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SOCIO-ECONOMIC IMPACT OF AUTOMOBILITY

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Abstract

This article analyzes the impact of the process of motorization on society and the economy. The article studies the development of transport infrastructure, the impact of the level of motorization on jobs, the standard of living of the population and the domestic market economy. At the same time, environmental and social problems associated with motorized transport, as well as proposals for managing and developing this process, are presented.

Keywords

motorization, social impact, economic development, jobs, transport infrastructure

Introduction. Motorization is an important factor in the economic and social development of countries, which directly affects various sectors of society by making the transport system more efficient, creating jobs, and increasing the mobility of the population. Today, the level of motorization is closely related to the stability of the country's economy and the development of urban infrastructure. As world experience shows, in countries with a high level of motorization, the efficiency of the transport sector, the level of employment, and the standard of living of the population are significantly higher.

The socio-economic impact of motorization can be analyzed in several main areas. First, motorization increases the possibility of creating jobs. New jobs will appear in areas such as automobile production, repair, logistics, transport services, and retail trade. For example, in Uzbekistan, as a result of an increase in the level of motorization, jobs in car repair centers and transport logistics companies increased by 12-15% in 2018-2023. At the same time, car sales and service support economic activity by increasing employment. Secondly, motorization stimulates the development of transport infrastructure. The construction of roads and bridges, the modernization of road signs and traffic management systems are closely related to motorization. For example, in 2020-2025, investments in road infrastructure projects in the cities of Uzbekistan increased by 25%, which helps to increase the efficiency of intercity transport flows. Also, the development of road infrastructure helps to improve the quality of life of society by ensuring safety and optimizing traffic flows.

Thirdly, motorization has a significant impact on the standard of living of the population. The presence of personal vehicles expands people's opportunities to get to work, get education, and participate in social activities. This helps to increase economic activity and increase personal income. For example, the availability and affordability of transport reduces the population's expenses and allows them to be directed to other social services.

Fourth, motorization has a direct impact on the domestic market economy. The processes of automobile production and sales stimulate consumer purchasing activity. At the same time, services related to motorization, including fuel supply, insurance, transport repair and parts production, contribute to economic growth. According to the article, the annual growth rate of the Uzbek automobile market in 2021-2025 was around 8-10%, which contributed to an increase

in jobs and incomes in sectors related to automobile trade. There are also social and environmental impacts of motorization. An increase in the number of cars can harm urban air, and a tightly regulated flow of traffic can negatively affect the quality of urban life. Therefore, it is urgent to manage motorization, introduce environmentally friendly vehicles, and strictly monitor traffic rules.

Road transport is now an important element of the global urban and rural economy. At the same time, the expansion of the transport system creates environmental and social problems, the effective management and development of which is an urgent task. Environmentally, motorization increases the emission of harmful gases into the atmosphere, including carbon dioxide (CO_2), nitrogen oxides (NOx) and volatile organic compounds (VOC). According to the World Health Organization, air pollution causes more than 4.2 million premature deaths worldwide each year, a large part of which are related to the transport sector. In addition, vehicles in urban areas lead to poor air quality, increased noise pollution and disruption of the ecological balance. Socially, road transport causes many problems. Intercity and intracity traffic jams increase the time people spend commuting, reduce work productivity and negatively affect the psychological health of the population. For example, according to OECD, traffic congestion costs developed countries 1-2% of their annual GDP. At the same time, the increase in the number of vehicles in urban centers makes transport services more expensive for low-income groups, which exacerbates social inequality.

Another important issue is road traffic accidents and their associated social consequences. Every year, more than 1.3 million people die in road traffic accidents worldwide, and 20-50 million of them are injured to varying degrees. One of the main causes of RTA is the lack of quality road infrastructure and insufficient control over the technical condition of vehicles. This directly threatens the safety of the population and places an additional burden on the health system. There are several effective proposals for managing these problems and developing road transport. First of all, it is important to introduce environmentally friendly vehicles. Electric and hybrid cars, as well as vehicles running on natural gas, help reduce air pollution and reduce carbon dioxide emissions. According to the European Union, air quality has improved significantly in regions where the share of electric cars has reached 15% of the car market by 2025.

Secondly, digital management of the intercity and intracity transport system is important. Smart road systems, automated traffic flow management, and congestion forecasting systems can improve the transport efficiency of cities. For example, in Singapore and Amsterdam, traffic congestion has been reduced by 20-30% as a result of the introduction of smart traffic management.

Third, it is necessary to develop a public transport system to reduce social problems. Fast and convenient metro, tram, and bus networks reduce the need for private transport and reduce congestion in city centers. At the same time, providing affordable transport services for social groups helps maintain equality and improve the standard of living of the population.

Fourth, in order to reduce road accidents and their social consequences, it is necessary to strictly monitor traffic rules and increase safety. For example, speed control systems, technical inspections of cars, and regular driver training can significantly reduce the number of accidents. It is also important to raise public awareness and organize information campaigns to overcome environmental and social problems. Raising public awareness of the impacts of road transport, environmental hazards, noise pollution and road safety issues will raise public awareness and help change public behaviour.

The process of motorisation is a key factor in the development of the global economy and society. This process not only modernises the transport system, but also increases the social

potential of urban and rural areas by creating jobs, making logistics more efficient and increasing mobility for the population.

In terms of its impact on economic growth, automotive creates new jobs. For example, the number of jobs in the automobile manufacturing sector in China is expected to exceed 10 million by the end of 2022. At the same time, the jobs created in this sector will not only apply to manufacturing plants, but also to the automotive service, repair, logistics, insurance and retail sectors. Also, in India, the automotive manufacturing and accessories industry has grown by 15% in the last 10 years, creating more than 2.5 million new jobs during this period. These examples clearly show that automotive gives impetus to economic growth. In terms of its impact on the logistics system, automotive increases the efficiency of the delivery of products and services. For example, in the US, companies such as Freightliner and UPS have managed to reduce delivery times by 20–30% through fleets of vehicles and automated route management. This not only increases the efficiency of companies, but also improves the quality of service to consumers. In this way, through motorization, the logistics system is optimized, the internal market is strengthened, and the country's economic efficiency increases.

In terms of its impact on social potential, motorization expands the mobility of the population. For example, in Turkey, as a result of the increase in the number of cars in 2005–2020, bus and minibus networks were expanded in rural areas. This made it easier for rural residents to get to their workplaces, schools, and medical institutions. As a result, employment and living standards in rural areas increased. At the same time, motorization also expands social opportunities in urban areas. For example, in the Netherlands, as a result of the widespread use of personal vehicles among the population and their integration with public transport, a significant reduction in commuting times has been observed. This stimulates the urban economy and increases the productivity of the population.

The impact of motorization on urban and rural areas is also visible in the tourism and service sectors. For example, in Georgia, motorized transport has increased the number of tourist routes and hotels in rural areas, which has created additional jobs and sources of income for the local population. In this way, motorization increases social and economic potential not only in the manufacturing sector, but also in the service and tourism sectors. Effective management of this process is important. First, traffic flow can be optimized by developing and upgrading road infrastructure. For example, in South Korea, as a result of the introduction of smart road systems, traffic jams on intercity roads have decreased by 25%. Second, it is important to create a car system integrated with public transport in cities and villages. This will not only increase mobility opportunities, but also ensure social equality and reduce personal transport costs for low-income groups. Third, it is necessary to stimulate local production in the creation of jobs related to motorization. For example, in Poland, increasing the share of local components in the automotive industry has created more than 50,000 new jobs and significantly increased the added value of the local economy. Thus, combining the automotive process with local production increases social and economic potential.

Conclusion. In conclusion, the process of motorization not only stimulates economic growth, but also increases the social potential of society by creating new jobs in urban and rural areas, making the logistics system more efficient, and expanding the mobility of the population. Real-life examples from China, India, the USA, Turkey, the Netherlands, Georgia, and Poland clearly demonstrate the social and economic benefits of motorization. Therefore, the socio-economic impact of motorization, local production, logistics optimization, and integration with public transport should be taken into account as important factors in the development of transport policies.

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