

# SOME ISSUES OF THE ORGANIZATION OF ICE TOURISM DESTINATIONS IN UZBEKISTAN

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## KEYWORDS

*Glaciotourism, ecotourism, speleotourism, agrotourism, routes, tourist, Western Tianshan, Piskom, Ohangaron, Kashkadarya, Surkhandarya, Topolangdarya, Tekeshsoy, Bodoksoy, Urungachsoy, Ikhnachsoy, Kshut, Sangiasiya.*

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## ABSTRACT

This article is devoted to the issues of organizing glaciotourism routes in the territory of the Republic of Uzbekistan, the article elaborates a number of recommendations on the organization of glaciotourism routes in our republic and highlights the level of complexity based on the possibility of exiting the routes.

## INTRODUCTION

Each discipline divides into branches during development. Thus, "Ecotourism" was separated from tourism. Now ecotourism, in turn, is divided into such types as "Speleotourism", "Agrotourism". (V.V. Khrabovchenko, 2003). All this process is taking place in an evolutionary state according to the demand of the time. Because the solution to the rapidly developing economic problems requires tourism, like many industries, to develop rapidly in different directions, not as a whole. This is becoming a matter of national importance. Nowadays, tourism is one of the promising sectors that bring high income to the national economy. Uzbekistan is a country with great potential in the field of tourism. Using the unique nature of our country and the presence of beautiful recreation areas, it is possible to open new tourist destinations. Attracting world brands to this industry, we need to pay special attention to the development of pilgrimage tourism, ecological,

administrative ecotourism, gastronomic tourism and other branches of this industry. (Shavkat Mirziyoev-December 22, 2017). In this regard, the existing natural geographical resources of our republic have not yet been fully taken into account. One of them is more than 345 glaciers located in the upper parts of the mountains that exist in the region. Although mountain glaciers have been studied to some extent from the natural geographical hydrological, geomorphological, purely glaciological point of view, their ecotourism role is one of the completely unexplored areas. Therefore, this situation provides an opportunity for the sustainable development of the new direction of "glaciotourism" as part of ecotourism. Glaciotourism is a new field that has not been fully studied not only in our republic, but also in the world science system. Therefore, its relevance, development of objectives, assessment and scientific confirmation of its resources

in our republic will lead to its development as a new sector and will lead to the recognition of Uzbekistan as the homeland of tourism.

Glaciotourism is derived from the Latin word "glacies" for ice, tourism - from the French word "tourisme" and "tour" - travel. Therefore, glaciotourism is a special new direction of ecotourism organized for viewing glaciers and landscape complexes formed in connection with them. It has certain goals and tasks, and there are enough natural geographical resources for the development of glaciotourism in our republic.

In the territory of the Republic of Uzbekistan, there are opportunities for successful organization of glaciotourism routes mainly along the Piskom, Ohangaron, Kashkadarya and Surkhandarya river valleys. Because there are enough glaciotourism facilities in the mentioned areas to attract those interested in the trip. However, their geographical distribution and the condition of the nodes connecting these points (asphalted road, stone road, path) are not the same. This situation, in turn, can create certain obstacles and difficulties for organizing a trip. For this reason, it is appropriate to study the directions of glaciotourism by dividing them into four categories according to the level of complexity.

1. Very simple routes. Helicopters are the most convenient form of transport for organizing this tour. Special helicopters organized by tourist companies can take a group of tourists from the centers of the republic or region to any point where there are glacial tourist objects. The convenience side of these tours allows you to travel to several selected points for a short period of time (for example, a day).

2. Simple routes. There are opportunities to use motorized vehicles (minibus, car, boat (for example, Topolong, Chervok reservoir), motorcycle, etc.) to organize this tour. Because simple routes mostly pass through fourth-order base surfaces where there are paved or stone roads, and these areas have the ability to freely move the types of equipment shown in the regions. Tourists participating in simple glacial tourist routes will have the opportunity to get acquainted with subglacial tourist objects. This tour can be extended for one or several days according to the wishes of the participants.

3. Complex routes. It will be possible to use horse-drawn transport (horse, donkey, mule, etc.) to organize complex routes. Because complex routes now allow movement along paths crossed by third- and second-order base surfaces. Since such surfaces are low and high, sloping slopes, only the above-mentioned type of horse-drawn transport (horse, donkey, mule, etc.) will be able to move. On such routes.

4. Extremely complex directions. In the implementation of this type of routes, the level of use of any type of transport is low. For this reason, it is carried out by tourists who have the opportunity to walk more. Extremely complex routes are organized along the first-order base surfaces with scattered glacial objects, so the movement can be somewhat complicated trails or along ice surfaces and firn fields without a trail. Even so, very complicated routes are distinguished by their attractiveness and irresistible scenery. These tours can be organized for one day, with or without overnight stay according to the wishes of the group, and the establishment of main camps for tourists at the starting point of each tour plays the role of the main factor in the successful implementation of the tour. Thus, the main glaciotourist destinations of Uzbekistan will have the following abbreviated order:

Tourist route is the planned route of movement of the tourist, excursionist according to the list of the main places visited by the tourist, excursionist during the trip. We can show more than 60 glaciotourist destinations in our republic, but in this article we found it necessary to describe the most important of them.

The proposed glaciotourist routes will be organized along the Piskom, Kashkadarya and Surkhandarya basins of our republic.

1. Aygaing-soda route. This route starts from the confluence of the Piskom and Ugom rivers, i.e., the point where they together are called Chirchik. Above it, the river is called Piskom, and flows for 122 km along a V-shaped valley, into which the Maidontol River flows along the right bank, then the Piskom

River is called Aygaing. It is at this point that the Sarijoyak urochisha was formed, which can be studied as the most interesting and early glaciotourist object of this direction. A pile of moraines of the ancient ice age is clearly visible in Sarijoyak. During this distance, the road is paved initially, and after the village of Piskom, it is rocky, but there are almost no difficulties except for a few steep slopes for the movement of motorized equipment. Along the way, tourists can enjoy the view of the Piskom River, which forms rapids and flows rapidly, the slopes of arzhazor, narrow canyons, and strange rocks. As the summer season progresses, the scorching sun fades and the air temperature starts to cool. At the beginning of Sarijoyak urochishka, the road goes steeply, and then the stone road rises imperceptibly to the east along the almost flat valley floor. But the landscape is different, sometimes juniper, sometimes hawthorn, mountain cherry, wild apple, zirk and other mixed forests. Green meadows, many springs with clear water, waterfalls along the way, snow-covered peaks that look very close despite the fact that it is summer, and steep slopes can be seen. . Soon, in the nature of Uzbekistan, it is possible to observe the growth of thicket forests, which are unique only to the valley of the Aygaing river. On the sides of the road, various kinds of flowers bloom and bring pleasure and pleasure to tourists. The road is crossed by muddy streams that flow from both sides of the mountain and soon flow into the Aygaing River. One of such streams is Tekeshsoy, which differs from other streams in that many huge erratic rocks have been preserved in the lower part, and moraines formed by an ancient glacial tongue on the side of the road create beautiful landscapes that form a platform-like surface. The road will soon be called Tastarsoy from the left, and from the point where it reaches the opposite confluence of the Tuz Oshuv streams at the same height (2520 m), the Aygaing river will be called Shibirsoy. At the same point, the I-simple route ends. Since the road after it is somewhat inconvenient for motorized vehicles, tourists will be able to use horse-drawn transport.

2. Urungachsoy-soda route. Urungachsoy is the right tributary of the Piskom river, its length is 10 km. From the paved main road, there is a stone road for 5 km upstream (northwest) along the river. This situation creates a favorable opportunity for the movement of various types of motorized equipment in this interval, and it ends at the Lower Urungach Lake. The lake was formed due to the formation of a natural dam (h-1270 m) due to the blocking of the Urungachsoy basin with sand and gravel masses, a characteristic feature of the Western Tianshan Mountains. It is a tourist object with clear water and beautiful scenery. The water collected here seeps through the bottom of the sand and gravel dam and flows into the Piskom river again in the form of a tributary.

Urungachsoy-complex route. It is possible to move up from Urungach Lake only on foot or using horse-drawn transport, and then the road consists of a narrow path, which does not allow for the movement of motorized equipment. Above it, the Urungachsoy flows through a narrow gorge, and the water sometimes disappears behind the pile of alluvium formed at the bottom of the stream, and sometimes emerges again, creating strange landscapes. The steep trail finally climbs after 2 km to the height of the moraine piles blocking the stream, and finally Upper Urungach Lake is visible. Although this lake is slightly larger than the original downstream lake, it is similar to the original in its features and scenery, with the accumulated water percolating through the piles of large granular rocks that block the stream. In the lower part of the moraine piles, several large thermokarst depressions provide information about the origin of this natural dam. This lake was formed at an altitude of 1450 m. From the shore of the lake, the trail continues along Urungachsoy, and after another 2-2.5 km, steep cliffs begin.

The watersheds of the rocky gorges are saw-shaped and have a height of more than 2000 m. It is proved that there were mountain glaciers along these heights during recent historical times, and they pushed down along the wide and flat bottom of Urungachsoy, reaching the entrance of the narrow gorge where the present

Urungach lake dam was formed. xta, it is easy to imagine that he left piles of moraine here.

3. Bodoksoy-complex route. The distance between Bodoqsoy and the glaciers No. 13 (Bodoq-1) and No. 14 (Bodoq-2) shown on the map and flowing into the Piskom river is 8 km. It has many interesting subglaciologist, postglaciologist and glaciologist objects.

Bodoksoy's confluence point with the Piskom River is located at the entrance of a narrow gorge at an altitude of 1100 m above sea level. Due to the steepness of the slope covered with mixed forests, the trail passes only along the bottom of the Bodoksoy gorge. The condition of blocking of streams with loose rocks, which is typical for the Western Tianshan Mountain, is often repeated in Bodoksoy. For this reason, it can be observed that the stream in this direction turns into a river that "disappears" after several hundred meters, and reappears in the form of huge springs. One of the most characteristic aspects is the formation of small but very attractive lakes with clear water at several points of the river bed. These lakes were formed when the river bed was completely blocked by loose rocks. According to the traces of water left on the steep rocky shores, it can be understood that the level of these lakes rises to several meters during the flood season. When the trail rises to a height of 1600 m above sea level, along the bottom of Bodoksoy, a barrier consisting of rock fragments of different genetic origin and size appears. According to its condition, it can be assumed that it is a postglacial object-moraine deposits. When you climb to the top of the moraine, you will see a unique natural landscape - sparse spruce trees, a green slope and a lake with clear water. The fact that the bottom of the lake was a rather wide but short trough can be seen from its stair-like trough kifts, rising free from the water, even along the solid rock layers. This lake is called Bodog and it is located at an altitude of 1705 m above sea level. Its northeastern side is steep, the bedrock is exposed, and the southern side is slightly sloping, so the path along the southern shores of the lake, or rather, under the exposed rocks, is obvious. passes along the noticeable trog kifti.

Bodoksoy is a very complicated route. Since the eastern part of Bodog Lake consists of steep rocks, Bodoksoy flows into the lake from a height of several hundred meters, forming scenic waterfalls. Since the trail now goes up that steep slope, it is safe for tourists to walk on foot. The trail continues for another 3-4 km along steep, sometimes slightly flat surfaces, and finally reaches the mountain glaciers No. 13 (Bodoq-1) and No. 14 (Bodoq-2). This point is located at an altitude of 3250 m above sea level, and at an altitude of 3300 m there are fir fields. The part of the ancient tongue of the glacier once reached the point where Bodog Lake is located, but its current state is only 200 m wide and 500 m long. It is a small remnant of a large mountain glacier, preserved as a unique glaciologist object located in the upper part of a rather wide trog valley. You can easily walk along the glacier level. Several ice chairs, glacial crevasses, and several rows of glacial rivulets formed on its tongue are the cause of strange spectacles, but tourists should not forget about safety precautions during the trip.

4. Ikhnachsoy (duration 12 km) - complex route. Ikhnachsoy joins the Piskom river 1 km below the Onaolgan stream. But since crossing the river Piskom at this point is a great difficulty, it is advisable to start the route from Piskom, the last village in the valley. It is easy to hire horses in this village, and it is necessary to go to the right bank through a strong bridge at the foot of the village. The path along the foot of the mountain, after passing Piskomsoy and Semizsozsoy, climbs up a little steeply, descends to Ikhnachsoy at an altitude of 1850 m above sea level, and goes up along the valley floor directly against the flow of Ikhnachsoy. goes Below it, Ikhnachsoy flows through a narrow gorge, so there is very little opportunity to move along the stream. On the way, it is possible to move up along the right and then the left bank after crossing the stream several times. As the trail runs along the flat surface, walking on it is not too difficult. At a distance of more than 5 km, after rising to a height of 500 m (every 1 km, from 100 m), you will reach Katta Ikhnach lake. Both of Ikhnachkol belong to the series of dam lakes and are distinguished

by their beauty, and the height at this point is 2357 m. The trail developed along the right bank of Katta Ikhnachkol up a slightly steep slope. But you should not rush to set off, because there is a second lake, smaller than the first one, but no less scenic, called Kichik Ikhnach, very close to the western side of Big Ikhnachkol (around 500 m). The most convenient choice for viewing these natural monuments is to spend the night by the lake. In the morning, the road can be continued upwards along Ikhnachsoy. The path goes through sparsely grown juniper forests and climbs to the southwest towards the pass where Sariboy stands. But it is desirable that the route should be directed to the south, not along the trail.

Ikhnachsoy is a very complicated route. At this point, the altitude is around 3000 m. After a short rest, the pedestrian will no longer go along the main riverbed of Ikhnachsoy, but in the direction of the tributary that joins it from the left side. While flowing along the stream, the stream sometimes disappears among the rocks, sometimes it reappears on the surface, sometimes forming beautiful waterfalls. The rising valley floor is flat, indicating that it is actually an ancient trough, the glacier above was once large and covered the now moving valley floor. Soon, moraine deposits can be seen, as if to strengthen our thoughts, and a mountain glacier located in a huge snow can be seen. This is the only mountain glacier in the direction of Ikhnachsoy, it is formed at an altitude of 3450 m above the sea level, its length and width are about 0.8 km, and it has a circular appearance. Because the car is formed in front of the giant cuesta, it casts more shadows on the surface of the glacier. The slope on the surface of the glacier is not large, therefore, it is recommended to move carefully and look around.

After Kal'asay, the broad and flat surface is located on the right side of Chimboy, and on the left side of Khoja Akhchaburun carbonate massifs. The plateau of Chimboy (h 3798 m) is strongly karst, it slopes towards the east, there are karst wells, cracks, and small caves. If you look carefully, you can understand that there were mountain glaciers in these places in ancient times. Traces of erosion, moraine piles are still visible above the valleys and are very interesting as a postglacial tourist object.

The Khoja Akhchaburun carbonate massif consists of a large cuesta. Its front part faces the north-west direction, and the surface part lies in the south-east direction. Along the upper part of Katta Khursan stream on the eastern side, there are perennial snowpacks. The traces left by the glaciers are clearly visible: short-sized trough valleys, ice-free kars and cirques. To the east of it is the Takao'inar karst massif, its surface is a flat plateau 4000 m above sea level. Along the Takaoynar karst massif, layers of limestone typical of the Jurassic period are exposed, which is why it is strongly karstified. Karst valleys, karst valleys, wide karst fields, karst wells and lakes form unique karst landscapes and are of great interest to tourists. In the northern part of Takaoynar, there are mountain glaciers with a length of about 4.5 km, which are located in kars such as Irgayli, Ong shilkhazor, Orta shilkhazor, Chap shilkhazor. Bergschrunds are developed on their rocky borders. This situation makes it difficult to walk along the surface of the ice, the slope is around 25-300, and the tongue part of the glacier is somewhat flat, and therefore it is possible to easily organize glacial walks along this area. Since the height is around 3400-3500 m, it is very interesting to observe the surroundings, especially the Kyzildarya and Shilkhazor valleys, from this point. On the eastern side, the high Cuestas rise up to 4000 m and block the eastern part in the form of a steep wall.

13. Tankhozdarya-Soda route. This route is developed along the Tankhozdarya valley, and it runs along an asphalt road from the village of Hazora to the settlement of China for a distance of 25 km. After the village of China, the stone road has developed for 20 km to the villages of Karatut, Kuyi Chapik, and Upper Chapik. Along both banks of the Tankhozdarya there are flat surfaces covered with juniper forests. Beshnov Cuestas can be seen from a distance parallel to Tankhozdarya. On the right bank of the Tankhozdarya, the Hisar state reserve lies along the Osmontarash mountains. Therefore, along this route, tourists can observe not only rare geological, geomorphological, hydrological, botanical monuments of nature, but also sometimes

representatives of the rare animal world. As the stone-surfaced road slowly climbs, the tuff of mountain glaciers is noticeable through the cooler air temperature.

Tankhozdarya-complex route. In the upper reaches of Tankhozdarya, there are tributaries such as Ingichka, Gandagarim, Aktash, Kurlay, Kashkabulok, Karankol. However, it is difficult to move upwards along these streams, so the Kashkabulok stream has the most convenient path in this regard. Horse-drawn vehicles can move freely on this road, and after 8-10 km from the village of Chapik, it will lead to the Shohak pass. During this period, tourists will have a very pleasant trip through thick juniper forests, swampy springs, meadows, and waterfalls. After walking 2-3 km to the north-east from the Shohak pass, the Karankol glacier range is located. It will be possible to walk on the surface of the large cuesta, which forms the mountain massifs east of Yaysan mountain (h-4099 m) and Khojai-Kartishvor (h-4302 m). During this route, you will have the opportunity to see four Karankol glaciers and one Karankol glacier. Glaciers are located at an altitude of 3800-4000 m, and their length is 0.2-0.5 km. Its surroundings consist of the Khojai-Kartivor karst massif, and the fact that numerous dinosaur footprints along the Jurassic limestones have formed various types of surface and underground karst formations is considered as one of the most interesting objects for tourists.

14. Oksuv-Soda direction. This route is along the base of a deep gorge formed on the north-west side of the village of Hisorak, first to the north and then to the east with an asphalt road, and above it a stone road to the village of Gilan, Kol. reaches It is possible for motor vehicles to move freely along the road. Tourists can see the unique ethnographic situation of remote mountain villages, juniper groves, pistachio groves, even wild pomegranate groves and vineyards, and relict walnut groves. The stone road leads to the villages of Gilan and Kol, and after that, tourists have the option of using only horse-drawn transport or walking.

Aksuv-complex direction. The trail that starts after the village of Kol, develops towards the northeast and reaches the Serkatortar pass (h-2537 m) after passing 2 km. After the pass, it goes directly to the east and soon (another 2 km) falls into the lower Oksuv stream. Uphill (south) along the ravine is only possible on foot, as the terrain here is difficult, sometimes very steep.

Aksuv is a very complicated route. Tourists moving 10 km south along the Lower Oksuv will climb to the largest Severtsov mountain glacier in the Kashkadarya valley. The glacier is located at the foot of the slope, its length is 3.1 km, the tongue part is 3200 m above sea level, and the firn fields are 4000 m above sea level. You can easily walk along the surface of the glacier, its level is around 8-150, and ice cracks, ice glasses, ice chairs, and ice mills are formed along the surface. Sometimes there are also short-term glacial fountains, because the slope in the firn part is quite high and it is limited by bergschrunds. Therefore, it is very necessary to use safety precautions for life. Moraine piles are found in the tongue and edge parts of the glacier. The Aksuv River flows from the bottom of the cave (2.5x3 m) formed at the base of the glacier tongue and sometimes disappears under the piles of moraine along the trough valley, which extends for several kilometers below, and sometimes reappears on the surface. flows out, often forms thresholds.

Around the Severtsov glacier, dozens of groups of glaciers such as Botyrboy, Khonakasuv, Kunkormas have formed. Orographically, this point is a plateau along the westernmost parts of the Main Hisar ridge, the surface of which has been sharply broken by tectonic forces and glaciers. Its highest points are 4300-4380 m above the sea level, and it is important because of the many moraine lakes, firn fields and strong karstification. The southeastern part of this plateau is called Gova Mountain. Upper

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Oksuv stream starts from the glaciers located on the northeastern side of Gova mountain. This stream flows along somewhat flatter surfaces than the Lower Aksuv stream. Therefore, it is possible to go back through the path along its right bank.

15. Tamshush-soda direction. After the village of Hisorak, this route rises to the east and is paved for 10 km. But even during this short trip, tourists can observe subglaciologist objects such as magnificent mountain landscapes, mixed forests, waterfalls and thresholds.

Tamshush-complex route. After the village of Tamshush, the trail goes south-west along the stream. The moderately rising trail runs along the right and left banks of the Tamshush River for a distance of 15-16 km. During this distance, the road always crosses juniper, cypress, and walnut forests and reaches the Tamshush pass (h-4658 m). In the northwestern part of the cuesta formed south of the pass, there are two deaf glaciers. The tongue part of the glaciers is at an altitude of 3800-4000 m, and their length is about 0.3 km. Although it is small, it is a very interesting glaciologist object. Because on the surface of the ice there are many cracks, ridges and even ice mills, and on the lower side there are small seasonal streams. A karst lake with a size of 0.2-0.1 km along the surface of the Cuesta, many karst pockets, vents, wells and karst valleys are characteristic of the karst. forms landscapes.

The main tasks of glaciologist are the effective use of such colorful glacial tourist resources. Because in the "Strategy of Actions 2017-2021" state program, "rapid development of the tourism industry, increasing its role and share in the economy, diversifying and improving the quality of tourist services, and expanding the tourism infrastructure" are among the important issues. There are factors that facilitate its implementation, which are as follows.

- the availability of ancient roads that cross various landscape complexes, convenient for organizing glaciologist trips;

- rich national traditions and folk customs, elements of oriental hospitality have been relatively preserved in the remote areas where the glaciologist resources are located;

- glaciologist resources become irrevocably attractive due to their deep integration with the geographical environment;

- In a country with a dry, hot continental climate like Uzbekistan, especially in hot summer seasons, snow and ice cover becomes an exotic occupation for the traveler, and seeing and touching it evokes high spiritual feelings, etc. (Nizomov A, Nugmanova A, Matanazarov A - 2016).

In order to develop glaciologist under mountain glaciers, it is advisable to solve and implement the following problems.

- To recommend to the international tourism organization a map showing the geography of glaciologist resources in our republic and a text describing the mountain glaciers in the form of an appendix;

- wide promotion of the tourism market and the irreplaceable unique appearance and aspects of glaciologist resources among tourist enterprises;

- to strengthen the advertising and marketing that widely promotes the type of glaciologist resources in foreign countries and our republic;

- it is necessary to widely promote the public promotion work on the geography of glaciologist resources through the press, radio-television, and the Internet, and to publish the images in color, in accordance with the demand of the world tourism market, at a competitive level that can meet it.

To sum up, by carrying out such activities, it is possible to widen the prospects for the wide development of external and internal tourism on the basis of mountain glaciers.

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