

Research on Design and Management of Community-Based Ecotourism Model in Aksu-Zhabagly Nature Reserve of Kazakhstan

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Abstract

This study investigates the community-based ecotourism (CBE) model using a sample of the Aksu-Zhabagly nature reserve (NR). The aim is to propose a suitable CBE model for Aksu-Zhabagly nature-based tourism destinations by employing a combination of field observation, examination, evaluation, and SWOT analysis. The study determines the strategic suggestions for CBE model designing by the results of SWOT analysis. It concludes that convenient transportation and superior location, diversified wild animals and plants, rich in ethnocultural resources, traditional and tranquil life in a typical rural setting, hospitality and positive attitude of locals to tourism and great potential of the region for sustainable development of ecotourism are the strengths. At the same time, the far residential location from the provincial cities, low-quality service, outdated facilities and shortage of skilled employees in tourism management are the main weakness. Another group of constraints to tourism development is lack of tourism marketing and promotion agencies, lack of transparency, poor institution arrangement and corruption, and lack of preferential policies for CBE development. Finally, the paper recommends that economic development, environmental protection, culture and heritage, marketing and image, favorable political environment, and local residents' empowerment are the main essential to effectively implement the sustainable development of CBE in the Aksu-Zhabagly tourist destination.

Keywords

Management, Community-Based Ecotourism, Model, Aksu-Zhabagly Nature Reserve, Kazakhstan

1. Introduction

Many of the world's most beautiful resources exist in endangered habitats and vulnerable communities. Community-based ecotourism is a form of ecotourism that emphasizes the development of local communities and allows residents to have substantial control over, and involvement in, its development and management. A major proportion of the benefits remain within the community. Community-based ecotourism should foster sustainable use and collective responsibility and embraces individual initiatives within the community (Denman, 2001). Community-based ecotourism (CBE) and responsible tourism should be part of a sustainable development strategy. Environmental sustainability includes present generations' preservation of natural heritage and biodiversity and the preservation of important environmental processes for future generations (Törn, 2007). Moreover, from a social point of view, nature-based ecotourism employs the local population and promotes the development of the regional economy, as well as assures the quality of life of the local population, preserves environmental values, and provides quality services to tourists (Williams & Fennell, 2002). The proper organization of CBE always meets all the criteria of sustainable tourism development. Hipwell (2007) proposed a framework of six standards for sustainable CBE: 1) tourism activities must be small enough to be completely managed by the community without external support; 2) broad representatives of community members should actively participate in the project; 3) the project must benefit the entire community; 4) the project must comprehensively improve the community members' life quality; 5) the awareness of conservation value must be improved; and 6) the maintenance or enhancement of local culture should be promoted. These criteria are indicated to be the particular characteristic of successful CBE projects (Hipwell, 2007).

It is important to note that ecotourism includes three parts: protecting the environment, supporting the local economy, and preserving local heritage and culture. The success of CBE initiatives relies on effective participatory management programs that can build up collaborative relationships between key stakeholders—protected area administrative staff and local communities—and foster community empowerment (Yang, 2019). When creating an overall ecotourism model for the community, these three parts must be represented equally and fully explored. By representing each part equally, the community can achieve sustainable development through tourism without reducing its natural landscape or marginalizing the community (Richards & Hall, 2002). CBE is managed and run by the community itself, management decisions are made by local people and profits directly go to the community. Sustainable tourism development meets the needs of the present tourists and host regions while protecting and enhancing the opportunity for the future (Tsaur & Wang, 2007). It is envisaged as leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems (Tsaur & Wang, 2007).

With this form of ecotourism, residents share the environment and their way of life with visitors, while increasing local income and building local economies. By sharing activities such as festivals, homestays, and the production of artisan goods, community-based tourism allows communities to participate in the modern global economy while cultivating a sustainable source of income and maintaining their way of life (Das, 2017). A successful model of community-based tourism works with existing community initiatives, utilizes community leaders, and seeks to employ residents so that income generated from tourism stays in the community and maximizes local economic benefits. Although ecotourism often promises community members improved livelihoods and a source of employment, irresponsible tourism practices can exhaust natural resources and exploit local communities (Ariya et al., 2020). Community-based tourism initiatives decrease poverty not only by increasing income but also by providing residents of rural communities with the tools and knowledge necessary for long-term critical thinking and decision-making (Chok et al., 2007).

It is essential that approaches to community-based ecotourism projects be a part of a larger community development strategy and carefully planned with community members to ensure that desired outcomes are consistent with the community's culture and heritage. In this paper, we aim to propose a model of CBE that is appropriate to the Aksu-Zhabagly nature reserve (NR). To do this, we first analyze the design and management of the current model of tourism development in our research area in detail. Then we analyze the advantages and disadvantages of the study area for developing community-based ecotourism development. Finally, based on the results of the analysis, we will propose the most suitable sustainable CBE model for Aksu-Zhabagly NR.

2. Study Area Overview (Aksu-Zhabagly Natural World Heritage Site and Zhabagly Village)

Kazakhstan's wealth of attractions and unique nature charm visitors, not only with their beauty but also with their singularity. Since the first Kazakhstani NR (Aksu-Zhabagly NR) was established in 1926, their number had increased to 10 by now. Two of them (Aksu-Zhabagly and Korgalzhyn NR) had already been included in the list of natural World Heritage sites. Several ministries and committees of the RK are involved in the governance of the NRs. Among them the Ministry of Ecology, Geology and Natural Resources, the Ministry of Culture and Sports guides and examines the management of ecotourism activities and promotes NRs as tourism destinations in the development of the tourism sector at a national or international level.

Aksu-Zhabagly (also spelled as Aksu-Jabagly) ecotourism destination is one of the State NRs in the RK. It is located in Turkistan province (former south Kazakhstan province) of Kazakhstan. It covers the north-western mountain chains of the Tian-Shan mountain. It is the first and the oldest NR in Central Asia was opened on 14 July 1926. And the NR was officially listed on UNESCO as a part

of the Western Tien-Shan natural world heritage site under the criteria of (vii) and (x) in 2016.

The area should be divided into different zones (**Figure 1**), for example, intensive farming land in the multi-purpose use area, seasonal grazing areas in foothills, special management zones along tourist routes in the core and buffer zones, protected areas with high biological richness in the core zone, protected areas with high cultural richness in the multi-use area (villages) and wilderness area in the high peaks. Zhabagly community is more successful in achieving sustainable CBE development than the Abaiyl community, and the overall evaluation of the two communities on sustainability is moderate (Akbar et al., 2022).

Village Zhabagly is an administrative unit of Tulkibas district. It includes the settlement of Zhabagly, Abaiyl, and Russian Railway 115. Permanent villages are situated in the multipurpose use area around the reserve. According to the statistical report-2019 of Zhabagly village, the total population of the village Zhabagly is 3048 people, including 2401 people of Zhabagly settlement, 545 people of Abaiyl settlement, and 102 people of settlement Russian Railway 115. The main economic activities are agriculture, plant growing, and cattle breeding. The center of the village is Zhabagly settlement, which is 17 km southeast of the Turar Ryskulov town (former Vannovka), the administrative center of Tulkibas district. Zhabagly settlement has a public transport connection with Turar Ryskulov town and Shymkent city. Lying adjacent to the West Tien Shan Mountains, Zhabagly settlement is the gateway to Aksu-Jabagly State Natural Reserve (**Figure 1**).

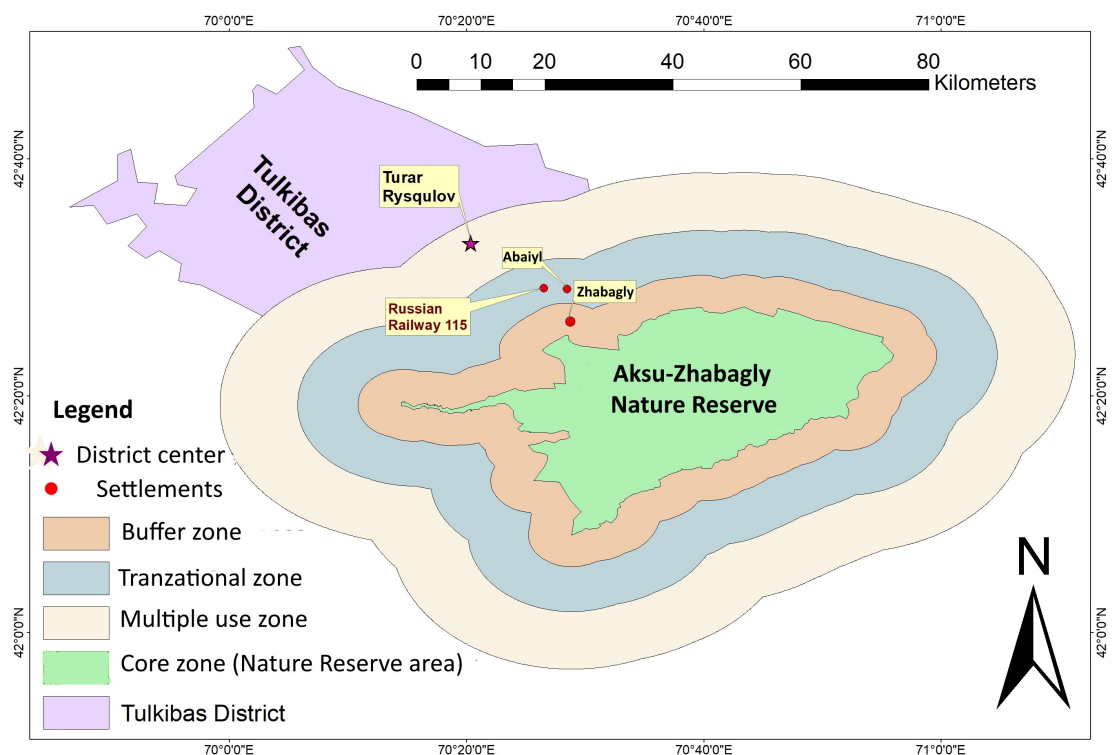


Figure 1. A zonation map of the study area (the first author's work).

3. Methodology

The main idea of this research was born during week-long photography and mapping of the Aksu-Zhabagly NR of Kazakhstan in March 2019. Data collection occurred over a 20-day period from 2 March to 22 March 2019. To understand tourism development deeply, representatives both from the Aksu-Zhabagly nature reserve office and tour companies in Aksu-Zhabagly were interviewed. And face-to-face interviews with the mayor of the Zhabagly village, scientific research department director of the nature reserve office and director of the Zhana-Talao travel company, who knows local residents' participation situation in tourism well were conducted during the survey period. This study comprised two main components to address the aim and objectives. For gathering relevant information about the selected research area, interviews of key experts (including 3 tourism researcher from the universities in Kazakhstan) were carried out and additional documents analyzed. The main component of the study was a desktop analysis of key documents prepared by the official site of Aksu-Zhabagly state nature reserve (<https://www.kazmab.kz>), official sites of relevant organizations (Figure 2). At the same time, we search some documents including all the 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 “design and management of community-based ecotourism” were also collected and incorporated into the research. The research was carried out mainly using the methods of descriptive, content analysis of documents. At the same, SWOT analysis was used to show the advantages and disadvantages of the study area for developing community-based ecotourism development.

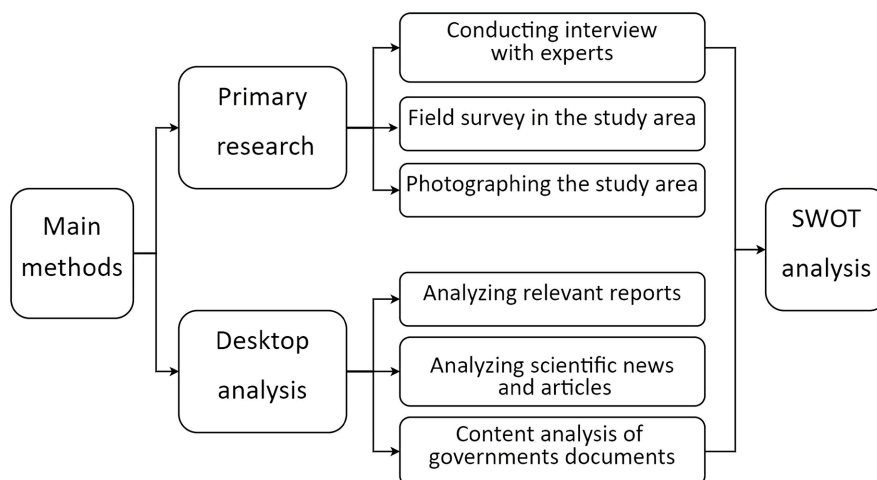


Figure 2. A flow chart of the research methods (the first author's work).

4. Results and Discussion

4.1. Tourism Development Model in Aksu-Zhabagly NR

4.1.1. Current Ecotourism Development Model in Aksu-Zhabagly

Currently, tourism is one of the most promising types of activities in the Aksu-

Zhabagly Biosphere Reserve. It has great potential for development, especially in ecotourism. In Zhabagly village near the reserve's central office, there is a private hotel for 40 people, offering foreign guests complete service with a good level of comfort. In the vicinity of the buffer zone's border, there also are several guest-houses and private hotels. On the territory of the transition zone of the reserve, there is Sayramsu camping area in the valley of the same name, which offers a variety of outdoor activities in the mountains of West Tien Shan: rock climbing, horseback riding, etc. In the region of the reserve along the route Tashkent-Almaty a network of hotels, resorts and guest houses for tourists is being constructed. In the last 10 - 15 years, the number of tourists visiting the reserve has increased. In general, the visit-center of Aksu-Zhabagly biosphere reserve, equipped with a museum, is visited by more than 5000 people per year, and more than 2000 people stay in the reserve for educational and recreational purposes per year. Those are mainly naturalists (ornithologists and botanists), photographers, hikers and extreme tourism admirers.

The specific operation of the model: On the territory of Aksu-Zhabagly NR, 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. There also is a visit-center with museum of West Tien-Shan nature, which is located in the administrative building of Aksu-Zhabagly NR. With 10 tourist routes, the NR management office mainly organizes the recreational, scientific, educational, cognitive, botanical, wildlife and birdwatching tourism for visitors, together with, the office guides and supervises the implementation of the tourism planning program.

In the last 10 years, ecotourism is developed very actively in the transition zone of the biosphere reserve. It is mainly ornithological and botanical foreign tourism and local recreational tourism. Because of being a special area protected at the national and international levels, the model of tourism development in the territory of Aksu-Zhabagly NR is carried out strictly with the participation of *local authorities + Aksu-Zhabagly Reserve administration + national tourist operators + private enterprises in and out of Zhabagly village + foreign partners + residents of Tyulkibas district, especially Zhabagly village.*

Local Akimats conduct annual ecological—tourist festivals, which attract local and, partly, foreign tourists. Aksu-Zhabagly Reserve's administration promotes the organization of tourist paths, routes, supports field tourist infrastructure and attracts scientific tourists. The tourist business is practiced mostly by local people of Tyulkibas district, especially Zhabagly village; they provide tourist services. Guesthouses in the village of Zhabagly can receive their tourists and organize tours. At the same time, during the peak tourist season, some villagers also receive tourists in their homes.

Aksu-Zhabagly NR regulations for visitors: With the Law of the RK “On Specially Protected Natural Territories”, 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 (*On Specially Protected Natural Areas*).

Designed trails and routes in Aksu-Zhabagly NR 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 number of tourists to visit the NR 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 people (*Aksu-Zhabagly State Nature Reserve*).

4.1.2. SWOT Analysis of CBE Development in Aksu-Zhabagly NR

1) Strength of sustainable CBE in Aksu-Zhabagly NR

a) Convenient transportation and superior location. During our investigation period, we found that the trains from two republic cities (Nur-Sultan and Almaty) of Kazakhstan to the second megalopolis (Shymkent) pass near the world heritage site, the train station is about 20 km route from the Aksu-Zhabagly nature reserve. The 59 km area of Tulkibas lies along with the Western Europe-Western China (WE-WC) Highway. And it provides convenience for auto travel to this NR. The Aksu-Zhabagly heritage site lies between four districts of two administrative oblasts, which are the most densely populated regions of Kazakhstan with a total population of about 3 million people. Approximately 150,000 people live in the transition area of the NR (*Kazakhstan National Committee, 2014*).

b) Diversified wild animal and plant resources. The area is rich in wildlife (plants and animals) and natural landscapes of touristic and scientific importance. The NR protects about 75% of Kazakhstan’s biodiversity, including 48% of birds, 72.5% of vertebrates, 221 of 254 fungi species, 63 of 80 moss species and 15 of 17 vegetation types of West Tien Shan (*Proposal for Inscription on the UNESCO World Cultural and Natural Heritage List: Nomination Dossier of Western Tien-Shan,*

2016). The territory of Aksu-Zhabagly recreation center owns the unique world of primitive nature. The wild tulips, the unique natural apples, and the rare snow leopards in the Aksu-Zhabagly NR spread the reserve's name all over the world (Akbar et al., 2020b).

c) Rich in ethnocultural resources. Aksu-Zhabagly tourist destination possesses rich cultural values, handicraft production, traditional houses, settlements, festivals, rites and food. For example, every year in this village events such as Kokpar (hanging goat), Kazakh wrestling, horse racing, which promote the nomadic culture of the Kazakh people, are held. In addition, the Tulip Festival is celebrated annually in April with the participation of domestic and foreign tourists.

d) Traditional and tranquil life in a typical rural Kazakh setting. For travelers, rural ecotourism is not only a holiday in a high-quality ecological environment but also a feeling of the ancient traditional atmosphere preserved in the countryside, which is difficult to feel in the cities (Shang et al., 2020). During the field investigation, we found the settlements around the Aksu-Zhabagly NR are a place of rest for people who are tired of the noise of the city, where the food is prepared from local natural products and the air is fresh. On the other hand, you can feel the traditional Kazakh way of life there. For example, some villagers are dedicated to reviving the ancient Kazakh traditions and passing them on to future generations. In addition, visitors to the NR have the opportunity to see them.

e) Hospitality and positive attitude of locals to tourism. When we visited the study area and interviewed the villagers, we saw that the villagers were always very hospitable, friendly and generous. When we asked for their views on tourism development in Aksu-Zhabagly NR, the vast majority expressed their support and positive attitude. For example, answering the question about suitable industries in the Aksu-Zhabagly NR, more than half of the respondents from neighboring settlements chose tourism. It means that although tourism is one of the emerging industries in Kazakhstan, most of the country's rural population is well aware of the economic, socio-cultural and environmental benefits of tourism development in the fragile nature reserves of biodiversity (Akbar et al., 2021).

f) Great potential of the region for sustainable development of ecotourism. Sustainable development of ecotourism needs to be developed to preserve its natural resources. Ecotourism is a set of nature-based activities that help visitors appreciate and understand the natural and cultural heritage (Kiper, 2013). Aksu-Zhabagly Nature Reserve is included in the UNESCO World Heritage list for the importance of the protection of rare wild plants and animals. It can be considered as an example of a mysterious ecosystem with glaciers, lakes, rivers and springs. Ancient petroglyphs can also be found in the territory of the reserve. These advantages prove that the reserve has the greatest potential for the sustainable development of ecotourism.

2) Weakness of sustainable CBE in Aksu-Zhabagly NR

a) Far residential location from the provincial capital cities. It is generally recognized that the remoteness of the tourist route from major cities, which are

a source of potential tourists, is one of the main obstacles to the development of tourism. When we interviewed Akim (mayor of the village), he said that although the NR lies between two old cultural cities (Shymkent and Taraz) in Kazakhstan, the NR is relatively far from the city centers. When we checked, we also found that the distance from the two cities to the gates of the NR is more than 100 km, which leads travelers to spend about 2 hours getting there.

b) Low-quality service and outdated facilities. The tourist infrastructure and service facilities in this tourist destination are not developed well. Interviewing the director of the Zhana-Talap travel company in Shymkent, we found that although many tourists have a big desire for visiting this tourism destination, there are existing some drawbacks that have banned coming of large number tourists to this tourism destination, for example, low-quality service facilities (including old car, tired horse and unprofessional local tour guides) and the higher accommodation price.

c) Shortage of employees with education in the field of tourism. When we interviewed the head of the scientific department of the Aksu-Zhabagly Nature Reserve, he said that the nature reserve lacks staff with knowledge in tourism management. As a result, many of the opportunities offered for effective management and development of CBE are not taken.

d) Lack of tourism marketing and promotion agencies. Today we cannot imagine the tourism market without travel mediators or travel agencies. Their role in tourism marketing and promotion is very high because they are one of the strongest links in tourism (Marin-Pantelescu et al., 2019). When we visited relevant organizations to inquire about tourism marketing and promotion work about this NR tourism, we found that only regional and district centers have departments responsible for tourism marketing in the region as a whole. However, there are no agencies that work systematically for promoting the Aksu-Zhabagly tourist destination which is not only one of the most popular tourist destinations in Central Asia but also internationally recognized.

e) Lack of transparency, poor institution arrangement, and corruption. The residents of village Zhabagly highly perceive the following constraints of sustainable tourism development: lack of transparency, poor institution arrangement and corruption; limits of economic level and industrial structure (economically backward and inaccessibility cause weak-driving force of tourism development), and the existing socio-economic patterns within the communities (the influence of rich people in economics and politics) (Akbar & Yang, 2021).

f) Lack of preferential policies for CBE development. In Kazakhstan, government plays an active role as planners, investors, investment stimulators, promoters, educators and regulators even though the privatization policy in economic development has been implemented after independence. However, diversification of industry has just become one of the vital tasks of the Kazakhstan government recently. And the development of the tourism industry in remote rural areas has not been paid more attention by the state. Therefore, the preferential policies for local communities' engagement in the tourism industry are not im-

plemented practically in the rural residential areas (Akbar et al., 2020a).

3) Opportunities of sustainable CBE in Aksu-Zhabagly NR

a) Local employment and poverty reduction. CBE can create new employment opportunities and promote community development by providing local communities with an alternative source of sustainable livelihoods. When we interviewed the scientific research department director of the Aksu-Zhabagly state nature reserve office, he told us that if CBE development is planned well in the buffer zone of Aksu-Zhabagly NR, it will create employment opportunities for local residents. In turn, it will influence achieving poverty reduction and sustainable economic and social development.

b) Promoting, sustaining and reviving a disappearing cultural heritage. CBE contributes to the revival of traditional cultures that are disappearing under the influence of the modern lifestyle of people. When we interviewed the villagers, we noticed that the development of CBE in the reserve has been a driving force for the revival of forgotten local cuisine, festivals, traditional agriculture, local crafts, regional clothing culture, traditional music, folk dances and so on.

c) Protecting and sustaining the rich biodiversity. One of the main aims of CBE is to conserve resources, especially biological diversity, and maintain sustainable use of resources, which brings ecological experience to travelers, conservation of the natural environment. At the same time, it helps the local community's involvement in the conservation of the ecology and biodiversity of the area. In return, it provides economic incentives to the local community.

d) Developing an eco-friendly mode of travel. Ecotourism is a responsible journey (using sustainable transport) to natural areas: involving conservation of biological diversity and cultural diversity through ecosystem protection, promoting sustainable use of biodiversity, improving the well-being of the rural areas by providing jobs to local populations (Kummerer, 2018). When we asked the head of the tourism and education department of the reserve in the study area, she said that all the tours in the NR area are organized based on eco-friendly models.

e) National and international financial support. Financial for ecotourism mainly comes from three sources: wealthy individuals, philanthropic foundations, and multilateral development banks. While other players such as nonprofits also invest in ecotourism, the bulk of the capital comes from these three sources. When we asked the head of the reserve's scientific department, he said that the development of ecotourism in the NR received financial support from the state and international organizations several times. And most of the funding for CBT development in the NR comes from donor agencies and national governments.

4) Threats of sustainable CBE in Aksu-Zhabagly NR

a) Total absence of infrastructure and waste disposal systems. Successful CBE experience in some developing countries shows that the availability of the necessary infrastructure and waste disposal systems is very important for the development of CBE. The results of our observation work in the study area show

that the communities near the Aksu-Zhabagly Nature Reserve lack infrastructure, tourist facilities and garbage disposal systems.

b) Poorly structured and unplanned village settlements and houses. Successful CBE experience in some developing countries shows that the good structuring and planning of houses and settlements in the CBE village is one of the vital factors for gaining success in CBE development. The results of our observation work in the study area show that Settlements and houses in the vicinity of the NR with high potential for the development of CBE are not properly structured and planned.

c) Erosion of local cultural values. One of the negative socio-cultural effects of tourism development may be the weakening of local culture and traditional values (Zhuang et al., 2019). When we interviewed the local elderly people, they confirm that erosion of the cultural values was already appeared through production and commercialization to suit the taste of tourists and through the adoption of foreign values.

d) Intense competition between tourist destinations. Competitiveness has become a central point of tourism policy. As competition between destinations increases, competitiveness will require more investment, new technology and skilled personnel. However, our previous research has shown that it is difficult to attract the above-mentioned driving forces in the development of CBE in this NR.

e) Increasing the diversified demands of tourists. Rising incomes and more diversified demands for leisure experiences will continue to drive the dynamic growth of the tourist market. To meet the diversified needs of tourists, tourist destinations must have a high level of innovation. However, it remains difficult for innovation to reach remote rural areas of developing countries like Kazakhstan.

Through doing the SWOT analysis on the model of tourism development in Aksu-Zhabagly as shown in **Figure 3**, we took into account the strengths and opportunities of the Aksu-Zhabagly tourism development model and evaluated its weaknesses and threats of it, we proposed the ecotourism development model for Aksu-Zhabagly tourist destination as shown in **Figure 4**. To effectively implement the sustainable development of CBE in the Aksu-Zhabagly tourist destination, we considered it important to adopt the recommendations shown in **Figure 4**. Because these recommendations are used in many developed countries and are being implemented in several developing countries in case as Kazakhstan.

- **Economic development:** Economic development goals and strategies are extremely important for the mission of ecotourism in the community. By creating income and employment opportunities for local businesses and residents, the entire community will be benefitted. To reach this goal, most of the income needs to stay within the community. When we interviewed the residents, they underestimated the positive economic impact of tourism in this area. Thus it is significant to implement the recommendations shown in **Figure 4** to ensure the sustainable development of CBE in this area.

SWOT	Helpful	Harmful
Internal	Strengths: <ul style="list-style-type: none"> - Convenient transportation and superior location. - Diversified wild animal and plant resources. - Rich in ethno cultural resources. - Traditional and tranquil life in a typical rural Kazakh setting. - Hospitality and positive attitude of locals to tourism. - Great potential of the region for sustainable development of ecotourism. 	Weaknesses: <ul style="list-style-type: none"> - Far residential location from the provincial capital cities. - Low-quality service and outdated facilities. - Shortage of employees with education in the field of tourism. - Lack of tourism marketing and promotion agencies. - Lack of transparency, poor institution arrangement, and corruption. - Lack of preferential policies for CBE development.
External	Opportunities: <ul style="list-style-type: none"> - Local employment and poverty reduction. - Promoting, sustaining and reviving a disappearing cultural heritage. - Protecting and sustaining the rich biodiversity. - Developing an eco-friendly mode of travel. - National and international financial support. 	Threats: <ul style="list-style-type: none"> - Total absence of waste disposal systems and low quality infrastructure. - Poorly structured and unplanned village settlements and houses. - Erosion of local cultural values. - Intense competition between tourist destinations. - Increasing of the diversified demands of tourists.

Figure 3. The results of SWOT analysis of CBE development in Aksu-Zhabagly NR (the first author's work).

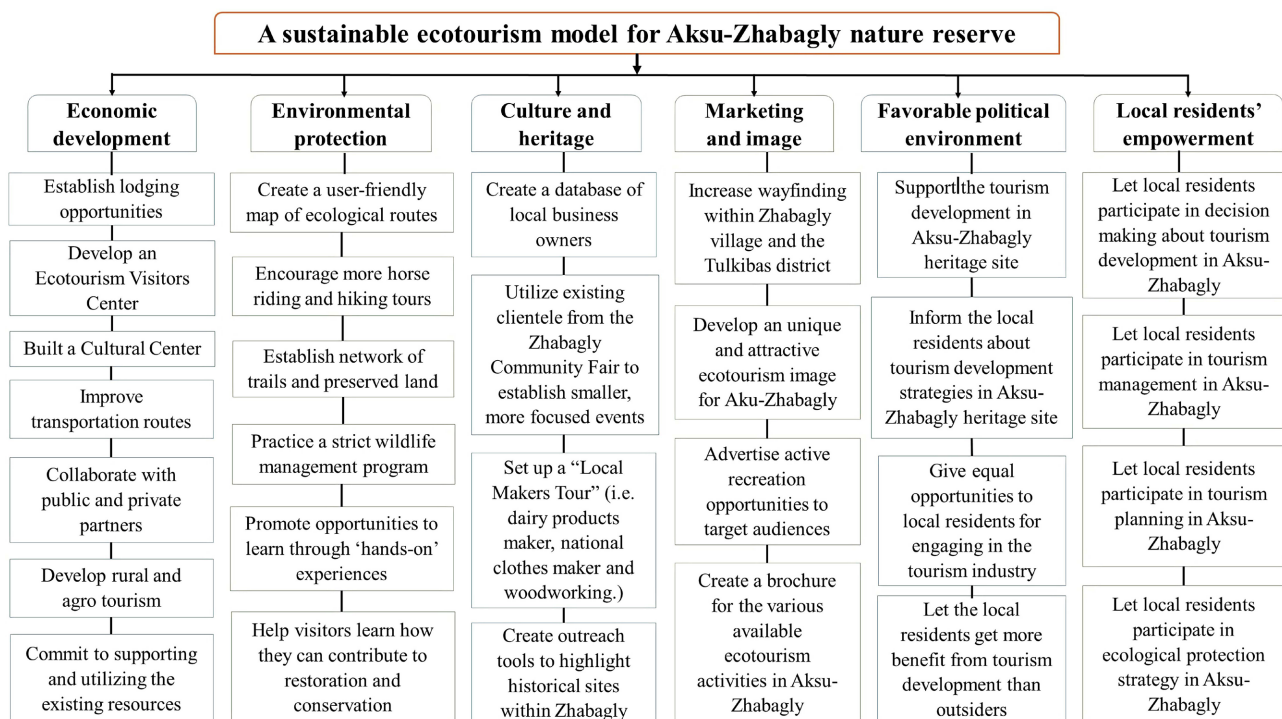


Figure 4. The proposed sustainable CBE development model for Aksu-Zhabagly NR (the first author's work).

- **Environmental protection:** Biodiversity must be protected and maintained to safeguard the conditions which support life on the planet. Protection is necessary because many organisms and habitats have become endangered due to harmful changes caused by mankind. As seen from our investigation, Aksu-Jabagly NR has been effectively protected under the laws of specially protected areas. And the work done by the government of Kazakhstan to protect

biodiversity in this tourist area is at a high level. However, we believe that the measures outlined in **Figure 4** should be implemented to increase the positive environmental impact of tourism in this NR.

- **Culture and heritage:** In essence, cultural heritage attractions are unique and fragile. Therefore, tourism authorities must study how to develop cultural heritage sites effectively and should recognize the importance of protecting and preserving them for a long time. If this is not the case, it may cause irreversible and irreversible damage to the core of world cultural identity (Bleib-leh & Awad, 2020). One of the characteristics of travel is mankind's inherent desire to see and learn about the cultural identity of different parts of the world. While cultural heritages inspire people's pride in their history in domestic tourism, in international tourism, cultural heritage stimulates respect and understanding of other cultures, thereby promoting peace and understanding (Salazar, 2010). In addition to ecotourism, this tourist destination has great potential to develop a variety of cultural heritage tours. However, according to the results of our investigation, the culture and heritage value of this tourist destination has not been established yet. Therefore, we believe that to increase the socio-cultural sustainability of tourism in this area, the recommendations shown in **Figure 4** should be taken into account.
- **Marketing and image:** The image of a tourist destination is generally perceived as a successful aspect of tourism management and destination marketing. Information about a particular destination is an important advertising tool for the tourism industry and affects the image of the destination (Molina et al., 2010). Understanding how travelers obtain information is vital for marketing management decisions. This is especially true for services, travel and tourism products. The image plays a significant role for destination marketers to differentiate their destinations in this highly competitive market (Yilmaz et al., 2009). As we have seen in this tourist destination during our field-work period, relevant tourism developers did not pay much attention to the marketing and image advertising of the tourist destination, so we believe that this tourist destination should take into account the marketing and image promotion proposals shown in **Figure 4** to achieve sustainable tourism development in this ecotourism area.
- **Favorable political environment:** According to Sofield (2003) the relationship between the state, government and politics is not related to the political dimension, but the economic or sociological constructions. However, the significant contribution of tourism to economic development and its hegemonic value means that tourism is closely linked to politics (Hall, 2010; Henderson, 2002). Indeed, tourism politics is considered to be a struggle for power, rules and authority in decision-making, resource allocation and policymaking. There are various interests at the local, regional, and national levels in an attempt to influence the status of the tourism industry on the political agenda (Sofield, 2003). When we analyzed the barriers to the participation of the local population in tourism and the distribution of tourism revenues, one of

the biggest obstacles is the lack of preferential policy support for residents' active participation in tourism and fair sharing of tourism revenue. Therefore, we believe that to achieve sustainable development of tourism in this area, the recommendations shown in **Figure 4** should be taken into account.

- Local residents' empowerment: Tourism supports the economic empowerment of all individuals based on employment, income, and entrepreneurial opportunities. When large-scale businesses used a liaison to facilitate communication with indigenous landowners, empowering outcomes were more likely (Aghazamani & Hunt, 2017). In our study, we found that the participation status of local people in tourism is low, they are at a low level of participation, and they have limited rights to comment and make recommendations on tourism development projects. We also found that tourism business owners usually do not provide their employees with training opportunities like successful foreign tourism developers. Therefore, we believe that to implement CBE development successfully, it is necessary to take into account the recommendations shown in **Figure 4**, which empowers local people to participate in the tourism industry at a higher stage.

5. Conclusion

This paper briefly introduces the concept of CBE and the SWOT analysis method, analyzes rural ecotourism in the Aksu-Zhabagly NR of Kazakhstan using the SWOT analysis method and makes a comprehensive qualitative analysis of the Strengths, Weaknesses, Opportunities and Threats of CBE development in the study area. According to the analysis, the following strategies are put forward: Most local people in the area benefit very little from tourism. An innovative project for the development of ecotourism must alleviate the impacts of tourists and maximize the income-generating potential of ecotourism. The Aksu-Zhabagly area is the home of people who continue to use resources traditionally. This study designs an encouraging model for poor communities. It is impossible to preserve important nature without the active involvement of local people. Therefore, international experience proves that the development of community tourism in the settlements around the nature reserve has proved its effectiveness in the protection of biodiversity. In our opinion, the payments made by visitors should be used directly to finance environmental, educational and development projects in the region. For example, part of the revenue from tourism is used to hire NR security guards; repair tourist roads and construction of schools and clinics for residents. It is necessary to plan a year-round vacation, protecting natural habitats, wildlife, and local cultural heritage.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- (2006, July 7). *On Specially Protected Natural Areas*. <https://www.cbd.int>
- (2016). *Proposal for Inscription on the UNESCO World Cultural and Natural Heritage List: Nomination Dossier of Western Tien-Shan*. <https://whc.unesco.org>
- Aghazamani, Y., & Hunt, C. A. (2017). Empowerment in Tourism: A Review of Peer-Reviewed Literature. *Tourism Review International*, 21, 333-346. <https://doi.org/10.3727/154427217X15094520591321>
- Akbar, I., & Yang, Z. (2021). The Influence of Tourism Revenue Sharing Constraints on Sustainable Tourism Development: A Study of Aksu-Jabagly Nature Reserve, Kazakhstan. *Asian Geographer*, 38, 1-21. <https://doi.org/10.1080/10225706.2021.1894462>
- Akbar, I., Maksatovna, S. A., Kazbekkyzy, M. Z., Zhaksybekkyzy, T. A., Tagabayevich, S. A., & Abdugarimovich, M. S. (2022). Sustainability of the Community-Based Ecotourism Development in the Aksu-Zhabagly Nature Reserve, Kazakhstan: An Evaluation through Local Residents' Perception. *Region*, 9, 69-82. <https://doi.org/10.18335/region.v9i1.335>
- Akbar, I., Myrzaliyeva, Z. K., Tazhekova, A. Z., Saulembayev, A. T., & Kenzhebay, R. N. (2021). Evaluation of the Community-Based Ecotourism Development Status in the Aksu-Jabagly Nature Reserve, Kazakhstan. *GeoJournal of Tourism & Geosites*, 35, 381-389. <https://doi.org/10.30892/gtg.35216-662>
- Akbar, I., Yang, Z., Han, F., & Kanat, G. (2020a). The Influence of Negative Political Environment on Sustainable Tourism: A Study of Aksu-Jabagly World Heritage Site, Kazakhstan. *Sustainability*, 12, 143. <https://doi.org/10.3390/su12010143>
- Akbar, I., Zhaoping, Y., Mazbayev, O., Seken, A., & Udahogora, M. (2020b). Local Residents' Participation in Tourism at a World Heritage Site and Limitations: A Case of Aksu-Jabagly Natural World Heritage Site, Kazakhstan. *GeoJournal of Tourism & Geosites*, 28, 35-51. <https://doi.org/10.30892/gtg.28103-450>
- Aksu-Zhabagly State Nature Reserve*. <https://www.aksu-jabagly.kz>
- Ariya, G., Sempele, C., & Simaloi, F. (2020). Local Maasai Women Empowerment through Employment Opportunity: Lessons from Base Camp Maasai Brand in Maasai Mara, Kenya. In *Sustainable Human Resource Management in Tourism* (pp. 143-155). Springer. https://doi.org/10.1007/978-3-030-41735-2_11
- Bleibleh, S., & Awad, J. (2020). Preserving Cultural Heritage: Shifting Paradigms in the Face of War, Occupation, and Identity. *Journal of Cultural Heritage*, 44, 196-203. <https://doi.org/10.1016/j.culher.2020.02.013>
- Chok, S., Macbeth, J., & Warren, C. (2007). Tourism as a Tool for Poverty Alleviation: A Critical Analysis of "Pro-Poor Tourism" and Implications for Sustainability. *Current Issues in Tourism*, 10, 144-165. <https://doi.org/10.2167/cit303>
- Das, N. (2017). *Community Based Ecotourism as a Means of Resource Management: An Assessment in Nameri National Park of Assam* (p. 183). TTPP.
- Denman, R. (2001). *Guidelines for Community-Based Ecotourism Development*. WWF

International.

- Hall, C. M. (2010). Power in Tourism: Tourism in Power. In D. V. L. Macleod, & J. G. Carrier (Eds.), *Tourism, Power and Culture: Anthropological Insights* (pp. 199-213). Channel View Publications. <https://doi.org/10.21832/9781845411268-014>
- Henderson, J. C. (2002). Tourism and Politics in the Korean Peninsula. *Journal of Tourism Studies*, 13, 16-27.
- Hipwell, W. T. (2007). Taiwan Aboriginal Ecotourism: Tanayiku Natural Ecology Park. *Annals of Tourism Research*, 34, 876-897. <https://doi.org/10.1016/j.annals.2007.04.002>
- Kazakhstan National Committee (2014). *Kazakhstan National Committee for the UNESCO Programme "Man and Biosphere": Aksu-Zhabagly Biosphere Reserve*.
- Kiper, T. (2013). *Role of Ecotourism in Sustainable Development*. InTech. <https://doi.org/10.5772/55749>
- Kummerer, S. (2018). *Eco-Friendly Tourism Is Becoming a Movement, and More Vacationers Are Buying into the Concept*.
- Marin-Pantelescu, A., Tăchiciu, L., Căpușneanu, S., & Topor, D. I. (2019). Role of Tour Operators and Travel Agencies in Promoting Sustainable Tourism. *Amfiteatru Economic*, 21, 654-669. <https://doi.org/10.24818/EA/2019/52/654>
- Molina, A., Gómez, M., & Martín-Consuegra, D. (2010). Tourism Marketing Information and Destination Image Management. *African Journal of Business Management*, 4, 722-728.
- Richards, G., & Hall, D. (2002). The Community: A Sustainable Concept in Tourism Development? In G. Richards, & D. Hall (Eds.), *Tourism and Sustainable Community Development* (pp. 1-14). Routledge.
- Salazar, N. B. (2010). The Globalisation of Heritage through Tourism: Balancing Standardisation and Differentiation. In S. Labadi, & C. Long (Eds.), *Heritage and Globalisation* (pp. 130-146). Routledge.
- Shang, Y., Sun, Y., & Xu, A. (2020). Rural Ecotourism Planning and Design Based on SWOT Analysis. *International Journal of Low-Carbon Technologies*, 15, 368-372. <https://doi.org/10.1093/ijlct/ctaa003>
- Sofield, T. H. (2003). *Empowerment for Sustainable Tourism Development*. Emerald Group Publishing.
- Törn, A. (2007). *Sustainability of Nature-Based Tourism*.
- Tsaur, S.-H., & Wang, C.-H. (2007). The Evaluation of Sustainable Tourism Development by Analytic Hierarchy Process and Fuzzy Set Theory: An Empirical Study on the Green Island in Taiwan. *Asia Pacific Journal of Tourism Research*, 12, 127-145. <https://doi.org/10.1080/10941660701243356>
- Williams, P. W., & Fennell, D. A. (2002). Creating a Sustainable Equilibrium between Mountain Communities and Tourism Development. *Tourism Recreation Research*, 27, 5-8. <https://doi.org/10.1080/02508281.2002.11081369>
- Yang, X. (2019). *Participatory Management of Community-Based Ecotourism at Jiuzhaigou National Nature Reserve, China*.
- Yilmaz, Y., Yilmaz, Y., Içigen, E. T., Ekin, Y., & Utku, B. D. (2009). Destination Image: A Comparative Study on Pre and Post Trip Image Variations. *Journal of Hospitality Marketing & Management*, 18, 461-479. <https://doi.org/10.1080/19368620902950022>
- Zhuang, X., Yao, Y., & Li, J. J. (2019). Sociocultural Impacts of Tourism on Residents of World Cultural Heritage Sites in China. *Sustainability*, 11, 840. <https://doi.org/10.3390/su11030840>