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DEVELOPMENT OF ELEMENTS OF LOGISTICS INFRASTRUCTURE

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ANNOTATION

A number of scientists who have studied the development of logistics infrastructure, its content and its impact on other sectors of the economy have expressed various opinions on the nature of logistics infrastructure.

Keywords : increases, news media, logistics infrastructure, service element, financial element, functional purpose, transport infrastructure, multifunctional roadside service.

D. Bauersox believes that logistics infrastructure refers to production facilities, news media, transport companies and their capabilities, warehouses, cargo transportation, packaging, inventory management, cargo loading and unloading terminals, and retail stores. The author believes that when organizing logistics infrastructure, it is necessary to determine the number of objects (warehouse complexes) with a certain geographical location and calculate the reserves of stored products in each place. At the same time, the author separately records the transport logistics infrastructure, which includes transport networks, vehicles and transport companies.
Chudakov A.D. logistics infrastructure means that material and technical resources understand the supply chain participants of suppliers, manufacturers of finished products and consumers of products. At the same time, in the logistics infrastructure, the author notes that it includes all areas (subsystems) of logistics. These are: material and technical support, transportation and storage, inventory management, marketing activities.
Nosov A.L. in turn, he argues that the logistics infrastructure is a material and technical system developed to ensure the production and social life of people, and its development is one of the main conditions for the effectiveness of production-oriented investments. The author incorporates iron and highways, Communications, a variety of Transportation, Warehousing, and a variety of facilities into the logistics infrastructure.
Taking into account the above points, the logistics infrastructure can be described as a complex of buildings-structures, transport systems, production facilities, cargo transportation, warehouses, which increase the competitiveness of the economy, will be necessary for the implementation of logistics activities.
In order to develop measures for the development of logistics infrastructure, it is advisable to assess the current level of all its elements.

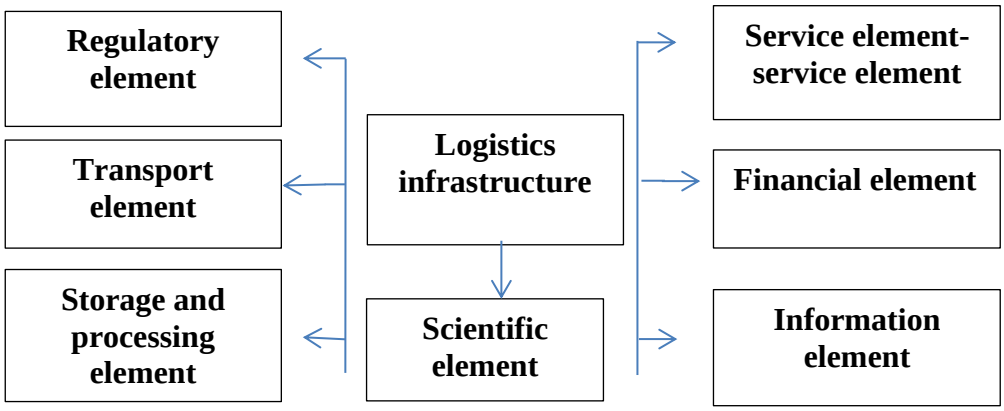

Figure 1. Elements of logistics infrastructure

- The regulatory element includes the Ministry of transport, the private carrier Association, the Customs Committee;
- Transportation element include vehicles, mainline railways and motorways, freight stations auto and rail facilities, artificial facilities;
- All-purpose and temporary storage warehouses, cargo terminals, cargo distribution centers, logistics centers for the storage and processing element;
- Maintenance systems, road construction, repair and service systems for personnel content to the service element;
- Large investors, banks, insurance companies in the financial element;
- Information and computing centers, server and database, technologies, software tools to the information element;
- The scientific element includes research institutes and laboratories, institutions of Higher Education, Institutes of professional development of specialists in the field of logistics and transport.

The potential of these elements varies by period. By determining the degree of development of each element, it is possible to determine the potential of the logistic infrastructure in the period under study. For those with the lowest rates, separate development programs are developed. The logistics infrastructure potential is determined using the following formula:

$$У_{Li} = У_{Tr} + У_{Ser} + У_{Fi} + У_{Inf} + У_{scien} + У_{St.pr} + У_{reg} \rightarrow max$$

here:

$У_{Li}$ – logistics infrastructure potential, %

$У_{Tr}$ – level of development of the transport element

$У_{Ser}$– level of development of the service element

$У_{Fi}$ – degree of development of the financial element

$У_{Inf}$ – level of development of logistics infrastructure

$У_{scien}$ – degree of development of the scientific element

$У_{St.pr}$ – the degree of development of the storage and processing elementи

$У_{reg}$ – degree of development of the regulatory element

By assessing the potential of each element separately, the total potential of logistic infatuation is determined.

All elements can be said to be related or complementary. Because most indicators of the eelemnt of transport and the service element are seen in the structure of the transport infrastructure.

In international practice, the transport infrastructure potential is determined on the basis of the following indicators:

- Length of public roads, km
- Density of Solid-State Universal pathways, 1000 km ^{2} for km
- Total rail length, km
- Density of nationwide Railways, 1000 km^2 for km
- Number of service facilities on roadsides
- Availability of waterways
- Availability of pipe communication routes
- Availability of air corridors and airports

Due to the growth of motorization in society, the increase in the number of motor vehicles, the development of roadside services as one of the important components of the field of Motor Transport Services began to gain relevance.

As an indicator of development, the social aspect of roadside service activities is especially important. Its developed and balanced infrastructure makes it possible to significantly increase the level of employment, assess the quality of services provided by the population in this area. In addition, as one of the components of roadside service, the service sector can generate significant revenue, as highways stimulate the development of most sectors of the economy in the regions.

It is known that the multifunctional areas of the roadside service are divided into the following types, depending on the functional purpose of the objects included in it:

- Type A: includes the placement of a gas station and a recreation area with all relevant and necessary auxiliary functions;
- Type B: includes the placement of a gas station, a rest area, a catering point and a service station with all relevant and necessary auxiliary functions;
- Type V: includes the placement of a gas station, a rest area, a dining point, a service station, a motel or camping, or a motel and camping with all relevant and necessary auxiliary functions.

A number of organizations are involved in the construction of roadside services. They are: construction materials, oil refining, transport enterprises, other industries that provide the supply and transportation of materials for road works. Road infrastructure, among other infrastructure networks, is considered an important means of achieving economic achievements, allowing you to improve the quality of life of foreign policy, social and other goals, the population.

The improvement of roadside services will give much more positive results: it will contribute to the growth of the Republic's economy by developing territories, creating additional jobs, developing new types of industries and education, timely delivery of goods and material goods, increasing international transit opportunities.

Strengthening regional aspects in the development of transport infrastructure in full compliance with the goals of the transport strategy developed by the Republic of Uzbekistan for

the period up to 2035 has been made an urgent task. To do this, it is necessary to develop users of various transport methods, transport and logistics services in a coordinated manner, actively develop transport corridors and complex transport nodes.

Despite the fact that much has been done in the country on the development of universal highways, the number of Service obeqts on the roadsides and the quality of services provided in them are not at the level of demand. Therefore, the development strategy of the new Uzbekistan for 2022-2026 is tasked with establishing 130 modern markets and trading complexes, as well as 65 large and 5,000 small service facilities for the development of road infrastructure, through the development of trade and road services in the regions of the Republic. It was also established that the 25 districts located in front of the border and the 100 districts through which the international highway and railway passed should be specialized in providing trade and logistics services.

Investment in the development of transport infrastructure in the Republic has increased for some time in the last five years. International financial institutions, including the Asian and Islamic Development Banks, the World Bank, the Saudi Development Fund, the Kuwait Arab Economic Development Fund, are actively involved in the reconstruction of Uzbekistan's international corridors. During 2018-2021, $ 339.7 million was allocated and 497 km of general use roads with cement-concrete coating were reconstructed.

But with the repair of highways on demand, the location of the facilities serving on the banks of some highways does not correspond to the number of vehicles crossing this road, the type.

In the Republic, it is advisable to adapt the standard requirements for the location of service facilities on the roadsides, the number of services in them and the level to the current period. Because the geographical location of roadside service facilities determines the growth potential of the area and the types of services provided. This will affect the growth of the tourism potential of the regions of the country, the transit potential of transport corridors.

It should be noted that objects located in the border zone, near large cities, tourist attractions are distinguished by the most advantageous geographical location. Based on a cluster analysis, it is necessary to determine the typology of the administrative districts of the Republic, depending on the potential and geographical location of roadside service facilities of the highways. In areas with very high and high potential, the development of multifunctional roadside service complexes is promising. Expanding the range of services in areas with low capacity of roadside service facilities is associated with certain risks due to low demand, measures to improve the efficiency of work are aimed at improving the quality of services provided, automating processes and updating facilities.

Thus, the formation of an effective, standardized system of roadside services increases revenues from sold services, increases the transit potential of transport corridors, helps to meet the needs of road users, tourists and local residents, create jobs, increase entrepreneurial activity in the regions and organize safe conditions for movement on the main highways of the country.

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