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Koytosh-Forish Tourist Cluster And Its Eco-Tourism Prospects In Jizzak Region

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Abstract: One of the ecotourism clusters of Jizzakh region is the Kuytash-Forish ecotourism cluster, the creation of which will be the basis for the systematic and sustainable development of ecotourism in the region, as well as the formation of infrastructure in the area. Because this ecotourism cluster includes the Nurota mountain range, the Kyzylkum desert and the Aydar-Arnasay lake system, which are the main natural landscapes of the region. The developed route along these locations can be covered on foot, on horseback and by transport. The difficulty level of the routes is high, and family rural hotel houses, national huts and camping sites are offered as accommodation facilities. The tourist products of the tourist cluster are the population itself, their lifestyle, customs, traditions, national holidays and sports, history and historical figures, legends and legends associated with them, craftsmen, and elderly people. The tourist cluster is also rich in ecotourism objects. B The Nurota mountain range is a part of the natural resources of the Kuytash mountain range, the Kyzylkum desert and the Aydar-Arnasay lake system, including rare and endemic species of fauna and flora. For example, 821 species of plants from 78 families have been identified in the Nurota mountain range. Of these, 96 species are complex flowering plants, 78 species are legumes, and 76 species are other plants. 33 species of the reserve's flora are included in the "Red Book" of Uzbekistan, including 3 species of shirach, 3 species of anzurpiyoz, 5 species of tulip, 5 species of astragalus, and others. The Airar-Aranasay lake system is home to 28 species of fish, 3 species of amphibians, 24 species of reptiles, 132 species of birds, and 5 species of mammals. 13 species of birds living here are listed in the International Red Book, and 24 species are listed in the Red Book of Uzbekistan. The Kuytash-Forish ecotourism cluster, located in the natural landscapes of the region, is important for providing employment to the population of remote villages and improving the infrastructure of the region.

Keywords: Ecotourism, cluster, ecology, Koytash, Forish.

Introduction: Swedish economists K. Fredriksson and L. Lindmark [4] used the term cluster in the 1970s to describe the concentration of enterprises in a limited economic area. The creation and development of tourism clusters is an effective and popular form of organizing tourism businesses in specific tourist areas.

Taking into account the high potential of the Jizzakh region for ecotourism and recreation, our esteemed President issued a decree on January 12, 2024 "On measures for the accelerated development of ecological tourism in the Republic of Uzbekistan", which was issued in order to diversify tourism services and accelerate the implementation of investment projects, create more favorable conditions for the development of ecological tourism through rational use of the country's existing resources, attract foreign direct investment to it, and create additional opportunities for business entities to provide employment to the population of mountainous and remote areas, mountainous and desert regions, and expand their sources of income. Resolution No. PP-21 is very important for our region. This resolution approved a targeted list of promising tourism cluster projects that will be launched in the field of ecological tourism [1-2].

The purpose of the research work. To further increase the tourism potential of Jizzakh region and to develop local ecotourism clusters. Analysis of the importance of Koytosh-Forish ecotourism clusters in the social and economic development of the region. Development of ecotourist and geotourist routes of the ecotourist cluster in Forish and Gallaorol districts.

METHODS

In the research process, dialectical and systemic approaches, comparative and comparative analysis, statistical approaches, and grouping methods were used to scientifically substantiate the cluster approach in the tourism sector, to take into account the transformation processes in the sector in the process of clarifying the goals, objectives, and directions of tourism cluster policy, to methodologically study the formation of tourism clusters, and to study the opinions of specialists on this issue .

Level of learning. M. Porter, W.M. Kitsis and A. V. Eliseev, S.K. Volkov, B.N. Navruz-Zoda, N.S. Ibragimov , A. Q. Tokhtamyshov, A. Ergashova, D. X. The Aslanovas have published their scientific and research work on the tourist cluster. For the first time, recommendations are being made regarding the clustering of the tourism industry of Jizzakh region and the interpretation from the point of view of the ecotourism cluster, including the organization of ecotourism clusters in Koytash mountains and Forish district, and the development of geotourist and ecotourist routes.

RESULTS

In the western part of Jizzakh region, on the southern slopes of the Kuytash mountain range of the Nurota mountain system, the beautiful Kuytash mountain mining town is located. The town is located on both sides of a small river flowing through the middle of the stream, on the left bank of which are the administrative buildings of the mine, on the right bank are residential buildings for the population, and service buildings serving them. Among them, a luxurious multi-storey club building, a restaurant, a hotel, a school, a music school, occupy a special place. The development of the town began in the 1930s after the exploitation of mineral resources in this place and intensified during the war years. The 1950s were the period of the greatest development of the town. The roads leading to it were covered with asphalt. Luxurious school buildings and houses were built. At that time, the number of people living in the town reached 7,000 people. In the 1990s, mining and processing operations around the town were stopped. As a result, the population was left unemployed, and the population decreased by 5,000 people. Almost all administrative buildings were empty and half-ruined. Restaurant and hotel buildings were privatized and used for other purposes. The luxurious club building was partially abandoned. Administrative buildings began to be demolished without supervision. How can this town, located on a natural mountain slope, be restored? This question can be answered by restoring the town of Kuytash using geotourism methods, turning it into a tourist town and attracting tourists to the town, thereby ensuring the influx of foreign currency. To do this, it is necessary to conduct scientific research around the town of Kuytash and determine its ecotourism and geotourism potential, that is, to study the natural monuments there, and to create ecotourism routes along the site, or to create a travel route around geotourism sources, and to develop measures to protect the nature of the area. It should also be noted that when traveling along the routes around the town of Kuytash, it is necessary to develop measures for the improvement and conservation of damaged natural monuments in those places, inviting various scientists, geotourists, ecotourists, archaeologists, geomorphologists, biologists to this work. Utilizing the potential of this geotourism area will bring great benefits to the state, because protecting a place as rich in natural monuments as Kuytash and developing tourism on a scientific basis in that protected area will contribute not only to national tourism, but also to the development of world tourism. Thus, tourism in the vicinity of Kuytash serves to increase the quality and assortment of national goods and services in the production of goods and services. In addition, tourism creates new jobs and increases the income of the population [9]. The use of service facilities left over from the mining industry in the town of Kuytash has reduced the cost of developing the town. By studying the tourist resources in the vicinity of the town of Kuytash, it can be determined that three new tourist routes can be created there.

The route of the volcanic rock monuments and the lake around the town of Kuytash. The route starts from the town of Kuytash and goes to the mountain lake located 2 km east of it. In front of the mountain lake is a triangular-shaped peaked rock called Khan Mountain. The entire route passes through a huge valley. The geotourism potential of this route is represented by its unique sculptural monuments, rocks of various shapes

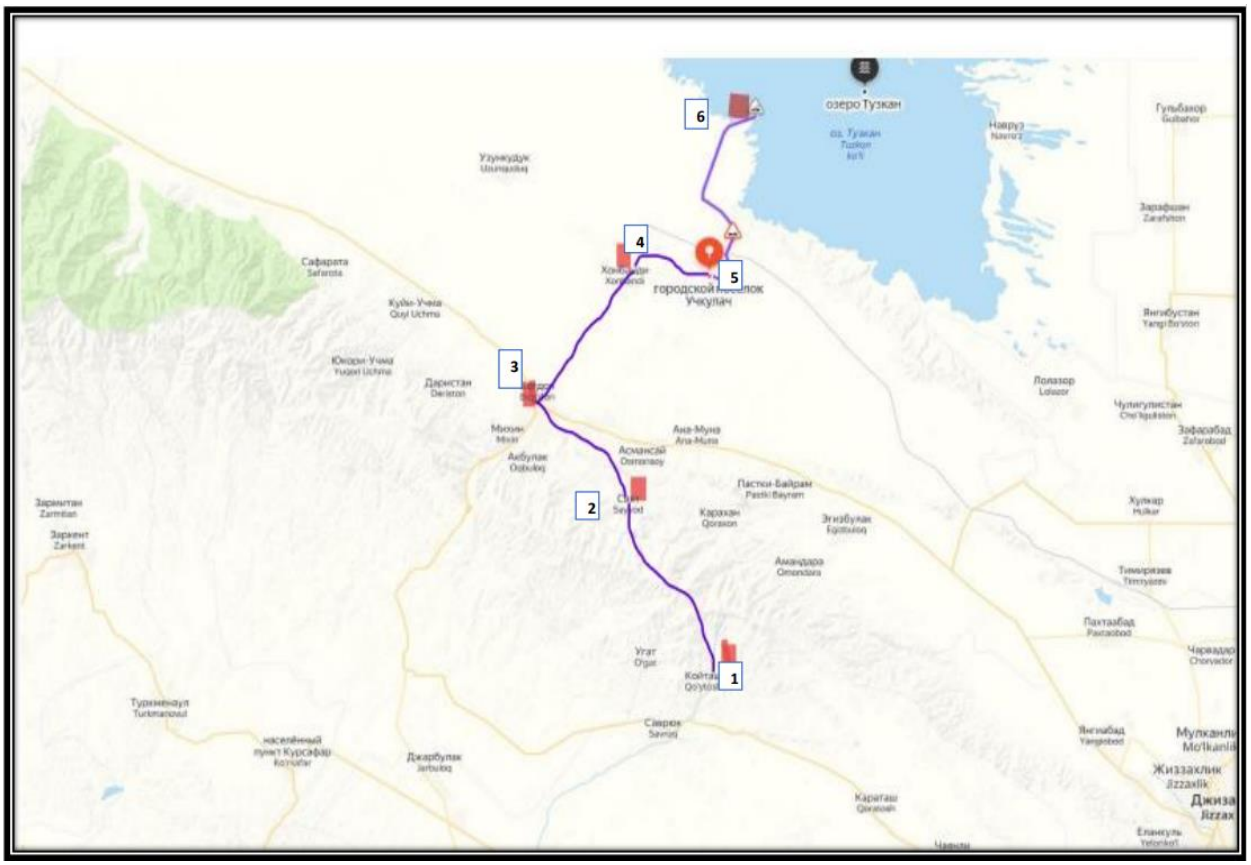

Figure 1. Map of Koytash-Forish ecotourism cluster routes. (1-Koytosh town, 2-Sayot village, 3-Boghdon settlement, 4-Khonbandi settlement, 5-Uchkuloch town, 6-Aydar-Arnasoy lake system)

are considered separate rocks. Here, on the slopes of Mount Koytash, rocks are everywhere. They can be seen on the right, left, above, and even on the top. You are surrounded by huge rocks, rocky peaks from all sides. No matter which direction you walk, you will encounter shaped rocks, dome-shaped rocks, and shell-shaped rocks in front of you. You will see rocks hanging suspended above the rocks as if defying gravity. Most of the rocks on the slopes are in the shape of familiar animals. The rocks on the slopes resemble a herd of grazing sheep. Therefore, it is said that the name of this place comes from the combination of "Koytash", which means "sheep" and "stone". It is said that once upon a time, a shepherd, angered by God, turned into stone with his flock. If you walk towards the lake, located about two kilometers from the town, you will come across stone monuments in the form of unknown animals, grazing sheep, a dragon's head, a sphinx, a resting seal, a statue of the Russian poet Pushkin, a cobra with its mouth open, a crocodile, or various mushrooms.

During the demonstration of these geotourism stone monuments, tourists are explained how they were formed. First of all, attention is paid to the fact that they all formed from igneous (magmatic) rocks that formed during volcanic eruptions. During volcanic eruptions, igneous rocks erupt to the surface of the earth, and with them gaseous, liquid and solid products are released. Gaseous products include hydrogen, oxygen, carbon dioxide, water vapor, sulfur, and chlorine gases. Liquid products are lava with a temperature of about 1000, which flows out of the surface of the volcanic cone, forming streams and then solidifies [8]. The solid products that came out during the eruption of the volcano - volcanic ash (powdery substances), sand, lobules (1-3 cm in diameter), bombs (from several centimeters to several meters, and they spread around in the form of solidified lava and form a layer of several meters and cover the slopes. The layers of sand and stones of various shapes covering the slope around the rock are these lopillas and volcanic bombs, which are after their appearance. as a result of the natural processes of the period, it entered the form of the above-described natural monuments.

Granite, an igneous rock, is abundant in the vicinity of Kuytash. Granite erupts to the surface in the form of lava during volcanic eruptions and has a completely diamond-like structure. The minerals that make up granite are bright quartz and dark biotite. As they expand and contract as a result of heat and cold, cracks appear between the layers, and the layers form a mat-like shape. A distinctive feature of this rock is that it is susceptible to weathering and mechanical processing of its surface, which leads to corrosion. The wind helps to form the stone natural monuments around Kuytash. The wind speed increases its weathering process. The

wind, with a speed of tens of centimeters per second, carries away a layer of dust. A wind speed of 10 m/s can carry away rock fragments with a diameter of about 1 mm, while a wind speed of 20 m/s can blow away or dislodge rock fragments with a diameter of 4-5 mm to 2-3 centimeters.

The mountain valley winds blowing here displace all the small objects in their path, enter the cracks in the surface of the rocks, and form cavities in them. The atmospheric precipitation entering these cavities further enhances their weathering. In this way, the combined effect of wind, water, physical and chemical weathering causes the formation of rocks of various shapes here. As a result of the expansion of the cracks under the rocks, they can turn into mushroom-shaped forms or, if separated from the base, into a shaking rock. If small objects carried by the wind encounter an obstacle in their path (large stones, rocks), they hit it, forming various forms of corrosion on the surface: rounded, eroded areas, horizontal lines, and smoothed surfaces. The degree of corrosion intensity affects the strength of the rocks, their structure, and the division into layers. Soft rocks fluoresce quickly, while hard rocks fluoresce more slowly [6]. Small particles carried by the wind are 1.5-2 m above the ground. Therefore, isolated rocks, or "bombs" from volcanic eruptions, fluoresce like mushrooms, igneous rocks, or monumental stones. The low mountains surrounding the town of Koytash surround it in a circle, and the town looks like a point nestled between mountains. Considering that the surrounding rocks are composed of igneous rocks and that it was formed as a result of a volcanic eruption, the circular area where the town is located can be considered a crater (Greek for bowl), the place where the volcanic eruption occurred. The crater has a funnel-shaped bottom and from it flows water vapor, gases, rocks, and lava. Currently, there are no active volcanoes in Uzbekistan. However, research by geologists shows that over 50 volcanoes erupted in the republic over long geological periods, and the craters of extinct volcanoes gradually turned into calderas (boilers). A caldera is an extinct volcano that does not have crater-like volcanic activity and has a flatter and wider base with strongly concave edges. For example, the caldera of the Palma volcano in the Canary Islands reaches a diameter of 21 km. A lake usually forms at the lowest part of the caldera [9]. This can be seen in the example of a lake located 2 km from the town of Kuytash. In front of this lake is the magnificent, triangular-shaped Khan Mountain. The formation of this rock is also associated with historical volcanic activity, as it is a lava plug stuck in the crater, which later opened up as a result of erosion and is called a neck in geological terms. This route is intended for hiking tourists, and the mountain lake at the end of the route can be used for recreational purposes and as a beach. This route can be used more purposefully, that is, as a field practice site for students studying geology, geography, natural history, biology, and tourism [10].

Kuytash-Qarangul sky travelers geotourism route (Figure 2). After driving thirty kilometers south along the mountainous roads through the village of Kokbulok in the Kuytash town, you will reach a place conditionally called the "sky travelers" seven kilometers northeast of the village of Qarangul. A distinctive feature of this place is that it contains deep black, shiny, ringing megalithic stone monuments with a diameter of 1.5 to 3 meters and more, stone formations in the form of stone balls, discs, eggs, and flying saucers.

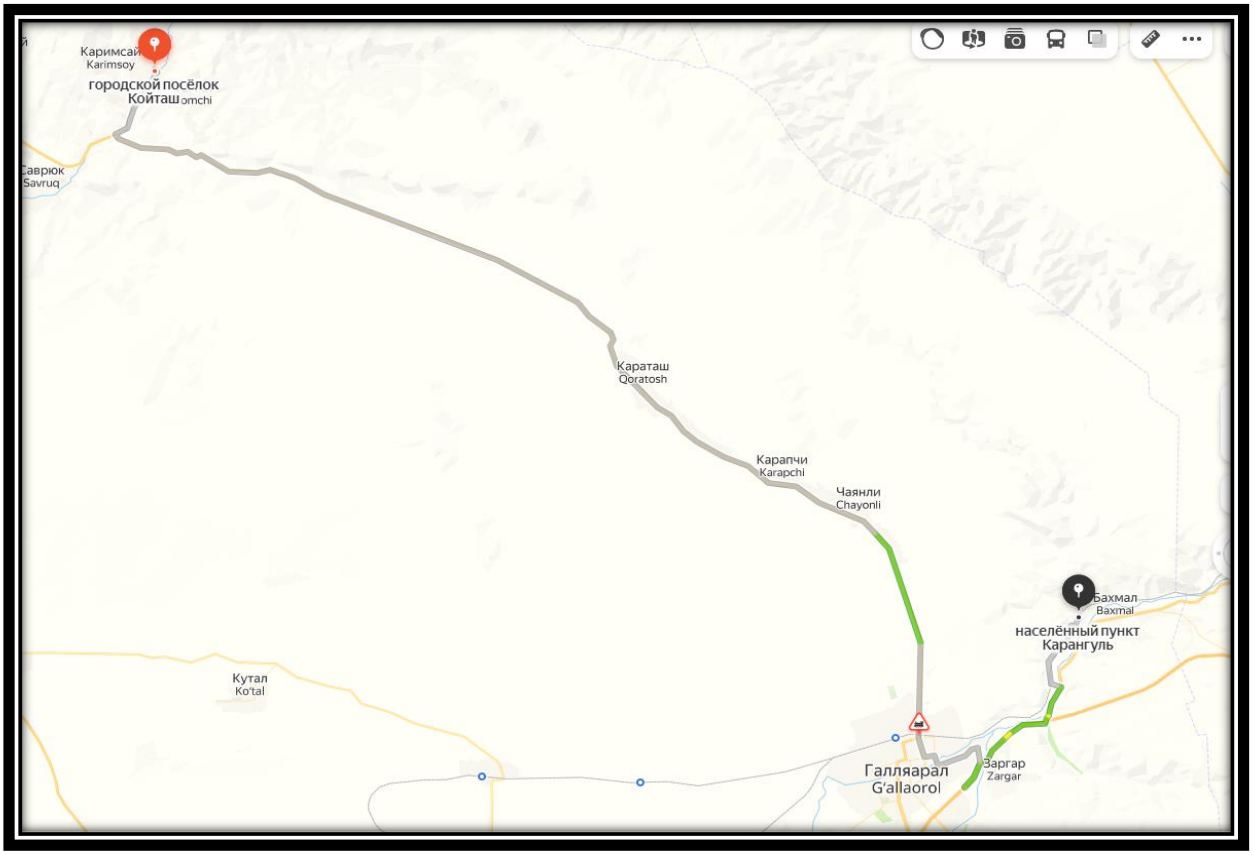

Figure 2. The memory of the "Koytosh-Korongul" ecotourist route of the Koytosh-Forish ecotourist cluster.

We see. Some of them were half-exposed from the stone layers, while others, especially those in the shape of flying saucers, lay directly on the stone slopes. These stone saucers were marked with signs of mechanical processing. The local population could not give any explanation for how these megalithic monuments appeared. When we, as specialists, analyzed the places where such black shapes were found in Chechnya, within the Russian Federation, they assumed that they were dinosaur eggs that had been petrified, since almost all of them were ovoid in shape. In our conditions, among the ovoid shapes, there were more complete spherical and saucer-shaped shapes, and since such round and saucer-shaped eggs were not found in nature, we abandoned the hypothesis that they were petrified dinosaur eggs. Another hypothesis is that they are formed from volcanic ash plumes (1-3 cm in diameter) and bombs (from several tens of cm to several meters in diameter) that have erupted from the craters of volcanoes. This hypothesis must also be rejected, since magmatic (igneous) rocks are not visible around these rocks, and mainly sedimentary and metamorphic (reworked) rocks have formed, so there are no signs of a volcanic eruption in this place. Moreover, the eruption of round balls or saucer-shaped rocks from a volcano is an unprecedented phenomenon. There are other forms of such black, shiny megalithic stones, namely, a ziggurat-shaped one near the village of Karasay near the Iron Gate, and a "Mirror Stone" near the village of Uab. The inhabitants of the village of Uab believe that the "Mirror Stone" came from space. According to local residents, in the distant past, tribal leaders considered the "Mirror Stone" to be a representative of a separate god sent to earth, held a congress in front of it, and sent the decision of the congress to the god through the mirror stone. Scientists who studied the Mirror Stone also came to the conclusion that it was not created there, but a meteorite that flew from space. While studying one of these spherical stones, it was discovered that there were ancient drawings drawn on the stone. The artist of that time placed a whole gallery of people and unknown animals on the spherical stone. There are two images of people on the upper part of the spherical stone. If we call one of them a primitive man, the second one resembles an astronaut. His legs and arms are swollen from the pressure inside the spacesuit, his head is covered in a circular helmet, and on both sides of it are plates that look like antennas. Perhaps the primitive artist wanted to describe the meeting of two civilizations - the Earth and the universe - in this picture. What does the ancient artist mean by these pictures? Where did he see a man in a spacesuit? The pictures on the second floor are a find. They depict animals with large round heads, sharp snouts, small bodies and two huge fan-like tails. It is interesting that these pictures are repeated several times and are located under the

image of an astronaut and a man. When these pictures are compared with the ancient zodiac signs, it was found that they resemble each other. If this idea is correct, then the artist who drew these pictures was not so primitive if he knew the zodiac signs at that time . If the megalithic monuments between the town of Kuytash, the villages of Korangul, Kara Tash, and Uab were thoroughly studied, ecological trails were laid between them, and service facilities and services were built, this route would become the most popular ecotourism route in the republic and the world. The distance of this route is 47 kilometers, and it takes 1 hour and 40 minutes to cover it by transport.

3. Kuytash - Sayyod - Bogdon - Forish - Khanbandi - Uchkuloch - Arnasay - Aidar - Tuzkon route. A 22.8-kilometer hike along the Kuytash mountain will take you to the Utov camp in the Sayyod village. This recreation center, designed for about 100 people, provides travelers with services such as showers, swimming pools, national cuisine, horse and bicycle rental, mountain guides, free internet access, and free breakfast. Travelers can relax and unwind in the national forest. Travelers will walk along mountain paths for 4.30 hours. During this eco-route, they will see mountain rivers, springs, and unique fauna and flora. From the Sayyod village, a 12-kilometer hike along mountain paths takes 2.40 minutes to reach the Bogdon village. This village has long attracted philologists. Because the Uzbek dialect spoken by the Bogdans is found only in this village and is not found in other parts of our republic. Therefore, domestic and foreign tourist groups interested in folklore can be invited to Bogdan. In addition, carpet weaving is widely developed in Bogdan, and woolen carpets woven by Bogdan girls are famous in the republic. Among the Bogdan cuisine, there are ancient dishes of the Uzbek people, such as gilmindi and kurtoba, and ethnographic tourism can be organized in this village. After traveling 12 kilometers from Bogdan by transport, you can reach the settlement of Khanbandi. In this settlement there is an ancient archaeological monument, the ancient Khanbandi reservoir. This unique place has been called "Band - Tugan" for a thousand years, sometimes "Khonbandi" - "Khan's Bandi" - "Khan's Tugan". This dam structure is considered the oldest among the irrigation structures built by the peoples of Central Asia , - says academician Eduard Rtveladze. Despite the fact that such a majestic old dam was built in the 10th century AD, there is no information about it in written sources. The upper part of the dam is 51.75 meters wide, the lower part is 24.35 meters, and the height is 15.25 meters. It is built of cut granite stones. The mud-clay mixture, which even rainwater cannot pass through, was prepared by the dam masters on the spot. The dam structure stretches from sunrise to sunset and opens to the north. On the left, that is, the western side of the dam, nine openings - water channels are left at different heights for releasing water.

From the settlement of Khanbandi to the settlement of Uchkuloch, we will go by transport, and we will travel through the mines of polymetallic ores mineral-raw material bases there. The famous Aydarkol-Tuzkon lake system is located 50 km from Bogdon. The Aydarkol-Tuzkon lake system was created in 1989 as a result of the release of 29 km3 of water in the Shardara reservoir. Later, the Arnasoy, Aydarkol - Tuzkon lake range became a unique ecological object, a breeding ground for many birds, a stopover, and a base for fish production. The Arnasoy-Aydar-Tuzkon lake range is home to more than 100 fish and 400 bird species. 11 species of birds are included in the International Red Book. During the tourist season of the year, from January to March, about 400 bird species fly to the shores of Aidarkul for wintering. This phenomenon causes great interest among world ornithologists, and over 100 scientific tourists can be expected to visit the lake during the 2 months. During the tourist season, bathing, beach tourism, fishing and hunting, depending on the theme, are offered here. Because the lakes serve as a place of rest for local tourists, for foreign tourists they provide an opportunity to: study national traditions, live in an unconventional environment, and relax away from the hustle and bustle of city life. Also, the Forish forest and hunting area is located here, where tourists can hunt waterfowl, large game animals, and fish. For this purpose, it is necessary to organize infrastructures, means of accommodation, and other facilities based on the requirements of the Forish forestry and game management officials to organize such directions as hunting tourism, ecotourism, ornithological tourism, which are considered as special types of tourism.

CONCLUSIONS

The area around the Kuytash town has so far been divided into approximately three geotourism and ecotourism routes (Kuytash town and strange stones, Kuytash - Forish, Kuytash - Karangul). In the future, geotourism research should be conducted in these areas and measures should be developed to protect these places. The increase in the flow of tourists to these areas will create problems with their accommodation and the expansion of the service sector. To solve this problem, the issues of using the housing stock built during the mining operations in the Kuytash town and using the profits received to build new services will be resolved. In this way, the mining town will be transformed into a tourist town, the displaced population will return to their places of

residence and be provided with jobs, the issue of unemployment will be resolved, and the Kuytash mining town will become a tourist town and contribute to the economy of our republic.

Now, in the perspective of the Koytosh-Forish ecotourism cluster, it is appropriate to implement the following: 1. Evaluation of the ecotourism and geotourism potential of the place 2. Development of the nature protection regime of the place. 3. Determining the relationship between ecological and technical problems 4. Calculation of recreational pressure. 5. Creation of routes in such directions as geotourism, ecotourism, ethnotourism, agrotourism, sports-health tourism, ornithological tourism. 6. Production of methods of geotourism and ecotourism, ethnotourism, agrotourism, hunting tourism, water tourism. 7. Production of geotourism and ecotourism nature protection measures. 8. Improvement of infrastructure. 9. Increasing the number of family guest houses. 10. Development of a plan to make museums-mines in abandoned mines. 11. Equipping the routes, strengthening campaigning activities. 12. To improve the knowledge and skills of indigenous people in the areas of tourism and entrepreneurship in the settlements covered by the tourist cluster.

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