

Justification of Outstanding Universal Value

The Western Tien Shan is specified by its exclusive diversity and beautiful mosaic landscapes; outstanding evidence of large-scaled geological and evolution processes; unique combination of different ecosystems; rich animal and vegetal life with endemic species and associations and significant number of rare and endangered species.

The Aksu-Jabagly reserve, the Karatausky reserve and the Sairam-Ugam National Park (Kazakhstan), the Sary-Chelek reserve, the Besh-Aralsky reserve, the Padysha-Atinsky reserve (Kyrgyzstan) and Chatkal reserve (Uzbekistan) are nominated by three states and show the most representative and preserved areas of joint unique natural complex – the Western Tien Shan. Each of these secured areas has its own distinguishing features, however they complete each other in biodiversity, outstanding landscapes and paleontological monuments.

Criteria vii:

The nominated area contains all features necessary for maintain its aesthetic importance. There are impressive mountain relief, scenic water bodies, wild nuciferous and coniferous forests, middle mountain meadows and meadow steppe, multicolor subalpine tallgrass, alpine meadows.

The following features have outstanding aesthetic importance: deep canyons and flat scenic ravines with water cascades (canyons of the Aksu and Kshee-Kaindy rivers in the Aksu-Jabagly reserve, the Kapchygay ravine in the Padysha-Atinsky reserve, the Chatkal gorge in the Besh-Aralsky reserve); plateau surfaces and invulnerable bizarre cliffs (Kyrykkyz in the Sairam-Ugam National Park, the Kapchygay mountains, the Kok-Saray mountains, the Azapkyr mountains and the Tegerek mountains in the Padysha-Atinsky reserve); the clearest deep rivers and streams, waterfalls and high mountainous rock-dammed (Sary-Chelek) and morainic (Makpal in the Sairam-Ugam National Park) lakes in neighborhood with snow peaks (the Sayram peak, 4236 m over sea level in the Sairam-Ugam National Park, the Kara-Toko peak in the Sary-Chelek reserve); numerous caves of the Padysha-Atinsky reserve. Clusters of nominated area have the exceeding recreational potential.

Many of local flora and fauna species contribute in aesthetic landscape importance, such as Greyg and Kaufman tulips of fairytale beauty, snow cock, paradise flycatcher.

Criteria viii:

The nominated territory represents significant geological processes of area landforms development and outstanding geomorphic and physiographic relief features. All significant landforms of the Western Tien Shan are represented here.

The relatively small territory includes different geological structures that represent consecutive steps of Earth crust evolution. Here are measures of early Proterozoic till modern ones including the Cambrian, Ordovician, Devonian and Carboniferous systems where the ancient life evidences were found.

Concerning “the ancient life evidences” the Karataus paleontological deposits of the Aksu-Jabagly reserve has the outstanding universal value and is widely regarded

as one of the most interesting over the World. Indurated silt has well preserved traces of plants and animals which dwelt in the basin and along the coasts of Jurassic sea around 150 millions years ago. There were found traces of more than 60 plant species, 100 insect species, mollusks, crustaceans, tortoises, ganoids. Fossils of ancient pangolins are found. There is no other place in the World with the same abundant and interesting depositions of Mesozoic insects.

The nominated territory is undergone by active on-going tectonic processes, - tireless seismic activity results in earthquakes up to 7-9 magnitude on the Richter scale. Large tectonic faults cross the region, the major of them lies along central line of Chatkal and Talass ridges.

Criteria ix:

Parts of the nominated site represent the whole range of the Western Tien Shan vertical zonation. Up to 7 natural zones in mountainous parts (from steppe zone near mountain foots till highlands) determine the high diversity of wildlife. Sustainable ecosystems represent the complete variety in accordance with vertical zonation.

Original combination of the northern and southern forms, relict species and autochthone communities is typical for the Western Tien Shan. Southern Indian Hedgehog can feed at the same meadow with northern Siberian Roe Deer, while thermophilic walnut grow side by side with firs and Silver firs from taiga. This highlands have some segregated regions with intense actual species formation resulting in nascency of numerous new species – neoendemics, which have emerged in the region fairly recently. Evolution and species formation processes have significant scientific importance not only as the example of natural development, but also for regeneration and conservation of similar Eurasian ecosystems.

Criteria x:

The nominated site is the key area for conservation of outstanding universal biodiversity of the Western Tien Shan. Although each part of area has the significance for conservation of its own unique biocenosis elements, only the combined action of this effects can provide its long-term sustainable development.

The Western Tien Shan is recognized as one of the world centers of origin of nut, fruit and many other culture plants. There are natural habitats of their wild ancestors: plum (*Prunus*), apricot (*Armeniaca*), walnut (*Juglans regia*), onion (*Allium*), alfalfa (*Medicago*), apple-tree (*Malus*), pear tree (*Pyrus*), grape (*Vitis*), tulip (*Túlipa*), almond (*Amygdalus*). This vaste genetic stock is exceptionally important for agrobiodiversity of many states. Due to high concentration of forest biodiversity the Western Tien Shan is inscribed in the list of key Earth ecoregions.

The Western Tien Shan typical combination of different types of coniferous and deciduous forests survived here: juniper stand, fir, maple, nut, fruit, riparian forests and more than 10 types of endemic vegetation communities. The total amount of endemic plant species accounted for 30% of the general list of flora.

There is the unique population of Menzbira marmot (*Marmota menzbieri*), the Western Tien Shan endemic of restricted area, ranging only in Kazakhstan, Uzbekistan and Kyrgyzstan.

Snow leopard (*Uncia uncia*) and Karatau subspecies of argali (*Ovis ammon nigrimontana*) need particular care due to conservation of biodiversity and genetic resources.

All together the nominated territory counts 25 kinds of plants and animals inscribed in the Red List of IUCN (Ver. 2009_1) with different levels of threat. This includes 9 kinds of plants – common apricot (*Armeniaca vulgaris*, EN), talass birch (*Betula talassica*, EN), karatau cotoneaster (*Cotoneaster karatavicus*, DD), crataegus (*Crataegus ambigua*, DD), sogdian ash (*Fraxinus sogdiana*, NT), karatau rare honeyberry (*Lonicera karataviensis*, CR), nedzvetskogo apple tree (*Malus niedzwetzkyana*, EN), siversa apple tree (*Malus sieversii*, VU), shrenka tavolgotsvet (*Spiraeanthus schrenkianus*, EN); 1 kind of butterfly – apollo (*Parnassius apollo*, VU); 11 kinds of breeding and untrapped birds, including untrapped ones – pale harrier (*Circus macrourus*, NT), imperial eagle (*Aquila heliaca*, VU), bustard (*Otis tarda*, VU), little bustard (*Tetrax tetrax*, NT), crake (*Crex crex*, NT), brown dove (*Columba eversmanni*, VU), and including breeding ones – black vulture (*Aegypius monachus*, NT), roller (*Coracias garrulus*, NT), saker falcon (*Falco cherrug*, EN), Naumann's kestrel (*Falco naumanni*, VU), vulture (*Neophron percnopterus*, EN); 4 kinds of mammals – asiatic wild dog (*Cuon alpinus*, EN), Menzbira marmot (*Marmota menzbieri*, VU), argali (*Ovis ammon*, NT), snow leopard (*Panthera uncia*, EN).

The nominated territory is the habitat of many endemic, rare and threatened species of animal and vegetal life.

Integrity

Integrity conception was already appreciated when “The Western Tien Shan” secured areas (state reserves and National park) were founded.

Natural areas of protection within the nominated serial site represent the key parts of the natural complex “The Western Tien Shan”, which major elements are inseparably interconnected by the homogeny, historical fortune, dynamics of natural development and include the elements necessary for justification of its outstanding universal value.

Sizes (from 15 846 to 149 053 ha) of several parts of the nominated site are sufficient for joint support of the Western Tien Shan natural complexes performance and fully represent features and processes, emphasizing their significance. Buffer zones around most of natural protected areas within the nominated territory (from 14 714 to 27 000 ha) give additional guarantees of integrity.

Different human activities (cattle grazing, forest cutting, grass cutting and others) that had been existing in the Western Tien Shan before natural protected areas foundation, caused limited effect on ecosystems without serious damage. Biophysical processes and natural landscapes' elements of the nominated site are unbroken.

The only remained permitted activity is conservative grazing on specially designated areas and responsible tourism.

Conservation and management

Nowadays the status of state reserve (meet the Ia IUCN category) and the status of national park (II IUCN) are promoted to all parts of serial nomination. This ensures the conservation and further natural development of unique ecosystem complex of the Western Tien Shan. All natural protected areas within the nomination territory possess enough financial and administrative resources for long-term conservation of claimed universal value. Process of creation of integrated coordinated system of transboundary serial site management is in work now.