spatially determining the coverage of the territory by hazardous geomorphological processes. This function is particularly important This characteristic is particularly important for the assessment of remote regions with complex topography, especially mountainous regions. A retrospective analysis of earlier developments in this field shows the suitability of such methods for the reconstruction of hazardous geomorphological processes in mountainous regions.

The application of dendrogeomorphological methods in the reconstruction of hazardous geomorphological processes was introduced in geomorphological studies in the 1970s. Most dendrogeomorphological studies on mountain regions are currently being carried out in Switzerland, the Czech Republic, France, Spain, Italy, Poland, Romania and the USA. Dendrogeomorphological methods are among the most important absolute methods for the identification and reconstruction of landslides, especially those that have occurred in recent centuries. Landslides, like other hazardous geomorphological processes, particularly affect the growth of trees, which is reflected in their impaired growth. Dendrogeomorphological methods are also considered reliable to reconstruct, predict and mitigate the consequences of mudflows.

Czech, Polish and Romanian Carpathians are the common objects of the dendrogeomorphological studies in the Carpathians. Here, the reconstruction of snow avalanches is one of the most common dendrogeomorphological research in the Carpathians. At the same time, while in the parts of the Carpathians located in the other countries, such studies are active, in the Ukrainian Carpathians, still with insufficient possibilities for automated monitoring, such studies are scarce. The authors have already successfully tested such methods for the reconstruction of snow avalanches in the Ukrainian Carpathians (Chornohora and Borzhava massifs) while learning from Romanian experience in the Rodna and Maramuresh massifs of Eastern Carpathians. The dendrochronological results are congruent to stationary snow avalanche observations, evidence of residents and relevant services. The perspective of the authors' studies in the field is related to the further testing of dendrochronological methods in the reconstruction of other dangerous geomorphological processes (landslides, rockfalls, mudslides) in the Eastern Carpathians on the example of the Chornohora and Poloninsky massifs using samples of damaged tree-rings of *Picea abies*, *Abies alba*, and *Fagus sylvatica*.

Key words: *dendrogeomorhological methods, geomorphological natural hazards, Carpathians, snow avalanches, tree rings.* *Надійшла 14.10.2022р.*

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Mahir A.NADİROV

ASSESSMENT OF MODERN LANDSCAPE POTENTIAL IN THE CASPIAN COASTAL PLAINS

The main purpose of the research is to assess the natural landscape reserve potential and to propose measures that reflect the character of the landscape and its regional-ecological importance. The research area is the Caspian coastal plains from the Pirsaat River to the Astara River in Azerbaijan. For the assessment, the landscape potential of the study area was divided into weak, medium, and strong categories according to the criteria. During the assessment, it was revealed that landscapes with a low natural resource potential cover 42% of the area, landscapes with an average natural resource potential - 23%, and landscapes with a strong natural resource potential - 11%. Protected landscapes cover 24% of the study area. Evaluation of the sensitivity of landscapes to technogenic impacts showed that most of the territory (41%) is at a severe ecological level.

Keywords: *natural landscape, ecological potential, coastal zone, ecological stress, optimization.*

Introduction. The study and assessment of landscape potential is very important in planning, environmental policy-making and nature management [10; 5]. Considering the complexity and diversity of landscapes, the development of objective and reliable quantitative measures and models remains relevant [15]. Conducting empirical research using modern methodological approaches based on the principles of sustainable development is the main requirement of recent studies.

Due to the favorable natural conditions of Azerbaijan, the Caspian coastal plains, which are among the oldest inhabited areas, have been subjected to intensive exploitation in the direction of various economic fields during a long historical period. This process affected individual landscapes and landscape components leading to the degradation of sensitive ecosystems, the creation of re-derivative complexes, and the change of the ecogeographical state of landscapes in general.

In order to prevent these problems, the degree of adoption of modern landscapes in Azerbaijan and the assessment of the ecological condition are currently distinguished by their relevance. It is important to carry out ecogeographic research in ensuring the growing demand of the country's population and food security, optimizing natural landscapes, systematically creating agro-landscapes in various ecosystems, and assessing the potential of natural resources that affect the sustainable development of the area.

Research area and methods. The study

area covers the area from the mouth of the Pirsaatchay to the Astara River in the south of the Caspian coastal plains of Azerbaijan (Fig. 1). The research area covering the South-Eastern Shirvan Plain, Salyan Plain, and Lankaran Plain occupies an area of 6568 km^2.

The study area covers mostly semi-desert, partly steppes, and forest zones. There are 4 landscape types in the area: forest and meadow-forest, forest-steppe and dry steppe, semi-desert and hydromorphic-intrazonal landscapes. These landscapes are combined into 8 subtypes and 35 types [9].

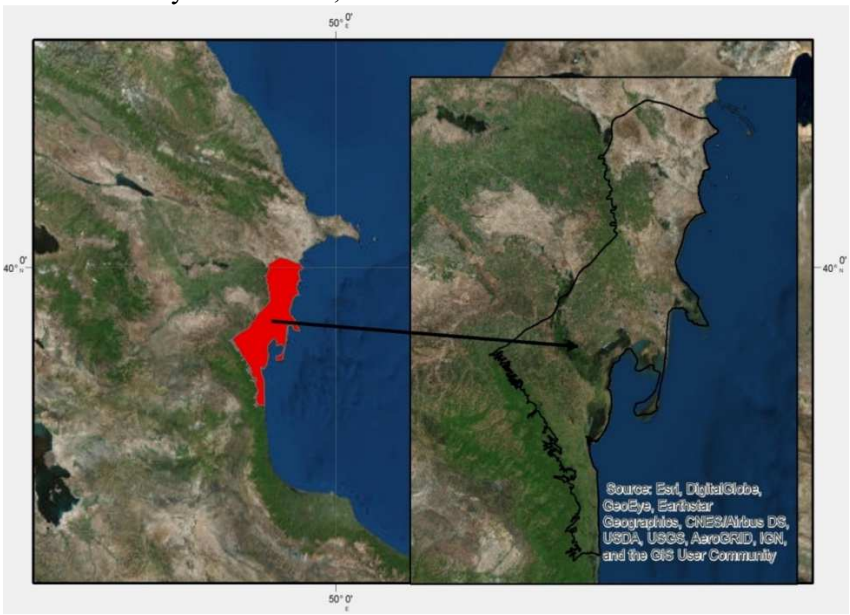

Fig. 1. The study area

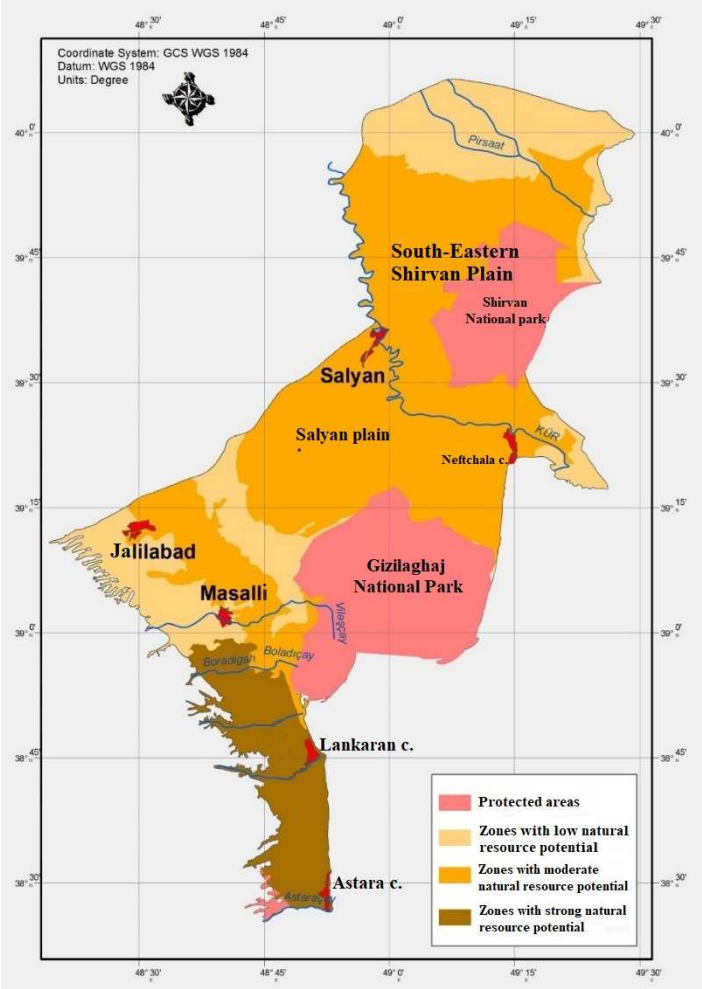

Fig. 2. Assessment map of the natural resource potential of modern landscapes of the Caspian coastal plains

The assessment of landscapes in the study area was carried out based on the integration of existing land use, natural resource potential, and anthropogenic impacts. The maps were prepared by studying the possibilities of action in the direction of environmental protection, as well as identification and optimization of environmental problems caused by natural and human factors. In the research work, there were used comparative geographical, cartographic, remote sensing, analysis of literature materials, and structural-functional approach geographical methods.

Analyzes and discussions. ***Natural landscape ecosystems.*** Most of the territory (54%) is covered by semi-desert landscapes, 14% (917 km^2) is forest and meadow-forest, 26% (1740 km^2) is forest-steppe and dry steppe, and 5% (352 km^2) is covered with hydromorphic-intrazonal landscapes.

Forest and meadow-forest landscapes. The lowland forest landscape of temperate humid subtropics stretches along the foothills of the Burovar mountain range from northwest to southeast, forming a whole forest complex. The forest complex fragments preserve their traces near Yenikand, Chakhirli, and Old Alvadi villages, located north of the area. In the Haftoni area, the forests cover a large area, stretching westward from the Lankaran-Boradigah highway, and merging with the mountain forests. In the south of the area, from the village of Archivan and Astara city to the foothills, the plain creates a meadow-forest massif. In the modern vegetation of the landscape, along with representatives of relict plants (*Quercus castaneifolia, Parrotia, Celtis caucasica, Buxus* etc.), there are also Hornbeam (*Carpinus* L.), elms (*Ulmus*), sycamores (*Pterocary pterocarpa*), etc. tree species.

Forest-steppe and dry steppe landscapes. The steppe landscapes in Lankaran plain, are mainly spread in the areas of Sharaf, Musakuja, Chakhirli, Khil, Khojavar, and Kyzylagaj villages. The relief of these landscapes corresponds to accumulative plains in the bringing cones of Vilashchay, Boladichay, Goytepachay, and Boradigah rivers. Favorable circumstances in the climate, groundwater, and irrigation of the area created conditions for the formation of alluvial-meadow, meadow-brown, and meadow-swamp soils. Alluvial-meadow soils are formed under developed grass plants.

Semi-desert landscapes. The climatic and ecological conditions of the Caspian coastal plains with an absolute height of -28 m to 400 m have created conditions for semi-desert complexes to dominate the landscape in the study area. The semi-desert landscapes is dominated by a dry subtropical type of climate. The amount of precipitation is low in semi-deserts with large reserves of heat. The average annual precipitation in the semi-desert plains ranges from 200 to 350 mm. B Common plant formations in these landscapes include wormwood (*Artemisia*), wormwood-ephemeral, wormwood-saline, ephemeral-saline and their various species.

Intrazonal hydromorphic landscapes. Hydromorphic landscapes are formed as a result of a sufficient or extreme increase in humidity due to the influence of underground, river, sea, and lake waters. Thicket-meadow, marshy-meadow, water-swamp, swamp-lagoon, etc. natural complexes are very common in the Kura-Araz lowlands along the Kura river, in the Salyan plain, and on the seashore. [3]. The relief of this landscape type corresponds to accumulative plains and the bringing cones of Vilashchay, Boladichay, Goytepachay and Boradigah rivers. High humidity within the landscape (climate, groundwater close to the surface) creates favorable conditions for the formation of alluvial-meadow, meadow-brown, meadow-swamp soils.

Assessment of landscapes for natural resource potential. In the research work, the components of the landscape were evaluated by a complex analysis (Fig. 2). Landscapes with poor natural resource potential cover 42% of the study area, with an area of 2,787 km². These landscapes cover part of the Salyan and Southeastern Shiravan plains. Productivity is 4-5 s/ha and belongs to the group of very low and low efficiency. Gray grass, sand dunes, and salt marshes are common in the soil cover. In terms of vegetation, semi-desert plants are dominant. The density of the roads was evaluated as 3-5 points. The potential of tourism and recreation was assessed as 1-3 points (Table 1).

Along with surface erosion, accumulative exogenous geomorphological processes predominate in these areas. In these landscapes with weak ecological potential, where erosion and accumulation processes are dominant, the sunshine is 2000-2200 hours a year. The total solar radiation is 128-132 kcal/cm² during the year, 88-92 kcal/cm² in the hot season, and 40-44 kcal/cm² in the cold season. [16].

The radiation balance of the surface covering is 50-58 kcal/cm² during the year, and the turbulent heat exchange is (-30)- (-22) kcal/cm². The average air temperature in the hottest month is 24-26°C, and the average wind speed is 2-3 m/s throughout the year. [2]. The distribution of atmospheric pressure in different seasons during the year is 700-800 mb in January, and higher than 1000 mb in April, July and October. The beginning of the winter season is observed in the period from

December 10 to December 20, and the beginning of the spring season is observed in the period from February 25 to March 1. The Spring season is observed earlier than May 10, and sometimes between May 10 and May 20. The autumn season starts on October 10 and later [4]. Temperatures higher than 10°C for the provision of heat to plants have an index of 4500 and higher during the whole year [1].

The amount of silicon oxide in the soil is 62-67%, and the amount of iron oxide is 6-7% in the Pirsaatchay basin, which is an average indicator, while it has a low indicator (5-7%) near Jaliabad and Masalli regions. The amount of boron in the soil is 18.4 mg/kg, and the amount of zinc is 18 mg/kg. [4].

Soil fertility was assessed as magnesium-sodium in the Pirsaat river basin and salinity around Jalilabad and Masalli districts. Soil humidity is 5% or less in the Pirsaat river basin, and 15-20% near Jaliabad and Masalli districts. The total moisture capacity of the soil was determined to be less than 3,000 m^3/ha in the Pirsaat river basin, and 3,000-4,000 m^3/ha near Jaliabad and Masalli districts.

Landscapes with moderate natural resource potential cover 23% of the study area and have an area of 1500 km². These landscapes cover the Jalilabad district, the Pirsaat river basin, and the narrow strip of the Caspian coast. Productivity is 5-6.5 s/ha and is included in the low-productivity group. The soil cover is gray-brown, salt marshes, flooded alluvial-meadow, and the vegetation cover is semi-desert and plants regenerating in the place of semi-deserts. The density of the roads was evaluated as 5-7 points. The tourism recreation potential was assessed by 3-6 points.

Surface erosion and accumulative processes prevail in these areas. In these landscapes with average ecological potential, where accumulative (alluvial) processes are dominant, the sunshine is 2,000-2,200 hours a year. The total solar radiation is 128-132 kcal/cm² during the year, 88-92 kcal/cm² in the hot season, and 36-40 kcal/cm² in the cold season. The radiation balance of the surface covering is 46-50 kcal/cm² during the year, and the turbulent heat exchange is (-38)- (-230) kcal/cm². The average air temperature in the hottest month is 24-26°C, and the average wind speed is 2-3 m/s within the year.

The sum of temperatures above 10°C is 4500 and higher for providing heat to plants [14]. The amount of silicon oxide in the soil is 57-62%, the amount of iron oxide is 81 mg/kg, and the amount of zinc is 54 mg/kg. [12]. The salinity of the soil was evaluated as having sodium and medium magnesium. Soil humidity is 15-20%, and the total soil moisture capacity is 3000-4000 m^3/ha. [11].

Landscapes with strong natural resource potential cover 11% of the study area, with an size of 696 km². These landscapes include Lankaran lowland, plain forest landscapes. Productivity is 6-6.5 s/ha, sometimes reaches 28-30 s/ha, and is included in the high yield group. The soil cover is pseudo-podzol-yellow, flooded alluvial meadow, and the vegetation is dominated by coastal reeds and plain forest plants. The density of the roads was assessed as 8-10 points. The tourism recreation potential was evaluated as 6-8 points.

Alluvial-proluvial, marine accumulative type of process prevails in these areas. In the indicated landscapes with a strong ecological potential, where accumulative (alluvial), marine-accumulative processes prevail, the sun shines up to 2,000 hours a year. The total solar radiation is 124-128 kcal/cm² during the year, 88-92 kcal/cm² in the hot season, and 36-40 kcal/cm² in the cold season. The distribution of atmospheric pressure in different seasons during the year is higher than 1000mb in January, April, July and October [14].

The amount of silicon oxide in the soil is 62-67%, and the amount of iron oxide is 7-8%, has a high rate. The amount of boron in the soil is 81 mg/kg, and the amount of zinc is 54 mg/kg. [13]. The salinity of the soil was assessed as low magnesium. Soil humidity is 20-25%.

Protected landscapes with natural resource potential cover 24% of the study area and have an area of 1,585 km². These landscapes include Shirvan National Park, Gizilagaj National Park and part of Hirkan National Park. Grass marshes, swamps, gray meadows, coastal sand dunes, and salt marshes are dominant in the land cover. In terms of vegetation, semi-deserts and regenerating plants in semi-deserts are very common. Road density was evaluated as 0-2 points. The tourism recreation potential was estimated as 8-10 points.

In these areas, the marine, lagoon accumulative process type prevails. Marine accumulative and eolian accumulative processes predominate. The landscapes of the region are attributed to low ecological potential. During the year, the sunshine is 2000-2200 hours in the territory of the Gizilagaj National Park, and 2200-2400 hours in the Shirvan National Park. The total solar radiation is 128-132 kcal/cm² during the year, 88-96 kcal/cm² in the area of Gizilagaj National Park during the hot season, 92-96 kcal/cm² in the area of Shirvan National Park, and 36-40 kcal/cm² in the cold season [14].

During the year, the radiation balance of the surface cover is 50-58 kcal/cm² in the territory of the Gizilagaj National Park, and 46-50 kcal/cm² in the Shirvan National Park, and the turbulent heat

exchange is (-38)- (-34) kcal/cm². The average air temperature in the hottest month is 24-26°C in the Gizilagaj National Park and 26°C and higher in the territory of the Shirvan National Park. The average wind speed during the year is 2-3 m/s in the Gizilagaj National Park and 3-4 m/s in the Shirvan National Park. [4]. The distribution of atmospheric pressure in different seasons during the year is higher than 1000mb in January, April, July and October [14].

Temperatures higher than 10°C have a total of 4500 and higher to provide heat to plants. The amount of silicon oxide in the soils is 57-62%, and the amount of iron oxide is 7-8%, which has a high index. The amount of boron in the soil is 81 mg/kg, and the amount of zinc is 54 mg/kg [13].

After assessing the natural resource potential of landscapes, it is of great importance to study their sensitivity to man-made effects. The vulnerability of landscapes affects their ecological sustainability. Ecological stability refers to the ability of different landscapes to maintain their structure and function as a result of any impacts.

As a result of the influence of natural and ecological-economic anthropogenic factors, the stability of landscapes is affected to varying degrees. The effect of these mentioned factors is observed in the Neftchala district and Absheron economic region, where the most important industrial complex of the studied area is developed.

The part of the studied area belonging to the Absheron economic region differs from other areas due to its intense environmental conditions. In this region, there are industrial plants that have a strong man-made impact on the environment. The observed level changes of the Caspian Sea, natural-anthropogenic desertification processes and other cases also cause an increase in ecological stress in the research area.

Anthropogenic factors dominate the ecological stability of the geosystem. The geographical position of the research area, its location in the zone of direct contact with the Caspian Sea, various types of transport networks connecting the republic with the northern and neighboring states, seliteb complexes covering large areas, and oil and gas fields in the Southeastern Shirvan plain, etc. has a serious effect on the ecological stability of the studied area. In this regard, the sustainability characteristics of landscapes are related to the fact that they have the ability to self-regulate and self-restore against the mentioned anthropogenic influences.

Table 1

Indicators of the natural resource potential of landscapes in the Caspian coastal plains

Landscapes to which it belongs in terms of natural resource potential	Area		Territories	Tourism-recreational potential	Productivity	Congestion of the roads	Soil cover	Vegetation
	km²	%		Bal	s/ha	bal		
Landscapes with poor ecological potential	2787	42	Pirsaat river basin, Jalilabad and Masalli districts	1-3	4-5 (very less productive)	3-5	gray meadow, sand dunes, saline	Semi-deserts, plants that regenerate in the place of semi-deserts
Landscapes with medium ecological potential	1500	23	Jalilabad region, Pirsaat river basin, narrow strip of the Caspian coast	3-6	5-6,5 (less productive)	5-7	Gray-brown, saline, flooded alluvial-meadow	Semi-deserts, plants that regenerate in the place of semi-deserts
Landscapes with high ecological potential	696	11	Lankaran lowland, lowland forest landscapes	6-8	6-6,5 (sometimes 28-30) (highly productive)	8-10	Pseudopodzol-yellow soils, flooded alluvial meadows	Seaside sands, lowland forests
Protected landscapes with ecological potential	1585	24	Shirvan and Gizilagaj National Parks, part of Hirkan National Park	8-10	-	0-2	Grass marsh, swamp, gray meadow, sand dunes, saline	Semi-deserts, plants that regenerate in the place of semi-deserts, seaside sands

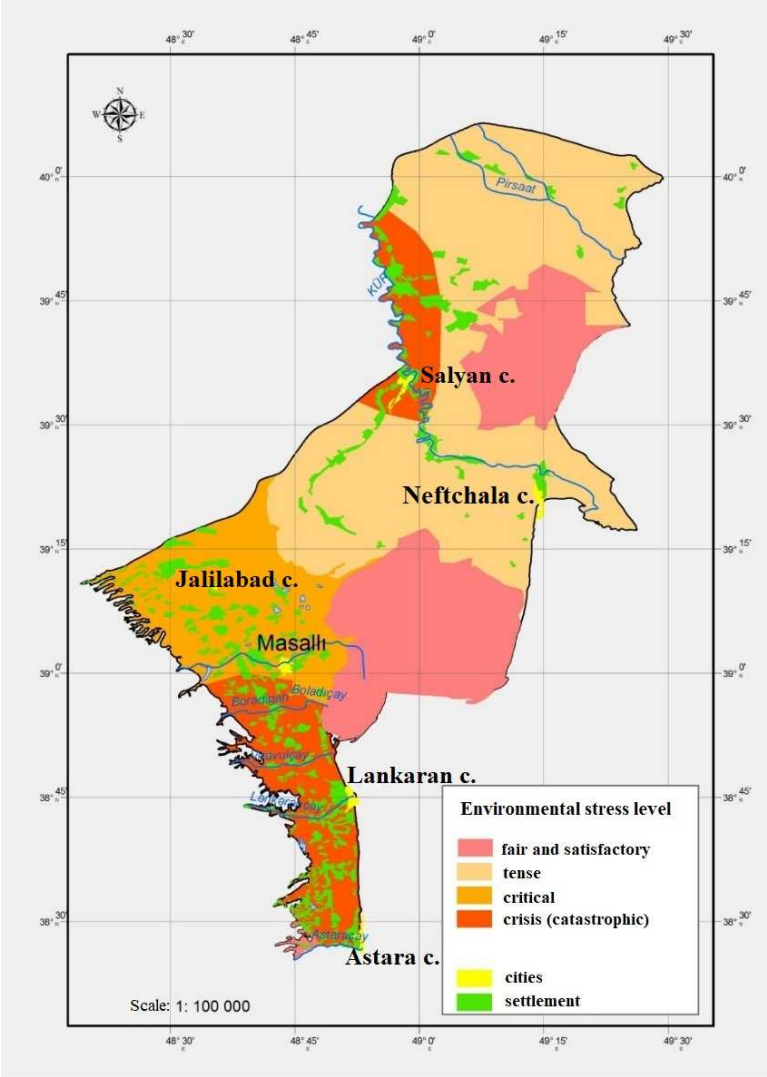

Fig. 3. Ecological stress map of landscapes of the Caspian coastal plains

Table 2

The degree of ecological stress of the landscapes of the Caspian coastal plains

Degree	Environmental stress level	Areas covered	Area		environmental degradation, by points
			km²	%	
I	Fair and satisfactory	Shirvan and Gizilagaj National Parks, part of Hirkan National Park	1585	24	0-40
II	Tense	Pirsaat river basin, part of Salyan and Southeastern Shirvan plains	2713	41	41-60
III	Critical	Jalilabad region and nearby areas	1120	17	61-80
IV	Crisis (catastrophic)	Plain forests, Salyan city and surrounding areas	1150	18	81-100

The scientists have identified criteria for the stability of geosystems to anthropogenic impacts according to the followings [7; 8]:

- the ability to maintain the normal functioning of the landscape at the expense of its internal ecological potential;
- the ability to ensure self-recovery and normal functioning of landscapes after the cessation of anthropogenic influences;
- the ability to maintain the original natural structure of the landscape in conditions of intensive mechanical or physico-chemical effects;
- the ability of the landscape to maintain its structure and normal activity under conditions of

anthropogenic stress (disruption of biological productivity in the surrounding areas due to oil extraction).

Based on the above-mentioned signs, it is necessary to prepare practical measures in the direction of prevention and reduction of the risks of strengthening of ecological tensions that may occur in the structure of natural-anthropogenic landscape complexes.

The stability of the geosystem against man-made influences is evaluated according to various indications. In the research work, such an assessment classification was proposed and there were assessed the classes of landscape stability. [6]: completely sustainable (100-91 points); sustainable (90-81 points); practically sustainable (80-71 points); relatively sustainable (70-61 points); weakly sustainable (60-51 points); unsustainable (50-41 points); completely unsustainable (<40 points).

Taking these into account, the ecological sustainability of landscapes in the research area was studied and the map was drawn up reflecting the ecological tension of the landscapes. (Fig. 2). To assess environmental sustainability, we assessed the ratio of natural and anthropogenic landscapes and the degree of sustainability of natural components.

4 regions have been divided according to the ecological tension. Fair and satisfactory landscapes cover 24% of the study area and make up 1585 km². It includes Shirvan National Park, Gizilagaj National Park, and part the of Hirkan National Park. The degree of environmental degradation in these landscapes is set as 0-40 points (Table 2).

The landscapes in a tense state cover 41% of the study area and make up 2713 km². İt covers the Pirsaatchay basin, a part of the Salyan and South-Eastern Shirvan plains. In these landscapes, the degree of environmental degradation is set as 41-60 points.

Landscapes in a critical state cover 17% of the study area and the area is 1120 km². This category includes Jalilabad district and nearby areas. In these landscapes, the degree of environmental degradation is set as 61-80 points.

Landscapes in crisis cover 18% of the study area and the area is 1150 km². It covers the city of Salyan and its surrounding areas and lowland forests. The degree of environmental degradation in these landscapes is set as 81-100 points.

Thus, after determining the natural landscape potential of geocomplexes and the degree of environmental stress, it is an important factor to develop a system of measures aimed at optimizing ecosystems. For this purpose, it is recommended to take the following measures for the optimal management of landscape complexes in the study area:

- Organization of large-scale landscape planning works during the creation of recreation complexes in landscape complexes, especially in lowland forests, on the sandy shores of the Caspian Sea;

- Taking into account the structural and functional characteristics of natural landscapes during the development of agricultural areas. Taking into account salinization and other problems in the Kura valley region, it is important to implement certain measures during the development of agriculture;

- Paying attention to the implementation of various measures against erosion, swamping and other processes activated by anthropogenic influences;

- Strict compliance with grazing norms established by legislation;

- planting of trees and shrubs suitable for local conditions in areas deforested as a result of anthropogenic activity;

- construction of tourism-recreation facilities that meet modern standards in existing residential complexes;

- organization of important road infrastructure of tourism.

Conclusion.

Thus, evaluated landscapes of the Caspian coastal areas according to their natural resource potential showed that most of the area belongs to the group with weak ecological potential (42%). Such areas have gray meadows and saline soils in semi-desert conditions in Jalilabad and Masalli districts. The least indicators are landscapes with high ecological potential (11%), which mainly correspond to plain forest landscapes in the Lankaran plain.

After assessing the degree of ecological stress of landscapes against anthropogenic influences, a critical or crisis situation (35%) was determined in Jalilabad region and Salyan city and surrounding areas. Relatively satisfactory zones (24%) were compatible with Shirvan and Kizilagac National Parks and a part of Hirkan National Park.

For determining measures for the optimization of ecosystems factors were taken into account such as recreational potential, structural-functional characteristics of landscapes, anthropogenic effects, etc. These factors are quite significant and influential criteria for reducing anthropogenic loading and implementing the concept of sustainable development in areas characterized by the uniqueness and originality of natural objects.

References:

1. Ayyubov A.J. Climate of resort and recreation places of Azerbaijan SSR. Baku: 1987, 93 p.
2. Ayyubov A.J., Hajiyev G.A. Climatic resources of the Azerbaijan SSR. Baku: "Elm" Publishing House, 1984, 132 p. (in Az.)
3. Budagov B.A. Modern natural landscapes of the Azerbaijan SSR. Baku: "Elm" Publishing House -1988. 136 p. (in Rus.).
4. Ecological Atlas of the Republic of Azerbaijan. Baku: BCF, 2010, 176 p.
5. Guneroglu N. et al. Coastal land degradation and character assessment of Southern Black Sea landscape //Ocean & Coastal Management. 2015. V. 118. pp. 282-289.
6. Ismailov M.J. Dynamics of lowland-forest landscapes of the Shollar and Lankaran plains and ways of their rational use. Author's abstract for dis. Cand. Geog. Sciences. Baku, 1990, 29 p. (in Rus.)
7. Ismayilov M.J. Modern problems of optimization, efficient organization, and sustainable development of landscapes of Azerbaijani // Proceedings of the Azerbaijan Geographical Society, 2011, Vol: XVI, pp. 219-224 (in Az.).
8. Ismayilov M.J., Amanova Sh.S. Impact of land use on the anthropogenic transformation of landscapes in Acinohur foothills and adjacent areas // Proceedings of Baku University: Natural Sciences Series, 2015, № 4, pp. 158-165 (in Az.).
9. Landscape map. Azerbaijan Republic. [Map] / – Baku: Baku Cartography Factory, Ministry of Ecology and Natural Resources. 2017.
10. Lee J. T., Elton M. J., Thompson S. The role of GIS in landscape assessment: using land-use-based criteria for an area of the Chiltern Hills Area of Outstanding Natural Beauty // Land use policy. 1999. V. 16. №.1. pp. 23-32.
11. Mammadov G.Sh. Basics of soil science and soil geography. Baku: "Elm" Publishing House, 2007, 660 p. (in Az.).
12. Mammadov G.Sh. Socio-economic and ecological bases of efficient use of Azerbaijan's land resources. Baku: "Elm" Publishing House, 2007, 856 p. (in Az.).
13. Mammadov G.Sh. Soil resources of Azerbaijan. Baku: "Elm" Publishing House, 2002, 132 p. (in Az.).
14. National Atlas of the Republic of Azerbaijan. Baku: BCF, 2014, 444 p.
15. Palmer J. F., Hoffman R. E. Rating reliability and representation validity in scenic landscape assessments //Landscape and urban planning. 2001. V. T. 54. №.1-4. pp. 149-161.
16. Shikhlinski E. M. Thermal balance of the Azerbaijan SSR. Baku: "Elm" Publishing House, 1969, 203 p. (in Rus.).

Анотація:

Махір А. НАДІРОВ. ОЦІНКА СУЧАСНОГО ЛАНДШАФТНОГО ПОТЕНЦІАЛУ ПРИБЕРЕЖНИХ РІВНИН КАСПІЮ

В останні десятиліття високі темпи зростання населення посилили вплив на природу. Розширення сільськогосподарських площ і швидке освоєння землі вимагають оцінки ландшафту та системного планування механізмів природокористування. Основна мета дослідження – оцінити природно-ландшафтний потенціал території та запропонувати заходи, що відображають характер ландшафту та його регіональне та екологічне значення.

Каспійські прибережні рівнини Азербайджану, обрані як район дослідження, відрізняються чутливістю до антропогенного впливу. У процесі оцінки ландшафти досліджуваної території були віднесені до категорій слабких, середніх та потужних за природно-ресурсним потенціалом, продуктивністю та рекреаційним потенціалом. Для визначення рівнів чутливості до техногенних впливів ландшафти згруповано за рівнем екологічної напруженості на задовільний, стресовий, критичний та кризовий рівні та проведено експертну оцінку за 100-бальною системою. Згідно з розрахунком, 54% прибережних рівнин Каспійського моря, що складають досліджувану територію, складають напівзасушливі ландшафти, 14% - ліси і луки, 26% - сухі степи, 5% - гідроморфно-інтразональні ландшафти. Під час оцінки виявлено, що ландшафти з низьким природно-ресурсним потенціалом охоплюють 42% площі, ландшафти із середнім природно-ресурсним потенціалом – 23%, ландшафти з потужним природно-ресурсним потенціалом – 11%. Заповідні ландшафти займають 24% території дослідження. Оцінка чутливості ландшафтів до техногенних впливів показала, що більша частина території (41%) знаходиться у важкому екологічному стані. Проведено оцінку ландшафтів досліджуваної території з точки зору природно-ресурсного потенціалу та антропогенного впливу. У результаті запропоновано систему заходів щодо оптимального управління ландшафтними комплексами з урахуванням виділених зон.

Ключові слова: природний ландшафт, екологічний потенціал, прибережна зона, екологічне напруження, оптимізація.

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