CAPABILITIES OF URBANIZATION PROCESSES RESILIENCE IN THE DIGITAL ENVIRONMENT

Rasul Balaev[1], Matlab Ali Zadeh[2], Sevda Haji Zadeh[3]

[1] Prof., Doctor of Economics, Azerbaijan State University of Economics (UNEC), e-mail: p.balayev@gmail.com, mob.: +994503789048

[2]Associate Prof., PHD on technical sciences, Azerbaijan State University of Economics (UNEC), e-mail: nuran555@list.ru, mob.: +994503499828

[3]Associate Professor, Ph.D.on economics, Azerbaijan State University of Economics (UNEC), Department of Digital Economics and ICT E-mail: s.hacizade@mail.ru Mob.: 050 343 11 21

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ABSTRACT:

The article discusses the sustainability of urbanization, the impact of digitalization on urban life and the impact of the digital environment on the sustainability of urbanization. The need for a quantitative assessment of all the main manifestations of urbanization in order to identify the possibilities of urbanization processes in the digital environment shown. It has shown which manifestations of sustainable urbanism should meet the basic requirements for sustainability indicators. The need to study the diversity of urbanization processes in the digital environment based on the study of the diversity of economic, social and environmental characteristics of urban growth. Some factors that expand the technological capabilities of the information society in terms of supporting sustainable development described. One of the key indicators of the digital environment is the study of the possibility of reducing these costs in case of the level of transaction costs and ongoing urbanization. In the article stressed that the digital economy can reduce the asymmetry of market information. The initial steps taken in Azerbaijan to identify and implement the capabilities of sustainable urbanization processes in the digital environment described. The situation of the urban population with fresh food considered in connection with the food security aspect of sustainability of urbanization processes. Changes in the delivery of fresh products to the Baku agglomerate studied. For this, the indicator "weighted average distance of transportation" was proposed and its dynamics over 55 years estimated.

Keywords: digital environment, agglomeration, urbanization, sustainability, transaction costs

JEL classification: R51, F64

INTRODUCTION

Urbanization is a complex and contradictory process. As the durability of these processes is directly related to the quality of life, they are multifaceted, ensuring stability requires a complex approach. Digitization, first of all, penetrates the lives of cities and its place and role in the resilience of urbanization processes should be paid attention. A unified approach to the processes taking place in the urban and digital environment can be put in place. In our opinion, the discovery of the capacity to withstand urbanization processes in the digital environment is an important issue. At the same time, unfortunately, the work in this direction is not yet at the level. Therefore, we consider it expedient to research on the discovery of opportunities for the sustainability of urbanization processes in the digital environment and the determination of prospects.

SUSTAINABILITY OF URBANIZATION PROCESSES: OPPORTUNITIES AND THEIR DIGITAL CHARACTERISTICS

Quantitative assessment of all the main manifestations of urbanization is important from the point of view of discovering the possibilities of its resilience. These manifestations should be attributed, including the concentration of the population in cities, the increase in the role of cities in all spheres of human life, industrial contact of productive forces and the complexity of functions in the settlement network and the integration of types of activities. The need for a quantitative assessment of all major manifestations of urbanization can be determined by economic expediency and efficiency criteria.

In the current situation, where the attitude to the quality of life in megacities and large cities is ambiguous, expectations about the decline in the pace of urban processes are not justified. From this point of view, indifference to forecasts about the intensification of urbanization processes on a global scale is unacceptable. So "today, 55% of the world's population lives in urban areas, a proportion that is expected to increase to 68% by 2050. Projects show that urbanization, the gradual shift in residence of the Homan population from rural to urban areas, combined with the overall growth of the world's population could add another 2.5 billion people to urban areas by 2050” [Revision of World Urbanization Prospects (2018)]. Currently, even in countries with a declining population, cities such as migration, new settlements with the status of a city, etc., an increase in spending is occurring.

The next generation of Sustainable Development, which provides an opportunity to meet its needs and meet current needs, envisages coordinated efforts to build an inclusive, sustainable and reliable future on a global scale. In this case, economic growth, inclusive society and environmental protection should be encouraged and ensured.

The concept of sustainable urbanism can be interpreted at different angles since it is newly introduced into scientific circulation. In our opinion, the initial approach to sustainable urbanism can be viewed as a result of ensuring the sustainability of urban processes. In other words, the process of population accumulation in cities is accompanied by the sustainable development of cities; it is aimed at increasing the role of cities in all spheres of human life, interacting productive forces on the basis of industry, complexity of functions in the settlement network and integration of activities to meet the basic requirements of resilience indicators. We can agree with such an idea of the indicators used to characterize sustainable development, including urbanization zones, that "Indicators of a sustainable community point to areas where the links between the economy, environment and society are weak. They allow you to see where the problem areas are existed. And they help to show the way of fixing those problems" [What is an indicator of sustainability? // Sustainability Indicators 101]. As for the requirements for resistance indicators, they should, from a practical point of view, allow evaluation, first of all, on the criteria set out in the Rio de Janeiro declaration [Rio Declaration on environment and development (1992)].

The sustainability of urban processes, as a result of which sustainable urbanism, implies, first of all, the achievement of the necessary level of indicators of the level and quality of life. Achieving the optimal ratio of the indicators of the quality of life and quality of life is an important factor in the ecological aspects of the well-being of people in large cities.

Sustainable urbanism means the elimination of ecological consequences of Urban Development and the satisfaction of the demand for resources at the local level [Douglas Farr, (2007)]. The ecological priorities of the sustainability of urbanization processes, no matter how important, cannot permanently overcome its economic and social aspects. Otherwise, due to the economic attraction and integration of activities that conditioned urbanization processes, the effect of job growth can be overlooked.

The UN has added the 11th goal of "ensuring the openness, security, resilience and ecological stability of cities and settlements" to its global goals for Sustainable Development. In fact, the goal of sustainable urbanism in the period up to 2030 is to

improve the living standards and quality of the population by eliminating the consequences of the ecological crisis.

In order to discover the resilience of urbanization processes in the digital environment, it is necessary to explore the different proportions of economic, social and ecological characteristics of urban growth processes. In order to be ready for the optimal choice of options in reality, research should be carried out on the basis of digital technologies in order to identify the capabilities of urbanization process resilience. Otherwise, it is difficult to estimate the degree of compliance of urbanization processes with the criteria of resilience in rapidly growing cities.

“Rapidly growing cities and towns are faced with a range of development choices that will shape their growth and long-term economic, social and environmental sustainability. Many of these are complex choices with differing short-term versus long-term cost and benefits. these choices are determined by individual actors or agencies, but emerge out of the complex interplay of decisions made by a range of actors across national and local governments, investors and entrepreneurs in the private sector, and a range of local community and civil society voices” [Sustainable urbanization strategy UNDP’s Support to sustainable, inclusive and resilient cities in the Developing World. Dec 16, 2016.p.10]. The source explains the options for sustainable and inclusive development of cities. Of course, these options are not opposed to each other, and in fact, the expediency of considering the sustainable and inclusive sustainable development options of cities is shown [Sustainable urbanization strategy UNDP’s Support to sustainable, inclusive and resilient cities in the Developing World. Dec 16, 2016. p.12].

It is more realistic to achieve sustainable development through evolution, as it seems from the newest history. At the same time, radical steps are needed for Sustainable Development, which requires the Prevention of the global ecological crisis. However, it is only possible to recommend countries to take many necessary steps to achieve sustainable development goals. Sustainable development takes into account that if climate change is out of focus, society will lose its achievements and will not even be able to achieve success in the future. But now, to reduce the negative consequences of climate change, let's say that the greenhouse effect is possible to reduce the emission of gases from the wound.

From the standpoint of sustainable development, the information society should ensure the invariability of a joint solution of economic, social, technological and ecological problems; environmental regulation of technological development without exception; and the constant agenda of the issues of information security and taking preventive steps in its improvement.

In this regard, the issues of legal regulation of the activities of information services providers in intensive urban conditions are particularly relevant. The fact is that as cities grow, issues such as information search, distance education, e-commerce and a number of other activities need to be resolved in a legal and regulatory context are growing. Unreasonable delays in the formation of the relevant normative-legal framework, the regulation of the city economy lack of support for international cooperation may strengthen undesirable tendencies.

In terms of supporting the sustainable development of the information society, technological opportunities are on the agenda, primarily in large cities and megacities. The work done in this direction should highlight the development of biometrics, including the creation of automatic recognition of people, the use of international and internal passports with biometrics identification, and the mass use of cryptography. It should not be forgotten that the mass use of cryptography (for example, cryptographic protection of payment by SIM card) has ensured the popularity of mobile communication.

Education has an increasing role in the reintegration of sustainable development opportunities of Information Society. The high dynamism inherent in the information society, the rapid shortening of the life cycle of innovations (product and process innovations) in conditions of intensive urban processes, requires the training of personnel and the formation of a qualitatively new, faster, uninterrupted and joint efforts realizing system. By improving distance education, the Information Society helps make education accessible to more people outside of urban areas. For the purpose of Sustainable Development, in which is intended to ensure the openness, security, sustainability and ecological stability of cities and settlements.

To achieve this, the impact of Information Society on urban processes should not be ignored. From the point of view of supporting sustainable development, the technological capabilities of the information society are expanding, as is known, through the integration of activities. The level of this integration is many times higher in large cities, which are an active Economic Area, the primary landfill of the formation of Information Society and the material result of urbanization processes.

“The integration of activities strengthens the elements of creativity. Integration is colorful, which in turn serves for innovation. In the last decades of technological

development of knowledge, a new demand is formed for each stage of continuous activity. Their implementation can be expected in an adequate information society and in an urban environment, which is a showcase for this community". [Rasul A. Balayev (2007). p.65]. At the same time, it is difficult to say a justified opinion on the differences in the role of Information Society in the sustainable development of the economy of cities and regions.

The role of quantitative characteristics in the development of cities is increasing as a result of and conditionally urbanization processes. The city, in our opinion, is primarily an economically active territory, a landfill for development, a material result of urban processes, a et benchmark of demographic development and territorial cohesion of various forms of activity. Of course, the city's multi functionality does not end with the listed ones.

Determining the possibilities for digitizing the conditions and consequences of urbanization processes is methodologically important from the point of view of economic evaluation of emerging competitive processes. There is no doubt that as urbanization processes intensified, information exchange is accelerated. The information space of the city is expanding more rapidly than its borders. The indicator of the level of application of digital technologies in urban infrastructure is repeatedly higher than the General country level. Speaking about the exchange of experience of the exchange of figures, it should be noted that there is a more characteristic of the situation and reality of the inter-city exchange than the inter-country Exchange. In other words, "Globalization has resulted in both less regulation of industry and, in such areas as trade, investment, and intellectual property, more universal standards of regulation. As a result, location decisions depend on the particular country less and on the comparative advantages of different cities more" [Urbanization and Sustainability in Asia. Case Studies of Good Practice. Edited by Brian Roberts and Trevor Kanaley (2006), p. 17].

As a comparative advantage of different cities, their openness to innovations such as activity and living space is of little importance. As for the economic efficiency of the application of digital technologies, the fact that the indicators on individual cities do not always compare, expands the scope of the application of expert technologies in the evaluation process, as it seems from experience.

Most of the modern states are about to lose their common employer function. At the same time, the state remains a guarantor of the citizen's right to work, even in conditions of intensive urban conditions. Therefore, the personnel policy pursued by the state as a system of goals, methods and means of regulation in the labor market has a decisive role. As regulatory measures against unemployment, the state affects the aggregate demand in the labor market through the use of fiscal instruments, in

other words, taxes and budgetary expenditures. According to researchers who study the impact of digital economy development on the structure of employment, it is likely that by 2030, dozens of professions may disappear in financial intermediation, law, tourism, library, translation and a number of other areas [Удальцова Н.Л., Мосина В. И. (2018) Современные тенденции развития цифровой экономики и ее влияние на предпринимательскую деятельность //Экономические науки, 2018, 5 (162), p.44].

In the digital environment, the difference between the concepts of activity space and workplace is expected to decrease. The first signs of such a position are manifested in large cities. To substantiate this thesis, it is necessary to return to the encyclopedic interpretation of the concept of digital economy. “The digital economy provides for economic activities based on electronic processing, storage and transmission of information, including physical infrastructure and software development activities” [The Internet Encyclopediya (2003), 2 Volume Set, p. 478].

In traditional competition, the inertia of an enterprise model cannot adequately respond to the widespread diversity created by the digital environment. This manifests itself more clearly, especially in the fight against competition. So, in the digital environment, all economic agents are competitors to each other. "In the digital economy, we have to wait for the competitive struggle not from competitors, but from everywhere. When information is digital and merged in the network, all links are scattered and no business is secure." [The Digital Economy: Rethinking Promise and Peril in the Age of Networked Intelligence (2014), McGraw-Hill Education. p.20].

The digital environment has the potential to rival the quality of product spread speed and scalable coverage. Thus, as the duration of the impact of the known quality on the market position of the manufacturer decreases (competing innovations do not play a role in this), the ability to confirm the quality of the product is limited. In urban areas, there are also analogical trends. In other words, the speed of new production-technological relations is so high compared to areas with low levels of economic activity that the competitiveness of innovations depends more on its virtual environment than on its real self-promotion in the market.

Once information becomes an economic resource and a mass-consumed product, its direct impact on the competitiveness of economic agents in major cities becomes stronger. Under certain conditions (taking into account the Internet of things and a number of other directions and technologies of development), the goal of digital economic activity is to increase the competitiveness of material and non-material production, as well as services aimed at mastering the benefit. This is the focus of

attention in substantiating the priorities of the formation of the digital economy, legislation, culture and infrastructure.

The information society expands the possibilities of using the results of scientific research in solving global problems. Although the increasing importance of knowledge in this society increases the role of Science, the scientific provisions reduce unreasonable claims to fundamentalism. One of the important reasons for such a situation is the superiority of not scientific-theoretical but practical generalizations in the formation of technological knowledge. In other words, there is a decline in scientific evidence that must be proved in the information society. Technological knowledge, which in any case requires actual justification and verification, is almost without exception related to technological skills. Therefore, it implies the status of a highly qualified specialist in the information society, as well as the presence of necessary working-life skills at a professional level. Those mentioned will most likely be reflected in the institutional provision of the digital economy.

The capabilities and prospects of urbanization processes in the digital environment are directly related to the advanced experience. Along with the results of the experience, the conditions and process of its acquisition should be assessed. For this purpose, appropriate processes should be modeled. The digital environment in the urbanization zone has favorable opportunities from this point of view. Observations show that both the intensive urbanization and the digital environment challenge technological habits, in a number of cases comprehensive intellectual development.

It should not be forgotten that the lack of regular attempts to reaffirm the advanced experience in the information society creates an Enchanted Circle effect in a number of cases. From a technological point of view, it is constantly forming “science” to follow what is ahead. This leads to the sloth of technological thinking and strengthens the undesirable technological dependence. Phrases such as “do not repeat the remaining mistakes” can be considered the provision of this “science”. Unfortunately, the initial landfill of this “science” is cities. It is because the digital economy is developing at a pace that is obsessed with cities, as indicated in the following source. “The digital economy in a concentrated form developed in the cities where urgent problems can be very different: transport, environmental deterioration utilities, the need for removal outside the city industrial enterprises, or development of an accessible environment for everyone, but they can be solved only in the complex” [В.П. Куприяновский др. (2016), Умные города как «столицы» цифровой экономики //İnternational Journal of Open Information Technologies ISSN: 2307-8162 vol. 4, no. 2, p.50].

One of the main indicators of the digital environment is transaction costs. Transaction costs, such as costs associated with the transfer of property rights from one side to another in the exchange process, are spent on factors elimination, which hinders the efficiency of interaction with the party-counterparts. These costs occur in an incomplete information environment. In the initial approach, as is known, transaction costs are the costs necessary for the functioning of the market was adopted.
In the case of the stability of urban relations, it is possible to reduce transaction costs by increasing the flexibility of mutual relations with the parties due to compact location. In this regard, we can say that similar processes are likely to occur in urbanization and digital environments.

The fact that urbanization processes meet the requirements of resilience can also eliminate a number of problems during its undesirable high pace period. For developing countries, we think this thesis is not only an excuse to justify additional costs. Balanced development of large cities can create an idea of perspective models of the use of productive forces in the country. The need for the uniqueness of perspective models of the use of productive forces arises, first of all, from the uniqueness in the economic specialization of individual cities, the integration of activities, the division of resources and risks. Another reason for increased attention to these models is the fact that as cities grow, labor productivity increases here. To a certain extent, this trend is conducive to migration to cities and large cities. On the other hand, the increased speed of urbanization is not desirable in most cases. The role of digital technologies in solving the issues described is growing, as it seems from advanced experience.

The rapid expansion of the coverage of the figure in the urban environment is associated with a high pace of resource accumulation in the urban economy. It is difficult to assess the economic results of the process of concentration of people and people in large cities unequivocally positively in terms of social criteria. The reason for this is, first of all, large cities have reached the limit of the ecological crisis. Therefore, in assessing the development of the city, first of all, ecological indicators should be used. Of course, other, especially economic and institutional aspects of urbanization should not be ignored.

"To the extent that externalities, such as pollution and congestion, are not assessed in cities, conurbations will be too large, but not by much. Public concerns about the prices of congested roads, as well as about water supply and investment in health care to reduce the likelihood of an epidemic, are well-founded. From this point of view, preoccupation with urban slums and poor-quality housing, which in themselves do not create any external effects, is less important." [Urbanization and Growth. Commission on Growth and Development (2009). Michael Spence Patricia Clarke Annez Robert M. Buckley Editors. p.128].

Indeed, the fact that the environmental attitude factor is always at the forefront in the mentioned effects can lead to a one-sided and even non-productive approach to the processes of the formation of megacities. It is inadmissible to consider the role of economic expediency factor in the process of assessing the development of the city at the necessary level, regardless of whether it is positive or negative in terms of sustainable development. In the digital environment, this issue is more urgent.

To assess the economic and general expediency of the figure, we think it is possible to use the following indicators: agglomeration effect; minimization of displacement as a special case, as well as financing effects; allocation effect.

Our research gives reason to say that many changes in the geography of economic activity in the intensive urban environment can be evaluated in terms of agglomeration effect [Rasul A. Balayev (2007), p.38]. As is known, the agglomeration effect is expressed as a complex factor of location, in which the associated and compact placement of concomitant objects is effective, without always isolated and scattered location. At the same time, they believe that Agglomeration effects are considered to attenuate with distance when a decreasing impact is urbanized the further away the rings are from the location" [Behrens, Kristian and Robert-Nicoud, Frederic L. (2014). CEPR Discussion Paper No. DP10184].

The main factor contributing to the economic expediency of urbanization and digitization is the possibility of saving resources and increasing their efficiency. Urbanization, despite all its contradictions, is a thrifty variant of the organization of the regional environment. At the same time, we should not forget that the number of economic centers is significantly dependent on the conditions in which the urbanization processes begin. From this point of view, the higher economic activity in and around the capital, although it is not always desirable in terms of sustainable development, is justified in practice. The South Korean experience deserves attention from this point of view.

"Two key elements contribute to the meteoric rise of Seoul as the primary hub of business and urbanization in South Korea. Firstly, South Korean urbanization was

overwhelmingly focused on the capital – which has existed as a major nexus of government and business affairs in Korea for centuries. During decades of rapid urbanization, rural laborers began flooding into Seoul – which absorbed over 60 percent of all rural-to-urban transfers during the 1960s. Capital - intensive growth reprioritized the focal points of urban growth to the major cities, providing a key difference between the urbanization development of China and South Korea" [Sang Woo Kim (2017) Shanghai American School/ An Analysis of How Urban Communities Intersect with Digitalization in Chinese and Korean Megacities// 4th International Conference on Innovation in Economics and Business IPEDR vol.87, p.13].

Of course, many times higher economic activity in the capital than in other regions of the country is not desirable in terms of balanced and sustainable development. Speaking at the meeting, it should be noted that the problem is also topical in Azerbaijan.

The agglomeration effect is the savings achieved in the territorial organization of production, and its types are classified according to different indications. In terms of quantitative assessment capacity, we consider the following classification more expedient:

-internal savings arising from the expansion of the scale of production;
-saving conditioned by transport (accommodation);
-external savings arising from the expansion of the scale of production;
-savings provided by urban infrastructure.

"A digital environment is an environment that creates logical entities that can be used to model (or simulate) other environments based on mathematical laws." [Balayev R.Ə. (2018). Rəqəmsal mühitdə transaksiya xərcləri və rəqabət // Azərbaycan Dövlət İqtisad Universitetinin Elmi xəbərləri. Cild 6, s. p. 6]. Therefore, it expands the algorithmic and information capabilities of quantifying the above-mentioned different types of agglomeration effect in the digital environment.

It is more realistic to achieve economic benefits without figures in urban conditions. The fact is that the digitization becomes a leading factor in ensuring harmony and efficiency in everyday city life and labor activity. Digital technologies expand the possibilities of developing and implementing the necessary preventive measures. Creativity in the realization of these opportunities can provide a transition from the course to innovative modernization by insisting on imitation of the subject, which is considered to be the leading one.

The intensification of urbanization processes exemplifies the manifestations of the information society. In this case, the sensitivity to information relations is increasing; the information space of activity is expanding. Intersections in information influences are increasing. Urbanization, as it seems from the initial observations, technologies knowledge and promotes the rise of the level of digitization.

The intensification of urbanization processes increases attention to its resilience capacity. From this point of view, the potential of the digital environment should be considered an important opportunity. The formation of the mentioned potential characterizes the information society. The point is that the success of the concept of information society depends on the fact that the stakeholders supporting it cover all segments of the population. In other words, we can talk about the close correlation between success and the positive attitude of the majority in the information society.
An important condition of democracy in the information society is to obtain free and honest information. The role of the technological factor in ensuring the free and honest dissemination of free and honest information and the free accessibility of stakeholders to it is increasing day by day. At the same time, it should not be forgotten that communication is a key element of the digital economic environment, and its development is accompanied by the cheapness of mass media services. Otherwise, it is increasingly impossible for more people to engage in Information Technology and knowledge transfer.

The establishment and development of the digital sector as an economic base of the information society, as well as in cities with a place of territorial containment of various forms of activity should serve to create an environment capable of overcoming both information hunger and information flood. It is believed that the ability of the digital economy to reduce the asymmetry of market volatility (its ability to be supported by economic and technological opportunities) will be strengthened. Such discretion is not a product of unreasonable optimism at all. The application of Big Data, Cloud technologies and a number of other digital technologies and the principles of information democracy supported by them are the basis for this to be said. On the other hand, the high share of semantic intersections in news reports of numerous repetitions and analogical situations in the exchange of information in urban centers may increase the possibility of an equal distribution of information among market participants. The fact that the information society has a network structure, has a positive impact on these opportunities by accelerating economic integration, economic barriers, including economic borders.

The information society seeks to support the careful and emotional approach of the public to these problems by ensuring the accessibility of quality information on socially

significant problems in large cities and megacities. For this reason, the information society, in cases where there is no economic motive "public consciousness and its special type of public opinion, for this purpose, the existence of social institutions interested in this or that state of public opinion" [Бралиев А.Х. (2008). Влияние информационного общества на устойчивое развитие // Вестник РУДН, серия Информатизация образования, 2008, 4, p.19] provides support.

The adaptation of competitive economic activity in society in the digital environment to the requirements of sustainable development, including its environmental regulations, requires significant internal potential. This potential can also be expressed in non-economic resources. Let's say that popularity is an important resource in the information society. On the other hand, the hypothesis that people will be engaged in the processing of machinery, management of technological and economic processes, mainly in material and energy production in the near future, does not give sufficient basis to optimism about the prospects of sustainable development. As the pace of development increases, the number of resource types to be restored increases. Economy in cities as an active area, this trend manifests itself more clearly. In many countries of the world, these resources include, unfortunately, the air we breathe.

As problems threatening the sustainable development of the digital economy, first of all, inequality in the distribution of information resources should be noted. The increase in this inequality prevents a decrease in the level of people's lives in developed and developing countries. Such a situation, as is known, contradicts the requirements of sustainable development.

As the flood of information intensifies, the escalation of the problem of the choice of honest and quality management is one of the serious problems that threaten the sustainable development of the digital economy. At first glance, we can assume that this problem is solved by technological means. Indeed, significant steps are being taken in this direction. At the same time, these steps, along with public relations, lead to the deterioration of economic relations. In the modern era when problems are rapidly globalizing, cybercrime threatens the network economy and becomes an instrument of international terrorism, etc.

Although the potential advantages of Information Society are greater, it is their potential in terms of serving sustainable development that serves, first of all, the formation of a single information environment that potentially serves the whole of mankind. In this process, where the initial contours are visible, unification and simplification of the requirements for the network structure are likely to occur in the digital economy. This can greatly expand opportunities to support sustainable development.

The information society and the digital economy have not reduced the list of universal problems, some of these problems (social inequality, refugees and IDPs, migrants, terrorism, drugs, global warming, etc.) even exacerbation is observed. The increase in social inequality is also observed in the information society. At the same time, when we understand the vital importance of sustainable development, we can see that trend (the tendency to increase inequality) is likely to weaken.

In the fight against the ecological crisis, the opportunities of the information society are used relatively actively, and the lines of some progress are already visible. The point is that mankind, which has been fighting with nature for tens of thousands of years, is on the way to realize the necessity of dialogue and cooperation with nature, albeit with unacceptable delays. It should also be noted that the expectations of the Information Society for the solution of global environmental problems have been greater in the last century [Орлов С. Л. (1999). Информационное общество и устойчивое развитие: Философско - методологические аспекты. Дисс… канд. философ.наук, p.112].

It is positive that the information society can always foresee environmental disasters, ensuring the reliability and sustainability of alarms about the growing role of technogenic factors in environmental problems.

VIEWS AND STEPS TAKEN FROM AZERBAIJAN

"National Strategy for the development of Information Society in the Republic of Azerbaijan for 2014-2020" approved (Order No. 359 of the president of the Republic of Azerbaijan dated April 2, 2014). In order to ensure the implementation of this order, the "state program on the implementation of the National Strategy for the development of Information Society in the Republic of Azerbaijan for 2016-2020" (Order of the president of the Republic of Azerbaijan dated 20 September 2016) is implemented. Thanks to the implementation of the program, the following results, which are of particular importance in terms of Sustainable Development Goals, are expected to be achieved: to meet the growing demand of the population for safe, cheap and quality ICT services; to create favorable conditions for citizens, especially low-income and socially vulnerable population groups to benefit from the opportunities of Information Society; creation of comprehensive conditions for ensuring the rights of citizens to obtain information; expansion of scientific research on space, nano and nuclear technologies, biotechnology, electronics and new information technologies and their results; strengthening of competitive, efficient and innovative economic potential in the high-tech sector; increasing the level of provision of citizens with electronic health cards; expansion of the application of distance education, e-science; protection of the security of the country's information space and i.e.

To achieve Sustainable Development Goals, there must be an economic, social, institutional and political approach. Taking this into account, the president of the Republic of Azerbaijan signed a decree (October 06, 2016) on the establishment of the National Coordination Council on Sustainable Development of the Republic of Azerbaijan "in order to coordinate the implementation of the tasks assigned to the state bodies in connection with the obligations arising from the agenda in the field of sustainable development until 2030. We can notice this decree among the measures taken to implement, the UN Azerbaijan. As stated in The Agenda 2030 on Sustainable Development," the use of the global indicators framework for monitoring and analysis of development goals, and the development of governments to support the monitoring process are important.

More than half of the population of Azerbaijan lives in cities. Baku, the capital of the country, is the largest city in the Caucasus and is expected to remain unchanged in the near future. About 40% of the Azerbaijani population and 70% of the existing industrial potential are concentrated in Baku agglomeration (Baku, Sumgait, Khirdalan cities and their immediate surroundings) located on the Absheron Peninsula. The Absheron Peninsula is an urban zone, a space of economic, social, ecological and demographic contradictions.

In the world, industrial oil was first produced in Azerbaijan in the XIX century. For the first time in the 20th century, oil production from offshore fields in the world was in the Caspian Sea, in Azerbaijan. However, unfortunately, the rapid development of the oil industry has created serious ecological problems here. Protection and efficient use of Natural Resources in Absheron Peninsula, restoration of polluted areas, Waste Management, expansion of the scale of green areas, etc. despite the continuous measures taken in the directions, the ecological situation in the Absheron Peninsula remains tense. With a total area of 222,000 hectares, the total area of this peninsula - 33,000 hectares, including the area of oil-contaminated lands-is currently 10.6 thousand hectares. In some places, the wastewater flows into lakes and the Caspian Sea, etc. In the near future, the goal of the Republic of Azerbaijan is to remove the Absheron peninsula from the list of sources polluting the Caspian Sea. To this end, it carries out complex measures to clean the sea from pollution. The preparation of the new general plan of Baku for 20 years will be completed by the end of 2020. As the main provisions in this plan, the focus is on improving environmental protection and ecology.

Among the indicators characterizing the Sustainable Development identified by the European Union Statistical Bureau (Euro stat), durable consumption and production indicators occupy a special place. Consumption models: consumption of food products per capita of the population, production models: the ratio of the area used for organic farming to the total agricultural area is marked as indicators characterizing Sustainable Development.

As an aspect of food security of the stability of urban processes, we think that issues of provision of urban population with fresh food products should be considered. We have studied the changes taking place in the zone of transportation of fresh food products to Baku agglomeration. For this purpose, the "average weight of Transportation distance" indicator (L) was proposed.

$$L = \sum_{i=1}^{n} (m_i\, l_i) \,/\, \sum_{i=1}^{n} (m_i)$$

Here, n - indicates the number of product production points, mass of the product produced in m_i - i point and intended for transportation to the city (i=1, n), distance from l_i-i point to the city (i=1, n). The L indicator allows you to determine the degree of compactness of the transport zone to the city of food products that can not be transported to a long distance and are quickly destroyed.

In order to determine the changes in the transport zone of milk (and a number of fresh agricultural products) to agglomeration, the indicator "medium-weight transport distance" was calculated. [Rasul A. Balayev (2007), p.233-234]. The calculations were carried out in 1965, 1990, 2005 and 2019, on sales data.

L_{1965}=163,0 km; L_{1990}=167,0 km; L_{2005}=165,0; L_{2019} =163,0 km

It seems that the indicator "average weight of milk transportation" to Baku agglomeration received its previous price after 54 years, that is, in 2019 and 1965 it was 163 km. The following factors contribute to the increase in the population of agglomeration: For more than half a century, a more cautious attitude to fresh water was formed in the food ration of the townspeople. The transition from a centralized economy to market relations led to the formation of new dairy farms, taking into account the proximity of the big city (market), while technology, including information technology and distance factors came to the fore.

"The larger the enterprise, the easier it is to implement digital technologies. In this regard, compared to small farms, large farms have advantages. Digital innovations and technologies that lead to innovation cannot manifest themselves in scale, which in many cases is characteristic of a small farmer's farm" [Никола М. Трендов и др. (2019). Цифровые технологии на службе сельского хозяйства и сельских районов. Продовольственная и сельскохозяйственная ООН. p.16].

Studies show that as Baku approaches agglomeration, the pace of digital environment formation and development in the agrarian economy is increasing. This growth is

mainly observed in large farms. Thus, in large farms providing agglomeration with fresh food, the level of computer literacy of the manager and the degree of openness to digital innovations is higher than in others. Unlike large farms, there are almost no stationary business models that allow small farms to be attracted to the digital environment. On the other hand, "one of the problems of the development of digital technologies in agricultural sectors is the lack of information about digital technologies by users, lack of funds to obtain IT products and services, as well as the lack of government projects supporting small-scale entrepreneurship" [Ковалева И. В. (2019). Цифровизация сельского хозяйства как стратегический элемент управления отраслью// Экономика и бизнес: теория и практика, 1, p.131].

To analyze the situation of supply of Baku agglomeration with fresh milk, to assess the changes in the proposal, the database for decision-making support system using the technological capabilities of the digital environment in the relevant farms must be constantly updated.

CONCLUSIOIN

The technological capabilities of the digital environment to support sustainable development of urbanization processes are enhanced by integration of activities. The level of this integration is repeatedly high in large cities, which are the tangible results of urbanization processes. The speed of new production-technological relations is so high in large cities compared to areas with low levels of economic activity that the competitiveness of innovations depends more on its virtual environment than on its real self-promotion in the market.

The capabilities and prospects of urbanization processes in the digital environment are directly related to the advanced experience. Along with the results of prior experience, the conditions and process of its acquisition should be assessed. For this purpose, appropriate processes should be modeled. The digital environment in the urbanization zone has favorable opportunities from this point of view. Both the intensive urban urbanization and the digital environment challenge technological habits, in a number of cases comprehensive intellectual developments.

One of the main indicators of the digital environment is the transaction costs, and in the case of the stability of urbanization relations, it is possible to reduce these costs by increasing the flexibility of mutual relations with the parties due to compact location. Urbanization technologies knowledge and promotes the rise of the level of digitization. The ability of the digital economy to reduce the asymmetry of market sentiment can serve to the resilience of urbanization processes. In the digital environment, the environmental capabilities of urbanization processes are relatively actively used, and some progress lines are already visible.

In the food security aspect of the sustainability of urbanization processes, provision of urban population with fresh food products has been considered. It became known that as Baku approaches agglomeration, the pace of digital environment formation and development in the agrarian economy is increasing. This growth is mainly observed in large farms.

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