

UDC 015

DOI: 10.34670/AR.2021.60.77.006

Ontological components of criteria for ensuring transport accessibility of remote territories

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Abstract

The article provides a socio-philosophical analysis of the ontological components of the development of a system of indicators of transport accessibility as one of the most significant indicators of hard-to-reach territories. The paper shows that the problem of transport accessibility must be solved by studying the characteristics of territories and finding a compromise between the economic components and the needs of social development of territories. It is shown that in order to implement this task, it is necessary to form a list of indicators in which it is necessary to determine indicators of transport accessibility. A similar indicator was defined in the provisions of the Transport Strategy of the Russian Federation until 2030. However, this list does not define quantitative indicators in relation to individual territories, being limited only to the most general values, for example, such as indicators of the total number of civil aviation airports for a certain period of time. At the same time, according to the authors, a structural definition of the location of the transport infrastructure is necessary. Generalization of approaches to solving this problem shows that to determine transport accessibility, it is determined by such indicators as the time during which residents can reach the most important objects of social infrastructure through public transport. It is proposed to use a similar approach when developing indicators of transport accessibility of territories based on aviation transport and the use of flexible transport systems technologies.

For citation

Smirnov O.A. (2021) Ontological components of criteria for ensuring transport accessibility of remote territories. *Kontekst i refleksiya: filozofiya o mire i cheloveke* [Context and Reflection: Philosophy of the World and Human Being], 10 (1B), pp. 206-210. DOI: 10.34670/AR.2021.60.77.006

Keywords

Rural area, rural development, civil aviation, transport accessibility, indicators of transport accessibility.

Introduction

Transport accessibility is the main social characteristic of the transport system, since it includes both economic and social components. Increasing transport accessibility improves the quality of life of the population, transforms the structure of the use of the social infrastructure of society. And, as a result, in the regulatory documents of developed countries, considerable attention is paid to improving transport accessibility, since they define general standards for ensuring transport accessibility, as well as its quantitative and qualitative criteria.

In Russian practice, there is currently no standard for ensuring transport accessibility of remote rural areas, meanwhile, according to a number of studies, about 60% of the territory of the country's settlements is accessible only when using air transport. In most cases, this system is a "legacy" of the USSR, although at present the state of the airport network and civil aviation as a whole has undergone significant changes. The study of international practice in the field of transport accessibility and accessibility of civil aviation infrastructure is a significant area of sociological research.

Main content

In general, the problem of transport accessibility in the EU is not as acute as in Russia, however, comparing approaches to regulating transport accessibility, one should focus more on institutional models defined by EU regulations. Ensuring transport accessibility is one of the goals of Russia's Transport Strategy for the period up to 2030, while in other countries with similar climatic conditions (for example, the state of Alaska), similar goals are not set in regulatory documents.

The EU regulatory documents define the methodology of transport accessibility, which includes the following indicators:

- accessibility to the regional center. This indicator is calculated as the minimum time for which a resident of a rural area can reach a regional center by car or by public transport. Studies show that regional centers are available in Poland in about 40-60 minutes, similar indicators for the northern part of Italy, and for the eastern Mediterranean countries. The greatest amount of time is required to reach regional centers in Finland, the Czech Republic, and the maximum time – more than 2 hours – in Lithuania, Latvia and Estonia
- the number of jobs located in the area of the places of residence. Quantitatively, this indicator is defined as the number of jobs that residents can reach in a maximum of 60 minutes by car or public transport;
- regional potential availability. It is defined as the minimum time to reach key social facilities – hospitals, sports facilities, etc.

Other sources determine transport accessibility to certain types of objects:

- access to health facilities. It is determined by the time that must be spent before reaching polyclinics and hospitals. On average, according to EU standards, health facilities are located in all cities with a size of more than 50 thousand inhabitants, which are often not regional centers. Therefore, the availability of such facilities is significantly higher (time is less) than the availability of regional centers, with the exception of the Baltic states, the north-eastern regions of Poland and the northern regions of Finland, where the development of public transport is not enough to ensure transport accessibility.;
- accessibility to school education. Accessibility of the level of education and the amount of time that must be spent to reach the objects of education. This indicator is determined by the number

of schools that are available, as a result of the trip, in no more than 30 minutes.

The development of indicators of transport accessibility is a significant scientific problem, developing which, it is necessary to take into account the experience of the organization of the transport industry of the EU countries and ensure a possible balance of the system of indicators of transport accessibility, by normalizing their minimum values with indicators of accessibility of individual social infrastructure facilities – health and education systems.

Currently, the growth rate of civil aviation in Russia is 2-3 times higher than international indicators, but in principle this does not solve the problem of transport accessibility for the population of remote regions. Most studies considering the development of civil aviation indicate that the most significant trend is a change in the structure of the route network of civil aviation: a reduction in regional aviation and an increase in the number of passengers on main routes. All this partly determines the change in the social structure of society – a reduction in the rural population and an increase in the urban population. However, the main reason for this change is the liberalization of the airline route network since 2007, when airlines were able to independently choose the destinations served.

The situation in the field of providing hard-to-reach territories with regional aviation directions has been constantly deteriorating since the early 1990s. According to the Federal Air Transport Agency, 1,302 airports operated in 1992, currently their number is actually 5 times less. At the same time, these changes occurred at the expense of regional airports. This situation is getting worse due to a reduction in profits mainly on mainline and some regional routes, and the number of existing subsidized transportation is very limited.

Conclusion

The provisions of the Strategy for the Development of Transport in Russia until 2030 indicate that the currently used regional aviation system may cause a significant deterioration in the socio-economic situation of the population. It is assumed that by 2030 the number of operating airports will actually double, but neither their possible location is indicated, nor the need of the Russian population for such a number of airports is determined. That is, the Strategy does not specify that these changes should also form the necessary transport accessibility for the local population. Therefore, along with the development of infrastructure, it is necessary to create a system of indicators of transport accessibility as one of the key characteristics of the social development of the population, including by identifying their ontological components.

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Онтологические компоненты критериев обеспечения транспортной доступности удаленных территорий

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Аннотация

В статье проводится социально-философский анализ онтологических компонентов разработки системы показателей транспортной доступности как одного из наиболее значимых показателей труднодоступных территорий. В работе показано, что проблема транспортной доступности необходимо решить посредством исследований характеристик территорий и поиска компромисса между экономическими составляющими и потребностями социального развития территорий. Показано, что для реализации данной задачи необходимо формирование перечня показателей, в котором необходимо определить показатели транспортной доступности. Аналогичный показатель был определен в положениях Транспортной стратегии Российской Федерации до 2030 года. Однако данный перечень не определяет количественные показатели по отношению в отдельных территориях, ограничиваясь только самыми общими значениями, например такими, как показатели общего количества аэропортов гражданской авиации к определенному периоду времени. В то же время, по мнению авторов, необходимо структурное определение расположения транспортной инфраструктуры. Обобщение подходов к решению данной проблемы показывает, что для определения транспортной доступности определяется такими показателями как время, за которое могут быть достигнуты жителями важнейшие объекты социальной инфраструктуры посредством общественного транспорта. Предлагается использовать аналогичный подход при разработке показателей транспортной доступности территорий на основании авиационного транспорта и применения технологий гибких транспортных систем.

Для цитирования в научных исследованиях

Смирнов О.А. Ontological components of criteria for ensuring transport accessibility of remote territories // Контекст и рефлексия: философия о мире и человеке. 2021. Том 10. № 1B. С. 206-210. DOI: 10.34670/AR.2021.60.77.006

Ключевые слова

Транспортная доступность, удаленные территории, гражданская авиация, транспортная доступность, социально-экономическое развитие территорий.

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