

## Forecast Guidelines for Investments in The Republic of KARAKALPAKSTAN

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### **Abstract**

*The article provides a scientific, theoretical and practical analysis of the state of investment attractiveness of the Republic of Karakalpakstan. In particular, the essence of the attractiveness of the region is highlighted in terms of the expected results of attracting investments in economic sectors. The article also explores and analyzes the issues of forecasting investments in the region of Republic of Karakalpakstan while increasing investment attractiveness. In particular, the features and priority directions for the growth and development of the investment environment in the region have been identified. In accordance with the extrapolation method and trends obtained from the results of development trends, scenario forecasts for investment in fixed assets have been developed. The authors also made recommendations on ways to achieve increased investment in the socio-economic development of the region of Republic of Karakalpakstan, as well as the volume of small business and entrepreneurship in industry for the future.*

**Keywords:** Investments, Regional Economy, Fixed Capital, Scenario Forecast, Trends, Resulting Model, Investment Growth.

## INTRODUCTION

Attracting investment in the economy is a desirable factor, since there is not only an increase in the well-being of individual economic entities, but also the development of society as a whole. For example, if we consider the injection of investment at the micro level, small production without expansion potential and with large capital of the owner often does not need investment; it is self-sufficient. On the contrary, production with the potential for expansion, introduction of new technologies, or a territory with potential for economic development needs investment.

If we consider attracting investments at the regional level, then in most cases, such activity is not so much desirable as it is necessary: with the limitation of one type of resource, or one resource, in a large area there is the potential for development, production, extraction of another type of resource, or another resource. But to assess investment attractiveness, geographical and climatic data, information about available physical and economic resources, population composition, mentality, etc. are primarily important.

In the world, attention is being paid to attracting investments based on local conditions, increasing the investment attractiveness of regions. According to the 2022 World Investment Report, "direct investments last year amounted to nearly 1.6 trillion. shows an increase in dollars. But maintaining this figure in 2022 will be a very difficult task, and although the recovery after the global pandemic has benefited all regions, about three-quarters of the increase has been in developed countries" [1]. It requires effective use of modern approaches aimed at implementation of investment policy in the regions.

## Relevance and Demand for the Research Topic

It should be noted that the main indicator of attracting investment to the region is the potential for economic development of the region. When we look at the analysis of the coming years, as of 2018, the main sectors of the economy of the Republic of Karakalpakstan were: industry (share in the GRP structure - 32.7%), agriculture,

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forestry and fisheries (15.2%), construction (7.5%), trade, accommodation and food services (8%), transport and warehousing, information and communications (7.6%) and other service sectors (29%) [2].

When studying the potential of a region, as a rule, it is divided into economic and social parts, and their components are also examined. These components reveal the following economic indicators:

- volumes of reserves of natural and industrial resources;
- existing and potential areas of economic activity;
- transport, communication, energy potential;
- demographic and personnel potential;
- intensity of use of these resources and their maximum capabilities;
- efficient use of these resources based on rationally organized production, the use of modern functional management systems, the use of intellectual potential, ensuring a competitive market position and ensuring high technical and economic characteristics to achieve a balance of goals and interests of the development of the state, business and population [3].

In countries around the world, investments are an integral part of the economy, an important lever for achieving priority objectives in the socio-economic development of the state. In particular, Decree of the President of the Republic of Uzbekistan No. PP-4937 “On measures to implement the Investment Program of the Republic of Uzbekistan for 2021-2023”, adopted on December 28, 2020, allowed the implementation of such tasks as the development of entrepreneurship in the country and the creation of a favorable environment for attracting foreign investments [4]. At the same time, today there are a number of shortcomings and problems that hinder the increase in business and investment activity in the Republic of Uzbekistan, the formation of a stable and healthy competitive environment in the regions, as well as increasing the effectiveness of economic reforms in general. In our opinion, the above can be achieved by realizing the investment potential of the regions.

## RESEARCH METHODOLOGY

It is aimed at analyzing the theoretical and practical development of a scientific forecast, as well as the possibilities of increasing the investment attractiveness of the Karakalpakstan region, based on scientific and theoretical analysis and monographic observations, based on certain priority areas of the concept of reforms in the socio-economic development of regions of the Republic of Uzbekistan.

## Analysis and Results

We can glean many of these indicators from existing statistics. First, let’s look at the overall picture of changes in the region’s economic activity, expressed in GRP. For this purpose, we use statistics for the last 5 years (Table 1).

**Table 1. Gross regional product over the next 5 years in the Republic of Karakalpakstan<sup>6</sup>**

Units	Period				
	2017	2018	2019	2020	2021
Volume of products produced, billion soums	10 855,1	15 703,5	19 715,0	21 949,3	26 250,7
Increase relative to the first year of measurements, %	100	144,7	181,6	202,2	241,8
Volume of production per capita, billion soums	5 932,1	8 461,0	10 463,9	11 485,2	13 558,6
Growth per capita relative to the first year of measurements, %	100	142,6	176,4	193,6	228,6
Share of Karakalpakstan/to the entire economy of Uzbekistan, %	3,4	3,7	3,7	3,7	3,6
Share of small businesses, %	55,7	55,2	54,7	56,2	56,4

Gross regional product is important as a general indicator of the economy of a certain territory. For the analysis, we took a period of 5 years, and based on the data in the table, it can be seen that the gross regional product

increased by 2.5 times by 2022 compared to 2017. It is worth noting that the growth of the gross regional product grew gradually, without unexpected ups and downs. At the same time, the share of Karakalpakstan's GRP in relation to the GDP of the Republic of Uzbekistan increased only in 2018 and remained almost unchanged all these years, which suggests that the development of the economy of Karakalpakstan:

- 1) so far occupies a modest share of the economy of Uzbekistan;
- 2) the economic development of Karakalpakstan over the past 4 years has approximately corresponded to the level of economic development of the entire Uzbekistan.

It is noteworthy that the participation of small businesses in the economy of the Republic of Karakalpakstan accounts for more than 50% of the region's GRP. This indicates that private enterprise is very successful and definitely feels free to implement projects and ideas.

To assess existing and potential areas of economic activity, it is important to consider the development of industry, agriculture and other types of economic activity in the region.

Let us note the data on industrial development over the next 5 years in the region of the Republic of Karakalpakstan (Table 2).

**Table 2. Industrial development over the next 5 years in the Republic of Karakalpakstan<sup>7</sup>**

Unit of measurement	Period				
	2017	2018	2019	2020	2021
Volume of products produced, billion soums	6 773,3	10 911,9	12 736,1	13 981,3	16 621,3
Increase relative to the first year of measurements, %	100	161,1	188	206,4	245,4
Share of Karakalpakstan/to the entire economy of Uzbekistan, %	4,6	4,6	3,9	3,9	3,7
Share of small businesses, %	20,2	20,3	19,8	24,7	22,4

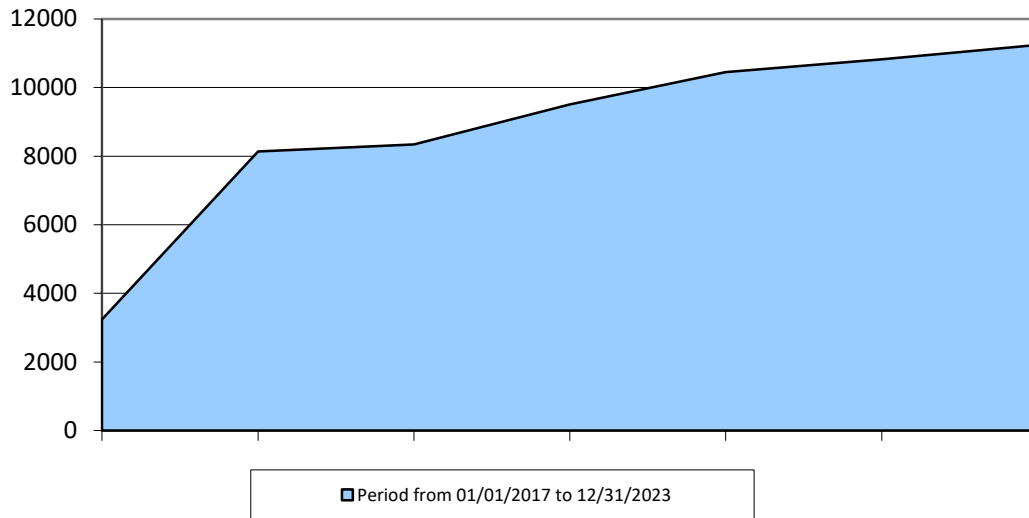
Here, the increase in the volume of industrial output correlates with the GRP of the Republic of Karakalpakstan. It should be noted that the relative share of industrial production is gradually decreasing in comparison with data from Uzbekistan. The participation of small businesses in the industry of the Karakalpakstan region is only one fifth. All this indicates that the development of industry in Karakalpakstan does not directly correlate with the development of entrepreneurship.

It is likely that the slowdown in development over the past 2 years may be due to economic restrictions and population decline as a result of the pandemic due to the spread of variants of the SARS-CoV-2 virus.

However, the main share of Karakalpakstan's industrial products is produced in the city of Nukus, as well as Khojeyli, Amudarya, Kungrad, Beruni and Turtkul regions [5].

Large enterprise of the Republic of Karakalpakstan: Kungrad soda plant, Khojeyly glass plant, Nukus Polymer LLC, other large factories for the production of building materials, as well as the Ustyurt gas chemical complex.

Of course, the above indicates a stable economy within the Republic of Uzbekistan and the Karakalpakstan region. At the same time, we must understand that when talking about the investment potential of Karakalpakstan, the vector of marketing efforts to attract investors is often aimed at foreign countries. In this case, it must be taken into account that an international means of payment is a currency recognized by most countries. Most often, in the modern world, we mean settlements between international organizations in US dollars. Therefore, it is necessary to take into account the exchange rate of the Uzbek som relative to the US dollar when discussing economic realities (Fig. 1).



**Figure 1.** Changes in the exchange rate of the Uzbek som against the US dollar over the past 7 years [6]

The devaluation of the soum significantly affects the economics of investment: over time, an investor may receive less hard currency from other countries for the same volume of goods and services. But in our opinion, this phenomenon also has a downside - for the hard currency of other countries, over the course of devaluation, you can buy more goods and services at a time when they are converted into soums. With regard to investments, as long-term investments, this can be beneficial if the organization's balance sheet contains hard currencies of other countries, and currency exchange for soums will be carried out on the day of the target action (payment with a partner, issuance of rewards, etc.).

According to the review.uz website in 2021, in the region of the Republic of Karakalpakstan, the largest trade turnover was with the People's Republic of China (23.2%), the Russian Federation (18.9%), the Republic of Turkey (16.4%), the Republic of Kazakhstan (9.7%) and other countries [7]. Although trade relations with another country do not mean that the other country is an active investor in Karakalpakstan, such a country has a greater chance of becoming a potential or actual investor in the republic. Unfortunately, we can note that the Chinese Yuan and Russian Ruble followed the US Dollar against the Uzbek Soum.

However, the ratio of the exchange rate of the Uzbek soum and the Kazakh tenge remained approximately at the same level. And the Turkish lira has even begun to devalue recently in relation to the Uzbek soum. This, in turn, confirms that there are countries for which GRP and other economic criteria for the current state of advancement of the Karakalpakstan region are indicative and attractive.

When promoting the Republic of Karakalpakstan to potential investors, it is important to emphasize its other winning positions:

- Karakalpakstan ranks 5th in the country in terms of explored reserves of mineral raw materials per capita [8].
- Karakalpakstan has reserves of gold, iron, granite, marble, sodium salt, limestone, phosphorite, gas, oil and other minerals.
- More advanced industries in the region are electricity, chemical and petrochemical industries.
- There is growth potential for the production of building materials, and the availability of raw materials implies the creation of new production capacities in the light and food industries.
- The growth of industry in Karakalpakstan in the coming years will be associated with the development of hydrocarbon deposits on the Ustyurt plateau in the Muynak and Kungrad regions.
- Promising areas are the production of iodized salt, deep processing of fruits, processing of meat, dairy and

fish products, implementation of pharmaceutical projects based on large reserves of licorice root, capers and artemia cysts.

- The Japanese company Cokey Systems proposed expanding the project for processing licorice root in the region Karakalpakstan. The problems associated with the development of land allocated for growing licorice root, modernization of equipment at the established enterprise, as well as increasing the volume of exports of finished products are considered [10].

- There is an extensive network of railways and roads, and air transport is developed. As of 2018, there are 8912.6 km in the region. highways, 845.3 km. railways, and there is also an international airport in the city of Nukus.

The analysis performed suggests that there are potential production, agricultural, labor and other resources, but the Republic of Karakalpakstan's own resources are not enough for large-scale economic activity, taking into account the realities of the present time.

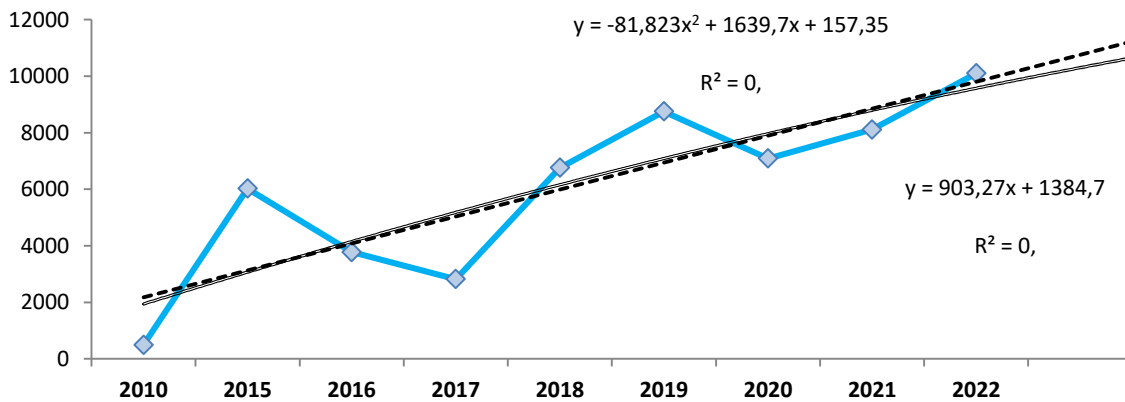
At the same time, due to the undeveloped nature of some of the fields, lower availability of modern technologies, specialists, equipment for production, organizational, infrastructure and other needs, we see great potential for the development of the economy of Karakalpakstan.

Thus, a complex of unique climatic and natural conditions, reserves of natural resources, flora and fauna resources, a fairly developed infrastructure for this type of area, the increasing potential of production capacities, the development of agriculture, forestry and fisheries, the relative cheapness of products provides good potential for investing in The Republic of Karakalpakstan from the point of view of economic calculations, taking into account the expected risks.

Therefore, in our opinion, the scientific forecast of investment investments is considered the most important issue of improving investment activity based on the investment potential of the Republic of Karakalpakstan.

As studies show, it would be advisable to develop a forecast of alternative scenarios for increasing investment in the Karakalpakstan region for the future.

To develop the issue in order to determine the trend of changes in indicators affecting efficiency, conclusions should be drawn by adding the trend to the dynamics of changes in investment investments in fixed capital in the Karakalpakstan region [9] (see Fig. 2).

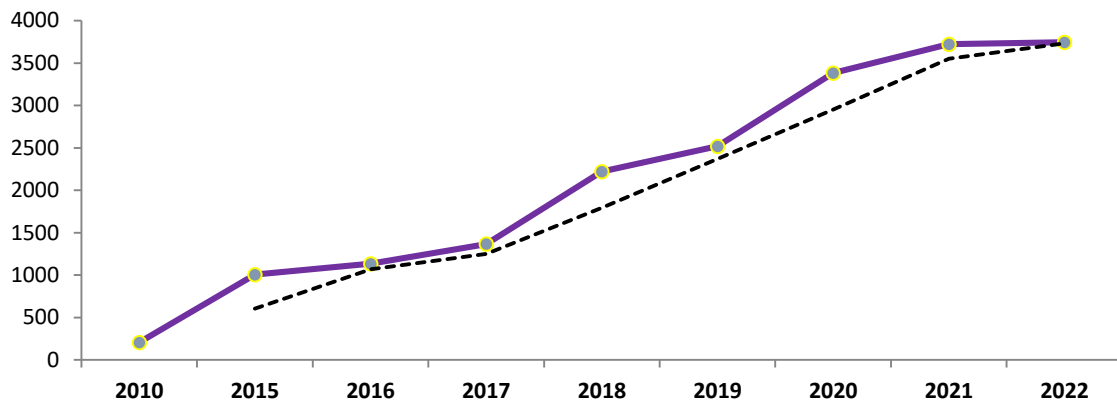


**Figure 2.** Diagram of the increase in investment in fixed capital in the Karakalpakstan region<sup>8</sup>

Scenario options obtained from the diagrams in Fig. 1, and trend data regarding them can serve to improve scientific and theoretical concepts. This means “that in the Karakalpakstan region, the growth of investment in fixed capital contributes to an increase in the number of small businesses and entrepreneurship in industry.

<sup>8</sup> Developed by the authors.

This process is observed in the linear filtering diagram of small businesses and entrepreneurship in the industry of the Karakalpakstan region” [9] (see Fig. 3).



**Figure 3.** Linear filtering diagram of the trend in the volume of small business and entrepreneurship in the industry of the Karakalpakstan region<sup>9</sup>

This event, in turn, has a positive effect on improving the business environment in the region of the Republic of Karakalpakstan with an increase in opportunities to attract investment in fixed assets.

This means that the study shows the need to take into account the specific differences in the socio-economic state of the region in the future when improving investment in it and the development of activities in the country. There is a need to provide parity in taxes for newly created business entities in economically underdeveloped areas based on the local conditions of the Karakalpakstan region.

As a conclusion, we can state that medium-term forecasts are defined in different alternative options. In the first scenario, the forecast is developed according to the equation with the greatest determination of the outlined trends. The data of the developed forecasts can be seen in table. 3.

**Table 3.** A developed forecast of investment in fixed capital and the number of small businesses and entrepreneurship in the industry of the Karakalpakstan region until 2027,<sup>10</sup> (billion UZS)

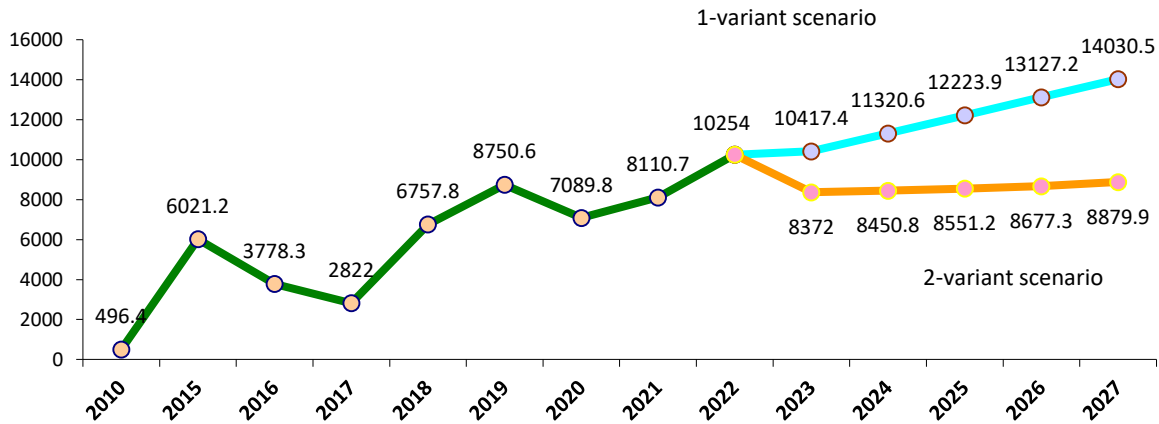
Period	Investments in fixed capital of the Karakalpakstan region		Small business size and entrepreneurship in industry in the Karakalpakstan region	
	1-variant scenario	2-variant scenario	1-variant scenario	2-variant scenario
<b>2023</b>	10417,4	8372,0	5107,9	4661,2
<b>2024</b>	11320,6	8450,8	5816,4	5155,2
<b>2025</b>	12223,9	8551,2	6549,5	5649,3
<b>2026</b>	13127,2	8677,3	7122,2	6143,4
<b>2027</b>	14030,5	8879,9	7830,7	6637,5

Developed forecasts of investment in fixed assets for the period up to 2027, highlighted in Table 2, tend to show an upward trend in scenario options calculated by different methods. But the developed forecast for the 1st version of the scenario differs in a relatively high growth rate compared to the method for the 2nd version of the scenario.

<sup>9</sup> Developed by the authors in research.

<sup>10</sup> Compiled by the authors in the study.

This case can be commented on by the expansion of the investment attractiveness of the region, the revival of investment attraction activities, as well as the strengthening of the condition of small businesses, improving the business environment and many other indicators. Look at Figure 4.



**Figure 4.** Forecast until 2027 for investment in fixed assets in the Karakalpakstan region<sup>11</sup>

## CONCLUSIONS AND PROPOSALS

In the developed forecast data, investments in fixed assets in the region of the Republic of Karakalpakstan tended to grow in both scenario options. In the forecast indicators obtained for 2024 according to the 1st scenario, the volume of investment in fixed assets in the Republic of Karakalpakstan is 11320.6 billion soums, and by 2027 - 14030.5 billion soums, which, in our opinion, can increase by 76 .1 percentage points in 2027 compared to 2024 [9]. The fulfillment of these forecast parameters for the development of capital investments in the region of the Republic of Karakalpakstan is taken into account in the Decree of the President of the Republic of Uzbekistan No. PK-4937 dated December 28, 2020 [4].

At the same time, “given the limited financial resources, the gradual reduction in recent years of economic support from the central budget is being discussed in various programs and projects, and measures are being developed. Therefore, the main emphasis is on accelerating measures to identify additional opportunities for implementing the idea of self-development with the competitive advantage existing in the region, based on the use of internal potential. As a priority, one can calculate the rate on the effective and rational use of the potential of the natural resources available in the region” [10]; [12]; [13]; [14].

According to this method, in the 1st version of the scenario, small business and entrepreneurship in the industry of the region of the Republic of Karakalpakstan is 5816.4 billion soums in forecast figures for 2024, and by 2027 this figure will be 7830.7 billion soums and may increase during this period by 46.6 percentage points.

Here we can present the implementation in practice, Minutes of the meeting, “Program of investment projects in the Republic of Karakalpakstan for 2020-2022 for the development of industry, services and agriculture” held by the President of the Republic of Uzbekistan Sh.M. Mirziyoyev February 23-24, 2022 [11].

It should be noted that here the linear trend method predicts high growth rates of investment investments. This has a very positive effect on the increase in the number of small businesses and entrepreneurship in industry in the local conditions of the Karakalpakstan region. On this basis, we accept the scenario forecast of the linear trend as optimistic, and we can accept the scenario forecast of the polynomial trend method as the situation of the pre-development phase of the economic cycle [ ].

We can comment on these events below. In 2024, it is planned to attract \$2.1 billion of foreign investment for the development of Karakalpakstan. Preferences and benefits for doing business will be provided to the

<sup>11</sup> Developed by the authors in the study..

Karakalpakstan region. In particular, in order to create an attractive business environment and favorable conditions for the region, taxes on profit, turnover, land and property were reduced by 2 times, and the social tax rate was set at 1%. As a result, it is planned to leave 500 billion soums at the disposal of business entities. Also, over the next two years, \$400 million and 250 billion soums have been allocated for the development of industry, agriculture and entrepreneurship, and improvement of mahalla infrastructure.

In 2024, it is planned to increase the volume of industrial production in the Karakalpakstan region to 23 trillion soums, as well as create production capacities worth 2 trillion soums. 24 large projects worth 5 trillion soums will be launched in the textile industry, electrical engineering, pharmaceuticals and construction materials sector.

In addition, it is planned to attract \$2.1 billion of foreign investment to the region. Due to this, 206 projects will be implemented in industry, 240 in the service sector, 34 in agriculture, and about 13 thousand highly profitable jobs will be created. As a result, positive dynamics in the development of production, agriculture, tourism and other services will be ensured in the Karakalpakstan region. A foreign grant will be attracted to improve the efficiency of agriculture. Water-saving technologies will be introduced on 6 thousand hectares of land, and 31 thousand hectares will be leveled with lasers. In addition, 182 billion soums will be allocated for projects based on citizen initiatives, including 40 billion soums from the local budget. 10 trillion soums will be allocated for projects within the framework of programs to support small and medium-sized businesses.

We note that plans to create new jobs in the region do not correspond to the existing potential; additional opportunities are indicated. For example, in 51 industrial zones, 71 projects worth 775 billion soums can be launched and 1 thousand jobs created. There is also the possibility of developing non-metallic deposits under projects worth 7.5 trillion soums and employing 10 thousand people.

Based on the results of the forecast indicators developed above, we are convinced of the advisability of improving investment activities taking into account the local conditions of the Republic of Karakalpakstan.

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