

Kazakhstan, define the main problems associated with its development, and reveal development prospects based on innovation and innovative technologies.

In the article the domestic catering market are analyzed by authors. The main problems faced by entrepreneurs in the restaurant business are defined. Some recommendations for their elimination, the changes occurring in the restaurant business market are given.

The scientific novelties of the study are: new trends in domestic food industry were investigated (healthy eating, consumer orientation to local farms, products with ECO status, simple dishes on the menu and a democratic format at catering establishments, open kitchen of the free flow format – «free movement», the development of culinary studios, innovations and new technologies); different types of innovations based on the experience of domestic and foreign restaurateurs, requiring not only professional knowledge and skills, but also knowledge in the field of biology, physics, chemistry are listed and described (fermentation, molecular cuisine, food packing, cryoconcentration, aromatization etc.).



DOI 10.52260/2304-7216.2020.3(40).9
UDC 332.87
SCST I 75.31.01

U. Shalbolova*, *doctor of economic sciences, professor*¹
S. Yegemberdiyeva, *doctor of economic sciences, professor*¹
Z. Kenzhegalieva, *PhD, acting associate professor*²
*L.N. Gumilyov Eurasian National University*¹
Nur-Sultan, Kazakhstan
*Atyrau State University named after H. Dosmukhamedov*²
Atyrau, Kazakhstan
e-mail: saule_8@mail.ru

* - main author (author for correspondence)

ACHIEVEMENT OF CITY SUSTAINABILITY THROUGH THE DEVELOPMENT OF HOUSING AND COMMUNAL SERVICES

The article presents the results of the author's analysis of certain aspects of socio-economic problems of Kazakhstani urban housing and communal services. The problems of urban development are investigated with the disclosure of social and housing problems of the urban population. The article substantiates the Geneva Charter provisions on sustainable housing through providing citizens with high-quality and affordable housing. The author's interpretation of the category «sustainable city» is given highlighting indicators of city development sustainability. A review of existing programs effectiveness on housing affordability is conducted, the dynamics of housing construction and commissioning in the country is presented. The degree of provision with comfort indicators for both multi-apartment and individual residential buildings is given. The final results of an analytical study of the costs structure for housing and communal services are given. Analysis of urban housing and utilities infrastructure identified the studied sphere of Kazakhstani economy. The directions of sustainable development of Kazakhstani cities are substantiated by analysis of innovative solutions in modernizing housing through digital technology, construction of «smart houses», energy efficiency utilities, solving issues of solid waste management, modernization of administration as housing and urban development. The article was prepared as part of the scientific project AP05134552.

Keywords: city, sustainable city, smart city, municipal service, housing and communal services, housing stock, efficiency, investment, standard of living, utilities.

Кілт сөздер: қала, тұрақты қала, ақылды қала, қала шаруашылығы, тұрғын үй-коммуналдық шаруашылық, тұрғын үй қоры, тиімділік, инвестиция, өмір деңгейі, коммуналдық қызметтер.

Ключевые слова: город, устойчивый город, умный город, городское хозяйство, жилищно-коммунальное хозяйство, жилищный фонд, эффективность, инвестиции, уровень жизни, коммунальные услуги.

JEL classification: O18

Introduction. Since the second half of the twentieth century, population increase, migration and city urbanization have been accompanied by the expansion of urban areas and the creation of new cities. More than half of the world's population lives in cities today. Forecast data indicate that by 2030, every six out of ten people will be urban residents [1].

The growing urban population of the Republic of Kazakhstan is accompanied by the construction of residential facilities and the creation of conditions for health and comfortable living of people. However, not every city resident is able to pay for the purchase of commercial housing. In this regard, the country is currently implementing a number of programs to build housing for special sections of the population, to modernize the housing stock. Expansion of the number of residential houses is accompanied by the provision of new types of housing and communal services, the development of urban infrastructure facilities, the introduction of advanced digital technologies for managing housing and the implementation of investment projects for the modernization of housing and communal services.

The purpose of the scientific article is to develop practical recommendations for sustainable urban development based on improving the economic mechanism for the development of housing and communal services.

The following tasks were defined according to the research purpose. Firstly, it is to investigate aspects of urban housing and communal services development. Secondly, it is to consider methodological approaches to the study of

tools of the economic mechanism for functioning of urban housing and communal services.

The methodological basis of the article includes the scientific works of domestic scientists on the problems and research of modern trends in the field of housing and communal services; domestic and foreign studies of housing and communal services reform; various approaches to improving the economic mechanism for this industry the development in the Republic of Kazakhstan and foreign countries; as well as regulations and state programs on housing and communal services.

System analysis, methods of economic evaluation and statistical analysis, comparison and grouping, calculation-analytical and normative were used in the process of analysis and making recommendations for improving the economic mechanism of housing and communal services development.

Literature review. Until now, both Kazakhstani and foreign scientists have developed separate areas of the theory of the city sustainable development as well as the economic mechanism of housing and communal services in the city.

Academic economists in Kazakhstan and abroad are showing increased interest due to the socio-economic significance of the research subject. Thus, a more detailed study of the categorical apparatus of housing and communal services is presented in the research of Russian scientists. These are S.E. Dronov [2], V.Z. Chernyak [3] and others devoted their research to the theory of economic mechanism.

In Kazakhstan, research on certain aspects of housing and communal services develop-

ment is presented in scientific papers such as U. Shalbolova [4], P. Shelomentseva [5].

However, there are not enough studies in Russian science that would reveal the economic mechanism of development of housing and communal services, its elements and components, and consider housing and communal services as a socio-economic system.

Main part. Over the past 20 years, cities in the Republic of Kazakhstan have been developed in the areas of «sustainable urban development». The assessment is carried out on the basis of the National Standard of the ST RK ISO 37120-2015 «Sustainable Community Development. Indicators of urban services and quality of life» [6], which forms common guidelines for the executive in the development of urban policy. In the standard, there are all indicators for measuring the results of achievements under the 17 Sustainable Development Goals. The standard is voluntary, but the main indicators are mandatory. The objects of application are administrative territorial communities (cities, district and other centers), regardless of their scale, population size and other parameters [7].

The Republic of Kazakhstan ranks ninth in the world in terms of occupied territory, while the population density is rather low (less than 7 people per square kilometer). In the list of countries by population, Kazakhstan takes the 63rd position in the world. As of April 1, 2018, the country's population is 18.2 mln people [8]. In

1991, at the time of acquiring the status of a separate state, the number of people in Kazakhstan was 16.4 mln people. However, as a result of external out-migration, the population decreased from 1991 to 2002 by 10%. However, since 2002, due to natural population growth and the arrival of immigrants from other countries (China, Mongolia, Turkey, Uzbekistan, Russia, etc.) to the country for permanent residence in 2018, the population has grown by about 20%. Such growth is also facilitated by the country's dynamic social and economic development, political stability, the implementation of state programs for social support, the reduction of the poverty rate from 46.7% in 2001 to 2.7% in 2015.

In Kazakhstan, the Program for the Modernization of Housing and Communal Services for 2011-2020 [9] is in effect, where housing measures are included to ensure an adequate maintenance of residential facilities.

Over the years, the Program helped repair more than 2.3 thousand residential buildings. In addition, according to this program, repair work is carried out at the expense of repayable funds of the owners of previously renovated houses (at present, about 340 houses in the country have been repaired). However, the implementation of the program for the modernization of housing and communal services is currently undergoing criticism, as it is working poorly. Residents are not ready to finance capital repairs of houses due to their own financial resources.

Table 1

Comfort level provision of urban housing in Kazakhstan (2018year), %

№	Comfort indicator	Total	Multi-family housing	Private housing
1.	Water supply	98,5	99,8	99,6
2.	Sewerage	66,6	95,1	67,1
3.	Central heating	40,7	89,7	8,5
4.	Individual heating equipment	59,6	10,7	92,0
5.	Shower or bath	42,4	87,5	15,4
6.	Central hot water supply	36,4	80,8	7,59
7.	Gas-fired plant or central gas supply	12,0	5,5	29,4
8.	Electric floor heating	87,8	75,6	95,7

Source: Compiled according to the source [10]

Housing in Kazakhstan has a fairly high level of the provision of public services and comfort for decent living of people (Table 1).

Water supply is 99%, central heating is supplied to 90% of multiple houses. The presence of natural gas in the country allowed to achieve a gasification level of more than 95%, which allows the provision of hot water and

heating to most individual houses. The most problematic issue is the provision of central sewerage of individual housing.

When paying for housing and communal services, in the country's average value the main share is taken up by the payment for electricity and heating (Table 2).

Table 2

Structure of costs for housing and communal services (2018 year)

Heating	Power supply	Hot water supply	Cold water supply	Gas supply	Sewerage	Housing maintenance	Total
34%	22%	15%	7%	4%	8%	11%	100%

Source: The sources data [11]

An analytical review of the current housing and communal sector state in Kazakhstan

made it possible to identify a number of problems, presented below in Table 3:

Table 3

The main problems of the development of housing and communal services in Kazakhstan

Sub-industry	Problems
Power supply	Down time of equipment, generation of surplus, heat and electric energy, low level of control over the process of managing the generation of electrical and thermal energy, low level of load forecasting, insufficient automation of the heat transfer process, low level of diagnostics of heat networks, low level of thermal insulation.
Water supply	Loss of water during distribution, rapid deterioration of water supply networks, weak organization of urgent repairs.
Road network cleaning	The cleaning process planning is carried out manually based on the experience of past years, lack of quality control of the work of specialized equipment.
Outdoor lighting	Irrational use of electricity, the deterioration of the electricity lighting network, visual search for street lighting malfunctions.
Utilities calculation	Growth of non-payments, unscrupulous calculations, inefficient billing systems, lack of integration between public utility systems and organizations that serve multi-apartment houses.

Source: Compiled by authors

The Republic of Kazakhstan supports the idea of sustainable development of cities, taking an active part in the implementation of reasonable actions to protect the environment. At the national level, the transition of Kazakhstan to sustainable development of the city is carried out through the implementation of conceptual government documents, which outline a number of measures in the direction of achieving sustainable development of the country with regard to the development of housing and communal services:

– The need to provide 100% of the population with access to drinking water in order to increase the average life expectancy of the population;

– Development of environmentally safe technologies in the reconstruction of the housing and communal services and the construction of new housing in achieving the task of diversification, improving the efficiency of resource use and overcoming the energy balance;

– Construction of apartment buildings with the purpose of reducing heat energy, aimed at energy saving and increasing energy efficiency in buildings;

– Stable development of social and economic potential of each city of the country through the formation of rational territorial organization, stimulation of the population and capital in the centers of economic growth;

– Recovery of the environment, reduction of emissions and discharges into the environment and of renewable energy sources share increase in the energy balance, in achieving sustainable ecological development of the urban environment [9,12,13].

In order to modernize housing and communal services and develop the infrastructure of the country's housing complex, the Republic of Kazakhstan is working to introduce new mechanisms for attracting investment, introducing innovative technologies and advanced management methods for housing and communal services.

To attract private capital, it is possible to use various forms of public-private partnership (PPP), which should become the main mechanism for the development of infrastructure,

including social infrastructure. For the modernization of housing and communal services, options for transfer to trust management or a concession are considered with possible further privatization. Today, the mechanism for financing the modernization of housing and communal services in Kazakhstan goes in two directions: public and private. The legal aspects of PPP model implementation in the sectors of the national economy have been resolved: the Laws of the Republic of Kazakhstan «On Concessions» and «On Public-Private Partnership» have been adopted. The conditions created in Kazakhstan will favorably affect the implementation of public-private partnership mechanisms and increase the social efficiency of the implemented projects in the housing and communal services sector. One of the main directions of sustainable development of cities in Kazakhstan is the use of innovative solutions for the modernization of housing and communal services through digital technologies. Thus, through the implementation of the projects «Digitalization of Housing and Communal Services», «Astana Smart City» – «Smart Astana», the city administration of Astana sets the main task to use the new standards of construction security and housing and communal relations. The concept of these projects combines the following characteristics: «smart» economy, «smart» management, «smart» life, «smart» mobility, «smart» people, and «smart» environment. These projects are related to the introduction of innovative technologies for the management of water supply systems, heat supply, energy, street lighting, and urban transport. The financial part of the projects is to develop flexible tariff systems for housing and communal services, where the main aspect is to encourage savings with rational consumption of public utilities. In addition, it is envisaged to involve the urban population in activation of making decisions on energy consumption, heating and individual collection of household waste.

Today, four projects for sustainable development of the city in Astana are being imple-

mented. «Smart» healthcare implements the automation of polyclinics in terms of management, coordination of units, recording patients, digitizing medical information, creating a unified laboratory base. The aim of the «smart» school project is to improve the safety and wellbeing of schoolchildren, control parents for the training of their children, and the introduction of innovative technologies in school management. The project «Smart» street lighting is aimed at saving electricity, which provides for automatic reduction of luminous intensity, transmission of data on the state of lanterns to the central control and monitoring unit. According to statistical data, the reduction in energy consumption is 12,721.3 kW per year. Realization of the «smart» payments project is directed on carrying out of electronic municipal payments through system of private accounts. One can also pay fines and taxes, or pay for school meals, medical services, buy tickets for urban transport, etc. [14]. It is also worth noting that there are «smart» houses – residential complexes constructed by South Korean companies that have been being built in Astana for ten years, where apartments are classified as shelter from a higher level of comfort, both for living and for receiving public services.

The transition to «smart» cities creates conditions for the interaction of public-private partnerships.

Conclusions. The Republic of Kazakhstan is expanding the housing stock, creating conditions for affordable housing for the main part of the population, both the country as a whole and the cities.

Modernization of the country's housing and communal services is carried out using new world technologies and experience in managing housing and urban economy. The sustainability of the development of the country's cities is also based on the expansion of urban areas and the creation of four urban agglomerations.

The transfer of the Kazakhstan capital to the north of the country, the appearance of the new city of Astana on the world map allowed the entire world community to present the new capital as a city of the future. New unusual buildings make tourists associate it with a futuristic city. The project «Astana Smart City» is implemented in a pilot mode, but in the future, such projects will cover all the large cities of Kazakhstan. Currently, the main regional centers and cities of national importance are at the stage of dynamic development, many residential projects are being built, urban areas are expanding, innovative projects are being introduced in the modernization and management of housing and communal services.

REFERENCES

1. United Nations Economic Commission for Europe. – <http://docplayer.ru/48445547-Zhe-nevskaya-hartiya-oon-ob-ustoychivom-zhilishchnom-hozyaystve> (Дата обращения 12.01.2020)
2. Дронов С.Е. Направления совершенствования региональной политики в сфере жилищно-коммунального хозяйства: автореф. ...канд. экон. наук: 08.00.05. – Тамбов, 2015. – 22 с.
3. Черняк В.З. Жилищно-коммунальное хозяйство: развитие, управление, экономика: Учебник. – М.: КНОРУС, 2007. – 392 с.
4. Шалболова У.Ж. Экономика жилищной и социальной сферы: Учеб. пособие. – Алматы: Издат-Маркет, 2006. – 400 с.
5. Шеломенцев П.Ю. Совершенствование экономического механизма в жилищно-коммунальной сфере (на примере Павлодарской области): автореф. ... канд. экон. наук: 08.00.05. – Караганда, 2006. – 28 с.
6. Мурзахметов К. К. Стандарт Республики Казахстан СТ РК ISO 2725 – 2015 «Устойчивое развитие сообщества. Показатели городских услуг и качества жизни. – <http://www>.

sustainable.eep.kz/upload/Otchet (Дата обращения 15.01.2020).

7. Официальный сайт ПРООН в Казахстане. Что такое устойчивый город. – <http://www.kz.undp.org/content/kazakhstan/ru/home/> (Дата обращения 10.02.2020).

8. Официальный сайт Комитета по статистике МНЭ РК. Население Казахстана. – <https://ru.wikipedia.org/wiki/> (Дата обращения 14.02.2020).

9. Программа модернизации жилищно-коммунального хозяйства Республики Казахстан на 2011-2020 годы, утвержденная постановлением Правительства Республики Казахстан от 30 апреля 2011 года №473. – <http://online.zakon.kz> (Дата обращения 18.02.2020).

10. Статистический сборник «О жилищном фонде Республики Казахстан в 2016 году». – Астана, 2017. – <https://stat.gov.kz/> (Дата обращения 07.03.2020).

11. Официальная статистическая информация (по отраслям). – <http://www.stat.gov.kz> (Дата обращения 10.03.2020).

12. Концепция перехода Республики Казахстан к устойчивому развитию на 2006-2024 годы от 12 октября 2006 года №981. – <http://online.zakon.kz> (Дата обращения 12.03.2020)

13. Программа развития регионов до 2020 года, утвержденная постановлением Правительства Республики Казахстан от 28 июня 2014 года №728. – <http://online.zakon.kz> (Дата обращения 16.03.2020).

14. Национальные обзоры Жилищного хозяйства. Республика Казахстан. // ООН. – Нью-Йорк и Женева, 2018. – 155 с.

REFERENCES

1. United Nations Economic Commission for Europe. – <http://docplayer.ru/48445547-Zhe-nevskaya-hartiya-oon-ob-ustoychivom-zhilishchnom-hozyaystve> (Data obrashcheniya 12.01.2020).

2. Dronov S.E. Directions for improving regional policy in the field of housing and communal services: authoref. ... cand. econ. sciences: 08.00.05. – Tambov, 2015. – 22 p. [in Russian].

3. Chernyak V.Z. Housing and communal services: development, management, economics: Textbook. – M.: KNORUS, 2007. – 392 p. [in Russian].

4. Shalbolova U.Zh. The economy of the housing and social sphere: A textbook. – Almaty: Publishing-Market, 2006. – 400 p. [in Russian].

5. Shelomentsev P.Yu. Improving the economic mechanism in the housing and communal sector (on the example of the Pavlodar region): authoref. ... cand. econ. sciences: 08.00.05. – Karaganda, 2006. – 28 p. [in Russian].

6. Murzametov K.K. Standart Respubliki Kazahstan ST RK ISO 2725 – 2015 «Ustojchivoe razvitie soobshhestva. Pokazateli gorodskih uslug i kachestva zhizni. – <http://www.sustainable.eep.kz/upload/Otchet> (Data obrashcheniya 15.01.2020) [in Russian].

7. Oficial'nyj sajt PROON v Kazahstane. Chto takoe ustojchivyy gorod. – <http://www.kz.undp.org/content/kazakhstan/ru/home/> (Data obrashcheniya 10.02.2020) [in Russian].

8. Official site of the Committee on Statistics of the Ministry of National Economy. Nase-lenie Kazahstana. – <https://ru.wikipedia.org/wiki/> (Data obrashcheniya 14.02.2020) [in Russian].

9. Programma modernizacii zhilishhno-kommunal'nogo hozjajstva Respubliki Kazahstan na 2011-2020 gody, utverzhennaja postanovleniem Pravitel'stva Respubliki Kazahstan ot 30 aprelja 2011 goda №473. – <http://online.zakon.kz> (Data obrashcheniya 18.02.2020) [in Russian].

10. Statisticheskij sbornik «O zhilishhnom fonde Respubliki Kazahstan v 2016 godu». – Astana, 2017. – <https://stat.gov.kz/> (Data obrashcheniya 07.03.2020) [in Russian].

11. Official statistical information (by industry). – <http://www.stat.gov.kz> (Data obrashcheniya 10.03.2020) [in Russian].

12. Konceptija perehoda Respubliki Kazahstan k ustojchivomu razvitiju na 2006-2024 gody ot 12 oktjabrja 2006 goda №981. – <http://online.zakon.kz> (Data obrashcheniya 12.03.2020) [in Russian].

13. Programma razvitija regionov do 2020 goda, utverzhdannaja postanovleniem Pravitel'stva Respubliki Kazahstan ot 28 ijunja 2014 goda №728. – <http://online.zakon.kz> (Data obrashcheniya 16.03.2020) [in Russian].

14. Nacional'nye obzory Zhilishhnogo hozjajstva. Respublika Kazahstan. // OON. – N'ju-Jork i Zheneva, 2018. – 155 s.

У.Ж. Шалболова, С.М. Егембердиева, З.Ж. Кенжегалиева

ТҰРҒЫН ҮЙ-КОММУНАЛДЫҚ ШАРУАШЫЛЫҒЫНЫҢ ДАМУЫ АРҚЫЛЫ ҚАЛАНЫҢ ТҰРАҚТЫЛЫҒЫНА ҚОЛ ЖЕТКІЗУ

Андатпа

Мақалада авторлар жүргізген Қазақстан Республикасының қалалық тұрғын үй-коммуналдық шаруашылығының әлеуметтік-экономикалық мәселелерінің жекелеген аспектілерін талдау нәтижелері келтірілген. Қазіргі әлемдік қауымдастықтағы қала құрылысы мәселелері қала тұрғындарының әлеуметтік және тұрғын үй мәселелерін ашуға баса назар аударылып зерттелген. Азаматтарды сапалы және қол жетімді тұрғын үймен қамтамасыз ету арқылы Женева хартиясының тұрақты тұрғын үй туралы негізгі ережелері дәлелденді. Қала дамуының тұрақтылығының негізгі көрсеткіштерін көрсете отырып, «тұрақты қала» категориясының авторлық түсіндірмесі келтірілген.

Қол жетімді тұрғын үйді қамтамасыз ету бойынша қолданыстағы бағдарламалардың тиімділігіне шолу жасалған, әлеуметтік тұрғын үйлерді кеңейтудің негізгі құралдары зерделенген, республикада тұрғын үй салу және пайдалануға беру динамикасы ұсынылған. Бұл мақалада ғылыми жобаны жүзеге асыру барысында алынған негізгі нәтижелер де келтірілген. Осылайша, көп пәтерлі және жеке тұрғын үйлер үшін жайлылық индикаторларымен қамтамасыз ету дәрежесі анықталған әлеуметтік зерттеудің нәтижелері келтірілген. ТКҚ шығындарының құрылымын сараптамалық зерттеудің соңғы нәтижелері келтірілген. Қалалық тұрғын үй-коммуналдық шаруашылық инфрақұрылымының жағдайын талдау Қазақстандағы зерттеліп отырған экономика саласының негізгі мәселелерін анықтауға мүмкіндік берді.

Бұл жұмыста цифрлық технологиялар арқылы тұрғын үй-коммуналдық шаруашылықты жаңғырту, «ақылды үйлер» салу, энергияны үнемдейтін коммуналдық қызметтерді пайдалану, қатты тұрмыстық қалдықтарды шығару мәселелерін шешу, тұрғын үй-коммуналдық шаруашылық салаларының менеджментін модернизациялау кезінде инновациялық шешімдерді қолдануды талдау арқылы қазақстандық қалалардың тұрақты дамуының негізгі бағыттары негізделді. Мақала AR05134552 ғылыми жобасын іске асыру аясында дайындалған.

У.Ж. Шалболова, С.М. Егембердиева, З.Ж. Кенжегалиева

ДОСТИЖЕНИЕ УСТОЙЧИВОСТИ ГОРОДА ЧЕРЕЗ РАЗВИТИЕ ЖИЛИЩНО-КОММУНАЛЬНЫХ ХОЗЯЙСТВ

Аннотация

В статье представлены результаты проведенного авторами анализа отдельных аспектов социально-экономических проблем городского жилищно-коммунального хозяйства Республики Ка-

Менеджмент және маркетинг / Менеджмент и маркетинг

захстан. Исследованы проблемы развития городов в современном мировом сообществе с упором раскрытия социально-жилищных проблем городского населения. Обоснованы основные положения Женевской хартии об устойчивом жилищном хозяйстве через обеспечение горожан качественным и доступным по цене жилью. Дана авторская интерпретация категории «устойчивый город» с выделением основных индикаторов устойчивости развития города. Проведен обзор результативности действующих программ по обеспечению доступного жилья, исследованы основные инструменты расширения социального жилья, представлена динамика строительства и ввода жилья в стране. Также в настоящей статье изложены основные результаты, полученные в ходе реализации научного проекта. Так, даны результаты социологического обследования, где выявлена степень обеспеченности показателями комфортности как многоквартирных, так и индивидуальных жилых домов. Даны итоговые результаты аналитического исследования структуры затрат на жилищно-коммунальные услуги. Проведенный анализ состояния инфраструктуры городского ЖКХ позволил определить основные проблемы исследуемой сферы экономики в Казахстане. В настоящей работе обоснованы основные направления устойчивого развития казахстанских городов путем анализа применения инновационных решений при модернизации ЖКХ через цифровые технологии, строительства «умных домов», использования энергоэффективного коммунального обслуживания, решения вопросов по утилизации твердых бытовых отходов, модернизации управления как ЖКХ, так и городским хозяйством. Статья подготовлена в рамках реализации научного проекта AP05134552.

