ADB-CAREC Research Grants Program

Cooperative Study on Eco-tourism Based on Transport Corridor in China and Kazakhstan

Final Report

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Title: Cooperative Study on Eco-tourism Based on Transport Corridor in China and Kazakhstan

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Summary

As member countries of CAREC (Central Asia Regional Economic Cooperation), China and Kazakhstan are accelerating efforts in ecological economy development, thus to further enhance regional competitiveness and broaden cooperation through ecological industrialization. In order to promote ecological cooperation between China and Kazakhstan and other Central Asia countries, experts of two countries, with the financial support of ADB-CAREC Research Grants, jointly undertook and fulfilled the Project, “Cooperative Study on Eco-tourism Based on Transport Corridor in China and Kazakhstan”. This project is targeted to bring China, Kazakhstan and other central Asian countries' geographical advantage and their abundant ecological resources into full play, increase the attention of national government and the public on the ecological environment, expand the scale of ecological economic cooperation between countries in the region concerned, especially enrich various modes of eco-tourism, thus to promote this region’s sustainable development and harmonious development between social and economic sectors.

Conclusions are generated on the basis of in-depth study on transportation corridor construction program, questionnaire survey of environmental awareness in China and Kazakhstan, comparison on the basic ecological conditions of the two countries and analysis on the conditions of eco-tourism development.

First, the Central Asia Transportation Corridor-based oasis economy can provide strong infrastructure and market driving force for eco-tourism. The world-class resources of the region attract tourists of Eurasia and its comprehensiveness can satisfy demands of multiple levels and types. Bordering areas between China and Kazakhstan are important part of the North Path of Silk road, which has been increasingly becoming hot spot of world tourism and attracting attention and support of travel agencies across the world.

Second, the stable political state, good social order, growing prosperous ports and
cross-boundary economic centers, plus the highly importance local government and social groups attach to the area have offered a favorable environment both in macro and micro terms.

Third, both China and Kazakhstan have joined major conventions on biodiversity and natural resources conservation, promulgated relatively systematic laws and regulations in this regard, which promises broad margin for two countries to carry out eco-tourism cooperation.

As transportation and economic corridor construction in Central China is well underway, eco-tourism cooperation between China and Kazakhstan boasts promising future. While in view of the vulnerability of ecological environment of the region concerned, the report presents the following suggestions as measures to promote regional eco-tourism cooperation:

First, cooperation should be conducted gradually and on phase basis. As a result of scattered scenic spots, less developed transportation, poor service infrastructure and vulnerable ecological environment, the cost to developing eco-tourism might be huge. So developing trial spots first is recommended. It should be based on in-depth market analysis, professional scenery design and planning and enabling environment of eco-tourism. Otherwise, the over-development might escalate the vulnerability of eco-system.

Second, conservation with sustainable development must be taken into account. In view of limited resources of eco-tourism such as highland, wetland and grassland, eco-tourism must be developed in compliance with sustainable development strategy. Development and conservation must be properly dealt, especially when developing in natural reserves. Environment protection and capacity control principles should be observed.

Third, radiant effects should be played throughout the region. Some areas of China and Kazakhstan should be given priority to develop eco-tourism as they embrace more eco-tourism resources, more advanced transportation and services infrastructure,
and when capital and human resources get mature, experience can be transported to less developed areas.

China and Kazakhstan share long borders, whose eco-tourism resources are monopolized and unique in Central Asia, and tourism development attracts wide attention among different sectors. Given the trans-boundary feature of the eco-tourism resources, the cooperation should be national governments-guided, market-oriented, and enterprises-based whereby comprehensive cooperation of eco-tourism is expected to take shape. Cooperation and promotion of China-Kazakhstan eco-tourism will definitely create possibilities and foundations for the development of regional eco-tourism, construction of Central Asia Economic Corridor and Transportation Corridor and the sustainable development of Central Asia. Finally, the report suggests promoting the construction by eco-tourism cooperation between China and Kazakhstan.

First, establish the tourism and environment working group in CAREC. To establish the special group to include tourism, the environment, in terms of functions and transport, trade, customs authorities in parallel to jointly promote the cross-border area.

Second, strengthen the comprehensive transportation system construction for Central Asia eco-tourism. China-Kazakhstan Border Eco-Tourism Road Development Plan is recommended to be made and implemented. The railway infrastructure and airway capacity building also need to be strengthened.

Third, perfect the entertainment facilities of eco-tourism cities of Central Asia; give prominence to hotels in major scenic spots and border cities and promote the eco-tourism advertisement with services facilities.

Fourth, strengthen the public services network; establish the comprehensive service zone of Central Asia, especially along high-class roads of China and Kazakhstan; tourism and transportation departments of the region should establish a standard eco-tourism sign directing system and promote cooperation between Central Asia
eco-tourism and financial service system, which means to provide financial support for the scenic spots and network construction. It can provide real time financial services for tourists, facilitating tourism and financial services.
Part 1: Background and Objectives of the Project

1. Background

Xinjiang Uygur Autonomous Region of China and Kazakhstan share a long border, and they all belong to the central Asia region. In terms of climate condition, this region is a typical inland arid region, and oasis economy is the major characteristic of this region's economy. To promote environmental and economic development, improve people's living standards, and protect the ecological environment are the major tasks facing China and Kazakhstan.

At present, China and Kazakhstan are speeding up the development of regional ecological economy, thus to further increase regional competitiveness and expand regional cooperation through ecological industrialization. Considering the relation between economic development and environmental protection, it is necessary to take local ecological and environmental vulnerability into full consideration during ecological economic development, such as eco-tourism and the utilization of ecological resources.

To utilize China, Kazakhstan and other central Asian countries’ geographical advantage and their abundant ecological resources, increase the attention of national government and the public on the ecological environment, expand the scale of ecological economic cooperation between central Asian countries, especially enrich various modes of eco-tourism, are the important tools to promote this region’s socio-economic development and harmonious development, and they will also provide support for establishing regional economic cooperation in Central Asia.

At present, eco-tourism in the region is still the conceptual reference, there is no practical demonstration project, but the area has been owned the eco-tourism’s conditions, For example, border areas in China-Kazakhstan have established a large number of protected areas, and it plays an active role in water conservation, sand-fixing and regulating the regional climate, biodiversity conservation, local economic prosperity and the promotion of local people's living standards. But here have some problems, in the absence of the necessary inputs and effective economic management system, there has not an effective economic development and regional integration. It is very worth a wait in order to better promote the protection of natural
harmony and economic development, especially to promote economic development in the China-Kazakhstan’s border.

Therefore, with the financial support by Asia Development Bank (ADB), the Policy Research Center for Environment and Economy (PRCEE) of Ministry of Environmental Protection (MEP) of China, Xinjian Normal University of China, and Kazakhstan State University carried out cooperation and finished the Joint Research Project on Eco-tourism between Xinjiang of China and Kazakhstan.

2. Objectives

The project will mainly investigate the major ecological and environmental situation at China-Kazakhstan border;

Promote ecological economic cooperation between Xinjiang of China, Kazakhstan and other central Asian countries etc., especially to analyze the basis for eco-tourism development and advantages of the eco-tourism resources, analyze the market characteristic of eco-tourism, and put forward the overall concept, concrete measures and actions;

Analyze the regional structure of eco-tourism, choose the cooperation steps to be taken and cooperation pattern to promote eco-tourism between China and Kazakhstan in central Asia, thus to provide technical support for further regional cooperation in central Asia;

To promote cross-border cooperation on eco-tourism, and to select demonstration in China and Kazakhstan. To promote the two countries’ governments, in particular public participation in eco-tourism projects, promoting regional tourism co-benefits sharing, collaboration in the core of China-Kazakhstan border region to enhance eco-tourism value.

3. The Definition and Characteristics of Ecotourism

Ecotourism, the fastest growing sector of tourism with an annual growth rate of 20%-25%, is a bourgeoning industry harboring most sustainability. The concept of eco-tourism was initially proposed by the Mexican Expert H-Ceballos Lascurain, special consultant of IUCN, in 1983. He holds that eco-tourism is especially featured
by sightseeing without harming the natural spectacles. The concept was constantly
discussed and broadened by other experts from perspective of social, cultural,
economic, natural and geological implications. Till now a unified definition has not
yet been generated. According to the definition of Environment Department of World
Bank and Ecotourism Association in 1993, ecotourism is to appreciably understand
the culture, nature, and history by visiting the place and not undermine the natural
feature of the site, which will enable the local community to draw benefits from
natural resources protection. The U.S. Ecotourism Society defined eco-tourism in
1992 as a tour to the natural reserves with the aim of understanding the local culture
and history of the visiting place, which creates economic development opportunities
without damaging the completeness of the eco-system at best, thus benefiting the
local people with the income of natural resources protection. The tourism department
of Australian Federal government explained ecotourism in 1994 as a sustainable and
manageable ecological tour visit to the nature, which incorporates the environment
education and explanation with the visit. Mr. Valentine in 1993 made a relatively
complete definition for eco-tourism as: first, ecotourism must be based on
undisturbed natural areas as tour bases; second, no harm to the environment or
environment degradation, ecological sustainability must be guaranteed; third, directly
contributable to the sustainable protection and management of natural tourism; four,
an effectively compliant management system is required. In all, the substances of
eco-tourism involve stressing over protection on natural landscape and emphasizing
on sustainable tourism. Eco-tourism will become the leading trend of tourism
development coupled with environment economy today and tomorrow.

The characteristics of ecological tourism:

1. Local ownership. The local community has the right to decide the development of
local tourism, including the planning and the management; it also decides whether to
develop the ecotourism and controls its scale.

2. Local benefits. Most of the tourism revenue will be kept in the local community,
benefiting not only people involved in tourism projects but also other local residents
through regional development fund, improved health care, education and
infrastructure.

3. Ecological sustainability. As ecotourism projects replace other polluting production
activities, local residents will get involved in environmentally sustainable projects
with enhanced awareness of environmental protection.
4. Small scale and low impact. Ecotourism involves small-scale projects that respect the traditional culture and the local society, minimizing negative impacts on the natural, social and cultural environment.

5. Quality tour guide interpretation. Tourists will be provided with tour guide interpretation without attending any inappropriate ceremonies.

**Part 2: The Study into the Ecotourism in China and Kazakhstan**

**1. The overview of Xinjiang and Kazakhstan**

China and Kazakhstan share a land boundary of 1215.86 km and a water boundary of 566.89 km, the Aletai Region, Tacheng Region, Boertala Region, Ili Region and Kashi Region in Xinjiang border East Kazakhstan Province, Alma Ata Province and Almaty in Kazakhstan.

**1.1 Overview of Xinjiang**

**1.1.1 Nature and Geography**

Xinjiang Uyghur Autonomous Region (or Xinjiang for short), is located in the middle of the Eurasia Continent and in the northwest of China (Figure 1) with an area of 1.6649 million sq.km, taking up 1/6 of China’s total territory. It borders 8 countries, including Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Pakistan, Mongolia, India and Afghanistan. The total boundary is more than 5600km, 1/4 of China’s boundary line. Xinjiang is the largest province with the longest boundary line and most bordering countries in China.
1.1.2 Demographics

Xinjiang is home to 47 ethnic groups, 13 of which have settled here for long time. In this land blessed with natural beauty and rich resources, people of different ethnic groups have lived and worked for hundreds and thousands of years, and created brilliant civilization. By the end of 2006, the total population of Xinjiang was 20.5 million, 60.4% are ethnic minorities. Presently, there are 14 prefectures (including 7 prefectures, 5 autonomous prefectures and 2 prefecture-level cities), 88 counties (including cities, and cities at county level, of which there are 33 county level cities in border area and 6 ethnic autonomous counties) and 853 villages and towns (including 43 ethnic autonomous villages) under the government of the Xinjiang Uygur Autonomous Region.

1.1.3 Economy

Since 1980, Xinjiang’s GDP has been growing in a rapid trend, and the growth rate during 2003-2007 exceeded 10% (Figure 2). In 2007, Xinjiang’s GDP was 349.4 billion CNY, and the per capita GDP was 16860 CNY, which was 2217 USD in terms of the average exchange rate in that year.

From the aspect of industrial structure, the second and third industry has become the majority of the economy in Xinjiang (Figure 3). In 2007, Xinjiang’s foreign trade volume reached 13.716 billion USD, a 50.7% increase over the past year. Among this volume, total export volume was 11.503 billion USD, an increase of 61.1%, and the
total import volume was 2.213 billion USD, an increase of 12.7%. The volume of small cross-boarder foreign trade accounts for 58.8% of total foreign trade.

In 2007, there were 403 hotels in Xinjiang, among which 8 were five-star hotels. There were 426 travel agencies of various types, among which 51 were international agencies and 375 are domestic agencies. There were 438 thousand incoming tourists, which was a 21% increase. Foreign exchange income from international tourism was 0.162 billion USD, a 26.5% increase. There were 21.26 million domestic tourists, a
28% increase, and the income from domestic tourism was 19.292 billion CNY, a 29.4% increase.

In addition, Xinjiang is the only region in China that borders Kazakhstan, and they have highly complementary in each others’ resource structure, industrial structure and technological structure, which is of the obvious characteristic of trade-oriented economy. In March 2006, China and Kazakhstan Horgos International Border Cooperation Center was set up under the framework of Shanghai Cooperation Organization in March 2006, this is the first international border cooperation center approved by China’s State Council.

1.2 The Overview of Kazakhstan’s Border Region with China

1.2.1 Nature and Geography

Kazakhstan situates at the middle of central Asia (Figure 4), and it has an area of 2.7249 million sq.km. Eastern Kazakhstan Province is a mountainous region, in the east stretches the Altai Mountain ridge, in the south lie many mountains and the Zaisan Basin. The major river flowing through this Province is the Irtysh River with a total length of 4,248 km, more than 1,300 km of which is within Kazakhstan. Eastern Kazakhstan is also dotted with many lakes, Lake Zaysan is the largest. It has a rich soil diversity, the most common flora on mountains are mainly include spruce, fir and pine; on grassland are couch grasses and gramineae plants. With a temperate continental climate, Eastern Kazakhstan is dry and has little rain, and rain is more frequent at the mountain foot. The annual average precipitation in Eastern Kazakhstan varies from 300 mm to 1,500 mm, the average temperature is between -20°C to -16°C in winter and 20°C to 23°C in summer.

Almaty Province is a wide plain that slopes down towards the Lake Balkhash, in its southeast are the Dzhungar Alatau Mountains and Charyn Canyon. The major river running through this Province is the Ili River with a total length of 1,439 km, 815 km is within Kazakhstan. Almaty Province also has many lakes, of which the largest is Lake Balkhash with an area of 18,200 sq. km. The soil salinization and desertification are very serious in this province, so along the river banks and lakes grow the bushy Tugayi Forest and a large expanse of reeds; mountains are most covered by plateau vegetation species. With a temperate continental climate, Almaty Province is also dry with little rain. The annual average temperature is higher than that of Eastern Kazakhstan.
1.2.2 Demographics

Kazakhstan is a nation with 131 ethnic groups, winning the fame of “the corridor of ethnic groups through the Eurasia”. The total population of Kazakhstan reached 15.565 million in 2007; 8.7252 million belong to the Kazak ethnic minority group, 57.9% of the total population. Eastern Kazakhstan and the Almaty Province are the two largest provinces in terms of population, together taking up 20% of the total. Eastern Kazakhstan has a population of 1.5043 million with a population density of 5.3 people per square kilometer, 315,000 people live in the capital city, 882,600 people in urban areas and 621,700 in rural areas, accounting for 20.8%, 58.7% and 41.3% respectively. The Almaty Province has a population of 1.5618 million with a population density of 0.7 people per square kilometer, 448,300 people in urban areas and 1.1135 million in rural areas, accounting for 28.7% and 71.3% respectively.

1.2.3 Economy

Kazakhstan with a vast territory is rich in natural resources, especially the non-ferrous metals. As a country important for both CIS countries and the world, Kazakhstan has favorable conditions to develop foreign trade (Figure 5). In 2007, the total GDP of
Kazakhstan stood at $103.843 billion, up by 8.5% on 2006, per capital GDP reached $6,671. Industrial output was $29.22 billion, agricultural output $5.94 billion, foreign trade volume more than $80 billion and the foreign reserve $38.44 billion. In terms of industrial structure (Figure 6), the second and third industry become the majority of Kazakhstan’s economy.

Figure-5  Kazakhstan’s GDP and growth rate during 2003-2007

Figure-6  Kazakhstan’s industrial structure in 2007
Eastern Kazakhstan has a rich reserve of mineral resources, and metallurgy contributes to 50% of the total industrial output of the province. The province has the largest reserve of wood and the largest wood processing industry in Kazakhstan; it also has a high concentration of agriculture and animal husbandry.

Almaty Province, as one of the agricultural provinces, has a thriving machinery industry. Despite rapid economic growth in recent years, the development of the mountain regions still falls behind. Tourism can help balance the regional development.

In addition, the volume of China-Kazakhstan trade in 2007 was 9.15 billion USD, which was a 65.6% increase, and Kazakhstan’s favorable balance was 2.13 billion USD. China is Kazakhstan’s second largest trade partner, third largest export country and second largest import country. This indicates that, on one hand, Kazakhstan’s economy is developing rapidly because of its oil exploitation, and its economy tie with China is being strengthened on the other.

2. The Analysis on the Ecological Environment along the China-Kazakhstan Border

2.1 Biodiversity

Kazakhstan is located in the middle of the Eurasia and North Temperate Zone, the complex topography, hydrology and climates contribute to the country’s great biodiversity. The following Figure 7&8 is the distribution of biodiversity and its load in Kazakhstan.

Figure-7 Biodiversity and its Load in Kazakhstan
Both the Altai and the Alatau Mountain regions have abundant biotic resources. The incomplete statistics shows that Kazakhstan has more than 800 wild animal species, including more than 150 species of medium-to-large mammals, 485 species of large birds, more than 150 species of fish and animals such as toad, Siberian newt, tortoise, gecko, lizard, skink and snake. The following Figure 9 is its distribution. It also has more than 4700 plant species.

**Figure-8  Biodiversity of Central Asia**

**Figure-9  Biodiversity in Kazakhstan**
The terrain in Xinjiang could be well described as “Three Mountains and Two Basins in Between”, Altai Mountain on the north, Kunlun-Altyn Mountain on the south, and Tianshan Mountain right across the middle, dividing Xinjiang into South Xinjiang and North Xinjiang. Between Altai Mountain and Kunlun Mountain it is Junggar Basin, and Tianshan Mountain and Kunlun Mountain it is Tarim Basin. As those mountains stretch from west to east at different latitudes, ecological environment and animal species are also different at different latitudes or vertical belts. Thanks to the diversified landscape of this region - mountain rivers, lakes, forests, grasslands and deserts, Xinjiang has rich animal resources (Figure 10), including 700 species of terrestrial vertebrate animals, 32% of China’s total, 425 species of birds and 155 species of mammal, combining for 31% of China’s total.

![Figure-10 Distribution of Animal in Xinjiang](image)

The east-west length of Xinjiang is 1900km, and its south-north length is 1500km. Its total area is more than 1.6 million sq. km, which is about 1/6 of China’s total area. It belongs to temperate desert zone and mile temperate desert zone, and it has abundant plant resources (Figure 11). Regarding wild and induced planted higher plants, there are 161 families, 877 genera and 4081 species (including 229 subspecies and variants), which account for 13.4% of China’s total. The diversity of habitats generated the unique heredity gene in desert region that has potential economic and ecological value. Among these species, more than 80 plant species are protected species with priority and China’s important protected endangered species that are of international
The Altai Mountain Range system of Central Asia extends approximately 2,000 km in a southeast-northwest direction through China, Mongolia, Russia, and Kazakhstan. The southeast section within China’s territory stretches more than 400 km on the northern border of Xinjiang with the highest peak of 4,374 m. Plants and animals are quite different at different vertical belts. Coniferous forests grow at an altitude of 1,200 to 2,300 m, above is grass. The field research has spotted 124 species of birds in Altai Mountains in Xinjiang, of which 51 species belong to Palaeartic Realm (41.1%), 31 species belong to Oriental Realm (25.0%) , there are also 27 species of widespread birds ( 21.8%) and 15 species of other types of birds (occupying 12.1%). So the bird fauna here is a typical example in Taiga, and mammal fauna here is also representative in Taiga, 52% belong to the Palaeartic type, 16% to the Oriental type, 12% to the Middle-Asia type, 16% to the widespread type, and the rest to other types.
2.2 Nature Reserves of Xinjiang and Kazakhstan

2.2.1 Nature Reserves in Xinjiang

China has put in place a wildlife protection system mainly consists of nature reserves and forest parks. Xinjiang alone has established 27 Nature reserves (Figure 12), taking up 13.15% of the total land area of Xinjiang Province (1.66 million sq.km).

![Figure-12  Distribution of Natural Reserves in Xinjiang](image)

There are 14 nature reserves (Table 1), including 3 at national level, and 16 forest parks, including 7 at national level are located in the border region with Kazakhstan. Table 2 lists the forest park in Chinese side along the China-Kazakhstan boarder.
Table 1  The Nature Reserves in Xinjiang along the China-Kazakhstan Border

<table>
<thead>
<tr>
<th>Name of the Nature Reserves</th>
<th>Protection Type</th>
<th>Area(hectare)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kanaz National Nature Reserve</td>
<td>Forest</td>
<td>220162</td>
</tr>
<tr>
<td>Ganjiahu National Nature Reserve</td>
<td>Haloxyylon Ammodendron Forest</td>
<td>54667</td>
</tr>
<tr>
<td>Aibi Lake National Wetland Nature Reserve</td>
<td>Wetland</td>
<td>267085</td>
</tr>
<tr>
<td>Naziqrlute meadow natural reserve</td>
<td>Grassland</td>
<td>65300</td>
</tr>
<tr>
<td>Jintasi Alpine Grassland Nature Reserve</td>
<td>Grassland</td>
<td>56700</td>
</tr>
<tr>
<td>XinJiang SaLamander reserve</td>
<td>Wild Animal</td>
<td>694.5</td>
</tr>
<tr>
<td>Bu'ergen Beaver Nature Reserve</td>
<td>Beaver and Wetland</td>
<td>5000</td>
</tr>
<tr>
<td>Gongliu Wild Walnut Nature Reserve</td>
<td>Wild Walnut Forest</td>
<td>1018.67</td>
</tr>
<tr>
<td>Ili Fraxinus Bungeana Nature Reserve</td>
<td>Fraxinus Bungeana Forest</td>
<td>404.67</td>
</tr>
<tr>
<td>Huochen Central Asian Tortoise Nature Reserve</td>
<td>Central Asian Tortoise</td>
<td>27000</td>
</tr>
<tr>
<td>Xiaerxili Nature Reserve</td>
<td>Forest</td>
<td>22000</td>
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<td>The Altai Two River Sources Nature Reserve</td>
<td>Forest</td>
<td>1130000</td>
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<tr>
<td>Aletai-Kekesu Wetland Nature Reserve</td>
<td>Wetland</td>
<td>30666.67</td>
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<tr>
<td>Tacheng Almond Forest Nature Reserve</td>
<td>Almond Forest</td>
<td>1650</td>
</tr>
</tbody>
</table>

Table 2  The Forest Park in Xinjiang along the China-Kazakhstan Border

<table>
<thead>
<tr>
<th>The Name of Forest Park</th>
<th>Level</th>
<th>Area(hectare)</th>
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</thead>
<tbody>
<tr>
<td>Baibaha Forest Park</td>
<td>National Level</td>
<td>48376</td>
</tr>
<tr>
<td>Jiadengyu Forest Park</td>
<td>National Level</td>
<td>38985</td>
</tr>
<tr>
<td>Haritureg Forest Park</td>
<td>National Level</td>
<td>26848</td>
</tr>
<tr>
<td>Qaxi Forest Park in Gongliu</td>
<td>National Level</td>
<td>55600</td>
</tr>
<tr>
<td>Kesang Karst Cave Forest Park</td>
<td>National Level</td>
<td>16400</td>
</tr>
<tr>
<td>Narat National Park</td>
<td>National Level</td>
<td>6025</td>
</tr>
<tr>
<td>Tangbula National Forest Park</td>
<td>National Level</td>
<td>34237</td>
</tr>
<tr>
<td>Qiongbola Forest Park</td>
<td>Autonomous Region Level</td>
<td>46226</td>
</tr>
<tr>
<td>Awuzangou Forest Park</td>
<td>Autonomous Region Level</td>
<td>6310</td>
</tr>
<tr>
<td>Fruit valley Forest Park in Huocheng</td>
<td>Autonomous Region Level</td>
<td>337</td>
</tr>
<tr>
<td>Mengmala Forest Park</td>
<td>Autonomous Region Level</td>
<td>13616</td>
</tr>
<tr>
<td>Ili-Kashi River Forest Park</td>
<td>Autonomous Region Level</td>
<td>467</td>
</tr>
<tr>
<td>Ili Lianxin Island Forest Park</td>
<td>Autonomous Region Level</td>
<td>667</td>
</tr>
<tr>
<td>Altai Eastern Valley Forest Park</td>
<td>Autonomous Region Level</td>
<td>1495</td>
</tr>
<tr>
<td>Shenzhong Mountain Forest Park in Fuyun</td>
<td>Autonomous Region Level</td>
<td>68070</td>
</tr>
<tr>
<td>Daqing River Forest Park</td>
<td>Autonomous Region Level</td>
<td>31236</td>
</tr>
</tbody>
</table>
The Xiaerxili Nature Reserve situated in the north slopes of Alatau Mountain in Bortala Mongol Autonomous Prefecture within Xinjiang. The nature reserve borders Harituerge Forest in the southwest and south, extends to the ridge of Alatau Mountain (the boundary between China and Kazakhstan) in the north and reaches the administrative area of Ala Mountain Pass in the east. The reserve covers a total area of 31,400 ha, including 27,800 ha disputed areas over which China retains sovereignty. Vegetation in Xiaerxili is an important part of vegetation in inland China, and the types are determined by the local environment and climate. Xiaerxili is located in the middle of Eurasia and northwest of China with a Siberian climate, and the natural geology has changed several times, as a result, different floras mix with each other, contributing to its species-rich vegetation including both lower and higher plants that are geographically distributed.

There are a total of 1676 species of wild plants in Xierxili Nature Reserve, belonging to 513 genera of 81 families. The primary research shows that there are 179 species of terrestrial animals and birds, 35 of which are on the national protected species list. The reserve used to be a disputed area between China and Kazakhstan. According to the Complementary Agreement between the People’s Republic of China and the Republic of Kazakhstan on the China-Kazakhstan Boundary signed in July, 4th, 1998, boundary defining members of the 4th group entered this region in May, 1999 and worked until September. 22,000 ha in Xiaerxili and 5,800 ha in the Ala Mountain Pass have been incorporated into Chinese territory. There are no economic activities or resident population but a garrison of 46 people, including 15 staffs and 10 forest engineers. Because of its special location, Xiaerxili has a broad spectrum of landscape, such as snow mountains, alpine grasslands, mountain forests and Gobi deserts, making it a concentrated area of rare wildlife species that should be well protected.

Biodiversity in Xiaerxili has been enhanced due to the special location and complex landscape; it has also been well preserved in the absence of human activities. This is rarely seen in Central Asian and Mongolia.

1. A diversified ecosystem. There are forests, swamps, lakes, rivers, deserts and wetlands within the reserve; accordingly, there are many types of plants, mainly including mesophyte, xerophyte, hydrophyte.

2. Diversified plant species. Because of the unique geological location, this reserve has all together 1676 species of wild plants with spruce and weeping birch as representatives. The nature reserve is also famous for the forest steppe zones and good preservation.

3. Diversified animal species. The forests in the nature reserve provide an ideal habitat for wild animals. There are 179 species of wild vertebrate animal belonging to 54 families, 7 species of reptile belonging to 3 families, 125 species of bird belonging to 37 families, 44 species of mammal belonging to 14 families, 420 species of insect belonging to 96 families and 143 species of macro fungi belonging to 26 families.

Xiaerxili is also a habitat for Saiga antelopes. Therefore, we should improve the nature reserve to protect wildlife and enable the free migration of Saiga antelopes between China and Kazakhstan, and better implement the Convention on Biological Diversity and the Convention on International Trade in Endangered Species of Wild Fauna and Flora, because these efforts are practically and theoretically important.
2.2.2 Nature Reserves in Kazakhstan’s Side

Kazakhstan had set up 24 special nature reserves by the beginning of 2004 with a total area of 2.9789 million ha, of which forest area was 6,865,000 ha, 23% of the total, water area was 3,104,000 ha, 10.4% of the total. Kazakhstan also has 9 nature reserves and 10 national nature parks (Figure 13).

![THE NATURAL RESERVES OF KAZAKHSTAN](image)

**Figure-13** Distribution of Nature Reserves in Kazakhstan’s Side
At present, the arboretums, national natural park, national park, natural protection zone, natural conservation area, internationally important wetlands and world natural heritages, as a whole, have constituted a protection system. The following Table 3 and 4 are their quantity and area.

<table>
<thead>
<tr>
<th>Table-3 Ecological Protection System in Kazakhstan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types</td>
</tr>
<tr>
<td>Arboretum</td>
</tr>
<tr>
<td>national natural park</td>
</tr>
<tr>
<td>national park</td>
</tr>
<tr>
<td>natural protection zone</td>
</tr>
<tr>
<td>natural conservation area</td>
</tr>
<tr>
<td>natural zone that limits activities</td>
</tr>
<tr>
<td>internationally important wetlands</td>
</tr>
<tr>
<td>world natural heritages</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table-4 Natural Conservation Area in Kazakhstan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
</tr>
<tr>
<td>Mangyshlakskiy</td>
</tr>
<tr>
<td>Altun Emel</td>
</tr>
<tr>
<td>Bayanayl'skiy</td>
</tr>
<tr>
<td>Ele Alatau</td>
</tr>
<tr>
<td>Kokshetau</td>
</tr>
<tr>
<td>Kenderli-Kajasanskaya</td>
</tr>
<tr>
<td>Northern part of Caspian Sea</td>
</tr>
<tr>
<td>Kourgaldzhin and Tengiz Lakes</td>
</tr>
<tr>
<td>Lakes of the lower Turgay and Irgiz</td>
</tr>
</tbody>
</table>

2.2.3 Other Ecological Environments

The famous Ili River is the largest inland river in Xinjiang in terms of volume of water and flows into the Lake Balkhash in Kazakhstan. Along the river there are large expanses of wetlands with a rich biodiversity. The wetlands are also international resources, so the protection of wetlands is of international significance. Irtysh River is a transnational river that flows through China and Kazakhstan, so its protections is important as well.

Altai Mountains extend about 2,000 km from southeast to northwest through China, Mongolia, Russia, and Kazakhstan. The mountainous region covers an area of 700,000 sq.km. and is home to 5 million people. The region, blessed with abundant hydropower resources and great biodiversity, is known as the “natural gene pool”. Because of its geographical location and development stage, this region is still free from industrial pollution and enjoys well-protected ecological environment. Nowadays, the protection of Ili River, Irtysh River and Altai Mountains has drawn international attention. Many workshops have been held to support the protection efforts.

The above-mentioned regions are areas where China and Kazakhstan will develop important transportation system and boost economic growth. How to strike a balance between regional development and environmental protection and how to use the rich biodiversity and unique local culture to promote the cross-border ecotourism should be taken seriously.
2.3 A Comparison of Eco-environment Protection Policies between Xinjiang and Kazakhstan

2.3.1 Policies to Protect Biodiversity

In 1993, Kazakhstan adopted a constitution, as well as laws on land, water, environmental protection, ecology, animal protection, plant protection, forest, and so on. Thus a legal system for environmental protection has taken shape. The “Convention on Biodiversity” was approved and took effect in 1994, and legal protection gained the support of the Global Environmental Fund. In 1998, the “State Strategies and Action Plans on Biodiversity and Balanced Development” was adopted, together with the “National Action Plans for Environmental Protection with the Goal of Sustainable Development”. The protection and sustainable management of wetland eco-systems was put on top of the government’s agenda.

The Chinese government, similarly, has made remarkable efforts to protect biodiversity. China has adopted national guidelines for environmental protection and national action plans for biodiversity conservation. It has also identified policies, strategies and priorities for biodiversity conservation. At present, China has compiled a list of 612 national-level rare and endangered species of flora and fauna, including 258 wild animal species and 354 plant species. Methods of artificial reproduction have been found for more than 60 species of endangered wild animals. The number of Chinese deer, wild horses and Saiga antelopes has been initially recovered through introduction and production.

From the above, we can see that both China and Kazakhstan have established a comprehensive legal and management system for the protection of biodiversity. Both countries have a wide coverage of biodiversity reserves nationwide and have done a good job in protecting biodiversity.

2.3.2 Policies for Natural Reserves

In 1997, the Ministry of Land and Environmental Protection of Kazakhstan adopted a law on special reserves, identifying different levels and categories of natural reserves. At present, the natural conservation areas in Kazakhstan include many natural resource protection area, national park and special natural conservation area. Currently there are 9 natural reserves, 10 national parks and 25 special natural reserves in Kazakhstan. Besides, there are over 150 water reservoirs listed.
The State Environmental Protection Administration of China adopted a series of laws and regulations to cover the management of a natural reserve, from its application to its protection. China has formulated a planning program for the development of China’s natural reserves (1996-2010), and a set of evaluation and examination standards for national-level natural reserves. Xinjiang has always taken seriously the national policies for environmental protection, adhered to the concept of sustainability for ecotourism development in natural reserves, and put forward principles for the development of ecotourism in natural reserves, such as functional zoning, environmental protection, capacity control, overall coordination, deurbanization, etc.

The policies on biodiversity and protection area in China and Kazakhstan are listed in the following Table 5.

**Table-5 Some Policies on Biodiversity and Protection Area in China and Kazakhstan**

<table>
<thead>
<tr>
<th>Types</th>
<th>China</th>
<th>Kazakhstan</th>
</tr>
</thead>
</table>
| International Convention  | Convention Concerning the Protection of the World Cultural and Natural Heritage  
Biodiversity Convention  
United Nations Convention to Combat Desertification  
Convention on International Trade in Endangered Species of Wild Fauna and Flora  
The World Charter for Nature  
Declaration of United Nations Conference on Human Environment  
Convention on Wetlands of International Importance Especially as Waterfowl Habitat | Convention Concerning the Protection of the World Cultural and Natural Heritage  
Biodiversity Convention  
United Nations Convention to Combat Desertification  
Convention on International Trade in Endangered Species of Wild Fauna and Flora  
The World Charter for Nature  
Declaration of United Nations Conference on Human Environment  
Convention on Wetlands of International Importance Especially as Waterfowl Habitat  
The Framework Convention for the Protection of the Marine Environment of the Caspian Sea |
| Laws & Regulations        | Forest Law  
Law on Wild Animal Protection  
Regulation on Natural Conservation Area  
Regulation on Wild Plants Protection | Law on Land, Law on water, Law on environmental protection, Law on ecology, law on animal protection, law on plants protection, forest law, law on special protection area. |
<table>
<thead>
<tr>
<th>Management</th>
<th>Unified national tracking and investigation system on environment and natural resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Measures for Forest and Wild Animal Natural Conservation Area</td>
<td>National environmental monitoring system</td>
</tr>
<tr>
<td>Management Measures for Forest Park</td>
<td>National Supervision System on Environmental Protection</td>
</tr>
<tr>
<td>Management Measures for Aquatic Fauna and Flora National Conservation Area</td>
<td></td>
</tr>
</tbody>
</table>

From Table 5, it can be seen that China and Kazakhstan are already parties to the major international natural protection convention on biodiversity and natural conservation area, and both countries has issued relative sound system of laws and regulations and relevant management measures, which provide the environmental policy conditions for the development of eco-tourism.

3. Condition Analysis for Sino-Kazakhstan Ecotourism Cooperation

3.1 An Analysis of the Ecotourism Resources on the Sino-Kazakhstan Border

3.1.1 Rich Resources for Ecotourism

There is a rich multitude of resources for eco-tourism along the Sino-Kazakhstan border, with abundant natural landscape and cultural heritage, such as the Altai Mountain and the Kanas Lake Area, which are famous for the frigid-temperate climate, the breath-taking glacial landform of the Altai Mountain, and a complete spectrum of vertical landscapes on the mountain. The frigid-temperate zone of China is home to many animal species, the largest natural reserves, and botanical gardens with hundreds of wild flowers, as well as time-honored cultural heritage and modern multi-ethnic cultures. In addition to ethnical cultures and rare plants and animals, this area also features glaciers, lakes, forests, grasslands, pastures, and rivers. All these are resources for ecotourism.

3.1.2 Diverse Spatial Combinations of Resources for Ecotourism

On the Sino-Kazakhstan border, various geological features combine with different flora and fauna, climate conditions, and ethnical cultures, creating spectacular sceneries of contrasting yet complementing styles. Vast stretches of land, dense
forests, large-scale grasslands, and bountiful waters make up one and another magnificent picture of matchless natural beauty. The primitive, freehearted, hospitable local people, with various ethnical backgrounds, unique customs and time-honored cultures, are blending into the pictures, making the primitive and mysterious appeals impossible to resist. Such combinations of resources are precious assets that boost the value of multilevel ecotourism.

3.1.3 Huge Potentials for the Development of Ecotourism Resources

There are vast stretches of land, dense forests, extensive grasslands, and bountiful waters on the Sino-Kazakhstan border, creating magnificent pictures of matchless natural beauty, and a large-scale ecotourism zone with abundant resources. This area’s unique climate has made possible the development of summer resort tourism and winter ice-snow tourism; the wild flora and fauna are high-quality ecotourism resources unique to this area. All these show that this area has the resource advantages and market prospects for cross-border ecotourism.

3.1.4 Rich Tourist and Scientific Values of Ecotourism Resources

West Tianshan has the largest amount of biological resources in Central Asia. But in the past, these resources were not put to efficient use, largely because the area is geographically too far away from the center of economic development. In this area, there are well-kept traces of ancient glaciers, beautiful sceneries of modern glaciers, mountains, forests, grasslands, lakes, river basins, and deserts. All of them are located here, beautiful in different ways, equally worthy of acclaim and attention. That is why this area is an ideal place for geological research and scientific experiments, and also Central Asia’s special ecotourism zone, with its resources waiting to be developed.

3.1.5 Profound Cultural Heritages Complementing the Biological Resources

The ancient Silk Road is flanked by ancient cities, grottos, temples, sections of the Great Wall and its checkpoints, all of which are testimony to the time-honored culture in this area. These cultural heritages, complementing the extensive and superior multitude of natural landscapes, add to the density, quality and importance of tourism resources. This area has always appealed to tourists all over the world. Now with the cooperation of ecotourism development along the Silk Road, the appeal will grow stronger and spur the development of neighboring areas.

To sum up, this area is one of the most promising ecotourist destinations in Central
Asia, boasting rich biodiversity and a large number of natural reserves.

### 3.2 Current State and Problems of China-Kazakhstan Ecotourism

#### 3.2.1 Current State

On June 3 2003, Chinese President Hu Jintao and the Kazakhstani President Nursultan Nazarbayev signed Joint Statement of the People’s Republic of China and the Republic of Kazakhstan. This is an important document highlighting tourism cooperation between both sides. Article 13 underpins the great significance of broadening exchanges in tourism and organizing mutual visits for young people. It has built political foundation for tourism cooperation between China and Kazakhstan. On this basis, ecotourism cooperation along border areas of the two countries serves for the fundamental interests of both sides and becomes the new orientation of future cooperation. To date, substantial cooperation in this regard has not yet started. Ecotourism is new for both countries with only some trials in several specially-assigned regions.

#### 3.2.1.1 Sound ecological system and natural resources guarantee a good foundation for ecotourism

The bordering areas between Xinjiang of China and Kazakhstan enjoy complete and diversified ecological system featured by sound forest, grassland, desert, wetland and oasis ecological features which is unique in dry areas. All these contribute to a rich and special pool for the development of ecotourism. Natural resources and ecological system reinforces with ecotourism as resources serve as the basic condition for tourism while the latter often requires environmental protection thus promoting the patronage over the region’s fragile ecological system.

#### 3.2.1.2 Economic development promotes ecotourism in the region

Ecotourism starts late either in Xinjiang of China (in 1978) or Kazakhstan (its international tourism booms since 1991). Due to poor services and infrastructure including transportation, communication, banking and catering, there are abundant resources left to be developed. In recent years, with the economic growth and the public awareness rising, the bright prospect of ecotourism for both sides is on horizon. As a matter of fact, the rising of overall economic performance of the two countries (in 2006, China’s per capita GDP registered $2,039, Xinjiang reached $1,890, and Kazakhstan hit $3,996 at the same year), especially the public awareness of protecting
the environment and upgrading their tour visits have already contributed to the development of the ecotourism in the region. It has fully manifests the socio-economic development of China and Kazakhstan on the other side.

3.2.2 Problems under discussion

3.2.2.1 Poor services and transportation facilities and sporadic tour sites drag ecotourism

The bordering area between Xinjiang of China and Kazakhstan boasts abundant tourism resources. But reality difficulties constrain tourism in the area. This is because of the loose population, long distance between cities and the poor climate conditions. Thus tour sites are scattered around and drive tour costs high. In this case, attracting tourists holds the key to boosting ecotourism. Yet the key is also blocked by local poor conditions as a result of its laggard economic performance and less population as reflected in poor transportation facilities, banking, telecommunication and catering. They are unable to compete with neighboring big cities such as Urumqi and Almaty.

3.2.2.2 Pollutions are under-managed

Due to late start and rapid development of tourism in recent years, environment in the area suffered noticeable pollutions as a result of insufficient management and exclusion of pollutions control from tour sites development. Some places, especially sites with waters, have witnessed severe pollutions as drainage water flow into natural waters without limits. Also some protection regions have suffered destroys in outlook and ecological system due to roads and buildings construction. Even worse large number of plastic bags and rubbish are left around by tourists and inhabitants.

3.2.2.3 Resources- subjected ecotourism is financially constrained in the area

Tour area and natural reserves are principally supported by the government either for China side or Kazakhstan side. This means, the appropriations are always limited. For example, Chinese government spare $0.5 for every hectare of natural reserves nationwide including Xinjiang. This number equals 1/25 of world average and 40% of expense demand. For this reason, many protection regions are only roughly watched without environmental indicators monitoring, scientific study or environmental protection education as required for a natural reserve or protection region. Logically ecotourism needs investment from both the government and the market. Yet absent
financing tools and dim market prospects make financial support all the less, blocking the development of ecotourism.

3.2.2.4 Ecotourism cooperation between China and Kazakhstan are trapped in “Cask Effect”

Currently, tour visits to the bordering area between China and Kazakhstan are mostly out of exploration or deep interest. This is not a good sign for developers who aim to mobilize various resources and boost market-based cooperation in ecotourism.

Ecotourism is principally dependant on a variety of facilitation in trade, transportation, customs and finances. Although progresses have been achieved in such areas thanks to the ADB-supported CAREC, different works still focus on separate priorities and place environmental protection or ecotourism development the second tier without much linkage with those pillar works. Therefore, ecotourism required facilitation in roads, customs (e.g. tour visa) are subjected to challenges. Also as the border area is mostly mountainous, the uncompetitive telecommunications, accommodations and banking services reality might become the shortest board blocking the development of ecotourism in the area.

3.3 Feasibility of Ecotourism Development on the Sino-Kazakhstan Border

3.3.1 Prominent Geographical Advantages

There are seven ports along the border between Kazakhstan and Western and Northwestern Xinjiang (Figure 14), namely, Ahitubiek (Altai), Jeminay (Altai), Baktu (Ta Cheng), Alashankou (Boertala), Horgos (Yi Li), Dulata (Yi Li), Mzart (Yi Li). There are corresponding ports on the side of Kazakhstan. In west China’s border city of Alashankou, the New Euro-Asia Continent Bridge crosses westward to Kazakhstan; and Horgos is being built into a cross-border trade and economic center.

The two countries have developed the boarder economic cooperation with foreign trade as the main form and port as the platform, which laid down a basis for the two countries further development of boarder eco-tourism, and the promotion of the stable development and environmental improvement of regional economy and society.
Since China and Kazakhstan established diplomatic ties in 1992, the strategic partnership between the two countries has been positive and stable. Comprehensive mechanisms and institutions for economic cooperation have been put in place, and agreements on trade and economic cooperation have been signed, constituting the legal foundation for Sino-Kazakhstan trade and cooperation. Recent statistics showed that the trade volume between the two countries amounted to $9.15 billion, an increase of 65.6%, with China importing $5.64 billion (up by 57.1%), exporting $3.51 billion (up by 81.9%). Kazakhstan enjoyed a trade surplus of $2.13 billion. In terms of trade volume, in 2007, China is Kazakhstan’s second biggest trade partner, third biggest exporter and second biggest importer. The rapid economic growth in Kazakhstan, China’s huge demands on Kazakhstani resources, and the launching of Sino-Kazakhstan oil and gas pipelines have provided strong driving forces for bilateral economic cooperation and development.

Figure-14  Situation of Opening-up at the boarder between China and Kazakhstan

3.3.2 Driving Forces for Economic Cooperation and Development

Since China and Kazakhstan established diplomatic ties in 1992, the strategic partnership between the two countries has been positive and stable. Comprehensive mechanisms and institutions for economic cooperation have been put in place, and agreements on trade and economic cooperation have been signed, constituting the legal foundation for Sino-Kazakhstan trade and cooperation. Recent statistics showed that the trade volume between the two countries amounted to $9.15 billion, an increase of 65.6%, with China importing $5.64 billion (up by 57.1%), exporting $3.51 billion (up by 81.9%). Kazakhstan enjoyed a trade surplus of $2.13 billion. In terms of trade volume, in 2007, China is Kazakhstan’s second biggest trade partner, third biggest exporter and second biggest importer. The rapid economic growth in Kazakhstan, China’s huge demands on Kazakhstani resources, and the launching of Sino-Kazakhstan oil and gas pipelines have provided strong driving forces for bilateral economic cooperation and development.
3.3.3 The Construction of Transportation Corridors Provides Important Conditions for the Ecotourism Zone

Both China and Kazakhstan were important countries along the Silk Road when the route was in its heyday. At that time, Alashankou, Druzhba, and Horgos were major passes on the ancient Silk Road, facilitating the close trade and personal relations between China and Central Asian countries such as Kazakhstan. Today, to renew the development of the Silk Road, and promote the construction of transportation corridors are common concerns for China and Central Asian countries.

In his State of the Nation address, Kazakhstani President Nazarbayev said that in 2008 highways would be built in Kazakhstan as part of the continental transportation corridor. The highways will go across southern Kazakhstan, through the western city of Aktobe, all the way to Russia. At present, the Ministry of Transportation in Kazakhstan is compiling the feasibility study report of this project, which will produce highways with a total length of 2309 km. When the project is completed, sea freights from China will be tempted to switch to overland transportation. Goods from other Central Asian countries will also be transported on these highways. The total amount of goods transported through Kazakhstan is expected to increase to 3.5 million tons from the current 900,000 tons.

With more business exchanges between China and neighboring Central Asian countries, China plans to build 12 highways leading to Central Asia. All 12 of these cross-border highways go through Xinjiang. Of the five recent key highway projects, three involve Kazakhstan:

Urumchi – Alashankou Port – Aktogay (Kazakhstan) – Karaghandy (Kazakhstan) – Astana (Kazakhstan) – Petropavlorsk (Kazakhstan) – Kurgan (Russia);

Urumchi – Horgos Port – Almaty (Kazakhstan) – Bishkek (Kyrgyzstan) – Chimkent (Kazakhstan) – Turkestan (Kazakhstan) – Qyzylorda (Kazakhstan) – Aqtal (Kazakhstan) – Europe;

Karachi (Pakistan) – Peshawar (Pakistan) – Islamabad (Pakistan) – Khunjerab Port – Kashi – Turgut Port – Bishkek (Kyrgyzstan) – Almaty (Kazakhstan) – Taldykurgan (Kazakhstan) – Semipalatinsk (Kazakhstan) – Barnaul (Russia).

With the help of Asian Development Bank, in 2007 the Uygur Autonomous Region of Xinjiang embarked on an important project to improve urban transportation. The
Chinese government applied for a loan of one hundred million US dollars from ADB for these urban projects. Highways of various types planned to be built total 168 km; besides, about 8 bridges will be built, with a total length of 340 meters. These projects aim at improving the highway networks and transportation management in the corridor city of Xinjiang, with the extra benefits of improving local infrastructure, environmental protection and people’s living standards.

As a forerunner industry, transportation is an impetus for socioeconomic growth, and a key guarantee for economic sustainability. Trunk lines, in particular, are arteries for social and economic development. The continuous improvement of transportation planning in this region will facilitate the development of tertiary industries, such as ecotourism.

The following Figure 15 is a transportation map of the eco-tourism at the boarder between China and Kazakhstan
3.3.4 A Good Foundation for Tourism Cooperation

Xinjiang has been developing tourism as a forerunner industry, a new growth point and a pillar industry of the economy. With the advantages of having many port cities, Xinjiang is engaged in cross-border ecotourism cooperation with Kazakhstan, and fostering favorable conditions for “developing large-scale tourism, establishing a big industry, cultivating an economic pillar, and creating a huge market”. Sino-Kazakhstan tourism, which found dynamism from cross-border trade and tourist shopping, is especially critical for the international tourism and trade in Xinjiang.

According to World Tourism Organization, revenues from international tourism in Kazakhstan totaled $ 443 billion in 1997, doubling that in 1992. However, the border ecotourism resources in Kazakhstan have not been fully developed. Over the years, travelers heading for Uzbekistan, Turkmen and Tajikistan have chosen Kazakhstan as the transfer station. With its development, Kazakhstan can share some of these
travelers. Besides, the booming number of Chinese tourists and the growing interests of international travelers in this region guarantee a huge market.

### 3.3.5 People’s Increasing Awareness for Ecotourism

In a recent questionnaire to find out Chinese and Kazakhstani people’s opinions about ecotourism, all those interviewed said that they will take actions to protect the environment, and they hope to learn more about the ecology. About 60% of the interviewees believe that tourism should be environment-friendly, and the means of transportation and the construction of traffic infrastructure should not undermine the environment, especially within a natural reserve. Over 50% of the interviewees believe that environmental protection, tourism, education and poverty reduction can go hand in hand; almost 100% are optimistic about the cross-border ecotourism. The increasing public awareness of ecotourism also provides favorable conditions for the further development of cross-border ecotourism projects.

### 3.3.6 A Potentially Big Market for Eco-tourism

Four major elements constitute the customer markets of eco-tourism: bewitching tour bases, ecological environment protection awareness, financial support and public leisure time.

In Central Asia, especially border areas between China and Kazakhstan, eco-tourism resources are diversified and spectacular, even with added value of scientific study. This land attracts tourists home and abroad greatly. To date, the knowledge structure of the population in these areas is changing with rising education background and environmental protection awareness. People there are paying increasing attention to the ecological environment crisis brought by conventional tourism forms as reflected in Annex-1 Analysis of Questionnaire Survey on Eco-tourism in China and Kazakhstan. With people’s awareness of eco-tourism awake, income increased, mindset to tour changed, and desire to embrace the great nature strong, the demand for eco-tourism is surging.
We can roughly divide tourists to China-Kazakhstan eco-tour sites into near, medium and far tourist sources in light of geological structure. To be specific, near tourists are from China Xinjiang and Kazakhstan; medium-distance tourists refer to those from China and other countries of Central Asia; while far tourists mean visitors from East Asia, Europe and America. With the upgrading infrastructure for transportation and economic corridor, all enter/exit services will be facilitated. More and more international tourists will set foot on this charming land.

4. A New Mode of Regional Development—the Interactivity between China-Kazakhstan Transportation Corridors and Eco-Tourism

4.1 Public Road Transportation Corridor and Eco-Tourism

4.1.1 Mode of Cooperation and Feasibility Study

(1) Current Road Transportation Systems of Kazakhstan and China

In Kazakhstan, the world's largest landlocked country, there is no sea openings, and roads play an important role in the transportation industry. The country claims to have the second longest road network in the CIS countries, second only to Russia. Currently the traffic roads add up to 90,000 Km, in which the national highways account for 26.1% and local highways account for 73.1%. As the domestic economy is improving, Kazakhstan increases its investment in the infrastructure construction. The construction of roads enters into a period of accelerated rehabilitation and development. According to the development plan of the road industry, six international road sections will be built in the period from 2001 until 2005, which are: Toshkent – Horgos, Chimkent – Samara, Almaty – Petropavlovsk, Astrakhan – Turkmenistan (border), Omsk – Maikapshagai, and Astana – Chelyabinsk. The domestic road sections being constructed or under planning mainly include Almaty – Astana, Almaty – Bishkek, Atyrau – Uralsk, Aktjubinsk – Karabutak, Ridder – Russia (border), Beyneu – Uzbekistan (border), and Usharal – Dostyk. With the recent
economic development, Kazakhstan has witnessed its automotive retaining ratio increasing at 30% annually. According to the statistics, by the beginning of 2006, the country retained 1,807,737 automobiles or 120 automobiles per 1,000 people. Among which, privately owned automobiles were 1,556,453, accounting for 86.1% of the total. In terms of automobile categories, sedans accounted for 77.7%, trunks accounted for 15.6% and passenger vehicles accounted for 4%, of the total. As estimated by the Transportation Police Office, Domestic Affairs Department of Kazakhstan, the country will retain 4,500,000 automobiles by 2012, with 80% of the families each owning at least one car.

Xinjiang Uygur Autonomous Region in China has a mobile, flexible, fast, convenient and efficient public road network, which is based on the national highways as the main framework and connects with Gansu and Qinghai Provinces to the east; Tibet to the south; and Central Asian countries to the west. The 11th Five-Year Plan (2005-2010) provides for the construction of Lianyungang – Horgos (of the national expressway network) and Aletai – Kuitun sections; accelerates the construction of a trunk highway network including ‘two vertical highways, three horizontal highways, two rings and eight channels’; and forms the main framework of internal road network of Xinjiang. The trunk national highways and the provincial highway channels for the West Development will be basically completed by 2010. The construction will continue for roads for national defense or frontier defense, portal roads, and hubs of road transportation. The portal roads include mostly the following sections: Qinghe – Takeshiken Port which borders on Mongolia; Bolechakou – Alashankou Port and Habahe River – Aheitubieke Port which border on Kazakhstan; Wuqia – Tuernaite Port which boards on Kyrgyzstan; Habahe – Kanasishakou which borders on Russia; Santanghu – Laoyemiao which borders on Mongolia; Wushi – Biedielishankou which borders on Kazakhstan; and the newly built Kuerdening – Nalati tourism highway.

Currently the international direct road goods transportation lines between China and Kazakhstan include Urumchi – Horgos Port – Karaganda, Urumchi – Jimunai Port –
Karaganda, Urumchi – Baketu Port – Karaganda, Urumchi – Alashankou Port – Karaganda. The international direct road passenger transportation lines include Urumchi – Jimunai Port – Karaganda, Urumchi – Baketu Port – Karaganda, and Urumchi – Alashankou Port – Karaganda. The trunk national highway of Lianyugang – Horgos which is under construction, together with the Jinhe – Yining – Horgos Railway which is still under planning, forms a comprehensive international transportation channel leading to Kazakhstan. This international transportation channel between China and Kazakhstan will connect with the railway networks of Russia and Europe, to form an Asia-European Land Bridge. By 2010, a high-standard and high-capacity comprehensive transportation channel will be formed basically in Xinjiang, which communicates with Europe, connects the East China with the West China, and is fully integrated into the land bridge transportation channel of China's comprehensive transportation network.

(2) Mode of Cooperation

The rapid development of the tourism industry is closely correlated with the modern transportation system. The public road transportation, in particular, is strongly regional or service-oriented, which leads to varied demands for passenger and/or goods transportation. With mobile, flexible and direct (door-to-door) services, wide reaches and efficient short-range transportation, the public roads undertake the major task to develop and construct tourism bases, as well as sightseeing on the road.

The public road transportation network is one of the fundamental conditions for the development of a tourism base. In addition to economic factors, geographic factors, the strategy of a country or a region, the construction or fame of a base, and various political factors, whether a tourism base can be developed or not is dependent mostly upon the construction of the public road transportation network, because tourism resources in and by themselves, which are sparingly distributed, with many spots and narrow areas, may lead to imbalanced development or insufficient use of them in a region. If the public road transportation network is used, tourists may collect on a relatively long travel route rather than any one tourism city or spot. Regional core
cities can be used as distribution centers which link the natural landscapes, histories, cultures, and civil customs. In this way, similar tourism resources do not need to compete; otherwise, the customers market may fall into a disorder. Every area will come to develop its personalities, to form a beneficial competition mechanism and improve the product quality.

The public road transportation tourism is characterized by its flexibility and short range, leading to features strong regional. Now the region concerned has formed well-developed public road network, with expressways and tourism roads developing steadily. The expressways from Urumchi to Alashankou and from Yining City to Almaty and Astara lay a basis for holidaying or self-drive tourism around Urumchi and Almaty.

Therefore, considering the flexibility and mobility of the eco-tourism on the basis of the public roads at the border between China and Kazakhstan, it is suitable to develop typical border road eco-tourism zones which focus on a point-axis development mode, take major cities as the nodes, and link up the border ecological areas.

(3) Feasibility Study

The eco-tourism landscapes are superior in quality along the public roads. The tourism resources are rich, as the expressway from Urumchi, the capital city of Xinjiang, runs through the Economic Development Zone at the north slope of Tianshan Mountain and reach the core scenic areas at Altai, Alatau and West Tianshan Mountain. Expressways are also available from Alamaty of Kazakhstan to Altai, which pass lakes and mountainous areas;

The border area between China and Kazakhstan runs south-northward in a belt shape. It covers a large area and a long distance, making an ideal place for the road tourism;

In the border area, the high-class public roads create a condition for the eco-tourism in the region, and support the extension of the travel routes from the distribution centers;
The economies are well-developed in the cities along the roads, and the number of private cars in the region are steadily increasing;

The people traveling on business provide a basic source of customers for the road tourism in the region concerned;

The well-developed open ports lay a basis for the self-drive eco-tourism in the region concerned;

With the formation of the Pan-Asian Highway, the border area will become an essential node of the highway; and

The eco-tourism in the border area is also secured by the good economic and trade relationship between China and Kazakhstan and the Shanghai Cooperation Organization.

4.1.2 Selected Demonstration Areas

**Almaty – Horgos Eco-Tourism Demonstration Area**: Included in the Almaty – Horgos Eco-Tourism Demonstration Area are Yining City, the capital city of Yili Kazakhstan Prefecture of Xinjiang, and Almaty, the largest city of Kazakhstan, as well as the international Yili River and the well-known Lake Balkhash running directly into the dry area. Tourism resources are well provided, including geoscape, waterscape, bioscape, historical relics, civil customs, and leisure, learning and fitness services. The animal and plant resources are varied; the civil customs are full-bodied; the prairie culture is unique; the historical and cultural relics are numerous; and the region is protruding into Kazakhstan. Good basic conditions are available to develop eco-tourism, civil custom tourism, history and human culture tourism and cross border tourism.

The demonstration area has the potential for a comprehensive cross-border tourism hot spot since the West Tianshan Mountain provides rich ecological resources; Almaty is a developed economy of Kazakhstan; the basis is good for ecological tourism; the resources are highly monopolized; the cross-border eco-tourism routes are well
organized; customer resources are available to develop it into a famous scenic spots of eco-tourism in a dry area; and Yining City is a distribution center for the regional tourism.

4.2 Railway Transportation Corridor and Eco-Tourism

4.2.1 Mode of Cooperation and Feasibility Study

(1) Current Railway Transportation Systems of Kazakhstan and China

To solve the problems with a landlocked country, Kazakhstan government attaches much importance to the transportation industry and makes more investments to develop a comprehensive three-dimensional transportation network (Figure 16) of railways, public roads, waterways and airlines. Also, it goes out to strengthen the cooperation with countries along the Asian-European Channel. The country was one of the first CIS countries to reform its railway transportation institutions by lifting the control over passenger and goods transportation operations, while still retaining the monitoring right over trunk line networks. To perfect the railway transportation, it has invested to construct the section of Aksu – Tegelen, renovate the section of Zhana-Semey – Tegelen, construct the Dostyk Port (which is the main cross-border transportation channel between China and Kazakhstan), open the intercity express passenger transportation services and repair the road between Astana and Almaty, and complete the section of Chrometau – Altynsarin so as to form a closed railway network within the country.

As the economic and trade relations between CIS countries is becoming more active, Kazakhstan has witnessed its transient transport volume increasing steadily at 9-10% annually. In particular, the container transportation industry has grown up from scratch. Now, a transportation network has been formed, which runs from Baltic Sea, through Russia, to Kazakhstan, Uzbekistan, Iran and China. The railway channel for the new Asia-European Land Bridge is entering into a new stage of development.
Pivoted on Urumchi, a transportation network has been completed in Xinjiang, China. From Urumchi, one can directly reach other major cities of China, such as Harbin, Beijing, Jinan, Shanghai or Guangzhou. Railways are available to Dakuerle, Kashi and Alashankou. According to the 11th Five Year Plan, the following railway sections will be constructed: a multi-line railway from Urumchi to Alashankou; a second railway for the east section of South Xinjiang; Linhe – Hami Railway; Kuitun – Beitun – Qitai Railway; and Jinghe – Yining – Horgos Railway. Jinghe – Yining – Horgos Railway connects with the tracks at Jinghe Station – a station on Lanzhou – Xinjiang Railway. Now, a relatively good transportation system has been formed, which runs from Lianyungang, through Urumchi and Alashankou, to Kazakhstan and Amsterdam. In the future, China – Kyrgyzstan – Uzbekistan Railway, China – Pakistan Railway and China – Russia Railway, which are still under construction, will create a perfect railway transportation system for Xinjiang, the Central Asia and even Europe (Figure 17).
(2) Mode of Cooperation

Railways are suitable for medium or long-distance travel. The railway tourism tends to be more specialized, comfortable, speedy, characterized, multi-variant and comprehensive. It exists in a belt-shape zone - a spatial relationship which integrates and develops tourism elements. It is strongly attractive to customers and has the potential for development.

The driving mechanism lies in the continuous and clear transportation lines, the similarities and complementarities between tourism resources endowments, and the competition and cooperation in the tourism industry. The railways between China and Kazakhstan include the existing Urumchi – Alashankou – Aktogai (which is the second Eurasian Land Bridge) and the future Urumchi – Horgos – Almaty (which will be the second railway to Kazakhstan). Tourism trains are available now, which include Kuitun – Xi’an and Urumchi – Alashankou in China and Urumchi – Almaty between China and Kazakhstan.
On the features and status quo of the railway tourism, the point–axis mode is suitable for this type of tourism. The railway tourism relies on the economies and cities along the line, which is based on good tourism cooperation and famous tourism resources and keyed on and major cities and special features along the route.

(3) Feasibility Study

In the region concerned, along the railways are Alatau Mountain and the north slope of Tianshan Mountain, which are typical of the natural ecological landscapes of a dry area, with obvious scenic distinctiveness.

A preliminary railway transportation network has been established in the border area between China and Kazakhstan. Now the region is upgrading the railway transportation. Kazakhstan is standardizing its railways. As the second Eurasian Land Bridge is completed and put into operation, it provides a great impetus to the eco-tourism in the area.

The cities along the route enjoy a fast-growing economy and are highly urbanized. The economic and trade activities, as well as tourism cooperation, are growing up steadily in scale in the region along the Eurasian Land Bridge. The economic zone on the north slope of Tianshan Mountain is stressed for the economic development in Xinjiang; Almaty is a developed economy in Kazakhstan; and Aktogai (Shyghys Qazaqstan) and Yining (Xinjiang) are potential development zones.

A sound tourism environment: The railway tourism is provided with a basis, with the cooperation in customs services and trade, the relatively easy clearance, the construction of economic and trade centers, and the normal operation of international tourist trains.

A sound diplomatic situation: Alashankou is a ‘bridgehead’, from which China opens itself to the west. Now China and Kazakhstan has laid a sound policy bases for the opening of the region concerned.

A sound international environment: European and East Asian countries are eager to
complete the second Eurasian Land Bridge, and Russia has begun to participate in the operation standardization of the land bridge. Eurasia Railway Alliance and other organizations provide the organizational support to the railway transportation in the region concerned. Particularly, China and Kazakhstan enjoy a stable political and economical environment and a good basis of cooperation in between.

4.2.2 Selected Demonstration Areas

(1) Alashankou Eco-Tourism Demonstration Area

Alashankou Eco-Tourism Demonstration Area covers Bole City and Alashankou City (to be established) of Xinjiang, China; the boundary areas between Almaty Province and Shyghys Qazaqstan Province of Kazakhstan; and such lakes as Aibi Lake, Ala Lake and Sailimu Lake. China has established in Xinjiang the Wetland – Desert Ecological Protection Zone of Aibi Lake, the Natural Scenery Zone of Sailimu Lake, and the Nature Reserve of Xiaerxili. Kazakhstan has also established Alakolskiy Wetland and Dzhungaershkiy Nature Reserve in the area. The region is suitable for various forms of tourism, such as leisure tourism, hunting tourism, sightseeing tourism, or tourism for scientific exploration or educational purposes.

As a node on the economic zone of Eurasian Land Bridge, Alashankou Eco-Tourism Demonstration Area enjoys a relatively developed urban economics and a huge potential in railway transportation. It will, at the initial stage, focus on domestic tourists from the developed regions or international tourists who travel on business or for sightseeing. As the railways are accelerated, it will also turn to the common people. Alashankou Eco-Tourism Demonstration Area is characterized by the sound basis of cooperation between the countries nearby and the potential to develop a cross-border wetland ecological protection network.

(2) Yili River Eco-Tourism Demonstration Area (railways yet to be built)

Yili River Eco-Tourism Demonstration Area covers Yining, Xinjiang and Almaty, Almaty Province, as well as the international Yili River. It includes also Lake Balkhash, which can be reached directly and is a famous lake in the dry area,
Kapshagai Reservoir, and numerous nature reserves. Various comprehensive tourism projects are suitable for the area.

The demonstration area has the potential for a comprehensive cross-border nature protection area since the West Tianshan Mountain provides rich ecological resources; Almaty is a developed economy of Kazakhstan; the basis is good for ecological tourism; the resources are highly monopolized; the cross-border eco-tourism routes are well organized; and the potential customer resources are available to develop a famous scenic spots of eco-tourism in the dry area.

4.3 Air Transportation Corridor and Eco-Tourism

4.3.1 Mode of Cooperation and Feasibility Study

(1) Current Air Transportation Systems of Kazakhstan and China

Kazakhstan extended its aviation routes by 7 times from 1995 until 2002. Currently Almaty Airport can fuel Boeing 747 cargo freighters, and Astana Airport can park large cargo freighters. From 2004 until 2005, the runways were constructed or rebuilt at Almaty, Astana, Atyrau, Aktubinsk, Chimkent and Aqtau. Flights area available at Air Astana to Frankfurt, London, Amsterdam, Moscow, Seoul, Beijing, Dubai and Istanbul, etc.

Xinjiang is one of the provincial level regions which provides the most feeder airports and flight courses in China. Currently there are 26 international flight courses to 15 countries and 62 foreign cities. There are also two port airports, including Urumchi Airport and Kashi Airport, at a technical level of 4E. During the 11th Five Year Plan, Chinese government will accelerate the renovation or addition of the airports in the tourism-based cities, including Urumchi, Kashi, Yining, Kuerle, Kuche and Aletai. In light of the tourism development, new airports will be constructed in Bole and Tazhong, and Tulufan (Shanshan) Airport will be renovated and expanded.

A meeting was held in Urumchi, China on September 5, 2007, which was attended by officials and representatives from the civil aviation authorities, airline companies and
airports from China, Russia, Kazakhstan, Uzbekistan, Tajikistan, Azerbaijan, Kyrgyzstan and Mongolia. The members discussed and exchanged ideas on the aviation transportation development, in order to build up an ‘Air Silk Road’ in the Central Asia. Now, direct flights are available between China and Kazakhstan, including Astana - Urumchi, Almaty – Urumchi, and Chimkent – Urumchi. Moreover, Air Astana, SCAT Air, and Air Almaty of Kazakhstan have entered into China; so does China Southern Airlines into Kazakhstan.

(2) Mode of Cooperation

The air tourism is suitable for tourism resources which provide sound tourist visa application procedures and long distance travels and are world famous. Currently, the airports in Almaty and Urumchi are international airports; Shyghys Qazaqstan Province contains its own airline companies; and Altai, Bole and Yining cities are strongly regionalized at the border between China and Kazakhstan. In the future, the tourist airports in Nalati and Kanasi, Yining City, will enter into the markets domestic and international.

For the driving mechanism to the aviation development, the airports at Altai Mountain area are mostly tourism-driven, such as, Kanasi Airport which is a special tourist airports, and Bole Airport which is a business-driven airport. Those at Yining are mostly business or tourism-drive airports, such as Nalati Tourist Airport.

As the above analyses show, the air transportation corridor is advantageous in that it provides an easy long-distance tourist transportation and tourism areas collect around the aviation nodes. Therefore, the mode of tourism cooperation on the air transportation corridor will initially be centered on a single-core radiation mode. As the air transportation network is forming, the priority should then be shifted to a point-axis cooperation mode. The future development should be mostly based on world-class monopolized tourism resources, relying on the tourist airports.

(3) Feasibility Study

Altai Mountain and the south slope of Tianshan Mountain are typical of the natural
ecological landscapes in the world. The region is larger than Alps at the same latitude. For the ecological environment, the sceneries are much different in the two regions, since Alps is of an oceanic climate, and Altai Mountain and Tianshan Mountain are of a dry continental climate. The sceneries here are also much different from those at Rocky Mountain Range and Cordillera Mountain Range which are located at the same latitude but in another continent. Kanasi, Xinjiang is a world famous ecological tourism area and Tianshan Mountain area contains the most densely populated nature reserves in Xinjiang. Therefore, the ecological tourism sceneries are world-class in the region.

A sound air transportation network has been formed primarily in the border area between China and Kazakhstan. It includes such special tourist airports as Kanasi and Nalati. The railway system is to be constructed and the public roads are to be upgraded.

The Altai International Coordination Commission has been established by and between China, Kazakhstan, Russia and Mongolia. Working together with the tourism authorities in each of the four countries, the commission sets up a cooperative mechanism between the four countries and six of their provincial-level cities or regions. They jointly launch an eco-tourism program which covers the great Altai area. Now, a perfect network of roads, railways and airlines have emerged in the border region between China and Kazakhstan.

A sound tourism environment: Kanasi is a hot spot for eco-tourism in China, which attracted 1,314,000 people in 2007. Kazakhstan is also doing its best to develop the economy of the region through tourism. It is trying to build up a eco-tourism hot spot, which includes Zaysanshkiy reserve as an essential area.

The economic cooperation between China and Kazakhstan is developing steadily. The border tourism and shopping economies are growing up rapidly and steadily in scale.

Shanghai Cooperation Organization, Asian Development Bank and Europe-Asian
Transportation Alliance, etc. provide political, organizational, financial and technical assurances to the development of the region concerned.

Local governments in the countries attach much importance to the tourism industry in the region concerned.

4.3.2 Selected Demonstration Areas

Altai Eco-Tourism Demonstration Area

Altai Eco-Tourism Demonstration Area covers Altai, Xinjiang, China; Altai, Bayan-Ölgii Province, Mongolia; Altai, Russia; and Altai, Shyghys Qazaqstan, Kazakhstan. Irtysh River is the main international river in the area, which flows into the Arctic Ocean. Kanasi Lake, Wulungu Lake and Sangzai Lake are the main lakes in the area. The unique natural landscapes and vegetations, which were formed under the Fourth Ice Age and the climate of the Arctic Ocean, are suitable to develop such programs as leisure tourism, hunting tourism, sightseeing tourism, skiing tourism, exploration tourism and scientific study tourism.

Since the demonstration area is marginal to the countries or local economies and the eco-tourism resources are top grade, the convenient air transportation may, at the initial stage, be appropriate to attract tourists domestic or international from developed regions. As new railways are being built and public roads are being upgraded, the area will further turn to the common people. Currently, it is characterized in that tourism resources are highly monopolized and the countries concerned are eager to cooperate. It has the potential for a world natural heritage.

Almaty – Horgos Eco-Tourism Demonstration Area

Almaty – Horgos Eco-Tourism Demonstration Area covers the Yili region, Xinjiang, China, and Almaty City, Kazakhstan, as well as the international Yili River. The nature reserves are the most varied in the area, such as Alma Ata Nature Reserve, Almaty, and the West Tianshan Nature Reserve, Yili, Xinjiang, both of which enjoy a prominent vertical natural landscape zone. The area is suitable for tourism in varied
forms, such as business, leisure, hunting, sightseeing or shopping programs.

The demonstration area is located in a region where there are developed economies of Kazakhstan and very potential economies of Xinjiang. It will develop to cause an integration of tourism resources, travel routes and infrastructures of China and Kazakhstan. It has the potential to become a comprehensive cross-border nature reserve.

To sum up, transportation corridors are essential to the eco-tourism development in the border region and the formation of a comprehensive eco-tourism zone (see Figure 18).
Figure 18  A Sketch Map of China-Kazakhstan Eco-Tourism Resources
4.4 Spatial Development of Eco-Tourism Based on the Future Regional Transportation Corridors

4.4.1 Eco-Tourism Development Space for the Construction of Transportation Corridors

(1) The world-class monopolized resources provide a feature to the eco-tourism which attracts tourists from European and Asian countries. The overall performances of the eco-tourism resources can meet the various demands of tourists at multiple levels or in multiple classes;

(2) With the perfection and upgrading of the air, railway and public road transportation network in Eurasia, the geographical center of the continent tends to be a pivot or node to the communication between Europe and Asia;

(3) The exploitation of energies and resources in the Central Asia draws the attention of the world. The region will receive an extensive economic development in the future. The oasis economy, on the basis of the transportation corridors, provides a strong drive to the eco-tourism in the region;

(4) The region concerned constitutes an essential part to the north line of the Silk Road. Now, the Silk Road tourism has been hotter in the world, which is attended to and supported by international organizations, such as the World Tourism Organization;

(5) The eco-tourism is a hot spot in the world tourism industry. On account of its unique natural ecological landscapes, the dry area of the Central Asia draws the attention of international tourists;

(6) Asian Development Bank, Shanghai Cooperation Organization and other organizations provide strong institutional, organizational and financial support to the eco-tourism in the region concerned;

(7) The region concerned is well based in cooperation. The open ports, cross-border economic centers and relatively easy tourist visa application procedures, as well as the
attention of the local governments create a good micro environment for the eco-tourism in the region; and

(8) The region concerned enjoys a stable political situation and good public order. The safety and security can be guaranteed for the eco-tourism.

4.4.2 Outlook for the Eco-tourism Economy in the Construction of Central Asia Transportation Corridor

The central area of Eurasia is marked with typical oasis economy. Its isolation decides transportation holds the key to the development of oasis economy. Given the booming of energy and resources economy, the regional economy will maintain a strong growth momentum in the long run with urbanization and industrialization reinforcing with each other.

The construction of Central Asia Regional Transportation Corridor will bring in place an oasis transportation corridor economy belt which lends broad market for the eco-tourism development. With the growing prosperity of the high-quality tourism resources development and regional economic corridor construction, the region will attract eyes from the world and grow into a burgeoning eco-tourism area. In process of the construction of Central Asia Transportation Corridor, the eco-tourism cooperation between China and Kazakhstan promises broad future. However, measures must be taken as follows to strengthen the management:

First, cooperation should be conducted gradually and on phase basis. As a result of scattered scenic spots, less developed transportation, poor service infrastructure and vulnerable ecological environment, the cost to developing eco-tourism might be huge. So developing trial spots first is recommended. It should be based on in-depth market analysis, professional scenery design and planning and enabling environment of eco-tourism. Otherwise, the over-development might escalate the vulnerability of eco-system.

Second, conservation with sustainable development must be taken into account. In view of limited resources of eco-tourism such as highland, wetland and grassland,
eco-tourism must be developed in compliance with sustainable development strategy. Development and conservation must be properly dealt, especially when developing in natural reserves. Development should observe the following principles:

(1) Principle of Tour Bases Division by Function

Natural reserves must be divided by function whereby the eco-tourism development is carried out within a certain division. According to the distribution and feature of tourism resources, a reserve can be divided as core zone (for scientific study only), buffering zone (i.e. the intermediate zone, for education and sightseeing), and trial zone (i.e. peripheral zone, for visits on the premises of environment protection).

(2) Principle of Environment Protection

Environment protection should be stressed throughout development in natural reserves, from the designation of tour products, compilation of tour guidance to selection of construction materials. Reasonable development based on resources available corresponds with the theme of environment protection. “Ecological buildings” and “pollution-free” materials are advocated. Chemical dope and lacquer are banned. Solar energy and wind power are encouraged to use. In this way, people can relish the natural spectacular, experience the natural environment via tour visits whereby education on ecology knowledge and awareness enhancement will be achieved.

(3) Principle of Capacity Control

The eco-balance of natural reserves is dependant on the impact and magnitude of human’s activity to the environment, also on self-solving capacity of the nature to the impact. When the tour turnout reaches a point where natural resources are undermined and unable to recover by nature, the point becomes the criticality, i.e. the maximum capacity of that area. Before the scenic spot is developed, constructed and put into operation, capacity plan must be made with regard to the feature, grade and distribution of natural resources so as to control effectively the capacity.
(4) Principle of Consistency and Concordance

In a natural reserve, facilities are indispensable, yet they must concord with the landscape. The least man-made services should be guaranteed and suited to the overall climate. All architectures are encouraged to be built small-sized, non-prominent and scattered around.

(5) Principle of Non-Urbanization

Outlets like accommodation, catering, transportation, telecommunication and logistics management should be located at peripheral areas, creating a model of “tour inside and accommodate outside”. Unreasonable entertainment service upgrading is severely prohibited. We must reassure the non-urban feature of the reserve.

3. Eco-tourism should be developed with cultural economy. Cultural economy has become the new trend of tourism in the world today. Both China and Kazakhstan are rich in culture, adding to the attraction of the tourism industry of the two countries. With the inviting landscape and abundant cultural heritages, a combined development of two types of resources will enrich the alluring destination.

4. Radiant effects in regional economy are welcomed. The radiation theory argues that radiation via three ways: node, axis and surface, can entail any region (developed and underdeveloped) part of a larger radiation network whereby underdeveloped area can break away from the poor conditions while developed areas can also get further development. So if we prioritize investment in eco-tourism in areas where more eco-tourism resources are endowed, transportation and services infrastructures are more advanced and financial conditions are better, then disseminate the experience, finance and human resources to the less developed or underdeveloped eco-tourism areas to bring them onto the well-run track, the overall development of Central Asia eco-tourism based on economic corridor can be achieved.
Part 3: A Cooperation Framework between Xinjiang and Kazakhstan with Ecotourism as the Core Program

1. Analysis of the Future Cooperation Model

1.1 Models for cooperation

According to China’s experiences, regional tourism cooperation involves the coordination of resources, markets, transportation, travel routes, tourist education, as well as the maintenance of local order. There are five aspects of regional cooperation: resource-product-market; investment-asset-capital; transportation-facility-information; education-personnel-technology; management-policy-institution. The modes of regional tourism cooperation normally include the following four types:

Simple Cooperation Mode: regional cooperation only on certain fields of tourism with specific goals.

Comprehensive Cooperation Mode: under market’s driving force, comprehensive cooperation on various sectors, with tourism as the main cooperation target, enterprises as the main participants.

Multiple cooperation in all fields: regional tourism cooperation in all fields with the participation of various sectors, multiple participants, and coordination by comprehensive systems.

Conjunct Regional Cooperation Mode: regional cooperation without the aim on tourism, but it will have the effect of promoting tourism.

From the geographical aspects, it can be classified as point and axis development mode, single core and radiation mode, double core and interacting mode, core and margin mode, and network mode, etc.

There are generally four models for regional cooperation: single cooperation (for a particular sector or purpose); comprehensive industrial cooperation (with tourism being the main business, enterprises the major players, the market the driving force); diverse multilevel cooperation (with the participation of many industries and the coordination of comprehensive mechanisms); relevant regional cooperation (with tourism being facilitated without being the main purpose of development).
From the spatial perspective, there are five models: point-axis, core-radius, double-core, core-periphery, and network.

1.2 How to choose a cooperation model

The key of regional tourism cooperation is the market. Given the small population, low urbanization, and relatively low per capita GDP of this region, the market should be dominated by people outside the region. Hanas in Altai has become a popular tourist destination in Xinjiang, attracting tourists from other parts of China. Chinese tourists, therefore, make up most of the market.

Mechanisms for the promotion of regional cooperation. Located in the middle of Eurasia, this region’s economic cooperation has spurred cross-border tourism. Various social sectors have attached more importance to tourism, contributing to the rapid growth of regional tourism. This region has strongly hoped to boost regional development through tourism. Besides, the rich and unique ecotourism resources provide the physical conditions for tourism. All these are the driving forces for ecotourism cooperation.

Macro cooperation in this region is well underway, though micro cooperation is seeing slow progress. The building of the Altai National Reserve was suggested years ago by experts from China, Kazakhstan and Russia, but little progress has been made. Segmentation of ecotourism resources, the long winter, seasonal differences for tourism, and infrastructure such as transportation facilities are all important factors for consideration.

The Central Asian economic cooperation mechanisms of the ADB serve as an excellent backdrop for cooperation. The ADB’s efforts to promote the construction of regional transportation corridor will provide an outstanding platform for ecotourism cooperation, an organizational safeguard for the development of the modern Silk Road and substantial progress for this region’s tourism cooperation.

1.3 The choice of cooperation model

At present, both China and Kazakhstan need to intensify domestic efforts for ecotourism cooperation, and both countries have yet to gain successful experiences in cross-border ecotourism cooperation. The first step to do so can be the cooperation of elements and industries, as is divided into the following two aspects:
The main body of cooperation is, on the national and regional levels, to plan the use of and protect regional resources, to build infrastructure, to make joint advertisements, to coordinate the enforcement of laws and regulations, and to make tourism more convenient.

The enterprises involved should be responsible for the sales and promotion of ecotourism products, coordination of tourist routes, and the exchanges of personnel.

From the above, it can be seen that the comprehensive industrial cooperation model is most suitable for Sino-Kazakhstan ecotourism, with the construction of cross-border natural reserves as the basis of cooperation. In this way, resources can be effectively integrated and protected, while joint management and development can attract investments from the tourism industry, and build a world-class ecotourism region.

2. Integrated Suggestions

2.1 Eco-Tourism Policy Suggestions in China and Kazakhstan

Eco-tourism cooperation related is linked with the central government, localities and enterprises three levels, the strengthening communication and collaboration in tourism, environment and other economic sectors in China and Kazakhstan, achieving sustainable development between China and Kazakhstan, as well as Central Asia’s sustainable development is priorities in the future regional cooperation.

2.1.1 Policies on the Central Government Level

The central government should take the following measures:

(1) The border region between China and Kazakhstan boasts the richest flora and fauna resources, and should be protected. Efforts should be made to accelerate the construction or application of cross-border natural reserves, world natural heritages and world geological parks, etc, and strengthening cross-sectors’ harmonization in tourism, environment and other economic sectors.

(2) The legal frameworks for the management of natural reserves should be adjusted to both countries’ satisfaction, so as to provide legal instruments for the cross-border development and protection of ecotourism resources.

(3) Financial inputs for ecotourism resources and infrastructure should be increased,
to ease the financial pressure of local governments and promote local infrastructure
and the protection of ecotourism resources, and to provide financial guarantee for the
protection of natural ecological resources.

(4) Tourism should be made more convenient, with less control for cross-border
ecotourism.

2.1.2 Policies on the Local Government Level

The local sectors should take the following measures:

(1) Cross-border management and protection of ecotourism resources should be
strengthened.

(2) The local image of the tourist destination should be enhanced, so as to boost the
local ecotourism and build the region into a world-class ecotourism destination.

(3) Local governmental departments should coordinate their efforts in tourism
management, to ensure that no department should encroach on the interests of other
departments or evade one’s responsibilities.

(4) International cooperation and exchanges should be strengthened at the local level;
platforms for local government’s cooperation should be built.

(5) Promoting Local eco-tourism in bilateral exchanges and cooperation, and
developing eco-tourism community activities to enhance community awareness.

2.1.3 Policies on the Enterprises’ Level

Enterprises should bear in mind that the essence of cooperation is profits for both
partners. Overlapping investment should be avoided. As enterprises are seeking to
monopolize local resources for more profits, they should take the following measures:

(1) Efforts should be made to design and promote tourist routes. It is suggested that
comprehensive, multilayered routes that offers variety be established around the
natural reserves.
(2) Both partners should bring their own advantages into full play, and make joint efforts for the planning and sales of tourist products.

(3) Joint investments should be made to build tourist facilities.

(4) Various cooperation organizations and institutions should be set up, to standardize exchanges and cooperation between enterprises.

(5) Forums should be set up, to provide intellectual support for tourism cooperation.

(6) Education and training of tourism personnel should be improved, to meet the demands of tourist cooperation and development.

Given the high quality and the exclusive control of local tourism resources as well as the late start of local enterprises, the following measures for cooperation should be taken:

(1) Plans should be made for investment and spending, so as to ensure the funding for the development and protection of ecotourism resources.

(2) The planning and sales of tourism images should be accelerated to accentuate the value of the “Silk Road Ecotourism Destination”. Advertisements and promotional campaigns should also be made.

(3) Personnel education and training in the local region should be accelerated, to provide the human resources for ecotourism development.

2.2 Suggestions to Boost Central Asia Eco-tourism Development Based on Eco-tourism Cooperation between China and Kazakhstan

2.2.1 To Establish the Tourism and Environment Working Group in CAREC

Eco-tourism related to tourism and environmental protection, it is proposed that CAREC could establish the Tourism and Environment Working Group, for jointing tourism and environmental protection at different levels in existing resources in CAREC. It will reach the closely contact in eco-tourism, nature reserves and biodiversity protection. This report recommends that the relevant cooperation can not only rely on tourism, the environment department, we need to set up a special group to include tourism, the environment, in terms of functions and transport, trade,
customs authorities in parallel to jointly promote the cross-border area.

2.2.2 To Strengthen Comprehensive Eco-tourism Transportation System Construction in Central Asia

(1) Combination of the Working Group on traffic and trade facilitation in CAREC, giving priority to ecotourism road construction. In light of the demand for regional ecotourism development, “Plan on the Development of Ecotourism Road along China-Kazakhstan Border” should be organized to be made by the transportation, tourism and environment sectors of two countries. Road system linking the tour bases both within and across the border should be constructed and fulfilled at the earliest date. In the future, the success of road system fulfillment can spread onto entire Central Asia.

(2) Intensify efforts to build Central Asia railway infrastructure and passenger transport capacity. Transportation capacity should be reasonably planned according to the volume of seasonal tour visits. Service quality of tour train should be enhanced to provide conveniences for travel groups and service environment should be improved.

(3) Vigorously develop airline tourism in Central Asia. Favorable policies and measures can be adopted to encourage civil airline companies and other competitive companies to start air routes.

2.2.3 Based on Market Demands, improving Entertainment Facilities in Central Asia Eco-tourism City

According to analysis of questionnaire survey on Eco-tourism in Xinjiang of China and Kazakhstan, the majority of the respondents would choose to relax and leisure-style way of eco-tourism and is willing to mountain climbing, horse riding, boating, and other entertainment projects, but nearly 40% of the respondents are willing to choose Adventure Projects, such as mountain biking, rock climbing, bungee jumping and so on. Therefore, according to the survey are as follows:

(1) According to the characteristics of leisure travel, speed up the construction of hotels and restaurants outside the natural reserves. Building of hotels and restaurants must be considered in major scenic spots and in border cities as a whole. In light of the Central Asia Economic Corridor Construction Plan, holiday inns and motels should be constructed in and outside of the natural reserves. A well-distributed entertainment mix should be formed, conducive to the services improvement and local environment protection, thus generate win-win results in the economic benefits and
sustainable development.

(2) Perfect the ecotourism functions. The tourism services of prioritized border cities and tour bases should be accelerated, such as eco-tourism, and promote viewing of rare animals and plants, weather and so on the landscape; and in accordance with seasonal sports such as rafting etc..

2.2.4 To Strengthen Eco-tourism Public Services System

(1) Expedite the Central Asia comprehensive service zone construction. Plan on the comprehensive service zone construction should be scientifically made on the basis of the value of the scenery and volume of visits. Comprehensive service centers should be accelerated in border cities of Central Asia, especially of China and Kazakhstan. Services like tourist support, self-drive tour organizing, tour information release and inquiry, tour consultancy, tour complaint, tour shopping, tour guide and shopping guide, tour entertainment, catering and recreation, transport aids, tour training, human resources exchanges and travel services agencies should be further improved.

Comprehensive service zone along high-class roads should be strengthened. A multi-functional tour service zone integrates catering, shopping, oil station, vehicle maintenance and tour information guide should be constructed along the high-class roads in China and Kazakhstan and the rest of Central Asia in principle of harmonizing the style of tourism products with the local ethnic feature and local architecture.

(2) Build standard ecotourism sign directing system applicable throughout Central Asia. Transportation and tourism departments of Central Asia countries should set up road signs leading up to ecotourism areas with unified sign in size, color, and character form to complete the standardization of regional tourism signs.

(3) Advance the Central Asia ecotourism informatization. National governments of Central Asia should give strong support to the construction and renovation of ecotourism network, to push regional ecotourism by designating tourism departments to jointly open online tourism information inquiry, online consultancy, to achieve the service system building-up and integration so as to make real information release, inquiry and reservation about tourism products in the region, also to perfect the e-commerce system in which tour businesses cooperation is involved, and to promote cooperation in telecom where functions can work such as ecotourism emergency notice inquiry and release, sudden and important events report, SOS call service, and
laws and regulations related affairs involving inquiry and claim.

(4) Push for regional cooperation in ecotourism and financial services. Tourism development cannot develop without support from finance. Tourism and finance departments can coordinate efforts to boost the tour and finance markets in the region, which will provide financial support for tour bases and offer real-time financial service for visitors, facilitating finance and tour services.

China and Kazakhstan share long border. Thanks to the monopolized and unique ecotourism resources of two countries in Central Asia, tourism development has drawn worldwide attention. Considering the cross-boundary nature, the ecotourism cooperation should be government-guided, market-oriented and enterprise-based, thus to push for an overall cooperation in ecotourism, contributing to the socio-economic development. Meanwhile, cooperation and promotion of China-Kazakhstan ecotourism will certainly create conditions and foundations for the development of Central Asia ecotourism, for the construction of Central Asia Economic Corridor and Transportation Corridor and for the sustainable development of the entire region.
References


12) Kazakhstan’s Center for Retraining and Capacity Building in Environmental Protection and Use of Natural Resources.


Notes: All figures and tables are provided by Xinjiang Normal University of China.
Annex-1: Analysis of Questionnaire Survey on Eco-tourism in China and Kazakhstan

1. Introduction

The major part of the questionnaire was designed by PRCEE, and carried out in a random way at Urumchi and Almaty respectively by Xinjiang Normal University of China and Kazakhstan State University. 400 questionnaires were sent out at each city, and the distributing places included schools, shopping centers and governments, and all the questionnaires were reclaimed. The questionnaires were sent out during Nov.2007-Jan.2008 (see Annex 1 for the questionnaires).

1.1 Questionnaire Survey Result of China

a. Age of Respondents

20 respondents are under 18, accounting for 5% of all the respondents; 76 respondents are between 19-25, accounting for 19%; 102 respondents are between 26-35, accounting for 25.5%; 89 respondents are between 36-45, accounting for 22.25%; 71 respondents are between 46-55, accounting for 17.75%; and 42 respondents are above 56, accounting for 10.5%.

b. Occupational Structure of the Respondents

130 respondents are students, accounting for 32.5% of all the respondents; 104 are managers or company staff, accounting for 26%; 60 are civil servants, accounting for 15%; 45 are teachers and technicians, accounting for 11.25%; 24 are workers, accounting for 6%; 18 are farmers, accounting for 4.5%; 19 are working in army, retired and other, accounting for 4.75%.

c. Educational Background of the Respondents

17 are of elementary education, accounting for 4.25% of all the respondents; 76 are of junior high school education, accounting for 19%; 83 are of senior high school/technical secondary school education, accounting for 20.75%; 187 are of college bachelor education, accounting for 46.75%; and 37 are of master education or above, accounting for 9.25%.

d. Income Level of the Respondents

40% of the respondents show the annual income of their family is between 60-90 thousand RMB; 30% is between 30-60 thousand RMB; 15% is above 100 thousand
RMB; 11% is between 10-30 thousand RMB; and 4% is below 10 thousand RMB.

e. Respondents’ Knowledge about Eco-tourism

Of all the respondents, 48% know a little of eco-tourism; 45% do not know eco-tourism; and only 7% show they have certain of general knowledge about eco-tourism.

f. Respondents’ Information Channel

60% of the respondents choose TV, radio, newspaper and magazine; 40% show they get the information from other tourists.

g. Understanding of the Meaning of Eco-tourism

45% of the respondents think that eco-tourism shall not only protect the environment, but also help local community eradicate poverty and educate tourists to improve their environmental awareness; 30% of the respondents think eco-tourism means environmental protection during the tourism; 20% of the respondents think eco-tourism means the tourism at a place with good natural environment; only 5% of the respondents think eco-tourism is only a slogan, and it is not different from common tourism.

h. Understanding of the Form of Eco-tourism

37% of the respondents think eco-tourism means tourism at a scenery place which is seldom damaged by human; 34% of the respondents think eco-tourism means tourism at the natural or cultural scenery place which is seldom interfered by human; 23% of the respondents think eco-tourism mean travel at a natural scenery place; and 6% of the respondents think eco-tourism means participating in the “eco-tourism” routes managed by travel agencies.

i. Understanding of the Objective of Eco-tourism

85% of the respondents choose enjoying the nature and protecting the environment, and 15% of the respondents choose releasing pressure from work and living and maintain health.

j. Respondents’ Activity during Eco-tourism

100% of the respondents choose self-discipline to protect environment, and they hope the tour-guide can give them more knowledge on ecology.

k. Respondents’ View on Those Violating Nature Protection Regulation

93% of the respondents think environmental protection is a common responsibility,
and the tourists shall take good care of local resources. It is necessary to teach those on environmental protection. 7% of the respondents show they do not have clear view on this.

l. Respondents’ View on Human Manipulation of Tourism Environment

55% of the respondents think they will not oppose it only if experts agree; 30% of the respondents think human construction shall be rejected; 10% of the respondents think construction is necessary for the convenience of the tourists; 5% of the respondents think they do not have clear view on this.

m. Choice of Transportation inside the Tourism Area

46% of the respondents are willing to walk; 39% of the respondents choose shuttle inside the tourism area or tourism bus; and 15% of the respondents choose ropeway.

n. Grouping Pattern

67% of the respondents choose travel alone or with relatives or friends; 33% of the respondents choose travel with a tourism group (organized by the travel agency).

o. Pattern to Experience Eco-tourism

75% of the respondents think eco-tourism shall be leisure and relaxing, and they are willing to clime the mountain, ride a horse or row a boat, etc; 25% of the respondents choose venture, such as mountain cycling, rock climbing, bungee jumping, etc.

p. Dissatisfaction on Eco-tourism Places or Natural Scenery Areas

65% of the respondents think the transportation is not convenient, 23% of the respondents think characteristics are lacking and the quality of local service is inadequate; and 12% of the respondents think the ticket price is too high and there are too many man-made facilities inside the scenery area.

q. Feasibility of Eco-tourism’s Four Major Functions (Protection, Tourism, Education, Poverty Reduction)

55% of the respondents think these functions can be realized to a large extent; 25% of the respondents think the possibility to realize all the functions is low; 12% of the respondents think they can all be realized; 8% of the respondents think it is absolutely not possible.

r. Impact of Eco-tourism on the Nature and Cultural Environment

a) Environmental Sanitation: 57% of the respondents think there will be impact; 36% of the respondents think there is no impact; 9% of the respondents think it will
get better;

b) Air Quality: 37% of the respondents think there will be impacts; 63% of the respondents think there will not be impacts;

c) Noise: 90% of the respondents think there will be impacts; 10% of the respondents think there will not be impacts;

d) Forest Scenery: 60% of the respondents think there will be impacts; 40% of the respondents think there will not be impacts;

e) Local Residents’ Living Quality: 71% of the respondents think local people’s living will get better; 22% of the respondents think there will be no impact; 7% of the respondents think it will get worse.

s. Self-consciousness on Eco-tourism

48% of the respondents think they are easy to be influenced by other tourists; 33% of the respondents think they are basically able to be self-conscious; 19% of the respondents think they surely can abide by the rules.

t. Impacts of Tourism on the Environment

89% the respondents think local environment will be protected if appropriate protection measures are taken; 8% of the respondent think there will be medium level damage; 3% of the respondent think there will be serious damage.

u. Activities Respondents Wish to See or Participate at Eco-tourism Area in the Future

69% of the respondents think eco-amusement park shall be constructed to enrich tourists’ environmental knowledge; 31% of the respondents think there shall be movies and funny and humorous slogan on environmental protection.

1.2 Results of the Survey among Kazakhstan Respondents

a. Age of Respondents

35 respondents are under 18, accounting for 8.75% of all the respondents; 113 respondents are between 19-25, accounting for 28.25%; 87 respondents are between 26-35, accounting for 21.75%; 96 respondents are between 36-45, accounting for 24%; 39 respondents are between 46-55, accounting for 9.75%; and 30 respondents are above 56, accounting for 7.5%.

b. Occupational Structure of the Respondents

123 respondents are students, accounting for 30.75% of all the respondents; 116 are
managers or company staff, accounting for 29%; 43 are civil servants, accounting for 10.75%; 61 are teachers and technicians, accounting for 15.25%; 31 are workers, accounting for 7.75%; 10 are farmers, accounting for 2.5%; 16 are working in army, retired and other, accounting for 4%.

c. Educational Background of the Respondents

13 are of elementary education, accounting for 3.25% of all the respondents; 62 are of junior high school education, accounting for 15.5%; 107 are of senior high school/technical secondary school education, accounting for 26.75%; 180 are of college bachelor education, accounting for 45%; and 38 are of master education or above, accounting for 9.5%.

d. Income Level of the Respondents

35% of the respondents show the annual income of their family is between 60-90 thousand RMB; 30% is between 30-60 thousand RMB; 26% is above 100 thousand RMB; 9% is between 10-30 thousand RMB.

e. Respondents’ Knowledge about Eco-tourism

Of all the respondents, 42% know a little of eco-tourism; 49% do not know eco-tourism; and only 9% show they have certain of general knowledge about eco-tourism.

f. Respondents’ Information Channel

43% of the respondents choose TV, radio, newspaper and magazine; 57% show they get the information from other tourists.

g. Understanding of the Meaning of Eco-tourism

45% of the respondents think that eco-tourism shall not only protect the environment, but also help local community eradicate poverty and educate tourists to improve their environmental awareness; 29% of the respondents think eco-tourism means environmental protection during the tourism; 26% of the respondents think eco-tourism means the tourism at a place with good natural environment; only 4% of the respondents think eco-tourism is only a slogan, and it is not different from common tourism.

h. Understanding of the Form of Eco-tourism

30% of the respondents think eco-tourism means tourism at a scenery place which is seldom damaged by human; 42% of the respondents think eco-tourism means tourism at the natural or cultural scenery place which is seldom interfered by human; 19% of
the respondents think eco-tourism mean travel at a natural scenery place; and 9% of the respondents think eco-tourism means participating in the “eco-tourism” routes managed by travel agencies.

i. Understanding of the Objective of Eco-tourism

89% of the respondents choose enjoying the nature and protecting the environment, and 11% of the respondents choose releasing pressure from work and living and maintain health.

j. Respondents’ Activity during Eco-tourism

100% of the respondents choose self-discipline to protect environment, and they hope the tour-guide can give them more knowledge on ecology.

k. Respondents’ View on Those Violating Nature Protection Regulation

97% of the respondents think environmental protection is a common responsibility, and the tourists shall take good care of local resources. It is necessary to teach those on environmental protection. 3% of the respondents show they do not have clear view on this.

l. Respondents’ View on Human Manipulation of Tourism Environment

39% of the respondents think they will not oppose it only if experts agree; 50% of the respondents think human construction shall be rejected; 7% of the respondents think construction is necessary for the convenience of the tourists; 4% of the respondents think they do not have clear view on this.

m. Choice of Transportation inside the Tourism Area

63% of the respondents are willing to walk; 31% of the respondents choose shuttle inside the tourism area or tourism bus; and 15% of the respondents choose ropeway.

n. Grouping Pattern

81% of the respondents choose travel alone or with relatives or friends; 19% of the respondents choose travel with a tourism group (organized by the travel agency).

o. Pattern to Experience Eco-tourism

65% of the respondents think eco-tourism shall be leisure and relaxing, and they are willing to clime the mountain, ride a horse or row a boat, etc; 35% of the respondents choose venture, such as mountain cycling, rock climbing, bungee jumping, etc.

p. Dissatisfaction on Eco-tourism Places or Natural Scenery Areas
56% of the respondents think the transportation is not convenient, 37% of the respondents think characteristics are lacking and the quality of local service is inadequate; and 7% of the respondents think the ticket price is too high and there are too many man-made facilities inside the scenery area.

**q. Feasibility of Eco-tourism’s Four Major Functions (Protection, Tourism, Education, Poverty Reduction)**

53% of the respondents think these functions can be realized to a large extent; 30% of the respondents think the possibility to realize all the functions is low; 15% of the respondents think they can all be realized; 2% of the respondents think it is absolutely not possible.

**r. Impact of Eco-tourism on the Nature and Cultural Environment**

a) Environmental Sanitation: 69% of the respondents think there will be impact; 26% of the respondents think there is no impact; 5% of the respondents think it will get better;

b) Air Quality: 48% of the respondents think there will be impacts; 52% of the respondents think there will not be impacts;

c) Noise: 90% of the respondents think there will be impacts; 10% of the respondents think there will not be impacts;

d) Forest Scenery: 80% of the respondents think there will be impacts; 20% of the respondents think there will not be impacts;

e) Local Residents’ Living Standards: 59% of the respondents think local people’s living will get better; 26% of the respondents think there will be no impact; 15% of the respondents think it will get worse.

**s. Self-consciousness on Eco-tourism**

44% of the respondents think they are easy to be influenced by other tourists; 38% of the respondents think they are basically able to be self-conscious; 18% of the respondents think they surely can abide by the rules.

**t. Impacts of Tourism on the Environment**

73% the respondents think local environment will be protected if appropriate protection measures are taken; 16% of the respondent think there will be medium level damage; 11% of the respondent think there will be serious damage.

**u. Activities Respondents Wish to See or Participate at Eco-tourism Area in the Future**
52% of the respondents think eco-amusement park shall be constructed to enrich tourists’ environmental knowledge; 48% of the respondents think there shall be movies and funny and humorous slogan on environmental protection.

2. Survey Results Analysis

Trough the questionnaire survey, we find out that public views on eco-tourism in Xinjiang of China and Kazakhstan are converging, but there are still some differences.

2.1 Converging Points of Chinese and Kazakhstan Public View on Eco-tourism

2.1.1 Eco-tourism is still a New Concept for the Public

Both Xinjiang of China and Kazakhstan public are unfamiliar with the concept of eco-tourism. According to the questionnaire survey, over 90% of the respondents show that they have only a little of no knowledge of eco-tourism. In the central Asian region, the history of tourism industry is relatively short, and it is still a developing country tourism industry pattern. The public lack scientific understanding of the relation between tourism and the environment. The understanding of “tourism industry is a smoke-free industry” is still popular, and the eco-tourism is still at the primary stage.

2.1.2 Local Ecological Education Facility and Environmental Protection Facility are Insufficient

Respondents at both countries choose to restrict their activities to protection the environment and hope to know more about ecological knowledge. But most of the public think local ecological education facility and environmental protection facility is seriously insufficient, which limited their information channel of and enthusiasm for eco-tourism.

2.1.3 The Problem of Transportation is Restricting the Development of Eco-tourism

Nearly 60% of the respondents in the two countries think the factor of transportation is of significant influence on promoting eco-tourism. But the respondents also think the tourism activity shall adopt an environment-friendly transportation concept and mode, reduce the impact of transportation on the environment, with special attention to the impact of transportation infrastructure on the environment, especially inside the nature conservation area.

2.1.4 Recognition of the Four Major Functions of Eco-tourism
Over 50% of the respondents in both China and Kazakhstan think the four functions of Protection, Tourism, Education and Poverty Reduction basically can be realized. But there are also nearly 30% of the respondents think it is very difficult to harmonize the four functions.

2.2 Different Views on Eco-tourism

2.2.1 View on Human Reconstruction of Eco-tourism Environment

On this issue, there are certain differences among the respondents in China and Kazakhstan. 55% of Chinese respondents think they will not oppose it if the experts agree with it, and 30% of the respondents think human construction shall be rejected. However, only 39% of the respondents in Kazakhstan think they will not oppose it if the experts agree, and 50% of the respondents think human construction shall be rejected. Therefore, there is a certain difference regarding the issue of human impact on the environment.

2.2.2 The Impact of Eco-tourism on the Nature and Cultural Environment

On this issue, respondents in the two countries hold similar view on the impact of eco-tourism on environmental sanitation, air and forest resources. But there are differences regarding the impact eco-tourism on the living standards of local residents: over 70% of the respondents in China think eco-tourism will improve the living standards of local people, but less than 60% of the respondents in Kazakhstan think it will get better, and 15% of the respondents think it will get worse, which is 8% more than Chinese respondents.
Annex-2: Questionnaire on Eco-tourism in China and Kazakhstan

You can choose more than 1 option. The objective of this survey is to understand your view on eco-tourism, thank you for your support.

1. Age  □ under 18  □ 19-25  □ 26-35  □ 36-45  □ 46-55  □ above 56

2. Occupation

□ Worker  □ Technician  □ Manager or Company Staff  □ Farmer  □ Army man  □ Teacher  □ Student  □ Retired  □ Merchant  □ Civil Servant  □ Other

3. Education

□ Elementary Education  □ Junior High School  □ Senior High School/Technical Secondary School  □ College Bachelor  □ Master and above

4. Annual Family Income

□ Below 10 thousand □ Between 10-30 thousand □ Between 30-60 thousand □ Between 60-90 thousand □ Above 100 thousand

5. Knowledge of Eco-tourism

□ Know very much □ Know certain □ General knowledge □ Know some □ Don’t know

6. Information Channel of Eco-tourism

□ Special Training □ Propaganda Booklet □ TV and Radio □ Newspaper and Magazine □ School Education □ Through other tourists

7. Understanding of Eco-tourism

□ Eco-tourism is only a slogan, and it is not different from common tourism
Eco-tourism means the tourism at a place with good natural environment

Eco-tourism means environmental protection during the tourism

Eco-tourism shall not only protect the environment, but also help local community eradicate poverty and educate tourists to improve their environmental awareness

8. Understanding of the Form of Eco-tourism

- Tourism at a historical and cultural scenery area with good environment
- Travel at a natural scenery place
- Tourism at a scenery place which is seldom damaged by human
- Participating in the “eco-tourism” routes managed by travel agencies
- Tourism at the natural or cultural scenery place which is seldom interfered by human

9. Objective of Eco-tourism

- Enjoying the nature
- Releasing pressure from work and living
- Protecting the environment
- Meeting relatives and friends
- Seeking knowledge
- Scientific investigation
- Maintain health
- Other

10. During eco-tourism, you will

- Self-discipline to protect environment
- Spending money, do whatever you want
- Only enjoy the nature alone or with friends
- Hope the tour-guide can give them more knowledge on ecology

11. What do you think about some tourists’ activities, such as discarding garbage everywhere, take things away, etc.

- Manage and maintain the environment is the cleaners’ task, and the tourists can do whatever they want as they have spent money
- Environmental protection is a common responsibility, and the tourists shall take good care of local resources
Hard to say

Such people is of low accomplishment

It is necessary to teach those on environmental protection

12. View on the construction of ropeway and telpher in the scenery area

human construction shall be rejected

construction is necessary for the convenience of the tourists

will not oppose it only if experts agree

do not have clear view

13. Choice of Transportation inside the Tourism Area

shuttle inside the tourism area tourism bus telpher ropeway walk

14. Grouping Pattern

travel with a tourism group (organized by the travel agency) whole family organized by employer with relatives or friends along

15. The tourism items that you want to experience (3 items at most)

leisure and relaxing climb mountain picking up fruits and vegetables rowing riding horse fishing drifting venture mountain cycling farming rock climbing Bungee jumping other

16. Dissatisfaction on Eco-tourism Places

bad environment lack characteristics inconvenient transportation inconvenient parking expensive tickets too much tourists unclear road sign low quality local service too much man-made facilities

17. Feasibility of Eco-tourism’s Four Major Functions (Protection, Tourism, Education, Poverty Reduction)

sure to be realized very possible little possibility impossible
18. Impact of Eco-tourism on the Nature and Cultural Environment

A Environmental Sanitation  □ better  □ no impact  □ some impacts ;

B Air quality  □ better  □ no impact  □ some impacts ;

C Noise  □ better  □ no impact  □ some impacts ;

D Forest scenery  □ better  □ no impact  □ some impacts ;

E living quality of local residents  □ better  □ no impact  □ worse ;

19. Will you protect the environment self-consciously during the tour?

□ sure  □ basically will  □ will not  □ easy to be influence by other tourists

20. Impacts of Tourism on the Environment

□ there will be serious damage  □ there will be medium level damage  □ local environment will be protected if appropriate protection measures are taken

21. Activities you wish to See or Participate at Eco-tourism Area in the Future

□ movies on environmental protection

□ eco-amusement park shall be constructed to enrich tourists’ environmental knowledge

□ funny and humorous slogan on environmental protection

□ other

22 Your Opinions on or Suggestions for Eco-tourism.