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PRIORITY DIRECTIONS OF SOCIO-ECONOMIC DEVELOPMENT OF CITIES IN THE POST-PANDEMIC PERIOD

Abstract

More than half of the world's total population lives in urban areas, and it is expected that by 2050 more than 70% of them will live in urban areas. Population growth and continued urbanization around the world are causing many social, economic, technical and organizational problems related to transportation, businesses, communication networks, services and utilities that can threaten the economic and environmental sustainability of cities. The COVID-19 pandemic has raised new questions for society and has made adjustments to urban development plans and sustainable development goals. The consequences of quarantine measures have affected not only national economies, but also the comprehensive development of societies. All this creates the basis and prerequisites for the study of the peculiarities of the postpandemic development of the urbanization process. The article deals with the main aspects of post-pandemic urban development. The main goal of this scientific research is to determine the priority directions of socio-economic development of cities. The methods of retrospective, statistical analysis, analogies and generalizations are used to study this topic. During the study the authors have analyzed the state policy documents of the Republic of Kazakhstan in the direction of development of cities and regions of Kazakhstan, studied the foreign experience of some countries in implementing the principles of sustainable development of cities, considered the concept of building "smart cities" as one of the priority directions of post-pandemic development of urbanization. The practical significance of this work lies in the development of priority directions for the implementation of the Concept of socio-economic development of cities in the postpandemic period.

Key words: urbanization, city, agglomeration, urban population, smart cities, post-pandemic period.

Introduction

According to UN experts, the share of the urban population by 2050, at the current rate of growth of the level of urbanization, will be more than 70% [1]. The attractiveness of cities for resettlement and residence, their growth and rapid development is explained by economic factors, developed infrastructure and comfortable living conditions for the population. However, during the Covid-19 Pandemic, it was the cities that turned out to be the epicenters of the epidemic. In many ways, the reasons for the spread of the virus were precisely those most attractive aspects of urban life, the concentration of the population, multi-storey residential buildings, huge shopping malls, central air conditioning, etc. After the Covid-19 pandemic and the consequences of the introduction of quarantine measures, opinions and publications appeared about the negative impact of urbanization [2].

Thus, based on these conditions, there were prerequisites for the need for research in the field of urbanization development in the post-pandemic period.

The object of the study is urbanization as a process of growth and development of cities and urban population. The subject of this study is the directions of urban development in the post-pandemic period. The purpose of the study is to determine the priority directions of socio–economic development of cities in the post-pandemic period.

The tasks set by the researchers are to identify the main problems and changes caused by the consequences of the Pandemic and quarantine measures; – search for the most effective solutions for the development of urbanization.

Methods of retrospective, statistical analysis, analogies and generalizations were used to study this topic.

The practical significance of this work lies in the development of priority directions for the implementation of the Concept of socio-economic development of cities in the post-pandemic period.

Materials and methods

When studying priority areas for development of urbanization processes, a set of the following methods of economic research was used: monographic, program-targeted, logical. In the work on the study, such theoretical research methods as comparisons and generalizations, scientific abstraction and synthesis were also used.

Main provisions

Urbanization is the process of urban growth and development, when the population in rural areas moves to cities, leading to an increase in the size of cities and a change in their cultural and economic structure. This process is usually associated with industrialization and economic development, and includes the construction of new residential and commercial buildings, the improvement of infrastructure such as roads, bridges and transport, as well as the development of education, health and other social services. Urbanization can have both positive and negative consequences, such as economic growth and improving the living conditions of the population, but it can also lead to problems such as environmental pollution and a decrease in the quality of life in cities.

The COVID-19 pandemic has led to significant changes in urbanization, and it is assumed that these changes will continue in the post-pandemic period. One of the main trends in this process is an increase in demand for housing and commercial real estate in suburbs and small towns, where people can be in more spacious and less crowded places, as well as have more opportunities for outdoor recreation.

However, this does not mean that big cities will lose their attractiveness. Rather, they will rethink their urban infrastructure, improving the living conditions and safety of their residents. This may include creating large parks and recreation areas, improving public transport systems, and developing infrastructure for cyclists and pedestrians.

In addition, the post-pandemic period can accelerate the process of digital development of cities, which can lead to an improvement in the quality of life and an increase in the level of comfort of residents. For example, cities can develop intelligent transport management systems, improve connectivity and Internet accessibility, and create digital services to improve the quality of life of residents.

Thus, the development of urbanization in the post-pandemic period will continue, but with changed priorities and improved infrastructure that will meet the new challenges and needs of society.

Literature review

Data from studies conducted within the framework of the United Nations predict that the share of the urban population by 2050 will be more than 70%. Sustainable development of the urban economy, according to the New Urban Development Program, which was adopted within the framework of the UN Conference on Housing and Sustainable Urban Development (Habitat III), (Quito, October

17–20, 2016), should have been due to the advantages of agglomeration generated by well-planned urbanization [1].

In the Republic of Kazakhstan, by 2023, the urban population has already increased to 61.8% [3], for comparison, in neighboring Kyrgyzstan, the urban population is currently 34% [4]. In addition, in the territorial context, the network of cities, consisting of 89 cities, is rather uneven, which also negatively affects the asymmetry of regional development.

The standard of living of the population is the most important criterion, which is not only directly related to the urbanization of regional cities, but also affects the other causes of disproportion in the formation of regional centers – megacities and in the backlog of small cities [5]. At the present time, disparities in the standard of living of the population in the regional aspect remain in the republic.

In the territorial and spatial organization of the state, large and largest cities play a special role, on the one hand, they improve the living conditions of the population, on the other hand, they lead to environmental pollution, increased chemical, physical and psychological stress on a person. The percentage of urban population in some countries reaches high values: Argentina – 83%, Uruguay – 82%, Australia – 75%, USA – 80%, Japan – 76%, Germany – 90%, Sweden – 83%, Russia – 74% [6].

One of the UN Sustainable Development Goals until 2030 is dedicated to cities and human settlements, they should:

- to remain productive – people should find decent jobs here, enterprises here can produce and trade efficiently, this requires a successful infrastructure, which means that we need networks of roads, public transport, energy, water supply and sewerage, waste recycling systems, an effective judicial system to ensure the execution of contracts;
- to ensure social integration – the city should not be a place that increases the gap between rich and poor. Effective urban planning and policy should build cities where people of different races, classes and ethnic groups interact productively, peacefully and with a high degree of social mobility and trust;
- be environmentally sustainable – due to the high population density, cities are vulnerable to environmental ailments. Therefore, cities should conduct two types of environmental protection activities: to reduce the "ecological footprint", as well as to ensure resistance to changing environmental conditions [7].

The COVID-2019 pandemic has made its own adjustments. Quarantine restrictions, remote work, the transition of trade and services to cyberspace, total isolation have turned megacities into ghost towns. The obvious conclusion that suggests itself and is now supported by many members of the expert community is the following – it is possible to mitigate the threats and risks caused by the pandemic through decentralization and deconcentration, reducing the dependence of development on the city [1].

Digital technologies have integrated promising changes into the daily lives of people and the work of companies, covering not only cities, but also regions. An actual aspect of the development of regional economic systems is the digitalization of industry, which involves the introduction of modern information and communication technologies into the activities of enterprises [8].

Recently, the concept of a "smart city" was developed, designed to provide a solution to improve the quality of life of citizens in urban areas through the introduction of intelligent and digital technologies and infrastructure for energy, water supply, mobility, buildings and management. The concept of "smart city" considers "zero vision", which refers to the use of smart city technologies, information and communication technologies (ICT) and Internet of Things (IoT) tools to minimize negative impacts (i.e. zero traffic accidents, zero CO2 emissions, zero waste, zero crime) in cities. Urban forestry and urban areas overgrown with vegetation in cities inherently provide benefits such as reducing air pollution, the effect of urban thermal islands and the risk of flooding, as well as improving water quality, aesthetic value and property value, which improves the quality of life of citizens. The concept of a "smart city" has moved to the concept of a sustainable "smart city", which takes into account the services provided by urban forestry and urban vegetation [9].

In recent years, artificial intelligence (AI) has been increasingly used to solve economic, social, environmental and urban management problems. Thanks to its advanced capabilities, artificial intelligence should become one of the main means for local authorities to achieve reasonable and

sustainable development. The convergence of artificial and human intelligence is crucial for the adequate solution of the problems of urbanization and the achievement of reasonable and sustainable development [10].

Technological improvements make it possible to introduce the concept of a "Smart City" as a solution to urban problems. Smart city applications can build public trust by improving the quality of applications, satisfaction with them, reliability and expanding the capabilities of the community. However, it should be noted that the number of communities using the smart city app is still small. Therefore, it is necessary to encourage a culture of using these applications to help strengthen citizens' trust in the government and improve the quality of life in cities [11].

Ambitious projects are being launched in the modern world, involving the most advanced world experience in urban planning in order to create a sustainable and balanced living environment. Instead of large cities, it is better to have a network of small self-sufficient smart cities or rural areas equipped with digital infrastructure, proper water and sewage treatment systems, reliable energy supply (especially relying on renewable energy sources) [2]. These include such high-tech cities as the Saudi city of Qiddiya, the South Korean city of Songdo, the Chinese eco-city of Tianjin. For example, in 2018, Kazakhstan launched the Accol Smart City project with a population of 13,708 people in the Astana agglomeration area [12]. The projects use the best solutions for organizing public spaces, highways, residential and recreational areas.

The emergence of the information society has an impact on changes in the spatial and temporal characteristics of cities that are designed for the sake of network interactions, the organization of various flows, the globality of the city [12]. The logic of creating and designing cities, the functionality of which should meet the challenges of the information society, dictates a completely new urbanization. The construction of new cities on the basis of education centers, in which information technology facilities and modern communication systems are widely implemented, where citizens, along with specialists in the field of urban planning, are full-fledged designers of the urban environment, represents a new trend in urbanization.

With the rapidly growing urbanization in the world, sustainability is now expected from urban life. Due to such rapid growth, solving emerging problems in the field of urban governance and sustainable development around the world is not an easy task. Big data technologies can provide intelligent transportation, traffic, waste management, energy, environment, infrastructure, security, healthcare, planning and citizen participation in ordinary urban affairs to ensure a better urban life [13].

The contribution of structural transformation and urban development is considered crucial for long-term socio-economic growth, but over the past few decades it has negatively affected environmental sustainability. The conducted research clearly shows the need to adopt an environmentally friendly industrial and energy policy to ensure long-term social, economic and environmental sustainability [14].

With the development of urbanization, the gap between urban and rural financial investments, wages for production, quality of life and solvency through transport will be reduced. The key conclusion from these findings is that future appropriate measures and policies should be formulated in accordance with local conditions in order to facilitate the implementation of rural economic development [15].

The conducted studies aimed at assessing the impact of migration from rural areas to cities and related problems on urban development have found that there is an ambiguous impact of urban migration on urban development in different zones. Effective mitigation measures should be developed on the basis of key issues related to a specific zone, and practical trainings, research, public awareness campaigns and advanced training of migrants will improve socio-economic and environmental conditions [16].

COVID-19 can be characterized as a result of the deterioration of global health indicators in complex systems and has far-reaching consequences in the social, economic and environmental spheres. Urbanization is defined as one of the factors affecting the health of the planet. The effects of COVID-19 on the health of the planet are grouped into six categories: social, economic, environmental, technological, political and public health. The impact of COVID-19 on the health of the planet is hindering the achievement of the Sustainable Development Goals [17].

Results and discussion

The COVID-19 pandemic has led to serious socio-economic consequences for cities, but has also created new opportunities for their development. After the pandemic, cities will face a number of challenges, such as a decrease in economic activity, an increase in unemployment and a decrease in household incomes. However, they will also have the opportunity to rethink their economic and social structure, improve the living conditions and security of their residents and create a more sustainable and equitable economy.

The UN made the following conclusion: "Cities are at the forefront of the fight against the pandemic and its consequences. Across the globe, COVID-19 poses a threat to cities and communities, endangering not only public health, but also the economy, as well as the very fabric of society" [18]. Despite the fact that the impact of the pandemic varies depending on the city or region, common points can be found in all cases. For example, almost all major cities experienced a drop in gross regional product: for New York, the drop was 14% compared to 2019 [19], and in London, quarantine measures led to losses of 12% of GRP [20].

As for the situation in the Republic of Kazakhstan, according to the Bureau of National Statistics of the Republic of Kazakhstan, GDP in 2020 fell by 7% compared to 2019, and equaled the indicators of 2018-2019 by the beginning of 2023 (according to preliminary calculations) [3].

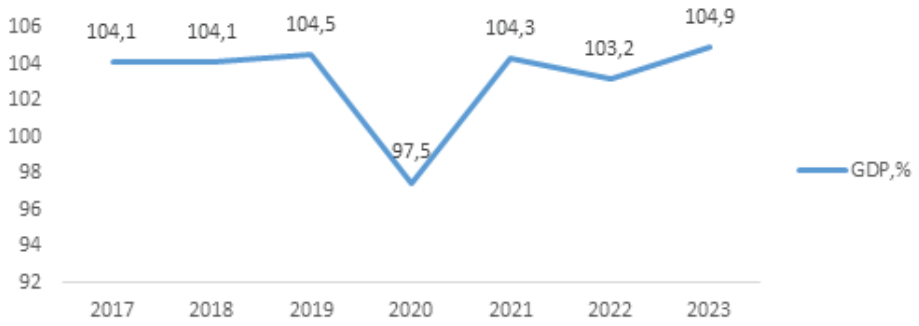

Figure 1 – Dynamics of GDP in Kazakhstan, 2017–2023 y.

Note: Compiled according to the source [3].

In the Republic of Kazakhstan, by 2023, the urban population has already increased to 61.8% (Figure 2) [3].

Nevertheless, the level of urbanization in Kazakhstan is still quite low compared to the developed countries of the world, while even in the USA with their large territory; this indicator is 82.5% (Germany – 77.4%, France – 80.7%, South Korea – 81.4%) [21].

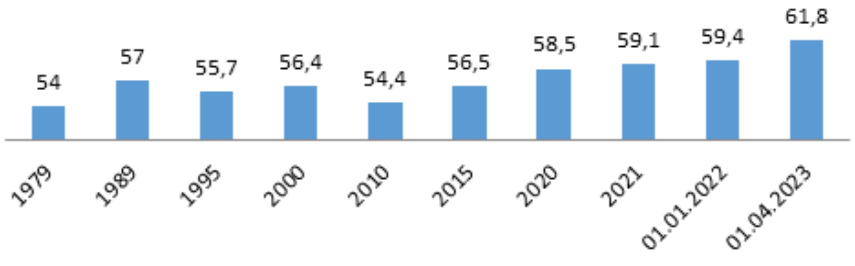

Figure 2 – Dynamics of the level of urbanization in Kazakhstan (%)

Note: Compiled according to the source [3].

At the moment, Kazakhstan is experiencing a steady growth of the urban population, which shows a good level of urbanization. The urban population will increase annually by an average of 1.51% until 2050, which exceeds the growth rate of the total population. In terms of urban population growth in

the context of regions, the regions with developed industry and large industrial potential are leading: Karaganda, Pavlodar, Aktobe.

Urbanization management implies solving a number of tasks [22]: ensuring the convenience of movement around the city, increasing the capacity of the city's infrastructure, increasing and maintaining a certain level of security, reducing the negative impact on the environment, improving the quality of services, combating inequality in access to education, healthcare, and other important services, involving residents in the management of an urbanized system.

There have been major changes in the use of information and communication technologies in city administration. In this connection, Newman suggests an increase in technological innovations, which in the post-pandemic period will indicate a new model of urban development. This model focuses on energy efficiency technology, closed-loop economics and smart cities. The spread of this model will lead to the decentralization of urban space, increasing demands on local infrastructure on the part of residents [23].

Another problem voiced by the World Bank is the appearance of a large number of "new poor people", not only urban residents, but also rural residents who came in search of earnings [24]. The pandemic has significantly increased the requirements for crisis management skills of city managers, and in cities where these skills were not well developed, communities of residents who are able to solve problems have emerged.

The next challenge of the post-pandemic period can be called a change in the requirements of city residents for urban space, the environment, the availability of parks and squares, and so on. The consequence of the change in requirements is the possible decentralization of the city, the destruction of the "center–business district-residential areas" scheme into many smaller self-sufficient structures.

Thus, by reducing all the challenges and trends, it is possible to choose appropriate measures and solutions to eliminate them (Table 1).

Table 1 – Urban development problems caused by the COVID-19 Pandemic

	Problems of urban development				
	Threats to public health	Decline in economic activity	Dependence on digital development	Increase in social inequality	Changing requirements for urban space
Decisions	Начало формы Конец формы Organization of space that reduces harmful effects on health	Development of policy measures that accelerate economic activity	Using the achievements of technical and economic sciences for the optimal development of ICT infrastructure	Development of measures for the development of peripheral regions for cities	Formation of new standards for the organization of urban space
	Effective distribution of healthcare facilities	Change of zoning of urban space	Creation of convenient infrastructure for digital activity	Smoothing of possible social conflicts,	Development of innovative solutions in district planning
	Prevention of discrimination in the provision of medical services	Creation of zones that facilitate economic activity	Development of effective policies to stimulate digital activity	Creation of new forms of interaction	Rethinking the functions and zoning of cities.
Note: Compiled according to the source [24].					

The COVID-19 pandemic has exacerbated many urban problems and created new challenges that cities around the world will respond to. To solve each of the problems, you can choose a combination of approaches and concepts that can solve problems at various levels.

One of the main challenges after the pandemic will be an increase in the unemployment rate in cities. To address this problem, cities should focus on creating new jobs, especially in the sectors

that have been most affected by the pandemic, such as tourism, hospitality and retail. In addition, cities will try to attract new investments and develop new sectors of the economy, such as the digital economy, biotechnology and green technologies.

In the Republic of Kazakhstan, the number of unemployed during the pandemic in 2020 year increased by 8.8 thousand people. The dynamics of the unemployment rate can be seen in Figure 3. However, it is worth noting that unofficial unemployment data is much higher.

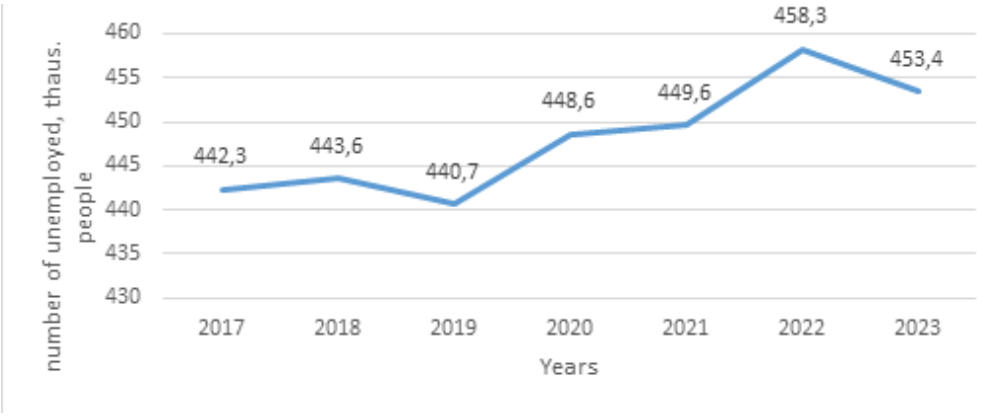

Figure 3 – Dynamics of unemployment

Note: Compiled according to the source [3].

One of the priority social areas of development after the pandemic will be taking care of more vulnerable segments of the population, such as children, the elderly and migrants. Cities should create new social programs and services, such as improved education and health systems, assistance in finding jobs and housing for the poor.

Table 2 shows demographic indicators of Kazakhstan in the period before and after the COVID-19 Pandemic. According to the Bureau of National Statistics of the Republic of Kazakhstan, mortality in 2020–2021 increased sharply, mainly the elderly and people with poor health suffered from Coronavirus infection.

Table 2 – Demographic indicators

	2017	2018	2019	2020	2021	2022	2023
Population at the end of the period (year)thousand people	18157,3	18395,6	18631,8	18879,6	19122,4	19503,2	19832,7
Total mortality rate (per 1000 people)	7,15	7,14	7,19	8,60	9,61	7,97	7,19
Note: Compiled according to the source [3].							

Cities will also face new environmental challenges, such as improving air quality and reducing greenhouse gas emissions. To solve these problems, cities must switch to more sustainable and environmentally friendly technologies, such as renewable energy sources, improved public transport and the creation of zones for pedestrians and cyclists.

According to one of the Sustainable Development Goals developed by the UN – Goal 11 Sustainable cities and human settlements, an important task is to ensure universal access to adequate, safe and affordable housing and basic services by 2030 and to improve slums [7]. In the Republic of Kazakhstan, the number of people living in emergency homes has decreased by 63% from 2018 to 2021 [3].

Table 3 – Target 11.1 By 2030, ensure universal access to adequate, safe and affordable housing and basic services and improve slums

Name of the global indicator	Начало формы Конец формы National indicator	Years			
		2018	2019	2020	2021
11.1.1 Proportion of urban population living in slums, informal settlements or in unsatisfactory housing conditions	Number of residents in emergency homes	69 510	69 389	24 441	25 343
Note: Compiled according to the source [3].					

Another goal of Sustainable Development is to expand the scope of inclusive and environmentally sustainable urbanization and opportunities for integrated and sustainable human settlements planning and management based on broad participation in all countries by 2030. In Kazakhstan, the housing provision index has increased by 1.3 points since 2018.

Table 4 – Target 11.3 By 2030, expand inclusive and environmentally sustainable urbanization and opportunities for integrated and sustainable human settlements planning and management based on broad participation in all countries

Name of the global indicator	National indicator	Unit of measurement	Years			
			2018	2019	2020	2021
11.3.1 Ratio of building rates and population growth rates	Housing security per resident	sq.m.	21,9	22,2	22,6	23,2
	urban population		24,2	24,7	25,0	25,5
	rural population		18,6	18,9	19,3	18,8
Note: Compiled according to the source [3].						

One of the solutions to these issues may be the introduction of the “Smart City” Concept. The development of the digital economy is one of the key factors for the success of the development of the concept of “Smart Cities”. Smart-cities are cities that use modern technologies and data to better manage urban infrastructure and improve the quality of life of residents. The development of the digital economy in Smart-city can lead to the creation of new jobs, increase the productivity and efficiency of the economy, as well as reduce the costs of managing the city.

One of the key elements of the development of the digital economy in Smart-city is the creation of a digital infrastructure that provides wide access to the Internet and the use of modern technologies. This includes the installation of a new generation of communication networks, such as 5G, the creation of cloud platforms for data storage and processing, as well as the creation of digital services for residents and businesses [11].

The development of the digital economy also requires active support of innovations and new technologies. Smart-city should create a favorable ecosystem for startups and innovative companies, provide them with support and assistance in obtaining financing. It is also worth improving the education and training system to ensure the availability of highly qualified specialists in the field of digital technologies [13].

Another important element of the development of the digital economy in Smart-city is the creation of electronic public services and digital services for residents and businesses. This may include the creation of electronic portals for obtaining public services, electronic voting systems, digital platforms for the exchange of information between residents and government agencies, as well as the creation of digital services for businesses that will allow them to effectively manage their activities [11].

Finally, the development of the digital economy in Smart-city requires the improvement of the city management system based on data and analytics. Smart cities should collect and analyze data on

urban infrastructure, the environmental situation, the needs of residents and businesses in order to make informed decisions and optimize city management.

Thus, the development of the digital economy is a key factor in the success of Smart-city, and requires the creation of digital infrastructure, support for innovation and new technologies, the creation of electronic public services and a city management system based on data and analytics.

Building a smart city is the process of creating a city using modern technologies that can improve the quality of life of residents, optimize the management of urban infrastructure and increase the efficiency of the economy. Various technologies are used in this process, such as the Internet of Things, artificial intelligence, data analytics and much more [13].

One of the key elements of building a Smart city is the creation of a digital infrastructure that allows for wide access to the Internet and the use of modern technologies. This includes the installation of a new generation of communication networks, such as 5G, the creation of cloud platforms for data storage and processing, as well as the creation of digital services for residents and businesses.

Another important element of building a Smart City is the creation of an intelligent urban infrastructure that allows you to optimize the management of the city and increase its efficiency. This may include the creation of a transport management system, lighting and video surveillance system management, waste management system and much more.

The creation of intelligent urban infrastructure also requires the use of various technologies, such as the Internet of Things, artificial intelligence and data analytics. These technologies allow us to collect and analyze data on urban infrastructure, the environmental situation, the needs of residents and businesses in order to make informed decisions and optimize city management.

Another key element of building a Smart city is the creation of digital services for residents and businesses. This may include the creation of electronic portals for obtaining public services, electronic voting systems, digital platforms for the exchange of information between residents and government agencies, as well as the creation of digital services for businesses that will allow them to effectively manage their activities.

Finally, building a Smart city requires improving the education and training system in order to ensure the availability of highly qualified specialists in the field of digital technologies. It is also worth creating a favorable ecosystem for startups and innovative companies, providing them with support and assistance in obtaining financing.

Thus, building a Smart City is a complex and multifaceted process that requires the use of modern technologies, the creation of digital infrastructure and intelligent urban infrastructure, as well as the creation of digital services for residents and businesses. An important element is also the training of highly qualified personnel and the support of innovations and startups.

Creating new jobs and supporting small and medium-sized businesses are important elements of the economic development of any city or region. Smart-cities using modern technologies can create a favorable ecosystem for business and stimulate economic development, which in turn leads to the creation of new jobs.

One of the ways to create new jobs is to develop innovative technologies and support startups. Smart cities should create a favorable ecosystem for startups and innovative companies, providing them with support and assistance in obtaining financing. This will create new jobs and stimulate the development of the economy.

It is also important to develop small and medium-sized businesses. Smart-cities should create a favorable ecosystem for the development of small and medium-sized businesses, provide them with access to financing, training and consultations. The creation of digital services for businesses and simplification of business registration procedures can also contribute to the development of small and medium-sized businesses.

Smart-cities can also create new jobs in areas related to the use of new technologies. For example, the creation of digital infrastructure, the installation of new generation communication networks and the development of city management systems require highly qualified specialists. Digital technology training and the creation of educational programs can also contribute to the creation of new jobs.

It is also worth noting that Smart cities can create new jobs in traditional industries such as healthcare, transport and catering. The use of modern technologies in these industries can increase their efficiency and create new jobs.

It is important to note that supporting small and medium-sized businesses and creating new jobs is a long process that requires joint efforts on the part of the state, business and the public. However, Smart cities using modern technologies can create a favorable ecosystem for business and stimulate economic development, which in turn leads to the creation of new jobs and improving the quality of life of residents.

Improving the city's infrastructure is one of the most important tasks, as it allows creating comfortable living and working conditions for residents, increasing the efficiency of the city economy and attracting investment. Modern technologies make it possible to create an intelligent urban infrastructure that ensures optimal management of the city and improves the quality of life of residents.

One of the ways to improve the city's infrastructure is to create an intelligent transport management system. This may include the installation of intelligent traffic lights, public transport traffic control systems and an emergency notification system for drivers. Such systems make it possible to optimize traffic, reduce travel time and reduce the number of accidents.

Another important element of the intelligent urban infrastructure is the lighting control system. Intelligent lighting control systems allow you to save energy and reduce system maintenance costs. Such systems can control the level of illumination depending on the time of day, the presence of people and traffic.

The development of intelligent urban infrastructure also requires the creation of a new generation of communication networks, such as 5G. This makes it possible to provide wide access to the Internet and create conditions for the development of digital services.

The improvement of the city's infrastructure also includes the creation of comfortable living and recreation conditions for residents. This may include the improvement of city parks, playgrounds and sports facilities, the installation of outdoor equipment and much more.

Thus, the improvement of the city's infrastructure is a complex and multifaceted process that requires the use of modern technologies, the creation of intelligent urban infrastructure and the creation of comfortable living and working conditions for residents. The creation of such infrastructure is an important element of the economic development of the city, as it increases its competitiveness and attractiveness for residents and investors.

Conclusion

Thus, the socio-economic development of cities after the COVID-19 pandemic will require new approaches and strategies that will create a more sustainable, equitable and prosperous economy and social infrastructure.

In the post-pandemic period of urban development, priority areas for the implementation of the concept of socio-economic development are:

1. Development of the digital economy. Cities should switch to more sustainable and innovative technologies, develop digital services and improve Internet access for all segments of the population. This will help to increase the efficiency of the economy, improve the quality of life of residents and improve business conditions.

2. Creating new jobs and supporting small and medium-sized businesses. Cities should actively attract investment and create conditions for the development of new sectors of the economy, such as green technologies, biotechnologies and information security technologies. It is also worth strengthening support for small and medium-sized businesses in order to create new jobs and stimulate economic growth.

3. Infrastructure improvement. Cities must continue to improve their urban infrastructure to provide more comfortable living conditions for residents. This may include the development of public transport, the creation of large green areas and parks, the improvement of communication systems and access to the Internet, as well as the development of a city management system based on new technologies.

4. Taking care of the more vulnerable segments of the population. Cities should create new social programs and services for the poor, children, the elderly and migrants. This may include improving the conditions of education and health care, assistance in finding work and housing, as well as the creation of new social services.

5. Environmental sustainability. Cities should switch to more sustainable and environmentally friendly technologies to reduce greenhouse gas emissions and improve the quality of life of residents. This may include switching to renewable energy sources, improving public transport, creating zones for pedestrians and cyclists.

Thus, the priority directions of the implementation of the concept of socio-economic development of cities in the post-pandemic period of development should be associated with the creation of a more stable, fair and prosperous economy and social infrastructure that will provide more comfortable living conditions for all residents.

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ПАНДЕМИЯДАН КЕЙІНГІ КЕЗЕҢДЕ ҚАЛАЛАРДЫҢ ӘЛЕУМЕТТІК-ЭКОНОМИКАЛЫҚ ДАМУЫНЫҢ БАСЫМДЫҚ БАҒЫТТАРЫ

Аңдатпа

Бүкіл әлем халқының жартысынан көбі қалалық жерлерде тұрады және 2050 жылға қарай олардың 70%-дан астамы қалалық жерлерде тұрады деп күтілуде. Халықтың өсуі және әлемдегі урбандалудың жалғасуы қалалардың экономикалық және экологиялық тұрақтылығына қауіп төндіретін көлікке, кәсіпорындарға, байланыс желілеріне, қызметтерге және коммуналдық қызметтерге қатысты көптеген әлеуметтік, экономикалық, техникалық және ұйымдастырушылық мәселелерді тудырады. COVID-19 пандемиясы қоғам алдында жаңа сұрақтар қойып, қалаларды дамыту жоспарлары мен тұрақты даму мақсаттарына түзетулер енгізді. Қабылданған карантиндік шараларды енгізудің салдары елдердің экономикасына ғана емес, қоғамның жан-жақты дамуына да әсер етті. Мұның бәрі урбандалу үрдісінің пандемиядан кейінгі даму ерекшеліктерін зерттеудің негізі мен алғышарттарын жасайды. Мақалада пандемиядан кейінгі кезеңдегі қалаларды дамытудың негізгі аспектілері қарастырылады. Бұл ғылыми зерттеудің негізгі мақсаты – қалалардың әлеуметтік-экономикалық дамуының басым бағыттарын анықтау болып табылады. Бұл тақырыпты зерттеу үшін ретроспективті, статистикалық талдау, ұқсастықтар мен жалпылау әдістері қолданылды. Зерттеу барысында авторлар ҚР қалалары мен өңірлерін дамыту бағыты бойынша Қазақстан Республикасының Мемлекет-

тік бағдарламалық құжаттарын талдады, қалаларды орнықты дамыту қағидаттарын енгізу бойынша кейбір елдердің шетелдік тәжірибесін зерделеді, урбандалуды пандемиядан кейінгі кезеңде дамытудың басым бағыттарының бірі ретінде «ақылды қалаларды» құру тұжырымдамасы қарастырылды. Бұл жұмыстың практикалық маңыздылығы пандемиядан кейінгі кезеңде қалалардың Әлеуметтік-экономикалық даму тұжырымдамасын іске асырудың басым бағыттарын әзірлеу болып табылады.

Тірек сөздер: урбандалу, қала, агломерация, қала халқы, «ақылды» қалалар, пандемиядан кейінгі кезең.

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ПРИОРИТЕТНЫЕ НАПРАВЛЕНИЯ СОЦИАЛЬНО-ЭКОНОМИЧЕСКОГО РАЗВИТИЯ ГОРОДОВ В ПОСТПАНДЕМИЙНЫЙ ПЕРИОД

Аннотация

Более половины всего населения земного шара проживает в городских районах, и ожидается, что к 2050 г. более 70% из них будут жить в городских районах. Рост населения и продолжающаяся урбанизация в мире вызывают множество социальных, экономических, технических и организационных проблем, связанных с транспортом, предприятиями, сетями связи, услугами и коммунальными службами, которые могут поставить под угрозу экономическую и экологическую устойчивость городов. Пандемия COVID-19 поставила новые вопросы перед обществом и внесла свои коррективы в планы развития городов и цели устойчивого развития. Последствия введения принятых карантинных мер сказались не только на экономике стран, но и на всестороннем развитии общества. Все это создает основу и предпосылки для изучения особенностей постпандемийного развития процесса урбанизации. В статье рассматриваются основные аспекты постпандемийного развития городов. Основная цель данного научного исследования – определить приоритетные направления развития социально-экономического развития городов. Для изучения данной темы использованы методы ретроспективного, статистического анализа, аналогий и обобщений. В ходе исследования авторами проанализированы государственные программные документы Республики Казахстан по направлению развития городов и регионов РК, изучен зарубежный опыт некоторых стран по внедрению принципов устойчивого развития городов, рассмотрена концепция построения «умных городов» как одного из приоритетных направлений постпандемийного развития урбанизации. Практическая значимость данной работы заключается в выработке приоритетных направлений реализации Концепции социально-экономического развития городов в постпандемийный период.

Ключевые слова: урбанизация, город, агломерация, городское население, «умные» города, постпандемийный период.