

COMPREHENSIVE MEASURES "SAFE CITY" IN UZBEKISTAN AND ANALYSIS OF THE EXPERIENCE OF FOREIGN COUNTRIES

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Abstract. *The article examines the experience of various countries in the field of ensuring security in cities within the framework of building "safe city" systems, similar to the current Uzbek hardware and software complex "Safe City" (HSC "Safe City"). The purpose of the study is to determine the advantages and disadvantages of the Uzbek concept in comparison with the international practice of building similar systems. The analysis shows that in most countries there is an active, but fragmentary implementation of the "Safe City" individual functional blocks or subsystems. To date, there are no programs in any country in the world that would be comparable to the Uzbek "Safe City" in terms of the range of controlled risks and threats and the composition of participants in interaction.*

Key words: *complex security; safe city; public safety; safety of the environment; law and order.*

КОМПЛЕКСНЫЕ МЕРЫ «БЕЗОПАСНЫЙ ГОРОД» В УЗБЕКИСТАНЕ И АНАЛИЗ ОПЫТА ЗАРУБЕЖНЫХ СТРАН

Аннотация. *В статье рассматривается опыт различных стран в области обеспечения безопасности в городах в рамках построения систем «безопасный город», аналогичных действующему узбекскому программно-аппаратному комплексу «Безопасный город» (АПК «Безопасный город»). Цель исследования – определить преимущества и недостатки узбекской концепции по сравнению с международной практикой построения подобных систем. Анализ показывает, что в большинстве стран идет активное, но фрагментарное внедрение отдельных функциональных блоков или подсистем «Безопасного города». На сегодняшний день ни в одной стране мира нет программ, которые были бы сопоставимы с узбекским «Безопасным городом» по спектру контролируемых рисков и угроз и составу участников взаимодействия.*

Ключевые слова: *комплексная безопасность; безопасный город; общественная безопасность; безопасность окружающей среды; закон и порядок.*

INTRODUCTION

We all deeply understand how important it is to ensure the security and territorial integrity of our country, to strengthen peace and harmony in our society in the unpredictable and difficult conditions currently prevailing in our region and the world. This requires a deep analysis of our achievements and shortcomings, accumulated problems and consideration of the requirements of modern life.

In this regard, the Safe City complexes in their current form have been implemented since 2000 in various countries of the world.

The increase in the number of megacities in recent years, the growth of mass and diverse migrations, and the complication of urban infrastructure have made discrete management difficult. To solve this problem, the appearance of the Safe City complexes was completely natural and corresponded to the tasks of the time.

LITERATURE REVIEW AND METHODS.

The idea of the "Safe City" was to create a complex distributed system that combines various elements of the urban environment into a single manageable structure, such as housing and communal services, highways, airports, subways, railway stations, public gathering points. As we can see, the potential inherent in the concept is truly limitless. However, more than 20 years of practice has shown that the "Safe City" is implemented, as a rule, partially, that is, the city administration or hokimiyat, which is usually the customer, determines the direction based on the priority of their tasks and financial capabilities.

Attention to the standard of living and safety of the population is a requirement of today, and on its basis, our country is implementing the Safe City hardware and software systems to ensure the safety of citizens. In particular, on August 29, 2017, the President of the Republic of Uzbekistan adopted Decree No. 3245 "On measures to improve project management systems in the field of information and communication technologies" and outlined plans for the initial stages of the implementation of this Complex. Based on the decision, a single integrator was created on the basis of the Uzinfocom Center, which creates and supports state information systems.

Therefore, a number of measures are being implemented in our country to increase the attractiveness of the environment for the safety of citizens, the introduction of the modern Safe City complex, and the attraction of foreign investors. Based on the Address of the President of the Republic of Uzbekistan to the Oliy Majlis and the State Program for the implementation of the Action Strategy in the five priority areas of development of the Republic of Uzbekistan for 2017-2021, in the year of "Science, education and development of the digital economy", measures were identified for the widespread introduction of digital technologies in our country .

Based on the concept of "Safe City - Safe Country", a lot of work is being done to ensure public order in our country. In accordance with this concept, the National Guard, together with the Ministry of Internal Affairs, is responsible and accountable for the implementation of the safe zone project in each city and region, as well as for maintaining public order. Moreover, today all economic, political and legal foundations and conditions are being created for Uzbekistan to become one of the safest countries in the world.

The concept of "safe city" is a relatively new term, and today many foreign and domestic scientists are conducting scientific research on this issue. The scientific works of well-known foreign economists were studied, such as A. S. Evdokimova, M. A. Pankov, V. I. Lyubchenko, V. V. Vikhman, S. V. Dvoryankin, R. M. Zharkoy, V. A. Minaev, R. F. Idrisov, as well as the necessary conclusions.

Security is a state of protection of the vital interests of a person, society and the state from internal and external threats. Vital interests are a set of needs, their satisfaction, ensuring the existence and development of the individual, society and the state [2].

It can be noted that the active role of social security lies in the function of preventing and eliminating threats to human life and health, material values, the environment and various institutions, society and the state from socially dangerous forms of human behavior, as well as the social tasks of people and society, is manifested in sufficient to perform the level of protection of these benefits.

Thus, public safety is a certain set of social relations that not only regulate the safe conditions for the life of society, but also maintain the level of protection of society sufficient for its normal functioning.

The subjects of public security are the state, citizens, public and other organizations and associations.

Ensuring public security is entrusted to the state, the main subject of public security.

The state exercises its functions through the legislative, executive and judicial branches.

The main principles of ensuring public security are legality, observance of the rights, freedoms and legitimate interests of citizens and their respect, consistency and unity of actions, publicity and transparency, priority of preventive measures to ensure public security.

In our country, over the years of independence, a comprehensive regulatory framework for the protection of the population has been created, including the laws “On the protection of the population and territories from natural and man-made emergencies”, “On civil protection”, “On radiation safety”, “On hydraulic safety ”, “Rescue Service” and on the status of a rescuer”, a number of resolutions of the President of the Republic of Uzbekistan and the Cabinet of Ministers were adopted.

The "Safe City" complex, which provides for the integration of information systems of internal affairs bodies, state bodies and other organizations, video surveillance systems, detection of offenses, protection of facilities, early response and warning of possible threats, intelligent analytics sensors, as well as other information systems for the prevention of offenses , duty dispatch centers and data processing centers.

The main goal of the complex is to increase the general level of safety of the population and lifestyle, as well as to improve the quality of life of citizens of the Republic of Uzbekistan by reducing the socio-economic damage in emergency and crisis situations.

All hardware and software of the complex can be implemented in accordance with the service model, where users of the complex can use information and infrastructure services.

Benefits of the service model:

- Ensuring high quality of complex services;
- Compliance with the unified technical policy of compatibility and integration of the information service;
- Release of users from non-state work to ensure the operation, support and development of the complex;
- Centralized management of information availability and information security;
- Provision for contractual use of high-quality security services by third-party (commercial) organizations from the complex.

In accordance with it, the stages of formation and development of the implementation of the Safe City complex were determined (Table 1).

Table 1. Stages of formation and development of implementation HSC "Safe City" [1]:

1-Phase	2-Phase	3-Phase
2019-2020	2021	2022
1. Coordination of the Concept, CS and CDHSC. Development of private technical specifications;	Deployment of additional monitoring and information collection services and related peripherals.	Deploy additional elements of monitoring and collection services and related peripherals. Evaluation of the

<p>2. Development of system projects for the services "Telecommunication infrastructure", "Digital radio communication", "System-112", "Urban video surveillance".</p> <p>3. Carrying out tender procedures;</p> <p>4. Development of technical and working design documentation for the services of the "Safe City" Complex, which will be implemented in this phase, as well as programs and test methods;</p> <p>5. Development and implementation of the main services of the Safe City Complex;</p> <p>6. Carrying out complex tests of services;</p> <p>7. Development of executive and operational documentation;</p> <p>8. Commissioning.</p>	<p>During this phase, the following will be performed:</p> <p>1. Development of technical and working design documentation for the remaining services of the Complex, as well as programs and test methods;</p> <p>2. Implementation and development of services of the Complex of this phase;</p> <p>3. Carrying out complex tests of services;</p> <p>4. Development of executive and operational documentation;</p> <p>5. Commissioning;</p> <p>6. Carrying out activities to evaluate the effectiveness of the implemented services, as well as developing proposals for optimization.</p>	<p>effectiveness of all services and possible adjustment of further plans for the deployment of the Complex in other regions.</p> <p>During this phase, the following will be performed:</p> <p>1. Development of services for automated traffic control and integrated security of facilities</p> <p>2. Carrying out complex tests;</p> <p>3. Commissioning;</p> <p>4. Carrying out comprehensive measures to assess the effectiveness of the entire Safe City Complex;</p> <p>5. Correction of the program and methodology for the development of the Complex throughout the Republic of Uzbekistan.</p>
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According to Table 1, the first stage of the project is designed for 2017-2019, in which the Safe City complexes were created with video surveillance systems, video analytics and an automated system for receiving and registering reports of crimes and incidents in Tashkent.

At the second stage - in 2019-2021 - "Safe City" was introduced in regional centers and large cities of Uzbekistan.

At the third stage - 2021-2023 - the complex will cover the whole country.

When creating this system, we relied on the experience of many countries.

RESULTS

In order to study and exchange experience in the implementation of Safe City projects in the United Arab Emirates, a working group on the implementation of the Safe City system was approved, and in 2019 a number of mutual visits of specialists from the United Arab Emirates were organized.

During the visits, meetings were held between the leadership of the Ministry of Information Technology and Communications Development of the United Arab Emirates and the Republic of Uzbekistan, the Ministry of Internal Affairs, the Tashkent city Enforcement Bureau,

and the buildings planned for the implementation of the pilot project "smart police station" in Shaykhontokhur district were familiarized.

As a result of negotiations between the parties, an agreement was reached on providing the population with interactive services SOS, Police eye, E-mehmon and E-jarima in the first phase of the smart police station project.

In 2018-2019, a project of public intelligent parking lots for vehicles was implemented using advanced recognition technologies and online payment.

The closest in ideology and meaning to the "Safe City" is the concept of "smart city". In the definition of smart sustainable cities developed by the Smart Sustainable Cities Focus Group in 2015, a smart sustainable city is an innovative city that uses information and communication technology (ICT) and other means to improve living standards, operational efficiency and services in cities, as well as competitiveness while meeting the needs of present and future generations in economic, social, cultural and environmental aspects [3].

In recent years, the Ministry for the Development of Information Technologies and Communications of the Republic of Uzbekistan and the Public Order Assistance Center, together with representatives of interested state bodies and departments, have carried out a lot of work on a number of activities, the results of which helped the project participants determine the current state of automation tools, for them it was necessary to analyze priorities, necessary functions, previous experience, and also take into account when creating the complex.

Based on the definition of a "Safe City", there is no unambiguous understanding of whether it is part of a "smart", limited to the scope of "security", or a "smart city" is an addition or extension of the "Safe City", focused on the implementation of management functions and bringing digital services to consumers - the population. The lack of a clear understanding of the differences in concepts is typical for most regions of the world, which leads to the fragmentation of the implementation of hardware and software systems.

DISCUSSION

To study international experience, consider the following Safe City complexes of international countries:

1. In Russia, a unique concept for the construction and development of the hardware-software complex "Safe City" (HSC "Safe City") was formulated, approved by the order of the Government of the Russian Federation, dated 03.12.2014 No. 2446-r. APK "Safe City" - a set of existing and prospective federal, regional, municipal and facility automated systems at the local level, united to solve problems in the field of ensuring the protection of the population and territories from natural and man-made emergencies, public safety, law and order and environmental safety, as well as automated systems interacting with them within the framework of a single regional information and communication infrastructure.

The main tasks of building and developing a "Safe City" in the Russian Federation are: the formation of a communication platform for public authorities at all levels in order to eliminate the risks of ensuring public safety, law and order and the safety of the living environment on the basis of interdepartmental interaction; development of unified functional and technical requirements for hardware and software, focused on identifying potential points of vulnerability, forecasting, responding and preventing threats to the security of the municipality; ensuring information exchange at the federal, regional and municipal levels through a single space, taking into account the differentiation of access rights to information of a different nature; creation of

additional tools based on municipalities to optimize the operation of the existing system for monitoring the state of public security; construction and development of systems for situational analysis of the causes of destabilization of the situation and forecasting of existing and potential threats to ensure comprehensive security and comfort of the population.

2. In the US, some life safety issues are included in the concept of "smart city". However, the government pays attention to increasing the economic potential of urban infrastructure, creating a comfortable urban environment. Automated and intelligent systems, data analytics in the field of crisis response and incidents do not have a separate conceptual basis. In practice, this is manifested in the decentralization of information flows in the subject area. For example, in Los Angeles, authorities provide mobile application developers with information about the state of infrastructure related to transportation security. In New York, the Fire Department uses data analysis (7500 factors) to identify buildings that are most prone to major fires [15]. The United States uses such technologies in only 40 cities, which is less than 4% of the global number of projects. America's think tanks annually compile a list of cities by safety level. However, the American approach does not imply the existence of a single concept of "integrated security".

3. European countries are also pursuing a policy of including security issues in their own projects of "smart cities" according to with the UN sustainable development concepts, as is the case in France [14] and Finland, where the ERICA automated security system is deployed [3]. European countries focus on "safe city" systems exclusively at the municipal level in order to avoid criticism of the national government from the media and the public (for example, in the Czech Republic [10] and the UK [11]).

In order to avoid reputational risks, most European countries leave the issue of introducing and implementing systems for ensuring public safety, law and order and safety of the living environment at the mercy of the European Commission and institutions controlled by it, such as the European Crisis Response Center. This trend is most evident in Spain, where there are almost no national security systems, and Germany, which is guided by common EU projects and initiatives in the conceptual development of "safe-smart cities" initiatives (for example, the European Smart Cities Initiative 2010).).

4. In China, the word "safe" in the phrase "safe city"

(in Chinese 平安城市), which translates as "prosperous and safe", which implies the equivalence of security and social well-being. At the conceptual level, the construction of "safe cities" is presented as part of the construction of a "safe China". "Safe China" is a large-scale goal that covers all areas of the well-being of citizens [9]. However, these concepts are not specific plans, programs or strategies. The basis for the construction of "safe cities" are the projects of video surveillance systems for public safety, which appeared in the first half of the 2000s. and implemented locally. This concept of "safe cities" is an activity to build these monitoring systems at the local level, and attempts to integrate these systems into a common network with a single database. At the national level, such integration does not yet exist.

5. In Singapore, too, there is no separate understanding of the "safe city". Singapore's concept of "Smart Nation" ("Smart Nation") is the close interweaving of "safe" and "smart" city, which is mainly aimed at improving the standard of living of people through the digitalization of city services. To avoid fragmentation of the system, a single interdepartmental agency was created, which became the main link in monitoring the implementation of initiatives - the group for the

implementation of the Smart Nation and Digital Government projects. The three main objectives of the Smart Nation initiative are: to stimulate economic development by accelerating digitalization and stimulating innovation; to solve municipal problems through the creation of a "digital government"; creating a single community—increasing the digital literacy of the population and creating a sense of unity and belonging to a single community among the people of Singapore; expanding access to digital services. To implement the digital transformation, the Singapore authorities are implementing several strategic projects. In particular, the National Digital Identification System is being created. It is a seamless (single) ecosystem that allows users to securely and quickly interact with government and private organizations based on a single "digital passport". The Singapore government has launched a number of projects aimed at developing urban digital infrastructure. For example, the project for collecting and processing information in real time Smart Nation Sensor Platform ("Smart Nation Program Sensor Platform"), which includes smart water meters, smart city poles, personal notification buttons that are worn on clothes, etc. Purpose the SmartUrbanMobility project ("Intelligent System of Urban Mobility") is to reduce the burden on transport infrastructure and increase the convenience of public transport.

6. In the countries of South Asia, there is no unified approach to the definition of a "safe city", which leads to the fragmentation of the implementation of its functional blocks and subsystems. Since 2015, the Safe City project has been implemented in a limited format in the Pakistani city of Lahore. An identical project exists in Islamabad. Its main functions are given to: traffic management using the "smart system" (police traffic signal management, automatic number recognition, violation photo fixation system, travel time monitoring system using the Rasta mobile application, traffic alert service), response to emergency calls (response system of the police patrol "Dolphin") and combating crime (8 thousand video surveillance cameras). Since 2019, in accordance with the Law of the Province of Sindh on the Service "Safe City" ("Safe City"), work has begun on the creation of a similar system in the Pakistani city of Karachi, including the installation of 10,000 hidden surveillance cameras [16].

7. Since 2019, the Government of Bangladesh has launched the Safe City project in the capital, Dhaka, which will install up to 16,000 CCTV cameras [12]. Video surveillance systems will be built in the city of Chittagong. The police are also implementing the Dhaka City Digital Monitoring System project, which is identifying a number of crime points, traffic points and checkpoints for surveillance from the control room. The country uses a single number to call emergency services - "999".

8. In 2018, the Indian Interior Ministry launched the Safe City program to improve the safety of women in public places. At the beginning, the program was launched in 8 cities, including: Delhi, Mumbai, Kolkata, Lucknow, Chennai, etc. Lucknow became the first city to complete the project in November 2018. The program installs video cameras (including in public transport), the Automatic License Plate Reading (ANPR) system is used. Special police units are being set up in cities, and an emergency line for women has been integrated with a single emergency number, 112.

9. In most countries of the Middle East, there are only separate elements associated with the system of integrated security of the living environment. In particular, the Algerian authorities use a network of video cameras to monitor public safety and fight crime; currently, seven major cities in Algeria are covered by an extensive urban video surveillance system [13].

10. Egypt has a fairly extensive video surveillance system. One of the elements of the system is the national dispatch service, which receives and processes messages from citizens about the occurrence of incidents and violations of law and order through a single number "122".

A large number of cameras have been installed in the cities of Saudi Arabia, which allows the civil defense forces to control the flow of people. A similar technology is used in the capital Riyadh - in Mecca and Medina. In addition, government agencies collect information to analyze the traffic situation, record violations, and search for criminals. Iran does not have a unified approach to integrated security at the national level, but there are separate "safe city" subsystems at the municipal level, for example, in the city of Mashhad, Khorasan-Razavi province, whose crisis management system is mainly aimed at preventing earthquakes. It receives real-time seismic activity data and estimates the maximum PGA ground acceleration in various parts of the city based on modeling and geotechnical soil characteristics.

The concept of a "safe city" in Israel includes both the introduction of high-tech security systems and "smart" city planning. The main objective of the program is to ensure security in cities and urban agglomerations, as well as the mobile functioning of urban systems.

The lack of a clear delineation of areas of practical activity is a problem on a global scale, since not a single regulatory or conceptual document defines "security", since "security", on the one hand, implies guarantees of comfortable living, i.e. includes the scope of practical activity "smart" city, and on the other hand, is traditionally limited to issues of ensuring public safety and law and order.

According to the explanatory dictionary of the Russian language S.I. Ozhegov, security is "a state in which there is no threat of danger, there is protection from danger". This definition is at the intersection of various scientific disciplines and industry areas, which leads to different interpretations through the prism of various processes, phenomena, events in a particular sector of the economy. It is confirmed by examples from the current regulations [6,7,8,9].

Despite the variety of definitions, "security" refers to processes, phenomena and events that are practically homogeneous and identical in meaning. The only invariant is the sphere of practical activity of the HSC "Safe City", which includes all areas of ensuring the safety of the population and territories: transport, environmental, safety of the population, urban and communal infrastructure.

In accordance with the Concept for the construction and development of the hardware and software complex "Safe City", its main goal is to increase the overall level of public safety, law and order and the safety of the environment by significantly improving the coordination of the activities of the forces and services responsible for solving these problems, by introducing on the basis municipalities (in accordance with unified functional and technological standards) of an integrated information system that provides forecasting, monitoring, prevention and elimination of possible threats, as well as control over the elimination of the consequences of crisis situations and offenses with the integration under its control of the actions of information and control subsystems on duty, dispatching, municipal services for their operational interaction in the interests of the municipality [5].

CONCLUSION

In conclusion, I would like to download that the complex of tasks solved by the Safe City HSC has no analogues in the world. It can be argued that the concepts of "safe city" and "smart city" are used by different countries to solve the same complex long-term problems of security and

sustainable development of the urban environment, which in UN terminology are called "smart sustainable" city (smart sustainable city). However, focusing on the complex of the same problems of sustainable development, concepts in foreign countries do not combine them into a single area of practical activity, still considering each problem separately and in accordance with the industry (functional) affiliation. As a result, there is a fragmentation of existing approaches to the application of organizational, informational, analytical, predictive and other methodological, technical and technological solutions to ensure the safety and sustainable development of cities, which is exacerbated by the geographical, economic, political, social specifics of countries, as well as their accumulated scientific and technical potential.

In practice, each of the countries, moreover, each city, implements the provisions of the concepts not only at its own discretion, often changing the focus, but, most importantly, outside the uniform standards of international information exchange.

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