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# ECONOMIC ASPECTS OF THE HOUSING FUND MODERNIZATION MECHANISM

Abstract. In contemporary municipal housing service economy extra-budgetary resources acquire an important role in revitalization and reconstruction of housing funds. The housing fund is considered as the main element of the sphere of housing and communal services. The international experience and the Kazakhstan practice of modernization of housing have been studied in the research. The relevance of the subject of the research both from an economic and ecological points of view has been substantiated. It turned out that significant part of researches on the modernization of housing fund is mostly associated with achieving an economic effect. Although the globalization processes taking place in the world emphasize the ecological aspect as well. The review of the state housing reform in Kazakhstan in the format of strategic development and implementation of the sectoral housing and communal program has been conducted. The experience of realizing the mechanism of housing fund modernization is considered on the example of the Communal maintenance of city residential buildings LPC in Atyrau from the beginning of 2011 to the present day. The activity of Communal maintenance of city residential buildings LPC in Atyrau allows us to study the financing mechanism and the stages of multi-storey houses renovation. A statistical analysis of the results of the work done has been carried out. The effectiveness of the target state program has been estimated. The research has identified problematic issues that hamper the more successful development of housing sector renovation.

The research has been executed within the framework of AP05134552 Project.

**Keywords:** modernization, urban economy, housing and communal services, housing fund.

Introduction. Modernization of the economy considered as a set of measures to achieve the economic growth is carried out through the improvement of all sectors of the economy. I. V. Makarova characterizes the modernization of the economy as a process of forming a modern model of the economy on the basis of innovative transformations, oriented to qualitative changes in society, corresponding to a new system of interests, values and priorities [1].

Over the years of independence, the economy of Kazakhstan has witnessed significant progress in the area of economic modernization through the phased implementation medium of the economic strategy and social targeted programs. The results of modernization are as follows:

- the country has developed a socially-oriented market economy;
- a powerful class of domestic entrepreneurs has formed;
- small and medium sized businesses have been successfully developing;
- the formation of the middle class is actively going on [2, 3].

Among the branches of the national economy and the sphere of services, housing and communal services have acquired a special role in social and economic life. On the one hand, the state of the housing and communal service sector provides parameters for the quality of life of the community; on the other hand, it represents the region's economic potential, which determines its investment attractiveness.

Economic development of housing and communal services is directly connected with the implementation of the housing policy of the country, which is of great importance for the construction industry, the economy and homeowners. English sociologists Tony Byrne and Colin F. Padfield believe that housing is the basic human need. The need for housing policy arises because of the fact that the state is now recognizing its commitment to decent housing for the population [4].

In Kazakhstan, with the development of market relations in the sphere of housing and communal services, the problem of attracting extra-budgetary sources for the renovation of the housing fund is becoming urgent. Modernization of housing fund is characterized by high capital intensity, a long duration of construction and low demand for new buildings because of the insolvency of potential buyers. These factors determine the efficiency of housing fund modernization by carrying out repair work with energy-efficient elements.

**Methods.** Conducting scientific research in the field of the economic aspect of the housing fund modernization mechanism was based on theoretical methods of cognition: analysis, induction and deduction. Also, a comparative and dialectical-logical approach was used in studying international experience of scientists in the field of housing fund renovation.

**Research.** According to the Russian scientist S. N. Larin, taking into account the inevitable growth of electricity tariffs in the near future, investing in energy conservation can be considered as one of the most profitable sources of investment from an economic point of view [5].

It should be noted that at present most of the research in the field of housing modernization is aimed at achieving an economic effect, although the growing scale of world production and consumption also emphasize the ecological aspect. In addition to the cost-effectiveness of implementing various technologies for energy-efficient modernization, environmental success is achieved, related to waste management and emissions [6, 7].

Scientists at the University of Leeds (UK) Malcolm Bell and Robert Lowe in their studies note the important role of energy efficiency modernization schemes in reducing CO<sub>2</sub> emissions; so 50% of improvements in the region can be achieved with a minimum cost [8].

Modernization can be carried out in various ways, but from the point of view of investors and apartment owners, special attention should be given to the problem of waste management and initial investment costs. Together with the principles of humanization, it is also necessary to comply with the aesthetic norms of architectural structures, based on the introduction of innovative approaches to increasing the efficiency of housing fund renovation [9, 10].

In fact, the modernization of housing and communal services in Kazakhstan has started with the implementation of the "Strategy 2020" Program, which marked the direction of the country's development to implement the economic breakthrough [11].

Program for Modernization of the Housing and Communal Services of the Republic of Kazakhstan has been developed since 2011 to improve the housing fund during 2011-2020. The priority was made on energy saving in housing and repair works to reduce the consumption of thermal energy [10].

Since 2014 modernization and repair work in the housing and communal services sector has been carried out within the framework of the Program for the Development of Regions until 2020, covering the renovation of the condominium facilities to provide comfortable living conditions, improve the state of the communal infrastructure and provide quality public services to the population [11]. At the same time, today the issues of housing fund modernization are regulated in accordance with the Law of the Republic of Kazakhstan "On Housing Relations", "Kazakhstan-2050" Strategic plan, "NurlyZhol" State Program for Infrastructure Development for 2015-2019 and other normative documents [12-18].

By 01.01.2018 the housing fund of Atyrau aggregate 1054 multi-storey apartment buildings, with a total area of 2,601,300 square meters, and 71 management bodies. There are 62 unfit houses with an area of 37,864 square meters, comprising 1.46% of the total area of the housing fund.

The Program for the Development of the Regions until 2020 in Atyrau is performed by "Communal maintenance of city residential buildings" LPC, established as a specialized organization with 100% state participation. The tasks of "«Communal maintenance of city residential buildings" LPC involve:

- proper maintaining of residential facilities and local area;
- providing apartment owners with communal and other services;
- protecting the interests of apartment owners as consumers of communal and other services and organizations;
- cooperating with state and public organizations to ensure a standard of livingSince 2013 multistorey housing financing has been brought about according to the following mechanism (figure 1).

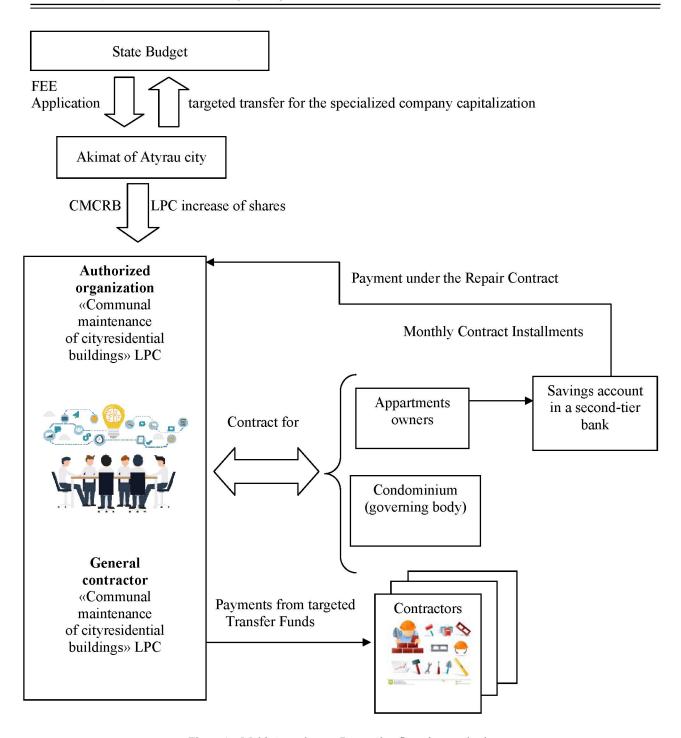


Figure 1 – Multi-storey houses Renovation financing mechanism

The fundamental principle in the successful modernization of multi-storey is to ensure the conscientious participation of all stakeholders: professional management by companies, quality work on the part of contractors and the active participation of apartment owners at each decision-making stage. The final product of the investment is capital repair of the housing fund, carried out in stages.

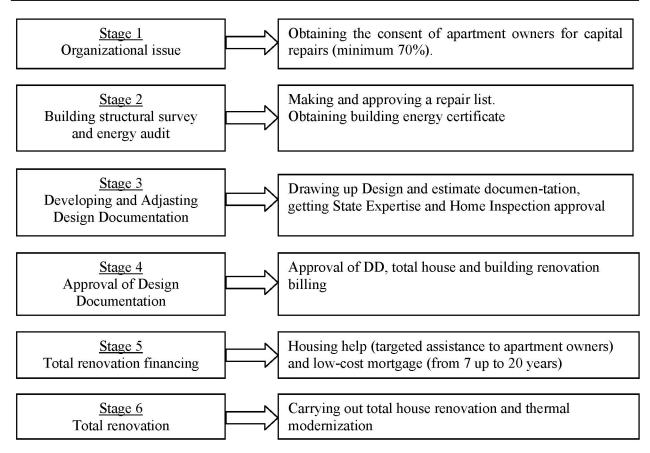


Figure 2 – Multi-storey houses repair and renovation stages

According to the information presented in figure 3, in 2011-2017, CMCRB LLP has implemented 10,306 million USD for repair works of the housing fund of Atyrau, allocated from the Republican budget 63% (2,215 millionUSD) and local budget – 21% (2,176 million USD), and on returnable funds – 16% (1,637 million USD).

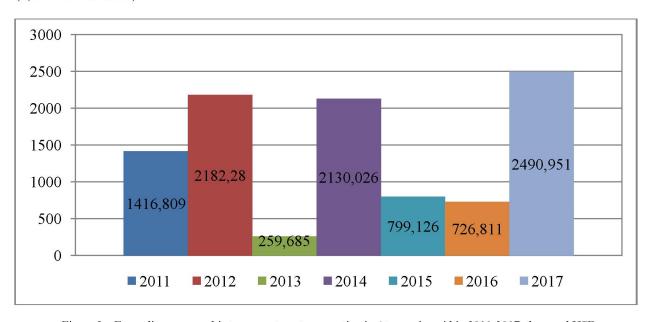


Figure 3 – Expenditures on multi-storeyapartments renovation in Atyrau city within 2011-2017, thousand USD

All investments covered current and capital renovation of houses. Within the period of 6 years (2011-2018) in Atyrau, 102 multi-storey houses have been repaired: 93 houses have totally renovated, 9 lifts have been replaced in 3 houses. 89 houses have undergone modernization on the funds allocated from the republican and local budgets of the region in Atyrau. For return funds in 2014-2017, 13 houses were repaired for the amount of 1,638 million USD (figure 4).

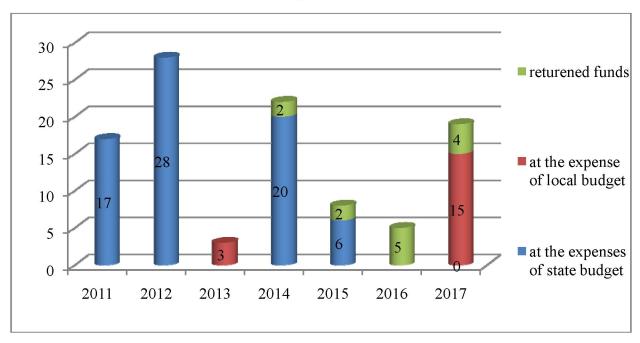


Figure 4 – Number of renovated multi-storey apartment houses in Atuaru city

According to the results of the 1st stage of the Regional Development Program up to 2020, the number of multi-storey houses, requiring repairs decreased from 35.3% in 2011 to 30.6% in 2015. (figure 5).

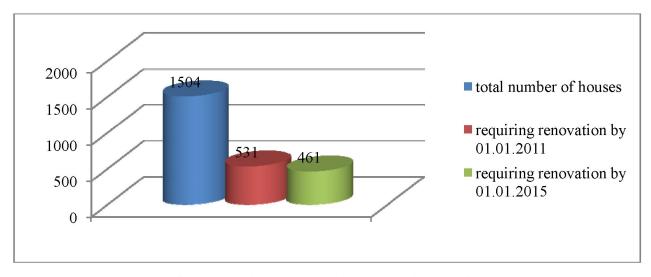


Figure 5 – Number of houses requiring renovation in Atyrau city

After ranking, according to table, you can see that CommunalMaintenance of City Residential Building" LPC in the period of 2011-2017 mainly carried out the modernization of the housing fund of 1973-1982 years of construction (46%).

In 2018,1,310 million USD from the local budget is planned to allocate for the renovation of 8 multistorey houses, as well as the design and estimate documentation for 18 houses (replacement of elevators for 6 houses, major renovation of 12 houses).

Information about multi-storey houses of Atyrau underwent repairs and modernization within the period of 2011-2017\*

Year	Year of Houseconstruction						T 4 1
	1953-1962	1963-1972	1973-1982	1983-1992	1993-2002	2003-2012	Total
2011	3	5	4	4	1	н	17
2012	1	4	12	5	1,	5	28
2013	-	_	_	_	_	3	3
2014	-3	2	15	4	1	-	22
2015	-	1	3	2	1.	1	8
2016			3	2			5
2017	-:	2	10	5	2		19
total	4	14	47	22	6	9	102
*Made by author [7].							

**Discussion of results and conclusion.** One of the main problems of multi-storey housing fund modernization in Atyrau is a low return on funds at the beginning of the Project implementation. So, in 2013. only 13% of investments made by the state were returned, caused were disagreements on the part of apartment owners on the nature of the work performed. Multi-storey houses owners did not anticipate comments on repairs in making the preparation of a defective act and the adoption of a collective decision on the cost of funds. In connection with this, the akimat of the city held various explanatory and operational measures for the return of public funds. So, as a result of the work done in the period from 2013 to 2017, 1594 suits were filed with the judicial executive bodies, a positive decision was taken against 1,047 claims, 547 lawsuits are in progress. By January 1, 2018, residents of the renovated houses returned 2,172 million USD, that is, 63.5% of the invested 3,27 million USD.

During the research, a number of problems have been identified that can be divided into two groups: economic and non-economic. The economic group includes issues related to economic content:

- lack of a uniform methodology for the economic feasibility of targeted programs for the existing housing fund reconstruction;
- the absence of an insurance field against possible risks for all entities of interaction on housing fund renovation: 1) the state from the non-returned invested subsidies; 2) potential investors on guaranteed return on investment; 3) apartment owners on qualitative repair works;
  - lack of a competitive environment.
  - the non-economic group of problems includes legal, ecological and aesthetic problems:
  - shortcomings in the mechanism of legal regulation;
- the need for mandatory regulation of the environmental characteristics of the technologies used in housing funds renovation;
- expansion of the life cycle, improvement of the functional and spatial characteristics of the project for housing funds renovation

In general, modernization of the multi-storey housing funds in Atyrau together with the thermal modernization of problematic apartment houses have contributed to the urban housing fund aesthetic aspect. Moreover, the duration of their service has been extended, and their commercial attractiveness in the real estate market has increased.

#### REFERENCES

- [1] Makarova I.V. Potencial modernizacii mashinostroitel'nogo kompleksa regiona: Monografija / Otv. red. O. A. Romanova. Ekaterinburg, 2010. P. 23-24. (In Russian)
- [2] Jekonomika Kazahstana v uslovijah modernizacii i integracii / Pod obshh. red. B. K. Sultanova. Almaty: KISI pri Prezidente RK, 2011. P. 8. ISBN 978-601-7242-47-3. (In Russian)
- [3] Sultanov B.K., Muzaparova L.M. Kazahstan i sovremennyj mir: sbornik statej, vystuplenij i interv'ju. Almaty: KISI pri Prezidente RK, 2013. P.18-27. (In Russian)
- [4] Tony Byrne, BA, BSc (Econ), Colin F. Padfield, LLB, DPA (Lond). (1990). Social Services (Fourth Edition). 10 Housing: Made Simple Books. ISBN 978-0-434-90076-3. P. 256-285. DOI: 10.1016/B978-0-434-90076-3.50016-5 (In Eng.)

- [5] Larin S.N. Jenergosberegajushhie tehnologii kak vazhnyj faktor modernizacii vosproizvodstva zhilishhnogo fonda regiona // XIII mezhdunarodnaja nauchnaja konferencija «Modernizacija Rossii: kljuchevye problemy i reshenija». M.: INION RAN, 2012. P. 44. (In Russian)
- [6] Staniūnas M., Medineckienė M., Zavadskas E.K., Kalibatas D. To modernize or not: Ecological-economical assessment of multi-dwelling houses modernization: Archives of Civil and Mechanical Engineering. 2013. P. 88-98. DOI: 10.1016/j.acme.2012.11.003. (In Eng.)
- [7] Piotr Nowotarski, Roman Milwicz. Management of Electrical Modernization in Construction with the Comparison between Standard and Flexible Approach in the Economic Aspects // Procedia Engineering. 2015. Vol. 122. P. 196-203. DOI: 10.1016/j.proeng.2015.10.025. (In Eng.)
- [8] Malcolm Bell, Robert Lowe. Energy efficient modernisation of housing: a UK case study // Energy and Buildings. 2000. P. 267-280. DOI: 10.1016/S0378-7788(00)00053-0. (In Eng.)
- [9] Tatiana Ya. Vavilovaa, Natalia D. Potienkoa, Irina V. Zhdanovaa. On modernization of capital construction projects in the context of sustainable development of social sphere // XXV Polish Russian Slovak seminar «Theoretical Foundation of Civil Engineering». Procedia Engineering 153. 2016. P. 938-943. (In Eng.)
- [10] Larin S.N. Modernizacija sfery zhilishhno-kommunal'nogo hozjajstva na osnove vnedrenija innovacionnogo podhodov v upravlenii i povyshenii jeffektivnosti vosproizvodstva zhilishhnogo fonda // Nacional'nye interesy. 2013. N 8(197). P. 36-47. (In Russian)
- [11] Ukaz Prezidenta Respubliki Kazahstan «O Strategicheskom plane razvitija Respubliki Kazahstan do 2020 goda» ot 1 fevralja 2010 goda № 922. http://online.zakon.kz. (In Russian)
- [12] Programma modernizacii zhilishhno-kommunal'nogo hozjajstva Respubliki Kazahstan na 2011-2020 gody, utverzhdennaja postanovleniem Pravitel'stva Respubliki Kazahstan ot 30 aprelja 2011 goda N 473. http://online.zakon.kz. (In Russian)
- [13] Programma razvitija regionov do 2020 goda, utverzhdennaja postanovleniem Pravitel'stva Respubliki Kazahstan ot 28 ijunja 2014 goda № 728. http://online.zakon.kz. (In Russian)
- [14] Zakon Respubliki Kazahstan ot 16 aprelja 1997 goda № 94-I «O zhilishhnyh otnoshenijah» (s izmenenijami i dopolnenijami po sostojaniju na 13.06.2017 g.). http://online.zakon.kz. (In Russian)
- [15] Poslanie Prezidenta Respubliki Kazahstan Lidera Nacii N. A. Nazarbaeva Narodu Kazahstana «Strategija «Kazahstan-2050»: Novyj politicheskij kurs sostojavshegosja gosudarstva» (Astana, 14 dekabrja 2012 goda). http://online.zakon.kz. (In Russian)
- [16] Gosudarstvennaja programma infrastrukturnogo razvitija «Nұrly zhol» na 2015-2019 gody, utverzhdennaja Ukazom Prezidenta Respubliki Kazahstan ot 6 aprelja 2015 goda № 1030. http://online.zakon.kz. (In Russian)
- [17] Postanovlenie Pravitel'stva Respubliki Kazahstan ot 30 dekabrja 2009 goda № 2314 «Ob utverzhdenii Pravil predostavlenija zhilishhnoj pomoshhi» (s izmenenijami i dopolnenijami po sostojaniju na 17.02.2017 g.). http://zhkh.kz/normative base/87/ (In Russian)
- [18] Prikaz Ministra nacional'noj jekonomiki Respubliki Kazahstan ot 2 ijulja 2015 goda № 495 «Ob utverzhdenii Pravil kreditovanija stroitel'stva, rekonstrukcii i modernizacii sistem teplo-, vodosnabzhenija i vodootvedenija» (s izmenenijami i dopolnenijami ot 29.12.2015 g.). http://zhkh.kz/normative\_base/87/ (In Russian)
- [19] Prikaz Predsedatelja Agentstva Respubliki Kazahstan po delam stroitel'stva i zhilishhno-kommunal'nogo hozjajstva ot 5 dekabrja 2011 goda № 471 «Ob utverzhdenii Pravil ischislenija sovokupnogo dohoda sem'i (grazhdanina), pretendujushhej na poluchenie zhilishhnoj pomoshhi, a takzhe na predostavlenie zhilishha iz gosudarstvennogo zhilishhnogo fonda ili zhilishha, arendovannogo mestnym ispolnitel'nym organom v chastnom zhilishhnom fonde». http://zhkh.kz/normative\_base/87/ (In Russian)
- [20] Postanovlenie Pravitel'stva Respubliki Kazahstan ot 3 sentjabrja 2015 goda № 740 «Ob opredelenii organizacii po modernizacii i razvitiju zhilishhno-kommunal'nogo hozjajstva». http://zhkh.kz/normative\_base/87/ (In Russian)
- [21] Oficial'naja statisticheskaja informacija (po otrasljam) // Operativnye dannye (jekspress-informacija, bjulleteni) / Statistika ZhKH. http://www.stat.gov.kz (In Russian)
- [22] Oficial'nyj sajt akimataAtyrauskoj oblasti // Glavnaja / ZhKH / Pasport Zhilishhno-kommunal'nogo hozjajstva Atyrauskoj oblasti. http://atyrau.gov.kz (In Russian)

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### ТҰРҒЫН ҮЙ ҚОРЫН ЖАҢҒЫРТУ МЕХАНИЗМІНІҢ ЭКОНОМИКАЛЫҚ АСПЕКТІЛЕРІ

Аннотация. Қалалық шаруашылықтың қазіргі заманғы экономикасында тұрғын үй қорын жаңарту және ұдайы жаңғырту үшін бюджеттен тыс көздерді тарту мәселесі маңызды болып табылады. Тұрғын үй қоры тұрғын үй-коммуналдық шаруашылық саласының негізгі элементі ретінде қарастырылады. Тұрғын үй қорының ұдайы жаңғыртылуының халықаралық және қазақстандық тәжірибесі зерттелген. Зерттеу құралының экономикалық және экологиялық тұрғыдан өзектілігі негізделген. Тұрғын үй қорын жаңғырту бойынша маңызды зерттеулердің экономикалық тиімділік жетістіктермен байланыстылығы анықталған. Алайда дүние жүзінде орын алған жаһандану үдерістері экологиялық көріністің де маңыздылығына айрықша көңіл бөледі. Қазақстандағы мемлекеттік тұрғын үй реформасына стратегиялық даму және салалық тұрғын үй-коммуналдық бағдарламасын іске асыру ауқымында шолу жүргізілген. Тұрғын үй қорын жаңғырту тетігін жүзеге асыру тәжірибесі Атырау қаласындағы 2011 жылдың басынан бастап бүгінгі күнге дейінгі «Қаланың тұрғын үй коммуналдық шаруашылығы» ЖШС мамандандырылған уәкілетті ұйым мысалында қарастырылады. «ҚТҮКШ» ЖШС мысалында, Атырау қаласындағы көп пәтерлі тұрғын үйлерді жөндеу сатылары мен оларды қаржыландыру тетігіне зерттеулер жүргізілген. Жүргізілген жұмыстың нәтижелерінестатистикалық талдау жасалынған. Мақсатты мемлекеттік бағдарламаның нәтижелілігіне баға берілген. Зерттеу барысында тұрғын үй секторын жаңғыртудың табысты дамуына кедергі келтіретін күрделі мәселелерді анықтауға болады.

Зерттеу АР05134552 ғылыми жоба шеңберінде өткізілді.

Түйін сөздер: жаңғырту, қалалық шаруашылық, тұрғын-үй шаруашылығы, тұрғын үй қоры.

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#### ЭКОНОМИЧЕСКИЕ АСПЕКТЫ МЕХАНИЗМА МОДЕРНИЗАЦИИ ЖИЛИЩНОГО ФОНДА

Аннотация. В современной экономике городского хозяйства важное значение приобретает проблема привлечения внебюджетных источников для обновления и воспроизводства жилищного фонда. Жилищный фонд рассматривается как основной элемент сферы жилищно-коммунального хозяйства. Изучен международный опыт и казахстанская практика воспроизводства жилищного фонда. Обоснована актуальность предмета исследования как с экономической, так и с экологической точки зрения. Выяснилось, что значительные исследований по модернизации жилищного фонда, связаны с достижением экономического эффекта. Хотя происходящие в мире глобализационные процессы подчеркивают и экологический аспект. Проведен обзор государственной жилищной реформы в Казахстане в формате стратегического развития и реализации отраслевой жилищно-коммунальной программы. Рассмотрен опыт реализации механизма модернизации жилищного фонда на примере специализированной уполномоченной организации по г. Атырау ТОО «Коммунальное обслуживание жилых домов города» с начала 2011 года по сегодняшний день. На примере ТОО «КОЖДГ» г.Атырау изучен механизм финансирования и этапы проведения ремонтных работ многоквартирных жилых домов. Проведен статистический анализ результатов проделанных работ. Оценена результативность целевой государственной программы. В ходе проведения исследования возможным обозначить проблемные вопросы, сдерживающие более успешное развитие воспроизводства жилищного сектора.

Исследование проведено в рамках научного проекта АР05134552.

**Ключевые слова:** модернизация, городское хозяйство, жилищно-коммунальное хозяйство, жилищный фонд.

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