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**TOURISM AND ECOLOGICAL PROTECTION STATUS
OF THE AKSU-ZHABAGLY WORLD HERITAGE SITE OF KAZAKHSTAN**

Nowadays, the Protected Areas have become major destinations for rapidly growing tourism and recreational activities for its natural beauty, rare species of wildlife, and historical and cultural heritage sites. The article considers environmental issues of the Aksu-Zhabagly World Natural Heritage Site with high tourist and recreational potential. Objects of world heritage are widely known all over the world. It often attracts the attention of the tourism industry, especially travel agencies, tourism organizers and tourists. There is no doubt that following the relevant law on Specially Protected Areas, the development of some types of tourism in the buffer zones of the reserve is beneficial for the effective protection of the territory. The results of the analysis of materials related to the protection of the Aksu-Zhabagly State Nature Reserve show that the protected area has been efficiently protected under various laws of Specially Protected Areas. Besides, every year many events are held to preserve the original ecology of the reserve. One of them is the organization of various types of tourism, which, on the one hand, increases the importance of protecting the reserve, on the other hand, helps to raise funds for the protection of the reserve. We also noticed that sometimes international events are organized to protect the reserve, and sometimes financial support is provided by international organizations. We also found that sometimes international events are organized to protect the reserve, and sometimes financial support is provided by international organizations as well. One of the key issues identified in the article is the environmental safety of the reserve - the incomplete implementation of some projects for the protection of the reserve. This issue needs further study.

Key words: tourism, ecological protection, Aksu-Zhabagly, world heritage, events.

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Қазақстандағы ЮНЕСКО-ның бүкіләлемдік мұралар тізіміне енетін Ақсу-Жабағылы қорығының туристік-экологиялық жағдайы

Бүгінгі таңда ерекше қорғалатын табиғи аумақтар табиғи әсемдігімен, жабайы табиғаттың сирек кездесетін түрлерімен және тарихи-мәдени мұра орындарымен қарқынды дамып келе жатқан туризм мен рекреациялық іс-шаралардың басты бағытына айналууда. Мақалада туристік рекреациялық мүмкіндігі жоғары Ақсу-Жабағылы бүкіләлемдік табиғи мұра аумағының экологиялық мәселелері қарастырылады. Дүниежүзілік мұраның нысандары бүкіл әлемде кеңінен танымал. Ол туристік саланың, әсіресе турагенттіктердің, туризмді ұйымдастырушылардың және туристердің назарын өзіне жиі аударады. Ерекше қорғауға алынатын аумақтар туралы заңға сәйкес қорықтың буферлік территорияларында туризмнің кейбір түрлерін дамыту аумақты тиімді қорғауға пайдалы. Ақсу-Жабағылы қорығының туристік-экологиялық жағдайын зерттеу барысында оны қорғауға байланысты материалдарды талдау нәтижелері қорғауға алынған аумақтың Қазақстанның заңдарына сәйкес тиімді қорғалатынын көрсетеді. Жыл сайын Ақсу-Жабағылы қорығының өзіндік экологиясын сақтау мақсатында көптеген іс-шаралар өткізіледі. Солардың бірі туризмнің әр түрлі бағыттарын ұйымдастыру, бұл бір жағынан қорықты қорғаудың маңыздылығын арттырады, екінші жағынан, қорықты қорғауға қажетті қаражатты

жинауға көмектеседі. Тағы бір байқағанымыз кейбір сәттерде қорықты қорғау үшін халықаралық шаралар ұйымдастырылады, ал кейде халықаралық ұйымдар тарапынан қаржылай қолдау көрсетіледі. Мақалада табылған өзекті мәселелердің бірі – қорықтың экологиялық қауіпсіздігі мен оны қорғауға арналған кейбір жобалардың толық орындалмауы. Бұл мәселе әлі де болашақта зерттеуді қажет етеді.

Түйін сөздер: туризм, экологиялық қорғау, Ақсу-Жабағылы, әлемдік мұра, іс-шаралар.

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Туристское и экологическое состояние Ақсу-Жабағлинского заповедника Всемирного наследия ЮНЕСКО в Казахстане

В настоящее время охраняемые территории стали основными направлениями для быстро растущего туризма и рекреационной деятельности благодаря своей природной красоте, редким видам дикой природы, а также объектам исторического и культурного наследия. В статье рассмотрены экологические проблемы территории Всемирного природного наследия, как Ақсу-Жабағлы с высоким туристско-рекреационным потенциалом. Объекты Всемирного наследия широко известны во всем мире. Они часто привлекают к себе внимание туристской отрасли, особенно турагентов, организаторов туризма и туристов. В соответствии с законом об особо охраняемых территориях развитие некоторых видов туризма на буферных территориях заповедника полезно для их эффективной охраны. В ходе исследования заповедника Ақсу-Жабағлы результаты анализа материалов, связанных с его экологией, показывают, что он эффективно охраняется в соответствии с законодательством Казахстана. Мы выяснили и наблюдали, что ежегодно в целях сохранения природы заповедника проводится множество мероприятий. Одним из них является организация туризма, что, с одной стороны, повысит важность охраны заповедника, с другой – поможет привлечь средства для природоохранной деятельности. Для защиты заповедника организуются международные мероприятия, а иногда оказывается финансовая поддержка со стороны международных организаций. Одной из актуальных проблем, рассмотренных в статье, является экологическая безопасность заповедника, неполное выполнение некоторых проектов, направленных на защиту заповедника. Эта проблема требует еще дополнительного исследования в будущем.

Ключевые слова: туризм, экологическая защита, Ақсу-Жабағлы, всемирное наследие, мероприятия.

Introduction

Tourism development and ecological protection of the world heritage sites

Tourism has the potential to create a beneficial effect on the environment by contributing to environmental protection and conservation. It is the way to raise awareness of environmental values and it can serve as a tool to finance the protection of natural areas and increasing their economic importance. Tourism can significantly contribute to environmental protection, conservation and restoration of biological diversity and sustainable use of natural resources. Ecotourism is a type of tourism that supports all three elements of sustainable development, especially the protection of biodiversity, poverty reduction and business opportunities. It can be dedicated to environmental protection and the economic and social development of a country and

the entire world (KC, 2017). If an ecotourism project is to be started in rural areas, the nature, culture and society of the area should not be damaged, but priority should be given to raising living standards and improving the local economy (Anup, 2018). A new form of ecotourism (Natural World Heritage Tourism) can help tourists gain the benefits of viewing the beautiful scenery and at the same time obtain the opportunity to observe the rare wildlife and plant world. The inscription of a heritage site in the “World Heritage List” not only recognizes its outstanding universal value (OUV) and integrity, but also recognizes the need to conserve and govern it (Edroma, 2004). Together, these sites are a common heritage of mankind, contributing to the preservation of cultural and natural areas of global importance, as well as the processes associated with these sites. The name of the World Heritage Site is well known all over the world and always grasps the attention

of tourism actors, especially tour operators, tourism managers and tourists. World Heritage Sites are one of the most popular and well-known landmarks in different countries (Buckley, 2004). In addition, the development of tourism in such places may be of great significance to their protection. On the one hand, tourism may bring economic benefits to support site protection and regional economic development, but on the other hand, unorganized and poorly organized tourism may have serious consequences for the integrity of the site, reconcile its OUV (Bushell and Staiff, 2012). Governments of small countries give more priorities to the tourism industry than big countries to achieve socio-economic development (Louca, 2006), which helps maintain a culture of respect for the environment and environmental sustainability (Kozhokulov et al., 2019). The Government of Kazakhstan should adopt this trend to avoid environmental consequences.

The aim of this study is that through an increased understanding of tourism development opportunities, this study hopes to encourage the development of tourism in the buffer zone of the heritage sites. In this way, we can protect the integrity of the heritage site, bring income-generating opportunities to local communities near the Natural World Heritage Sites (NWHS), and offer financial support for the conservation of the site. To help achieve these purposes, the study has two major objectives:

- Provide an assertive analysis of regulation for organizing tourism in the territory of Aksu-Zhabagly Natural World Heritage site and show the tourism development process there.

- Illustrate the complexity of ecological protection of the vulnerable biodiversity heritage sites through the document analysis of the Kazakhstan National Committee for the “Man and Biosphere” UNESCO Program.

A brief overview of the study area

Aksu-Zhabagly State Nature Reserve (SNR) is Kazakhstan’s second NWHS and it offers a stunningly diverse landscapes from semi-deserts to glacier zones. The Aksu-Zhabagly SNR was established in 1926 and located in the north-west of Talas Alatau and the south of Karatau in the West Tien Shan. The wild tulips, the unique natural apples, and the snow leopards (which roam the high mountains of this area) in the Aksu-Zhabagly SNR spread its name all over the world (Rakhimova et al., 2017). The main economic activities are agriculture, plant growing, and cattle breeding. The 59 km area of Tulkibas is located along the Western Europe-Western China (WE-WC) Highway (Figure 1), and it provides convenience to travel to village Zhabagly by car for visitors (AKBAR et al., 2020b).

The Aksu-Zhabagly SNR is located in four districts of two administrative oblasts in the most densely populated region of Kazakhstan, with a total population about 3 million people. Approximately 150,000 people live in the transition area of the SNR. In the last 10 years, ecological tourism has become highly popular in the reserve, mainly due to tourism for bird watching and plant research and wildlife seeing (Akbar et al., 2020a).

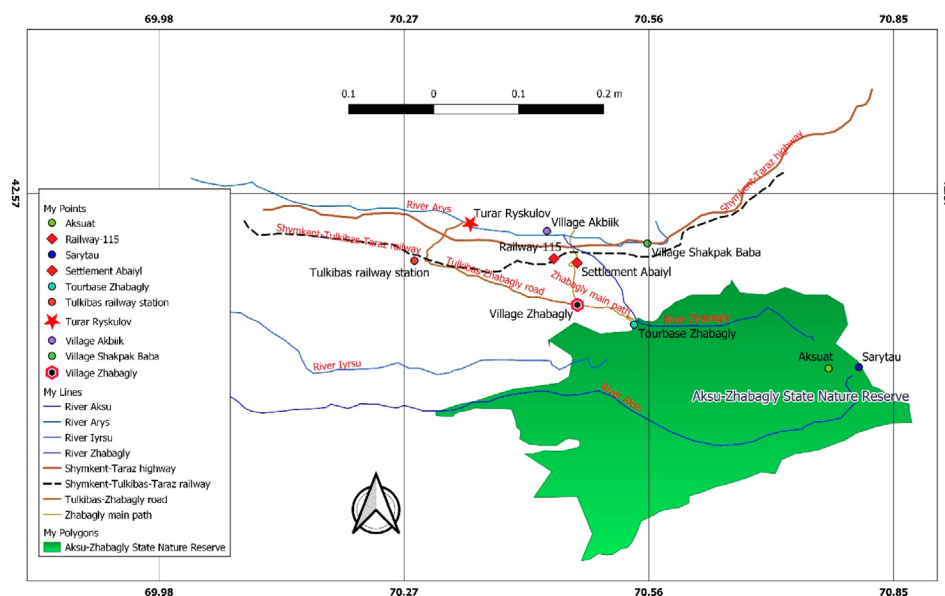


Figure 1 – The administrative map of the research area. © IMANALY AKBAR

Some mysterious facts about Aksu-Zhabagly state nature reserve

A new article by President of Kazakhstan Nursultan Nazarbayev titled “Seven Facts of the Great Steppe” is dedicated to the history and natural beauty of Kazakhstan. The apple trees and the tulips of Aksu-Zhabagly SNR are specially mentioned in the cognitive article of Kazakhstan’s President. The unique wild tulips and natural apples of the Aksu-Zhabagly SNR will spread its name all over the world (N.Nazarbayev, 2018). The territory of Aksu-Zhabagly recreation center owns the unique world of primitive nature. There are many things to do in Aksu-Zhabagly NWHS for tourists, for example, watch wild animals and birds, seeing flowers and plants, and of course, magnificent mountains and cool clean air attracts tourists from many countries of the world. The most popular tourist attracting points of this protected area are described in following sections.

Wild red (Greig) tulips and Wild apples (Malus Sieversii)

The Tien Shan mountains harbor many secrets, and they are the likely birthplace, not only of the apple but also of the tulip (Figure 2). The impressively beautiful tulips were discovered in some mountains

of Kazakhstan and on the central and western northern slopes of the Aksu-Zhabagly State Nature Reserve. The red tulips grow in the large, small, and individual communities at an altitude of 2200-2500 meter above sea level. The tulips of Aksu-Zhabagly grow in the rocky soils on the middle part of the mountain belts and the slopes of the foothills. And they easily adapt to nature and weather conditions. Greig’s and Kaufmann’s tulips are two wild species that grow in abundance in Aksu-Zhabagly SNR. They were instrumental in the establishment of the cultivated tulips that became the symbol of Holland in the Middle Ages (Hermans, 2013).

Appletree *Malus Sieversii* is endemic to the Tian Shan Mountains in the southern part of Kazakhstan, northern Uzbekistan and Kyrgyzstan, and western China. It grows in vast forests in valleys or isolated on hills (Gaëlle, 2016). There is general consent that our apples’ evolution began with *Malus Sieversii*, which constituted the bulk of the wild forests that stretched for more than a thousand kilometers north and south at low to middle elevations of the Tien Shan mountain.”. Genetic analysis shows that the domestic apple originated from the wild variety *Malus Sieversii*, which can be seen in the mountainous area of the Aksu-Zhabagly SNR (cmes.arizona.edu, 2015).



Figure 2 – Wild tulips and Sieversii apple trees of Aksu-Zhabagly SNR. © JUMANOV SMATULLA ZHORAULY

Wild rare animals, birds and petroglyphs

At picturesque Aksu-Zhabagly SNR, visitors can see Tien Shan bears, Siberian mountain goats, roe deer and endemic redheaded titmouse on the Kshi-

Kaiyndy Gorge path, where Griffin vultures and Burkit (golden eagle) fly overhead (Figure 3). Walking on the dry meadow, a golden eagle nest can be found on the opposite bank of the Kshi-Kaiyndy riv-

er. Many colorful species inhabit the gardens of the village people in the village – enough to get anyone excited. In the open grassland, bee-eaters, warblers,

tits and blue rollers rollick, while the higher reaches are ruled by eagles and vultures, like the magnificently bearded lammergeyer.” (Gavrilov, 2014).



Figure 3 – Wild animals, birds and petroglyphs of Aksu-Zhabagly SNR. © AKSU-ZHABAGLY.KZ

When we interviewed Jumanov Smatulla Zhoraully (Deputy director of the Research department of Aksu-Zhabagly SNR), he said that the petroglyphs were discovered in the Boydaksay area and Peak Kaskabulak in the late of the 1950s. Since then, only around 300 people have visited them and they are still waiting to be formally cataloged and fully studied. Large herds of ibex can be seen on the rocky slopes in this area, and you can easily find the similarities between pictures on the stones and the ibexes.

Material and methods

This study conducted in 2019, March and comprised two main components to address the aim and objectives. The first component of the study was to select a World Heritage Sites to research the development status of tourism products there in more depth. One natural world heritage site of Kazakhstan (Aksu-Zhabagly state nature reserve) was selected, where tourism is more developed compared to other natural heritage site of Kazakhstan (see: Figure 1). For gathering the relevant information about the selected research area, interviews of key experts were carried out and additional documents were analyzed. The second component was a desktop analysis of key documents prepared by the official site of Aksu-Zhabagly state nature reserve (www.Aksu-

Zhabagly.kz), the official site of UNESCO World Heritage Centre in Almaty (whc.unesco.org), and Kazakhstan National Committee for the “Man and Biosphere” UNESCO Program: Aksu-Zhabagly. At the same time, we search for some materials on the site of the Forestry and Hunting Committee under the Agriculture Ministry of the Republic of Kazakhstan (<https://cites.org>). Because under the control of the Forestry and Hunting Committee, all questions and arising problems about biodiversity in the reserve are settled, and it defines the use of the World Heritage Fund. The review of documents included all general reports, mission reports and periodic reports produced in recent years as well as some documents dating further back. News and articles related to the theme of “tourism and world heritage” were also collected by using GOOGLE BROWSER and included into the research.

Results and discussion

Tourism and ecological protection of the Aksu-Zhabagly natural world heritage site Aksu-Zhabagly nature reserve’s regulations for visitors

In accordance with the Law of the Republic of Kazakhstan “On Specially Protected Natural Terri-

tories”, areas that do not include particularly valuable ecological systems and objects are allowed to organize ecological excursions under the observation of the authorized body, as well as excursion paths and routes for regular tourism are created by the licensed tourism sectors (www.adilet.zan.kz).

On the territory of Aksu-Zhabagly SNR, there are currently 3 ecological paths and 7 excursion routes for studying and observing the flora, fauna, and landscape, which are equipped with information boards, signposts, shelters. Ecological paths are developed for ecotourism and environmental education of the Kazakhstan population, being a special territorial form of nature conservation, intended for a general acquaintance with the nature of protected areas and educational purposes.

Before starting a route, each group or individual tourist is instructed, the rules of conduct on the route are issued and required to sign in a safety diary. Guides lead a tour of the trail and watch out the group. If necessary, unplanned stops are made.

Designed trails and routes in Aksu-Zhabagly SNR are classified: 1) by appointment: scientific, educational, and tourist excursion; 2) by type of movement: pedestrian, horse, and car. Tourists are divided into groups, hiking group must be no more than 10 people and the equestrian group must be no more than 6 people, every group should be accompanied by a tour guide. And there is a strict quota for the numbers of tourists to visit the nature reserve every day.

A) Pedestrian travel route. All routes can be reached on foot. A guide accompanying tourists tells the tour on the trail. Hiking tourists are divided into groups of no more than 10 people and are accompanied by tour guides. Each group must have a team leader.

B) Equestrian travel route. In the reserve, equestrian routes are conducted on the following routes: № 1, 2, 4, 5, 6, 7, 9. On the horse road, tour guides have to accompany tourists. If there are more than 6 people in a group the inspector must be accompanied because the guide should take care of the horses.

C) Automobile travel route. Some ecological routes are made for the delivery of tourists by off-road cars Uaz, Reed's Bus and Niva. Auto-routes: № 4,5,8,9. On the car road, the guide must accompany the tourists, sometimes the guide and the driver are the same person (www.aksu-jabagly.kz).

In-depth review of Aksu-Zhabagly SNR

The Aksu-Zhabagly state nature reserve at Talas Alatau has been preserved in the reserve for more

than 90 years, and over the past 30 years, a full conservation regime has stabilized in the reserve. The Aksu-Zhabagly, which was listed on UNESCO under the criteria of (vii) and (x) on 17 July 2016, is a unique wilderness experience where marmots, ibex, lynx, wolves, bears, argalis, and deer live (whc.unesco.org, 2016). It is home to 48% of regional bird species, 72.5% of vertebrates, 221 out of 254 fungi species, 63 out of 80 moss species, 15 out of 64 vegetation types, and 114 out of 180 plant formations found in the West Tien Shan. Approximately 2500 insect species have been recorded in the reserve (Kazakhstan National Committee, 2014). The total area of the territory of Aksu-Zhabagly SNR is 357,734 ha. The main core zone is 131,934 ha, a buffer zone is 25,800 ha (2-3 km border along the perimeter of the reserve), development zone – about 200,000 ha (whc.unesco.org, 2016). All three zones are connected and complement each other (Figure 4). The core zone is closed for visits and represents reference areas of regional natural complexes, as well as an important genetic reserve of wild flora and fauna species; this zone is control in long-term monitoring. The buffer zone is also under a protective regime, but limited human activity is allowed here (such as tourism, scientific research, educational programs, partial use of natural renewable resources, etc.). Both zones serve for the conservation of natural complexes and partially for sustainable development. The transition zone is used for the living of local people, development of economy, culture, and education. Here there is no strict protection regime of natural complexes, but there are some restrictions on the nature use, for instance, ecologically dirty production is prohibited (Kazakhstan National Committee, 2014). As a whole, this zoning provides conditions for the elimination of the conflict between social-economic development and protection of wild natural complexes and allows stable development of economy and culture. The main zone of the biosphere reserve is the strictly protected zone of nature reserve regime of Aksu-Zhabagly SNR, which represents the natural mountain complex of West Tian-Shan.

National level ecological protection events

For the organization of partner relations a special Coordination Council of Aksu-Zhabagly Biosphere Reserve was created, and its participants include representatives of the state nature reserve, nature users, local authorities, and public organizations. At the same time, local communities are also involved in the development of the biosphere reserve's Management Plan. Complete management of the core and buffer zone is conducted by the administration

of Aksu-Zhabagly state nature reserve, but local NGOs, local communities receive full information on natural complexes of the zones that will be used

for an educational expedition, tourist routes in the buffer, and transition zones, and development of scientifically based sustainable nature use, etc.

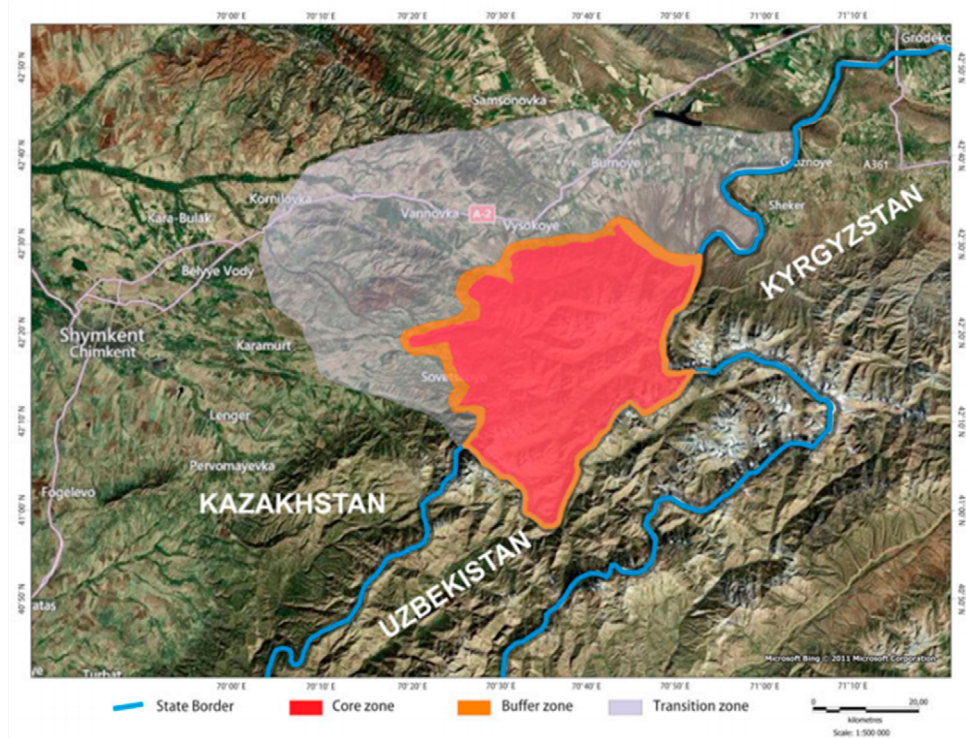


Figure 4 – Ecological zonation of Aksu-Zhabagly SNR (Kazakhstan National Committee, 2014).

According to Kazakhstan’s legislation, management of economic activity on some parts of the buffer zone (haymaking, cattle pasture) is carried out by agreement with state authority (Forestry and Hunting Committee under the Agriculture Ministry of Republic of Kazakhstan) and under the control of state nature reserve’s administration, all questions and arising problems are settled at the meetings of Coordination Council of the biosphere reserve. During the zonation of the buffer zone, a consultation with all land users was held. In the transition zone, the land users have their management plans, which are in accordance with the Management Plan of core and buffer zones. Therefore, the simple combination of all these plans is the Overall Integrated Management Plan of the entire biosphere reserve. All controversial issues are discussed at the sessions of Coordination Council of Biosphere Reserve.

The biosphere reserve is managed through Aksu-Zhabagly Reserve Coordination Council created in 2012. Before that, the territory of the core and buffer zones was managed by the Scientific-Technical Council of the Nature Reserve (until July 2012).

Coordination Council is a collegial public body created to introduce policies of effective management and sustainable use of biosphere reserve’s resources, alternative activities, resource-conserving and resource-restoring technologies. The Coordination Council of Reserve consists of representatives of state agencies (a territorial agency of forestry and hunting, oblast territorial agency of fishery), state nature reserve, Akimats (department of land resources, agriculture, etc.), local NGOs and land users, and is necessary for providing collaboration and problem-solving opportunities for all stakeholders.

There is current monitoring of the condition and conservation of natural complexes on the territory of the biosphere reserve, and monitoring of rare and threatened species to clarify the condition of the populations, ecological peculiarities of rare plant and animal species, providing a basis for evaluation of the species’ conservation and restoration perspectives. The goal of the monitoring is to obtain regular objective data about the condition of plants and animals on the territory of the biosphere reserve, as well as on the condition of their habitat. Based on

monitoring data it is necessary to conduct a current evaluation of the condition of populations and ecosystems, biosphere reserve's functioning effectiveness, and development of measures for critical and unfavorable situations' prevention. According to the Management Plan of Aksu-Zhabagly, scientific research on its territory focuses on innovation and study of the objects of state nature reserve fund, as well as the study of natural processes for the Nature Chronicles program. This scientific work includes observations of natural phenomena and processes and their study for the «Nature Chronicles» program, flora and vegetation innovation, research of rare and threatened vertebrate and invertebrate animals, monitoring of biodiversity condition and indicator species' population condition.

For cultural – educational activities in the Reserve, there is a department of ecological education. The staff of the Department consists of 5 people - museum chief, 4 instructors of excursionist and Reserve's Security Service (30 people). Cultural–educational work is also carried out by staff from the Department of Science, Information, Monitoring in the area of nature protection legislation. The main work on ecological education is carried out in the form of excursions on ecological paths in the protective zone, in Nature Museum, lectures, articles publication in mass media. There are environmental protection activities such as Parks' March, ecological scouts, etc. The goal of the Department's work is in raising ecological awareness of local people, their understanding of the key role of the protected territory, the importance of unique nature conservation, public support, and raising patriotism and responsibility for the environment, and, as the result, pressure decrease on region's biodiversity from local population. The main activity directions are: work with mass media, publishing activity, museum, ecological excursions, environmental tourism, interactions with teachers and educational bodies. Besides, the Department's staff develops posters, leaflets and other agitation materials, and takes part in providing practice for students on the base of the nature reserve. The most important activity that would enhance the sustainable development function of the site is the rapid growth of ecological tourism, development of the programs for ecological education of local people and the use of alternative sources of energy, such as solar and wind (Kazakhstan National Committee, 2014).

International level ecological protection events

The years 2001–2003 became a new milestone in the development of the oldest reserve in Kazakhstan and Central Asia. It was during these years that

the active working phase of the Central Asian Transboundary Project of the Global Environmental Facility for the Conservation of the Biodiversity of the Western Tien Shan in Aksu-Zhabagly State Nature Reserve started. The main results of the Central Asian Transboundary GEF / WB Biodiversity Conservation Project of the Western Tien Shan include the following:

The foundations were created for creating the Western Tian-Shan transboundary biosphere reserve based on the three PAs of the Kazakh part of the Western Tian Shan (Aksu-Zhabagly nature reserve, Karatau nature reserve and Sairam-Ugam national park).

The new Law of the Republic of Kazakhstan dated July 7, 2006, No. 175-III “On Specially Protected Natural Territories” introduced the rules governing the development of management plans for specially protected natural territories.

The natural science substantiations were updated and the feasibility studies for the creation of the Karatau Reserve on the basis of the ecosystem approach were developed. In 2004, the Government of the Republic of Kazakhstan dated March 1, No. 249 established the Karatau Reserve on an area of 34,300 hectares.

The ecosystem and biodiversity assessment of the Western Tian-Shan were used to create the Sairam-Ugam national park.

After constructing the first visitor center in Aksu-Zhabagly nature reserve, the construction of new visit centers to other protected areas of Kazakhstan: Korgalzhyn GPP-2009, Alakol Reserve-2010, Naurzum Reserve-2012, and in 2018 completed the design of the visitor center of Ile-Alatau Park, were launched.

For the first time in Kazakhstan, a mechanism has been tested for involving local residents in the matter of biodiversity conservation through economic incentives to replace traditional administrative measures against local residents.

During the GEF project “Conservation of biodiversity in the West Tian-Shan” in 2000 – 2004 complex research of the region was carried out. In the limits of this work, the influence of the environment and economic situation on the cultural and social life of local people was assessed, nature reserve's management plan was developed, etc. Social-economic conditions and historic-cultural peculiarities of the region are given in the first part of the Management Plan of 2008.

Supported by two UNDP/GEF Projects (Conservation of biodiversity of Western Tian-Shan and Wetlands Project) state nature reserve's staff had

an opportunity of exchange experience and raise their qualifications in Korgalzhyn Biosphere Reserve, Karatau Nature Reserve (Kazakhstan), Berezinskiy Nature Reserve (Belarus), Zapovedniki Ecological Center (Moscow, Russia), and at scientific-practical conferences inside Kazakhstan and abroad (Minsk, Belarus). In 2009-2011 training seminars were conducted dedicated to the preparation of management plan, biodiversity monitoring, state inspectors were trained in drawing up reports, complying with safety operating procedures and fire prevention (Kazakhstan National Committee, 2014).

Main objectives of Aksu-Zhabagly SNR in ecological protection

With the strong support of relevant organizations at home and abroad, the Aksu-Zhabagly nature reserve has become the oldest scientific center in the former Soviet Union countries and will maintain an ecologically balanced base in Kazakhstan in the future. At present, one of the main objectives of the reserve is to conserve and restore the reserve's ecosystems both in the core and buffer zones of Aksu-Zhabagly reserve, at the same time maintaining the ecological balance in the Western Tian-Shan region. With the establishment of the international status of the biosphere reserve in the entire territory of the protective and transit zones, a basis will establish to research in terms of economic monitoring in areas with different economic management regimes.

The other main purpose of the Aksu-Zhabagly SNR is to protect the rare and unique natural complexes and its components in Western Tian-Shan and to support the sustainable socio-economic development and natural resources use of the territory based on ecological and economic principles. The short-term purpose of the Biosphere Reserve is to organize such mechanisms of the territory management that would prevent the depletion of natural resources and ensure sustainable use by the population. The local community hope to protect the natural beauty of the nature reserve for future generations. In this regard, one of the goals of this protected area is environmental education, which leads to the responsibility of environmental protection. Although the consumerism attitude towards nature reserves is not ruled out, the nature reserve system, which was established 85 years ago, has formed a special relationship in people's minds and the local residents respect the nature reserve to a certain extent (Kazakhstan National Committee, 2014). In general, development of the concept of

biosphere reserve will help local people to increase the level of environmental awareness, foster a sense of responsibility to our descendants in the conservation of biodiversity, establish environmentally friendly ways to use local natural resources and to find more effective mechanisms for biodiversity conservation in the region.

Conclusion

To protect natural world heritage sites from threats, investment in their protection and management is urgently needed. Closely monitoring the status of sites, World Heritage-specific biodiversity targets, and adopting IUCN Green List standards for site management can also help (Satarat, 2010). By analyzing the second main content of our research article (the ecological protection of the Aksu-Zhabagly state nature reserve), we draw the following conclusions: according to the laws of specially protected areas in Kazakhstan, organizing some tourist activities on the territory of Aksu-Zhabagly nature reserve is allowed and which is requested to hold under strict control. It is generally recognized that many experiments have shown that the benefits of developing tourism in protected areas are more effective than the development of other industries. People often praise tourism for reconciling conservation and development goals in or near protected areas (Ashworth and van der Aa, 2006; Figgis et al., 2007). From a conservation perspective, tourism can raise funds to protect natural areas, increase local and tourist awareness of biodiversity and conservation issues, and discourage locals from getting out of unsustainable livelihoods (Borges et al., 2011). When we visited the study area, we found that every year from spring to autumn, tourists from home and abroad come to see the reserve every day. On some days, the number of tourists in the reserve exceeds the daily norm, and visitors have to wait for several days. This is one of the proofs that the reserve is effectively protected under the laws of specially protected areas. In short, although more than 90 years have passed since its establishment, this nature reserve has not lost the importance of its protection. The government of Kazakhstan has been organizing some activities to protect the area. For some poorly preserved biodiversity reserves in the world, Kazakhstan should serve as a model for the protection and conservation. However, it has its drawbacks compared to developed countries. As an example, when we interviewed the head of the research department at the nature reserve office, he

said that a lot of good work should have been done to protect the reserve, however, due to the ineffectiveness of the management, some projects will not be fully implemented, and some projects will even be stopped before they start.

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