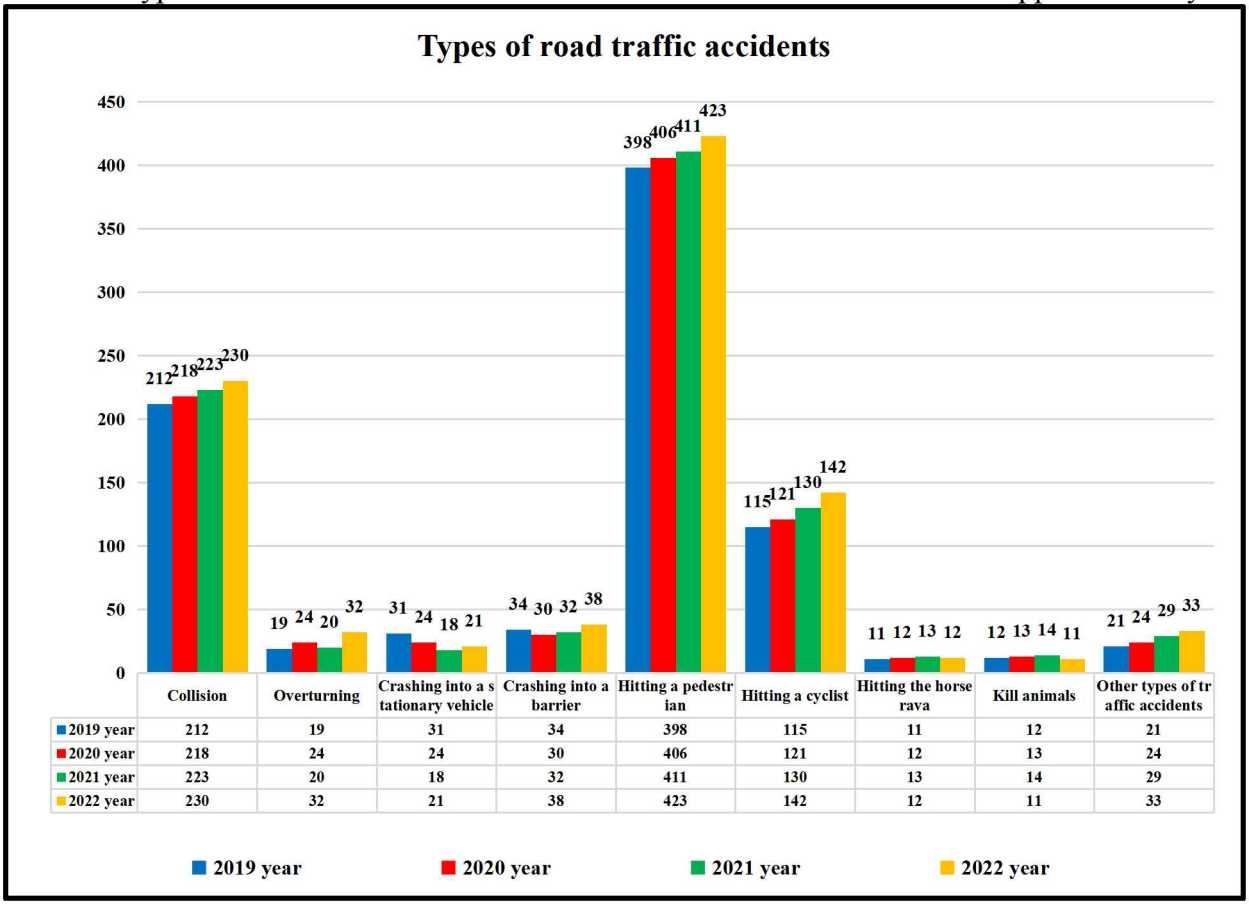
Violations of the normal movement of vehicles on highways, city streets and squares may result in the death of people, physical injuries, as well as damage to vehicles and their cargo, damage to artificial structures on the road or other Accidents causing material damage are called traffic accidents.

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According to this definition, there are two factors in a traffic accident, which are: death of people, bodily injury or significant material damage, as well as the presence of a vehicle in motion. It is observed that the participants of the movement do not follow the traffic rules. It is often observed that drivers do not follow the rules. Diagram 2.

The indicators of road traffic incidents are as follows, as can be seen from the diagram (diagram 3): the diagram mainly presents information on 9 types of road traffic incidents. According to the current regulatory documents, the road traffic accident consists of the following 9 types [2, 12, 13,]:

Collision. This includes head-on, head-on or side-to-side collisions, as well as road and rail collisions. This type of traffic accident includes a collision with a vehicle that has stopped suddenly.



	Collision	Overturning	Crashing into a stationary vehicle	Crashing into a barrier	Hitting a pedestrian	Hitting a cyclist	Hitting the horse rava	Kill animals	Other types of traffic accidents
2019 year	212	19	31	34	398	115	11	12	21
2020 year	218	24	24	30	406	121	12	13	24
2021 year	223	20	18	32	411	130	13	14	29
2022 year	230	32	21	38	423	142	12	11	33

Diagram 3. Types of road traffic accidents.

Overturning. Overturning of a moving vehicle due to loss of stability. This type of traffic accident does not include collisions, overturning of vehicles as a result of hitting parked vehicles or obstacles.

Hitting a stationary vehicle. Collision of a moving vehicle with a stationary vehicle. This type of road traffic accident does not include the collision of a vehicle that stopped suddenly.

Crashing into obstacles. Crashing of vehicles against immovable barriers (bridge support, pillar and mast support).

Hitting pedestrians. Vehicles can hit pedestrians or pedestrians can hit transport vehicles, as well as injuries to pedestrians from transported cargo (wood, pipe, etc.).

Hitting a cyclist. A vehicle hits a cyclist (or) a cyclist hits a vehicle.

Hit the cart. A moving vehicle hits a moving cart.

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Hitting (stepping) animals. Vehicle hitting a wild or domestic animal.

Another remaining traffic accident. This type of traffic accident includes accidents caused by a tram derailing and hitting a vehicle or pedestrians, cargo falling from trucks, passenger falling, etc.

As can be seen from the above, the highest indicators are pedestrian collisions and vehicle collisions.

In the optimal functioning of the "A-Y-H-P-M" system, individual and joint A-H, H-Y, Y-P, A-P and other classifications of the system's car, driver, road, pedestrian and environment organizers are of great importance.

The structural dimensions (parameters) of motor vehicles affect the classification of traffic. In this, the geometric dimensions of the car, the quality of traction and braking, the comfort of the driver's workplace and easy handling play an important role [2, 12, 14].

Traffic accidents and violations committed during the operation were analyzed. Pedestrians on the move, children walking without following the road signs, and irregular movement on the roads were observed. In addition, if it is observed that the drivers of vehicles are driving erratically, they do not follow the road marking lines and road signs, the drivers of passenger vehicles stop at the places they come across instead of stopping at the stops and or Passengers were dropped off and picked up. As a result, there are many road traffic accidents [2, 17, 19, 20].

It would be expedient if the following activities were planned to separate the traffic flow on the roads:

- placement of the road section in separate directions on one single road base with the help of a dividing strip;
- placement of the traffic section according to directions on a separate road;
- installation of safety islands separating directions in small curves with no visible visibility;
- organization of one-way traffic on parallel streets in residential areas;
- placement of intersecting roads at the intersection at different levels;
- separation of waiting lanes with the help of safety islands (through road marking line) for left-turning cars to wait at intersections located at the same level.

Conclusion. Regardless of which method is used to organize movement, it is necessary to use road signs, road marking lines, road barriers and automatic control equipment. By using the indicated methods and technical means, as a result of organizing traffic in one or another section, it is possible to increase traffic speed, throughput and ensure safety.

The work performed during the organization of the movement should meet the following requirements [2, 5, 6, 15, 16, 17, 18]:

- The gradual change of the traffic speed along the road sections;
- The direction of the front sections of the road should be clear and clear for the driver to move at any time of the day;
- Fast and safe movement of vehicles;
- Transfer of vehicles to the maximum extent;
- Environmentally friendly;
- Comfortable and safe movement of pedestrians;
- To be economically efficient.

Based on the observed results, we recommend making the following changes:

- It was observed that the bus drivers stop on the side of the road, stop and drop off and pick up passengers wherever they want. Due to this, negative situations occur. In order to prevent vehicles

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from stopping at the place they come across, we suggest the following: bus drivers should stop and pick up or drop off passengers at equipped modern stops attached to them;

- Currently, the streets are not well lit when walking in the evenings, as a result of which various accidents occur. For this, it is necessary to equip the street with lighting lamps, as a result, we will prevent an accident;
- It was observed that instead of stopping at the designated place, the drivers of the taxis stop at the traffic section of the road they want to drop off and pick up passengers. It is necessary to ensure that taxis on the route stop at designated stops, as a result, bus drivers would not be killed;
- It is necessary to equip buses with special bus stops for stopping and loading or unloading passengers;
- Road traffic incidents occur as a result of irregular movement of drivers from the middle lane of the street, movement from the intersection of the traffic section, drivers not following the road marking lines on the traffic section, in order to prevent this situation, 1.3 - on roads with more than four traffic lanes, it is advisable to use barrier concrete walls instead of a line dividing the flow of vehicles in the opposite direction.

If drivers, pedestrians and children follow the above, we will prevent all kinds of accidents.

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