

**Christiane Röttger, Andrea Strauss and  
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# **Nature Conservation in Eastern Europe, Caucasus and Central Asia**

**Lessons learnt from the transformation process  
and challenges for the future**



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## **Lessons learnt from the transformation process and challenges for the future**

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and Central Asia (IUCN ECARO)**

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**Cover picture:** Haymaking by villagers, Babash-Ataa mountain, Kyrgyzstan (K. Schleicher)

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## Abbreviations

ACBK	Association for the Conservation of Biodiversity of Kazakhstan
ACCOBAMS	Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area
ACSA	National Agency for Rural Development
AEWA	The Agreement on the Conservation of African-Eurasian Migratory Waterbirds
ALPARK	Alpine Network of Protected Areas
BfN	Federal Agency for Nature Conservation
BMUB	Federal Ministry of the Environment, Nature Conservation, Building and Nuclear Safety
BMZ	Federal Ministry for Economic Cooperation and Development
CABNET	Central Asian Biodiversity Network
CAF	Central Asian Flyway
CAMI	Central Asian Mammals Initiative
CAREC	Regional Environmental Centre for Central Asia
CBD	Convention on Biological Diversity
CCD	Convention to Combat Desertification
CENN	Caucasus Environmental NGO Network
CEPF	Critical Ecosystem Partnership Fund
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLRTAP	Convention on Long-range Transboundary Air Pollution
CMP	Conservation Measures Partnership
CMS	Convention on the Conservation of Migratory Species of Wild Animals
CNF	Caucasus Nature Fund
CORDAID	Catholic Organisation for Relief and Development Aid
CPAF	Caucasus Protected Area Fund
CR	Critically Endangered
CTF	Conservation Trust Fund
CWR	Caucasus Wildlife Refuge
DAAD	German Academic Exchange Service
ECARO	Office for Eastern Europe and Central Asia
ECF	Ecoregional Corridor Fund
ECP	Ecoregional Conservation Plan
ECPC	Ecoregional Corridor Programme for Southern Caucasus
EIA	Environmental Impact Assessment
EN	Endangered
ENPI FLEG	European Neighbourhood Policy Instrument – Forest Law Enforcement and Governance Programme
ENPP	Ecoregional Nature Protection Programme
ERCA	Ecosystem Restoration in Central Asia
ESMP	Environmental and Social Management Plans
EUROBATS	Agreement on the Conservation of Populations of European Bats



EX	Extinct
FAO	Food and Agriculture Organization
FFI	Flora & Fauna International
FLERMONECA	EU Regional Project Forest and Biodiversity Governance Including Environmental Monitoring
FPWC	Foundation for the Preservation of Wildlife and Cultural Assets
FSC	Forest Stewardship Council
FZS	Frankfurt Zoological Society
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic Information Systems
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GLPCA	Green List of Protected and Conserved Areas
GO	Governmental Organization
GPS	Global Positioning System
GRID	Global Resource Information Database
GSLEP	Global Snow Leopard and Ecosystem Protection Program
GTI	Global Tiger Initiative
IBA	Important Bird and Biodiversity Area
ICSD	Interstate Commission on Sustainable Development
ICWC	Interstate Commission on Water Coordination
IFAD	International Fund for Agricultural Development
IFAD VI	IFAD Inclusive Rural Economic and Climate Resilience Programme
IFAS	Fund for Saving Aral Sea
ILC	International Law Commission
IPCC	Intergovernmental Panel on Climate Change
ISESCO	Islamic Educational, Scientific and Cultural Organization
IUCN	International Union for Conservation of Nature
IUCN ECARO	IUCN Regional Office for Eastern Europe and Central Asia
IUCN-WCPA	IUCN World Commission on Protected Areas
IUSS	International Union of Soil Sciences
KfW	Kreditanstalt für Wiederaufbau
LC	Least Concern
MAB	Man and the Biosphere
m.a.s.l.	Meter above sea level
MCC	Millennium Challenge Corporation
MCP	Minimum Convex Polygon
MEA	Multilateral Environmental Agreements
METT	Management Effectiveness Tracking Tool
MOU	Memoranda of Understanding
NABU	Nature and Biodiversity Conservation Union

NBSAP	National Biodiversity Strategy and Action Plan
NFA	National Forestry Agency
NFP	National Focal Point
NGO	Non-Governmental Organization
NOVIB	The Netherlands Organization for International Development Cooperation
NSLEP	National Snow Leopard and Ecosystem Protection Priorities
ODA	Official Development Assistance
OUV	Outstanding Universal Value
POP	Persistent Organic Pollutants
PoWPA	Programme of Work on Protected Areas
RAPPAM	Rapid Assessment and Prioritization of Protected Area Management
REC Caucasus	Regional Environmental Centre for the Caucasus
RINGO	Research and Independent Non-governmental Organisations to the United Nations Framework Convention on Climate Change (UNFCCC)
RSPB	Royal Society for the Preservation of Birds
SEA	Strategic Environmental Assessment
SIDA	Swedish International Development Cooperation Agency
SLM	Sustainable Land Management
SMART	Spatial Monitoring and Reporting Tool
SOF	Special Operational Fund
SPPA	Support Programmes for Protected Areas
SSI	Special Species Initiatives
SVS	Der Schweizer Vogelschutz SVS/BirdLife Switzerland
TEEB	The Economics of Ecosystems and Biodiversity
TJS	Transboundary Joint Secretariat
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP-WCMC	UNEP World Conservation Monitoring Center
UNESCO	Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
US-DOI-ITAP	United States Department of the Interior through its International Technical Assistance Program
USPB	Ukrainian Society for the Protection of Birds
UzSPB	Uzbekistan Society for the Protection of Birds
VIP	Very Important Person
VU	Vulnerable
WASWC	World Association of Soil and Water Conservation
WCS	Wildlife Conservation Society
WUA	Water Users Associations for Irrigation
WWF	World Wildlife Fund for Nature

# 1 Introduction

The countries of Eastern Europe, North and Central Asia are home to a variety of unique ecosystems. The alpine mountains of the Caucasus are one of the global hotspots for biodiversity and endemism. The wide steppes, boreal forests, deserts and high mountains of Northern and Central Asia and Mongolia harbour globally important habitats for many endangered species, including the iconic Snow leopards, but also many Critically Endangered (CR) species such as Saiga antelopes, threatened migratory water birds and raptors. The water resources in the region secure livelihoods and provide a multitude of benefits to society as a whole. But the region has also witnessed ecological catastrophes such as the drying-up of the Aral Sea. Many species and ecosystems are threatened through unsustainable use, poaching, and the degradation and fragmentation of unique and still largely interconnected habitat, not least through industrial and infrastructure development in many areas.

This common history influences framework conditions for nature conservation until today. The transformation process in these countries after the massive political changes over the last two decades did not only have socio-economic consequences, but also impacts on biodiversity and the institutions responsible for conservation. On the other hand, new opportunities arose from those changes and many organizations have become involved in conservation processes, globally and regionally. A multitude of new initiatives, protected area networks, the Caucasus Nature Fund, progress in World Heritage nominations or the Klaus-Toepfer-Fellowship are just a few of the success stories from the region. State and non-governmental actors, scientists, international donors and cooperation partners have worked towards the conservation and sustainable use of the natural ecosystems and their wildlife in this region for 25 years now. The challenges for conservation have changed over the years and it is time to take stock and look at what has been done, what was achieved, what are the current threats and challenges ahead and what is needed to successfully and collectively overcome them.

To do so, the International Expert Workshop “Nature Conservation in the Countries of Eastern Europe, Caucasus and Central Asia – lessons learnt from the transformation process and challenges for the future” was organized by the German Federal Agency for Nature Conservation (BfN) with its International Academy for Nature Conservation in cooperation with the Nature and Biodiversity Conservation Union (NABU) and the IUCN Regional Office for Eastern Europe and Central Asia (IUCN ECARO). The workshop was funded by the German Ministry of the Environment, Nature Conservation, Building and Nuclear Safety (BMUB).

Participants included stakeholders active in the region, ranging from governmental and nongovernmental national institutions, to international organizations, experts, and to development cooperation and donor organizations. The regional focus of the workshop was on Eastern Europe (Belarus, Moldova, Ukraine), Southern Caucasus (Armenia, Azerbaijan, Georgia), the Russian Federation, Mongolia and Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan).

A wide range of stakeholders in nature conservation in the region participated in the meeting and presented their work and lessons learnt resulting from their engagement. Many international organizations have been active in the region for several decades, and have

built up strong and long-term partnerships with local and national organizations and experts. The workshop - as becomes obvious from the documentation below - reiterates that building on these partnerships as well as further strengthening joint approaches and cooperation is one of the key elements for success.



Picture: Group picture with workshop participants. Photo credit: Ralf Grunewald/BfN

## 5.8 Planning of a New Protected Area in the South of Karakalpak Ustyurt

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### Abstract

The study applies a systematic conservation planning and analysis tool for a protected area zonation attempt to the specifics of Uzbekistan's nature conservation context. It supports decision making on protected area zonation at scientific basis for a currently not recognized conservation demand in Southern Ustyurt in Uzbekistan, at the triangle border to Kazakhstan and Turkmenistan.

The planning has been done through the identification of threats, human impact, occurrence of flagship species and most valuable habitats. The available information about the study area is scarce and outdated. It is a typical situation for natural sciences in Uzbekistan after the collapse of the Soviet Union due to socio-economic changes. An international, interdisciplinary ecological expedition in Southern Karakalpak Ustyurt, conducted in May 2012 (and followed by expeditions in 2013 and 2014), enabled the scientists to collect up-to-date field data from the study area.

### Introduction

Since most of protected areas in Uzbekistan have been established during Soviet time, there are no guidelines how to define a category and gradational zonations during the establishment process of a protected area, considering the legal framework, natural features and social context.

The Ustyurt Plateau is located between the Aral Sea and the Caspian Sea. Its area is about 200,000 km<sup>2</sup>, and its maximum altitude is 370 m in the southwest (Zonn et al., 2009). The plateau is fragmented by steep cliffs (chinks) which are up to 150 m high. The average annual temperature is about 12 °C; the absolute maximum and minimum might reach up to +42°C and -40 °C, respectively (Karnieli et al., 2008). The Uzbek part of the plateau, called Karakalpak Ustyurt, is situated in the western part of the country and belongs to Kungrad district of semi-autonomous republic of Karakalpakstan. The study area is found in the southern part of Karakalpak Ustyurt in adjacency to the borders of Kazakhstan and Turkmenistan, which includes two major geographic objects – Assake-Audan Depression and Sarykamysh Lake.

According to Rachkovskaya (2003) Southern Ustyurt floristically belongs to Western-Southern-Turanian subprovince of Southern-Turanian province. The flora of Ustyurt comprises 724 species of 295 genera and 60 families (Bakhiev et al., 1987). The fauna belongs to the Ustyurt zoogeographic territory of the subzone of northern deserts of the Iranian-Turan province. The fauna of the region comprises of 25 species of reptiles, 1 species of amphibian (Bogdanov, 1961), 67 species of mammals, although 9 of them should be confirmed (Plakhov, 2002). 15 fish species were observed in Sarykamysh Lake (Zholdasova et al, 2009). The plateau is an important stop-over of bird migration routes. 230 bird species can be encountered in various seasons in wetlands (Sarykamysh and Sudochoye lakes) near the plateau (Kashkarov et al., 2008).

## Methods

Our investigation has been focused on planning a protected area for the conservation of habitats in Southern Karakalpak Ustyurt. The proposed area should be part of the national network of protected areas which has been developed within the Master plan development under the Programme of Work on Protected Areas of CBD. This document is conceived as a comprehensive summary of the activities and strategies needed to ensure a fully representative and functional network of well managed and financed protected areas. The document is developed by joint project Government of Uzbekistan and UNDP-GEF “Strengthening Sustainability of the National Protected Area System by Focusing on Strictly Protected Areas”, but still hasn’t approved by the government. The authors adapted proposals from Pressey & Bottrill (2009) which consists from 11 stages and Appleton (2012) which consists from 8 stages for the national context.

### **Stage 1:** Describing the context for conservation areas

- 1.1 Political, economic and social setting for conservation planning,
- 1.2 Identifying the types of threats to natural features that can be mitigated by spatial planning

### **Stage 2:** Identifying conservation goals

- 2.1 Review of current spatial protection
- 2.2 Review of current species protection
- 2.3 Priorities and obligations for protection of species and habitats (GAP analysis)

### **Stage 3:** Collecting and compiling data on socio-economic variables

- 3.1 Compiling data about industrial, agriculture, transport impact

### **Stage 4:** Collecting and compiling data on biodiversity & other natural features

- 4.1 Biotope features
- 4.2 Species diversity
- 4.3 Other natural features

### **Stage 5:** Setting conservation objectives and targets for the protected area

- 5.1 Identifying the category of the protected area

### **Stage 6:** Preparation of maps

- 6.1 Conservation priority map.
- 6.2 Socio-economic, cultural priority and infrastructure map
- 6.3 Threat map

### **Stage 7:** Zone integration

The zonation has been made according to following criteria:

- Most valuable habitats for flagship species;
- Connectivity with protected areas in other countries;
- Migration corridors for flagship species to other countries

## Results

As the adapted approach combines analysing available data and developing of several layers of maps, the authors decided to compile most relevant parts of the research. The analysis of field work findings results in a species approached GAP analysis recognizing most threatened species (according to IUCN Red List and red book of Uzbekistan) (compare table).

Table 5.8.1. GAP Analysis (Stage 2.3)

	Outside of any protected areas in Uzbekistan	Outside of strict protected areas (I, II) in Uzbekistan
Species with global AND national conservation status	3 species	6 species
Species with global OR national conservation status	9 species	12 species

1. Species with national and global conservation status and outside of any national protected areas: Transcaspian urial (*Ovis vignei arkal*), Asiatic cheetah (*Acinonyx jubatus venaticus*), Four-lined Snake (*Elaphe quatuorlineata sauromates*)
2. Species with national and global conservation status and outside of existing national protected areas with high (I, II) category: Saiga antelope (*Saiga tatarica tatarica*), Khulan (*Equus hemionus kulan*), White-headed Duck (*Oxyura leucocephala*), Imperial Eagle (*Aquila heliaca*), Macqueen's Bustard (*Chlamydotis undulata macqueenii*), Black-winged Pratincole (*Glareola nordmanni*)
3. Species with national or global conservation status and outside of any national protected areas: Pin-tailed Sandgrouse (*Pterocles alchata*), Aral Stickleback (*Pungitius platygaster aralensis*), Honey Badger (*Mellivora capensis*), Turkmen Caracal (*Caracal caracal michaelis*), Central Asian tortoise (*Agrionemys horsfieldii*), Climacoptera ptiloptera, Malacocarpus crithmifolius, Salsola chiwensis, Euphorbia sclerocyathium
4. Species with national or global conservation status and outside of existing national protected areas with high (I, II) category: Steppe Eagle (*Aquila nipalensis*), Squacco Heron (*Ardeola ralloides*), Eurasian Spoonbill (*Platalea leucorodia*), Glossy Ibis (*Plegadis falcinellus*), Greater Flamingo (*Phoenicopterus roseus*), Mute swan (*Cygnus olor*), Whooper Swan (*Cygnus cygnus*), Osprey (*Pandion haliaetus*), White-tailed Eagle (*Haliaeetus albicilla*), Great White Pelican (*Pelecanus onocrotalus*), Little Egret (*Egretta garzetta*), Great Black-headed Gull (*Larus ichthyaetus*)

Four major biotopes have been identified in the study area during the Stage 4.1.

**Shrub saxaul desert** with dominance of *Haloxylon aphyllum* on a high layer and sometimes perennial and annual plants like *Kalidium caspicum*, *Salsola orientalis* on low layer (Allaniyazov & Sarybayev, 1983). Despite of small areas (3,5% according to Rachkovskaya, 2003), the habitat is valuable for a lot of animal species.

**Dwarf semi-shrub desert** with dominance of *Anabasis salsa*. According to Allaniyazov (1983) about 80% of the desert is covered by communities with dominance of *Anabasis salsa*. But *Artemisia spp.*, *Salsola spp.* are present here as well (Allaniyazov & Sarybayev, 1983). This is zonal vegetation (Rachkovskaya et al., 2003).

**Wetland** is the area of brackish water along the shore of Sarykamysh Lake and Shakhpakhty small lake. The major vegetation along the cost is represented by *Phragmites australis*.

**Cliffs** are usually quite steep along the plateau. In the study area cliffs exist in Shakhpakhty depression, Assake Audan depression, and Southern cliffs of the plateau in the front of Sarykamysh lake. The results of the expedition prove that cliffs have more plant diversity than the plateau. Cliffs are suitable habitats for some endemic species like Transcaspian urial (*Ovis vignei arcal*).

**Salt desert** is another widespread biotope in the study area. The surface is sparsely covered by halophytes like *Halocnemum strobilaceum*, *Kallidium caspicum*, *Sueda microsperma*, *Climacoptera spp.* This biotope doesn't have crucial importance for selected flagship species.

Another important part of the work has been the identification of a suitable type of protected area.

Table 5.8.2. Protected Area Management Objectives and IUCN Categories (Stage 5.1)

Management objective	Ia	Ib	II	III	IV	V	VI	Study Area
Science	3	1	2	2	2	2	1	1
Wilderness	2	3	2	1	1	0	2	3
Biodiversity protection	3	2	3	3	3	2	3	3
Environmental services	2	3	3	0	3	2	3	1
Natural/cultural features	0	0	2	3	1	3	1	1
Tourism and recreation	0	2	3	3	1	3	1	0
Education	0	0	2	2	2	2	1	0
Sustainable use	0	1	1	0	2	2	1	2
Cultural attributes	0	0	0	0	0	3	2	0

For each comparison we have calculated the difference between the objectives. The calculation shows that categories Ia and Ib are most suitable for the study area. According to the national legislation it should be a "Zapovednik" (strict nature reserve) or complex (landscape) "zakaznik" respectively. Both categories stipulate a different zonation.



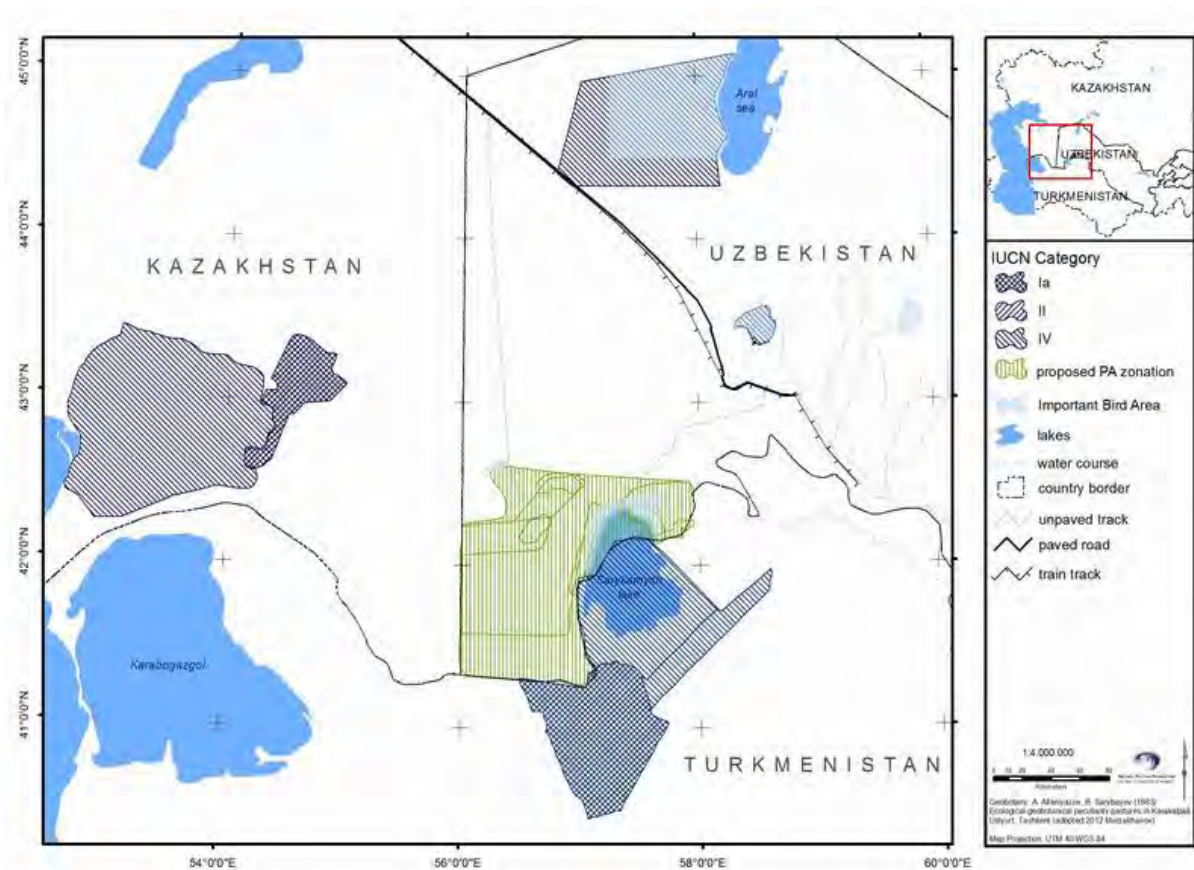


Figure 5.8.1. Existing and Proposed Protected Areas around the Study Area (Stage 7)

## Discussion

As next steps it is necessary to update the map according to latest available data and discuss the draft with stakeholders. It is also important to involve stakeholders from Kazakhstan and Turkmenistan in the process since transboundary nature conservation efforts have been proven as more and more relevant and are thus considered at international level under the CBD, Central Asian Mammals Initiative (CAMI) under CMS as well as at bilateral level as stressed through the agreement of Uzbekistan and Turkmenistan for closer scientific cooperation among others in the field of environmental and nature conservation. Kungrad forestry and hunting ground could be a basis for the future protected area.

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