

THE ROLE OF STRATEGIC PLAN SCENARIOS IN REGIONAL DEVELOPMENT

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ABSTRACT

The article is based on the analysis of trends in socio-economic development in the development of scenarios and options for the Strategic Plan for Sustainable Development of the Republic of Karakalpakstan, the presence of systemic problems, imbalances, risks, changes in domestic and external demand, and the need for effective use of natural and economic potential, the impact of limited resources.

KEYWORDS: *Region, Ecology, Climate, Strategy, Analysis, Forecast, Demography.*

INTRODUCTION

The analysis of socio-economic development trends in the development of scenarios and options for the strategic plan of sustainable development of the Republic of Karakalpakstan is based on factors such as systemic problems, imbalances, risks, changes in domestic and external demand, and the need for efficient use of natural resources.

Effective use of the rich natural and economic potential and competitive advantages of the regions play an important role in ensuring economic stability and achieving high growth rates in Uzbekistan.

Therefore, the Action Strategy for the five priority areas of development of the Republic of Uzbekistan for 2017-2021 emphasizes "comprehensive and balanced socio-economic development of regions, districts and cities"¹. Among the regions of the country, the Republic of Karakalpakstan is distinguished by its rich mineral resources, limited land and water resources, the problems of the Aral Sea of international importance. This situation requires the effective use of the existing natural and economic potential of the region, the development of a long-term strategy aimed at reducing the impact of negative factors on socio-economic development and its consistent implementation. Also, a comprehensive development program of the Republic of Karakalpakstan for 2020-2023 has been developed. Measures will be taken to save 2.5 billion cubic meters of water a year in the region. It is important to repair 14,200 kilometers of canals,

introduce water-saving technologies on 45,000 hectares of arable land, install meters at water distribution points, and laser level 38,000 hectares.

The program provides for special measures in Takhtakopir, Bozatov, Shumanay districts, which have a relatively low level of socio-economic development. In particular, 172 projects worth 409 billion swms will be implemented in 2021-2023 to improve production and social infrastructure in these districts.

Taking into account the specifics of the Republic of Karakalpakstan, the scenarios of the strategic plan can be developed in interrelated key areas (Figure 1).

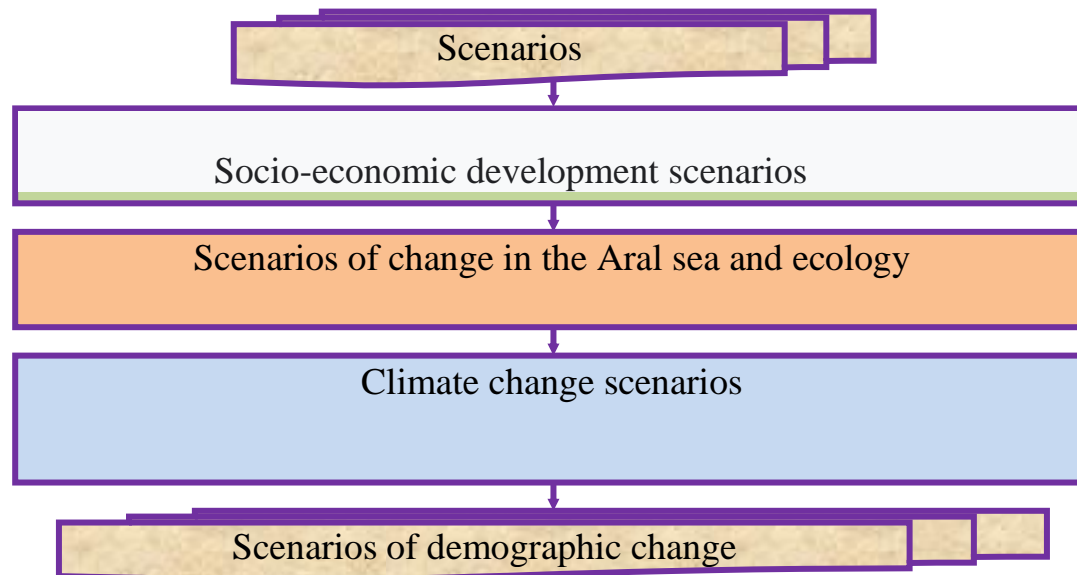


Figure 1. Republic of Karakalpakstan

Scenarios of the main directions of the strategic plan

Aral Sea scenarios: The problem of the Aral Sea is of global international importance, which threatens the future and development of the population of our planet. The most influential United Nations in the world has also officially acknowledged that the Aral Sea tragedy is a major environmental problem on a global scale. Therefore, today and in the future, the search for a way out of the tragedy and environmental consequences of the Aral Sea belongs to the world community, Central Asia, Uzbekistan and the Republic of Karakalpakstan.

The Aral Sea tragedy is the largest environmental and humanitarian catastrophe in human history, with a population of 50.0 million. People. As a result of the sea, complex environmental, socio-economic and demographic problems have appeared.

Today, as a result of coastal retreats, many freshwater lakes have disappeared, the area of the forest has decreased, the area of reeds has halved, and the productivity of pastures has declined. As a result of the impact of salt-sand migration, the salinity of arable lands and pastures increases. This led to the loss of vegetation cover and the formation of mobile sands. According to experts, the amount of sand released into the air per year is 15-75 million tons. Island sand dust is also found in European countries.

Over the last 57 years, the depth of the Aral Sea has decreased by 27 meters (Table 1).

TABLE 1 DYNAMICS OF CHANGE OF ARAL SEA INDICATORS

Indicators	1960 Year.	1990 Year.	2010 Year.	2019 Year.
Depth of the sea, meters	53,4	38,2	28,0	26,0
Water volume, km ³	1083,0	323,0	70,0	65,0
Water level area, thousand km ²	68,9	36,8	17,0	16,0
The degree of the mineralization of water, %	9,9	29,0	100,0	100,0
Amount of water following, km ³ /year	63,0	12,5	2,0	2,0

Source: 2019 expert assessment, calculated on the basis of data from projects and programs implemented by the United Nations.

According to the UN Project on the Republic of Uzbekistan (environmental monitoring based on the formation of environmental indicators), the volume of sea water has decreased from 1,083 km³ to 70 km³. The salinity of the water reached 110-112 grams / liter in the western part of the sea and 280.0 grams / liter in the eastern part. The Aral Sea has become a truly lifeless reservoir. The sea level has risen to 4.0 million tons.

Analyzing the dynamics of the above indicators, as well as the proposals and comments of international organizations, scientists and experts on solving the problems of the Aral Sea, scenarios for changes in the long-term prospects of the sea area have been developed (Table 2).

The first scenario is based on the fact that the downward trend in sea levels has continued in recent years. In this inertial scenario, the sea level is projected to decrease to 13,000 sq. Km in 2030 and to 7.0 thousand sq. Km in 2040.

**TABLE 2 SCENARIOS FOR CHANGES IN THE LEVEL OF THE ARAL SEA
(THOUSAND KM²)**

Years	I scenario	II scenario	III scenario
2017	16,0	16,0	16,0
2030	13,0	5,0	14,0
2040	7,0	0,0	12,0

Source: Developed by the author on the basis of data from the Center for Hydrometeorology, Committee on Architecture and Construction, Internet.

In the second scenario, photos and analysis of the Aral Sea taken from space by scientists and experts of the European Space Agency predicted the drying up of the Aral Sea by 2040-2050.

In the third scenario, the sea level may decrease from 16,000 sq. Km to 12,000 sq. Km in 2040, given the periodic changes in climate and precipitation, and the extent to which the Amudarya River reaches the Aral Sea in some years.

According to international organizations, the preservation of the Aral Sea is a very difficult task. Even if the Syrdarya and Amudarya waters are not used and flow in full, it will take 200 years to reach the previously available amount of water in the Aral Sea.

Although there are a number of projects aimed at preserving the Aral Sea, their implementation in practice is very difficult and requires large material and financial costs. These projects include bringing the waters of Russia's Ob River in Siberia to Central Asia, pumping Caspian water into the Aral Sea via Ustyurt, sending water from all existing reservoirs to fill the Aral Sea, and so on.

According to experts, the practical preservation of the Aral Sea is very complicated. The main goal is to ensure the safety of the people living here. Therefore, it is necessary to develop measures to reduce the effects of the drying up of the Aral Sea and the environmental situation. For example, I create plants in the basin to create small ponds on the dried seabed, to reduce salt and sand storms.

It is worth noting the large-scale measures currently being taken in this regard. They have begun work on the establishment of an international trust fund, the establishment of an international innovation center along the Aral Sea, the creation of protected forests on the dried seabed, the construction of small reservoirs in the Amudarya delta.

Demographic, environmental, climatic and socio-economic scenarios have been developed taking into account the specific characteristics of the region, its relative advantages, and development risks. These scenarios are aimed at the targeted plan of the systemic strategy, to prevent future negative consequences. According to the scenario selected by comparison, measures to improve the structure of the region's economy by 2040, including reforms in industry and agriculture, competitive advantages, reducing the negative impact of climate and ecology, the widespread use of innovative and digital technologies in all areas ensuring growth and public safety.

In general, the strengths (advantages) of the natural and economic potential of the region serve as the main impetus for the scientific substantiation of development strategies, ensuring high economic growth rates, further improving the living standards of the population.

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