IUCN Conservation Outlook Assessment 2017 **(archived)**
Finalised on 09 November 2017

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Western Tien-Shan

SITE INFORMATION

Country:
Kazakhstan, Kyrgyzstan, Uzbekistan
Inscribed in: 2016
Criteria:
(x)

Site description:

The transnational property is located in the Tien-Shan mountain system, one of the largest mountain ranges in the world. Western Tien-Shan ranges in altitude from 700 to 4,503 m. It features diverse landscapes, which are home to exceptionally rich biodiversity. It is of global importance as a centre of origin for a number of cultivated fruit crops and is home to a great diversity of forest types and unique plant community associations. © UNESCO

SUMMARY

2017 Conservation Outlook

Significant concern

The Western Tien-Shan World Heritage property is a serial site which lies at the western end of the very large and diverse Tianshan Mountain Range, one of the world's longest mountain systems. This region is noted for its global biodiversity values including a characteristic flora and fauna, high levels of endemism and many globally rare and endangered species. There is however a fundamental question-mark as to whether the attributes of OUV which are clear for this region are found within the property boundaries. The WH Committee has requested that the States Parties review and rationalize the boundaries of the components of the property and their buffer zones to ensure that they fully correspond to criterion (x), follow ecological principles and address connectivity, and submit a boundary modification proposal in due course to reflect this (WHC 40COM Decision,2016). Pending this verification, any assessment of the ability of the site to conserve these values is premature. There is a further serious concern regarding very limited transboundary cooperation and the lack of a cohesive and integrated approach to the management of the various component parts, again a fundamental requirement for protecting the values of a serial site. Beyond these central issues, the protection and management of individual components appears to be adequate to maintain the stated values and threats are currently at a low level. Adequate management resources are being applied to the separate components within the three countries, however transboundary and serial site resources and capacity are insufficient.

Current state and trend of VALUES

Data Deficient
Trend: Data Deficient

The property consists of 13 component parts drawn from seven protected areas located in three countries – Kazakhstan, Kyrgyzstan and Uzbekistan. The protected areas have adequate levels of protection corresponding to IUCN

categories Ia and II (IUCN Evaluation, 2016). Whilst the WH Committee's decision states that "individual components of the property are sufficient to jointly maintain the functioning of the natural systems of Western Tien-Shan" (WHC 40COM Decision, 2016) there remain question-marks on the choice of components and site configuration. In the same decision the Committee has also asked that boundaries be rationalized to ensure they fully correspond to criterion (x), follow ecological principles and address connectivity (WHC 40COM Decision,2016).
Furthermore, it is not possible to analyse the overall species data for the serial property as species numbers are given for each component without any sense of the overlap and complementarity across the entire property. Data in the nomination is also often for the wider region and inconsistent with other datasets (IUCN Evaluation, 2016).
This uncertainty regarding the attributes of OUV being within the property undermines the confidence in assessing the current state and trend of values.

Overall THREATS

Low Threat

The main pressures on the property are poaching, cattle grazing, illegal logging, hay collection, illegal harvesting of flowers etc (Prov SOUV, 2107). It is difficult to assess the threats to the property due to the lack of consistent monitoring and reporting across the serial property. Information provided in the nomination appears to have been assembled with separate technical input from each State Party making it difficult to see a consolidated picture for the entire property (IUCN Evaluation, 2016).
The property has suffered more widespread impact from past land and resource uses but many areas are recovering. All component protected areas appear to be adequately managed and have capacity to address existing threats, such as poaching, illegal logging and grazing, even though capacity could always be increased. (IUCN Evaluation Mission, 2015). The Menzbier's Marmot is an endemic species found only in Western Tien-Shan in Sairam-Ugam NP in Kazakhstan. However, this component suffers from serious integrity issues and the most critical habitat for the Menzbier's Marmot is excluded from the territory of the protected area as it is used for grazing (IUCN Evaluation, 2016). There are also concerns with respect to how the zoning systems within the protected areas operate and if they provide appropriate levels of protection to key values (IUCN

Evaluation, 2016).

Overall PROTECTION and MANAGEMENT

Serious Concern

At national level management planning and systems appear to be adequate and are coping with the currently low threats to the property. Staffing and financial resources are sufficient to manage the individual components of the property. The World Heritage Committee (WHC) has identified the four key areas to be addressed in order to improve the protection and management of the property. Three of these relate to the need to substantially improve management coordination for the transboundary and serial site. The States Parties have been urged, with the support of IUCN, to complete the transboundary management framework for the property including the tripartite Memorandum of Understanding and to build better capacity for transboundary management. A further critical request relates to reviewing the site’s boundaries including buffer zones to ensure that they fully correspond to criterion (x), follow ecological principles and address connectivity. (WHC 40COM Decision, 2016). In summary, priority attention is needed to rationalize the property’s boundaries (including internal management zoning and surrounding buffer zones) and to significantly improve transboundary management of the component parts making up the serial site.

FULL ASSESSMENT

Description of values

Values

World Heritage values

- **Exceptionally rich biodiversity of global significance amongst diverse landscapes within one of the largest mountain ranges in the world**
  Criterion:(x)

  The Western Tien-Shan supports a high diversity of different types of forests and unique combinations of plant communities characteristic of the Mountains of Central Asia biodiversity hotspot. The property is a transnational serial site spanning the three countries of Kazakhstan, Kyrgyzstan and Uzbekistan. Located in the western part of the 2,500km long Tianshan Mountain range, the property lies within a region known for its high levels of endemism and includes many species of global conservation importance. The region is characterized by a combination of different types of coniferous and deciduous forests, some in combination with wild fruit tree species. A number of critically endangered plant species also occur in the property, such as Knorringiana Hawthorn (Crataegus knorringiana) and Karatau Honeysuckle (Lonicera karataviensis). Very high plant species endemism is particularly characteristic for Karatau State Nature Reserve (SNR) with 61 endemic genera of angiosperms (IUCN Evaluation, 2016).

- **A globally important centre of origin of cultivated plants and home to a number of wild species related to domesticated fruit**
  Criterion:(x)

  The Western Tien-Shan lies within a region which is one of 12 global centres

of origin for nut, fruit, and many cultivated plants of importance to agrobiodiversity (38 important agricultural crops). Over 20% of the world's cereals, vegetable and spice plants, and 90% of the major temperate-zone fruit crops are found in this region. The walnut-fruit forests of the region are considered to be the largest forest of this type in the world.
The wild fruit and nut forests of Western Tien-Shan are considered to be an important genetic resource for the development of future strains of pest and disease resistant domestic fruit and nut species. Many domesticated plant species, particularly fruit and nut plants are reported for the property including wild apples, apricot, pistachio, vine, plum, pear, walnut and hawthorn. 14 species are considered globally threatened including Siverse's Apple (Malus sieversii, VU), Nedzvetsky's Apple (Malus niedzwetzkyana, EN) and Wild Apricot (Armeniaca vulgaris, EN). Of particular interest is the Siverse's Apple, a wild apple species considered to be the progenitor of today's variety of apples (IUCN Evaluation, 2016).

- **Important habitat for globally threatened faunal species characteristic of the western Tianshan Mountains**
  Criterion:(x)

  The vertebrate biodiversity found in the region of Western Tien Shan includes 61 species of mammals, 316 species of birds, 17 species of reptiles, 3 species of amphibians and more than 20 fish species, almost all of these species are reported as occurring in the area of the property. 18 of the faunal species are listed as globally threatened including several bird species: Eastern Imperial Eagle (Aquila heliaca, VU), Great Bustard (Otis tarda, VU), Pale-backed Pigeon (Columba eversmanni, VU), Saker Falcon (Falco cherrug, EN) and Egyptian Vulture (Neophron percnopterus, EN). Threatened mammals include Dhole (Cuon alpinus, EN), Menzbier's Marmot (Marmota menzbieri, VU), Snow Leopard (Panthera uncia, EN) and the European Marbled Polecat (Vormela peregusna, VU) (IUCN Evaluation, 2016; WHC 40COM Decision,2016).

Assessment information

Threats

Current Threats

Low Threat

The status of the current threats to the property is unclear as there is a lack of consistent monitoring and reporting of the property as a whole. All component parts have their own management plans and their own monitoring systems but there is currently no common monitoring system. (IUCN Evaluation, 2016). Nevertheless, it is reasonable to conclude based on the field evaluation and expert reviewers contributions during the evaluation that current threats remain low. There has been a legacy of past land and resource use (grazing, logging, hay cutting) and some of these threats persist, however most components are reported as recovering since becoming protected areas (IUCN Evaluation Mission, 2015).

▶ Other Biological Resource Use

Low Threat
Inside site, extent of threat not known
Outside site

The States Parties report that argali, Siberian ibex, wild boar, bear, badger, porcupine, are being targeted by poachers in the Kazakh components of the property. Little information is available on poaching in other components (IUCN Evaluation Mission, 2015).

▶ Other Biological Resource Use

Low Threat
Inside site, scattered(5-15%)
Outside site

Hay collection is permitted in some components such as in Sary Chelek within use zones, but the exact areas are unclear. Illegal hay collection most

likely also occurs in many areas. (IUCN Evaluation Mission, 2015) Berry collection (IUCN Evaluation, 2016) and the illegal harvesting of flowers has also been reported. In the past, there were conflicts with local inhabitants due to restrictions on the use of resources imposed on them with the creation of the nature reserve. However, the conflicts appear to have been mainly resolved (IUCN Evaluation Mission, 2015).

► Logging/ Wood Harvesting

Low Threat
Inside site, extent of threat not known
Outside site

A number of components of the nominated property have suffered from intensive use (grazing, logging, hay collection) in the past before they were declared protected areas, but the areas have been recovering since the establishment of protected areas. In particularly logging in Karatau, Sary Chelek and Padysha-Ata SNRs (IUCN Evaluation Mission, 2015).

► Air Pollution

Low Threat
Inside site, localised(<5%)
Outside site

Air pollution is a problem in Chatkalskiy SNR as it is located in a densely-populated region with a number of industrial facilities which are close by (IUCN Evaluation Mission, 2015).

► Avalanches/ Landslides

Low Threat
Inside site, extent of threat not known

Rock falls, landslides, mudslides, and avalanches are reported for the property (Prov SOUV, 2017).

► Invasive Non-Native/ Alien Species

Low Threat
Inside site, extent of threat not known
Outside site

Chatkal SBNR suffers from a range of invasive plant species (IUCN

Evaluation, 2016).

▶ Livestock Farming / Grazing

High Threat
Inside site, scattered(5-15%)
Outside site

Grazing still represents a problem in some areas of the property such as the more densely populated areas found surrounding the Chatkal component in Uzbekistan. The presence of cattle and its impact was observed during the IUCN field mission within the component and along its boundaries. In all three Kazakh components illegal grazing also occurs within the protected areas. In Sairam-Ugam National Park (NP) there is an area located completely within the national park, but excluded from its territory, which is used for grazing. Moreover, since it is an enclave, the access to the area is only possible through the territory of the national park. This area is a critical habitat for the endemic Menzbier’s marmot. Grazing also occurs in the buffer zone of Sary-Chelek and within a specially allocated zone in Padysha-Ata SNR (IUCN Evaluation Mission, 2015). Some low level of illegal grazing also occurs in Karatau State Nature Reserve (IUCN Consultation, 2017).

▶ Fire/ Fire Suppression

Low Threat
Inside site, extent of threat not known
Outside site

Droughts lead to fires in dry years (Prov SoOUV, 2017). In Karatau this appears to be a common summer threat – the park maintains fire wardens in all ranger stations and has cut fire breaks into the vegetation to stop the spread of fires (IUCN Consultation, 2017).

Potential Threats

Low Threat

Tourism use of the property is currently modest and regulated. Some parts of the property are surrounded by highly populated areas and as a result they have tourism potential. This has the potential to develop in future years with the inscription of the property in 2016 (Prov SOUV, 2017).

► Tourism/ visitors/ recreation

Data Deficient
Inside site, scattered(5-15%)
Outside site

Visitor numbers in most of the components of the property are currently reported as quite low. Visitation is limited to very restricted areas and is only allowed by permit. (IUCN Evaluation Mission, 2015). However, interest in the property could increase following inscription on the World Heritage List creating greater threat, Surrounding tourism infrastructure, services and capacity is underdeveloped.

► Other Ecosystem Modifications

Low Threat
Inside site, extent of threat not known
Outside site

In Karatau, the food availability for raptors and scavengers is of concern. Given that here are no grazing animals within the property anymore, and the populations of wild mammals may not be sufficient to support vulture and eagle populations, large birds of prey forage almost exclusively outside the property, where they may be exposed to changes in agricultural practices or the use of pharmaceuticals in domestic livestock that can lead to kidney failure (IUCN Consultation, 2017).

Protection and management

Assessing Protection and Management

► Relationships with local people

Some Concern

Some components are located in a more densely populated region but population pressure surrounding the protected areas is relatively low. (IUCN Evaluation, 2016). There is little evidence of participatory management engaging local people (IUCN Evaluation, 2016).

► Legal framework

Mostly Effective

The majority of the property's components are state protected areas of national importance and protected under the respective national legislations of Kazakhstan, Kyrgyzstan and Uzbekistan. Most reserves are strictly protected natural areas, where any use of animals and plants and any economic activities are prohibited. Access is limited and strictly controlled. All areas of Western Tien-Shan have their own administration and staff and they are managed by authorized state executive bodies in each country (IUCN Evaluation Mission, 2015).
All the protected areas except Sairam-Ugam NP (IUCN category II) are strict nature reserves (considered equivalent to IUCN category Ia) and all have a functioning management system (IUCN Evaluation, 2016).

► Enforcement

Mostly Effective

All component protected areas appear to be well-managed and have adequate capacity to address existing threats, such as poaching, illegal logging and grazing, even though capacity could always be increased (IUCN Evaluation Mission, 2015). Transboundary cooperation is substantially absent (IUCN Evaluation, 2016).

► Integration into regional and national planning systems

Data Deficient

In general, the protected areas comprising the property have not been explicitly integrated within regional and national planning systems. In Kazakhstan, Sairam-Ugam SNR is included in regional tourism planning ("Program of development of tourism" by the Regional Departments of Culture and of Industries and Trade). Some components are included in bioregional planning developed in the framework of a Central Asian cross-border project (GEF and World Bank) which is aimed primarily at conserving biodiversity outside of the protected areas (SPs Nomination, 2015).

► Management system

Serious Concern

Virtually all areas of Western Tien-Shan are government owned, each of them has its own administration and staff and they are managed by an authorised state executive body of each country with funding from the state budgets (WHC 40COM Decision, 2016).
To date there is no protective regime in place for the property as a whole. Protection and management of individual components of the property appears adequate; however, there is no joint transboundary protection and framework yet in place for the entire property (IUCN Evaluation, 2016). However, the States Parties are currently working on establishing a transnational agreement with regards to the management of the property. The management zoning system which operates within the property is not clear. No maps have been made available showing the zoning system and the IUCN evaluation mission concluded the zoning system was complex and zoning did not necessarily align with the values (high conservation value areas were not necessarily zones for strict protection) (IUCN Evaluation Mission, 2015; IUCN Evaluation, 2016).

► Management effectiveness

Serious Concern

There is no integrated management across the serial property as a whole. A Memorandum of Agreement between the three countries is still under development (IUCN Evaluation, 2016).
With respect to general management all park managers carry out routine monitoring for fire, visitors, etc. Clearer monitoring indicators are needed for the protection of ecosystems, biodiversity, threatened species and geodiversity.
There are concerns with respect to how the zoning systems within the protected areas operate and if they provide appropriate levels of protection to key values.

► Implementation of Committee decisions and recommendations

Data Deficient

Four recommendations were made to the States Parties at the time of inscription of the property. These included the establishment of a Steering Committee, the formation of a tripartite Memorandum for management and a review of boundaries of the property. The Committee suggested that these

be done with the help and cooperation of IUCN. The States Parties have been asked to submit a report to the World Heritage Centre by 1 December 2017 for examination by the World Heritage Committee is at its 42nd session in 2018 (WHC 40COM Decision, 2016).

► Boundaries

Serious Concern

There are serious shortcomings with the boundaries of the property and its overall configuration as a serial site. The boundaries of the various protected areas which make up the property are conceived on a variety of different rationales. A number of the components of the protected areas in Kazakhstan do not have boundaries which are based on ecological principles or which follow natural features such as contours or watercourses: for example Karatau SNR and parts of Sairam-Ugam SNNP. The configuration of the Irsu-Daubabin area within Sairam-Ugam SNNP is particularly confusing and was not able to be clarified by the field mission in 2015.
There are variable approaches to buffer zones, including whether these are present or absent. Where they do exist, they are of uniform width and do not appear to follow any ecological rationale which draws into question their effectiveness in protecting critical natural values. Two components (Besh-Aral SNR, consisting of two clusters and Chatkal SBNR, also consisting of two clusters) do not have buffer zones (IUCN Evaluation, 2016).
IUCN recommended that a review and rationalization of the boundaries of the components of the property and their buffer zones be undertaken to ensure that they fully correspond to criterion (x), follow ecological principles and address connectivity (WHC 40COM Decision, 2016).

► Sustainable finance

Some Concern

All component protected areas appear to have relatively adequate budgets administered by the authorized state executive bodies in each country with funding from state budgets. No additional budget has been forecast for the joint management system of the whole transboundary property (IUCN Evaluation, 2016).

► Staff training and development

Some Concern

Staffing levels are variable with a reported 233 staff across the three protected areas in Kazakhstan; 92 staff are reported for the Chatkal SBNR in Uzbekistan; and 142 staff are noted for the three protected areas in Kyrgyzstan. All areas appear to have appropriately qualified technical staff (IUCN Evaluation, 2016).
The IUCN evaluation mission found very little understanding of what World Heritage status means with no plans evident as to how awareness levels might be raised among staff and stakeholders (IUCN Evaluation Mission, 2015).

► Sustainable use

Some Concern

Some of the most significant elements of the property have been severely impacted by past use. For example, the Siverse’s Apple forest stands which are now restricted to small separated patches; and in Sairam-Ugam NP there is an area of critical habitat for the endemic Menzbier’s marmot located inside but excluded from the protected area which has been subject to intensive grazing pressure. Despite this the protected areas in general appear to have substantially retained their values and a number have been in existence for many years (e.g. Aksu-Jabagly SNR (Kazakhstan), established in 1926 is the oldest nature reserve in Central Asia) (IUCN Evaluation, 2016).

► Education and interpretation programs

Some Concern

There is limited visitation to the property, and where they exist, visitor centres have limited displays on the biodiversity and geoheritage values of the component areas of the property. Staff members appear to have little or no understanding of the meaning and implications of gaining World Heritage status with regards to awareness-raising and education programmes focused on the OUV of the property (IUCN Evaluation Mission, 2015; IUCN Evaluation, 2016).

▶ Tourism and visitation management

Mostly Effective

Tourism use of the property is currently modest. Some parts of the property are surrounded by highly populated areas and as a result they have tourism potential. The States Parties recognize that tourism development needs to be managed in a way that optimizes its benefits but minimizes any threats from uncontrolled tourism development (Prov SOUV, 2017).

▶ Monitoring

Some Concern

All component parts of the property have their own management plans and systems; however, there is currently no common or consistent monitoring system across the whole property making it difficult to draw conclusions on the status of values for the serial site (IUCN Evaluation, 2016).

▶ Research

Data Deficient

There is little evidence of any on-going research being undertaken over the components of the property (IUCN Evaluation, 2016).

Overall assessment of protection and management

Serious Concern

At national level management planning and systems appear to be adequate and are coping with the currently low threats to the property. Staffing and financial resources are sufficient to manage the individual components of the property.
The World Heritage Committee (WHC) has identified the four key areas to be addressed in order to improve the protection and management of the property. Three of these relate to the need to substantially improve management coordination for the transboundary and serial site. The States Parties have been urged, with the support of IUCN, to complete the transboundary management framework for the property including the tripartite Memorandum of Understanding and to build better capacity for transboundary management.

A further critical request relates to reviewing the site's boundaries including buffer zones to ensure that they fully correspond to criterion (x), follow ecological principles and address connectivity. (WHC 40COM Decision, 2016). In summary, priority attention is needed to rationalize the property's boundaries (including internal management zoning and surrounding buffer zones) and to significantly improve transboundary management of the component parts making up the serial site.

▶ **Assessment of the effectiveness of protection and management in addressing threats outside the site**
Data Deficient

Many of the components are in quite remote areas relatively free from human threats, however, some are located in more heavily populated areas. Past land and resource use such as grazing, poaching and hay cutting is also evident however areas are recovering following protection. There are nevertheless ongoing external threats but insufficient information to fully assess the effectiveness of management outside of the site. Concerns regarding the meaning, design and effectiveness of the buffer zones add to concerns about dealing with external pressures on the property.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **Exceptionally rich biodiversity of global significance amongst diverse landscapes within one of the largest mountain ranges in the world**
Data Deficient
Trend:Data Deficient

The property consists of 13 component parts drawn from seven protected areas located in three countries – Kazakhstan, Kyrgyzstan and Uzbekistan. The protected areas have adequate levels of protection corresponding to IUCN categories Ia and II. (IUCN Evaluation, 2016). Whilst the WH Committee's decision states that "individual components of the property are

sufficient to jointly maintain the functioning of the natural systems of Western Tien-Shan" (WHC 40COM Decision, 2016) there remain question-marks on the choice of components and site configuration. For example, two of the components Aksu-Jabagly SNR are very small and were nominated with respect to their fossil values under criterion (viii), however, they were included in the inscribed property despite the fact that criterion (viii) was deemed not have been met. The Committee has also asked that boundaries be rationalized to ensure they fully correspond to criterion (x), follow ecological principles and address connectivity (WHC 40COM Decision,2016). Furthermore, it is not possible to analyse the overall species data for the serial property as species numbers are given for each component without any sense of the overlap and complementarity across the entire property. Data in the nomination is also often for the wider region and inconsistent with other datasets (IUCN Evaluation, 2016).
This uncertainty regarding the attributes of OUV being within the property undermines the confidence in assessing the current state and trend of values.

- **A globally important centre of origin of cultivated plants and home to a number of wild species related to domesticated fruit**

Data Deficient
Trend:Data Deficient

The concerns noted above with regard to site configuration and data confidence also apply to this value.
Some of the most significant elements of the property have been severely impacted by past use, such as the Siverse's Apple forest stands which are now restricted to small separated patches. Despite this the protected areas in general appear to have substantially retained their values. Aksu-Jabagly SNR (Kazakhstan), established in 1926 is the oldest nature reserve in Central Asia and one of the best preserved areas in the region (IUCN Evaluation, 2016).

- **Important habitat for globally threatened faunal species characteristic of the western Tianshan Mountains**

Data Deficient
Trend:Data Deficient

The concerns noted above with regard to site configuration and data confidence also apply to this value.

A number of components of the nominated property have suffered from intensive use (grazing, logging, hay collection) in the past but are now recovering. Nevertheless, the property's values in some components are still being impacted by pressures such as grazing. Grazing still represents an ongoing management issue in some areas (for example in Sairam-Ugam SNNP where there is an enclave subject to grazing which is also critical habitat for the endemic Menzbier's Marmot.
Illegal poaching most likely also occurs in many areas. Argali, Siberian ibex, wild boar, bear, badger and porcupine are being targeted by poaching in the Kazakh components of the property. Little information is available on poaching in other components (IUCN Evaluation, 2016).

Summary of the Values

► Assessment of the current state and trend of World Heritage values

Data Deficient

Trend: Data Deficient

The property consists of 13 component parts drawn from seven protected areas located in three countries – Kazakhstan, Kyrgyzstan and Uzbekistan. The protected areas have adequate levels of protection corresponding to IUCN categories Ia and II (IUCN Evaluation, 2016). Whilst the WH Committee's decision states that "individual components of the property are sufficient to jointly maintain the functioning of the natural systems of Western Tien-Shan" (WHC 40COM Decision, 2016) there remain question-marks on the choice of components and site configuration. In the same decision the Committee has also asked that boundaries be rationalized to ensure they fully correspond to criterion (x), follow ecological principles and address connectivity (WHC 40COM Decision,2016).
Furthermore, it is not possible to analyse the overall species data for the serial property as species numbers are given for each component without any sense of the overlap and complementarity across the entire property. Data in the nomination is also often for the wider region and inconsistent with other datasets (IUCN Evaluation, 2016).
This uncertainty regarding the attributes of OUV being within the property undermines the confidence in assessing the current state and trend of values.

Additional information

Benefits

Understanding Benefits

► Provision of jobs

Various levels of management staff are employed across the site.

467 staff are noted within the component parts of the serial site (IUCN Evaluation, 2016).

► Outdoor recreation and tourism

With the inscription of the property in 2016 there is a potential for an increase in the annual number of tourists to the site. This could in turn create an increase in opportunities for employment for locals including tour guides, as well as the employment that goes with providing services for tourists and maintaining the areas that are visited.

► Collection of genetic material

The property is an important global centre for agrobiodiversity with potential to contribute to research and to act as a genetic warehouse of source material.

Climate change impact on the world’s agricultural productivity increases the value of the property as a centre of agrobiodiversity research, understanding and as a gene bank.

Summary of benefits

The property holds potential for increased tourism use and thus the promise of becoming a stronger economic driver for local communities and regional

economies. At present visitor numbers in most of the components of the property are low and, since most of the components are strict nature reserves, visitation is limited to very restricted areas and is only allowed by permit. There are however, opportunities in selected components and, with an increase in tourism demand, there would potential employment opportunities and an increase in education opportunities for locals. (IUCN Evaluation, 2016)
The importance of the Western Tien-Shan as a global centre for agrobiodiversity may increase in the face of climate change. Many domesticated plant species, particularly fruit and nut plants are reported for the property including wild apples, apricot, pistachio, vine, plum, pear, walnut and hawthorn. There are many beneficial areas of research and understanding that can be derived from the property to enhance global food security.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	Association for the Conservation of Biodiversity of Kazakhstan (ACBK)		“The inventory and protection of the Important Bird Territories in Kazakhstan”, since 2005, run by ACBK with the support of Darwin Initiative (2005-2008) and Royal Society of the Protection of Birds (RSPB) (SPs Nomination, 2015).

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	Development of a standardized monitoring system for the entire property	Development of a standardised annual assessment of a selected number of important plant and animal species across the entire property, so that trend in values can be tracked over time	

REFERENCES

№	References
1	IUCN (2015) Evaluation Mission Report. Western Tien-Shan. IUCN Gland, Switzerland
2	IUCN (2016) Evaluation Report. Western Tien-Shan. IUCN Gland, Switzerland
3	States Parties of Kazakhstan, Kyrgyzstan and Uzbekistan (2015) Nomination dossier Western Tien-Shan. Submitted to UNESCO World Heritage Centre.
4	States Parties of Kazakhstan, Kyrgyzstan and Uzbekistan (2016) Response to IUCN commentaries to the nomination dossier «Western Tien-Shan». Informal supplementary information to UNESCO World Heritage Centre and IUCN received February 2016.
5	UNESCO (2017) Provisional Statement of Outstanding Universal Value – Western Tien-Shan
6	World Heritage Committee (2016). Decision 40 COM 8B.9 Istanbul, Turkey. http://whc.unesco.org/en/decisions/6788. Accessed 4 May 2017