



**CONVENTION ON  
MIGRATORY  
SPECIES**

UNEP/CMS/BKD/TW1/Outcomes/Annex 2

Original: English

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TECHNICAL WORKSHOP UNDER THE  
MEMORANDUM OF UNDERSTANDING CONCERNING  
CONSERVATION AND RESTORATION OF THE  
BUKHARA DEER (*Cervus elaphus bactrianus*)

Online, 19-22 October 2020

**OUTCOMES OF THE MEETING**

**ANNEX 2: WORK PROGRAMME FOR THE BUKHARA DEER (2021-2026)**

## WORK PROGRAMME FOR THE BUKHARA DEER (2021-2026)

**Overall goal:** To restore and maintain Bukhara Deer populations at a favourable conservation status throughout their range.

	Measures to be taken	Urgency <sup>1</sup>	Responsibility
<b>Range-wide measures</b>			
<b>1.0</b>	<b>Maintain and restore habitat</b>		
1.1	Examine and evaluate the management of existing nature reserves, nature parks and other types of protected areas of different status with Bukhara Deer populations to identify and address problems and improve management effectiveness and conservation, and to optimize relations with local communities.	1	
1.2	Provide financial and technical support for the management of Bukhara Deer nature reserves.	2	
1.3	Consider establishing additional protected areas as well as ecological networks and corridors between protected areas, which enable deer to migrate and expand their range ( <b>see also 7.1, 7.7, 8.2, 9.1, 9.2,9,6,10.2,10.3,10.4</b> ).	2	
1.4	Improve conditions for Bukhara Deer to move outside of protected areas through integrative land use planning, reforestation and conflict prevention measures to increase acceptance of deer in local communities.	2	
1.5	Consider providing deer in protected areas with winter feeding during harsh weather conditions as well as access to water in order to avoid habitat degradation and overgrazing of the areas.	2	
<b>2.0</b>	<b>Improving the system of prevention of poaching/protection</b>		
2.1	Strengthen anti-poaching measures inside and outside of protected areas, including in transboundary areas through improved cooperation with and between border guards of relevant countries.	1	
2.2	Provide training and capacity-building for rangers and the staff of protected areas.	3	

<sup>1</sup> Urgency: 1 - Urgent (crucial for preventing population extirpation, immediate within 1-2 years). 2 - Important (necessary for stabilization of numbers, medium term within 3-5 years). 3 - Useful (will contribute to population restoration, medium term within 5 years).

	<b>Measures to be taken</b>	<b>Urgency<sup>1</sup></b>	<b>Responsibility</b>
2.3	Provide technical support to improve anti-poaching activities and monitoring, including installation of photo-traps in Bukhara Deer habitat to detect poachers.	1-2	
2.4	Study and prevent the negative impact of feral dogs on Bukhara Deer populations.	3	
2.5	Introduce and implement the SMART technology in the system of patrolling and monitoring in Bukhara Deer protected areas.	3	
<b>3.0</b>	<b>Participation of local communities in conservation activities</b>		
3.1	Develop socio-economic and community-based activities, including ecological education, alternative forms of income generation for local communities and enhance sustainable natural resource use and prevent illegal logging, illegal cattle grazing inside of protected areas, overgrazing and poaching.	2	
3.2	Work with the media (at the regional, state and local level) to raise awareness about the problems of Bukhara Deer conservation and restoration.	3	
3.3	Develop ecotourism in the protected areas with involvement of local communities, using reintroduction sites and captive facilities as well as guided tours.	3	
3.4	Work with local communities to raise awareness on the impact of feral dogs.	1	
3.5	Research on the need for, and elaboration of a compensation scheme for farmers from damage by Bukhara Deer and measures for minimizing damage.	1	
3.6	Consider exploring the feasibility of deer antler farming taking into account technical requirements, types of territories, business plans, legal conditions and in close consultation with and with the participation of local communities.	3	
<b>4.0</b>	<b>Scientific research</b>		
4.1	Conduct scientific studies and population monitoring (including use of camera traps) throughout the species' range within and outside of protected areas. The studies should include the following topics: habitat quality, genetics, diseases, migrations, competition with livestock, causes of mortality, population structure and others.	2	
4.2	Monitor the development of native and reintroduced groups of animals, including the use of camera traps, satellite telemetry and GIS technology.	1	

	<b>Measures to be taken</b>	<b>Urgency<sup>1</sup></b>	<b>Responsibility</b>
4.3	Organize consultations, expeditions, study tours and monitoring among Bukhara Deer experts and practitioners to facilitate information and knowledge exchange.	3	
4.4	Study the impact of predators on the population of Bukhara Deer.	2	
4.5	Study the carrying capacity of sites and develop population models on potential prospects for the development of Bukhara Deer populations.	2	
4.6	Study conflicts between local populations and Bukhara Deer and explore the potential for Bukhara Deer populations occurring on agricultural land.	1	
4.7	Analyse the impact of climate change and land use regime on the populations of the Bukhara Deer.	3	
4.8	Identify and apply a standardized monitoring methodology for Bukhara Deer populations in all Range States.	2	
4.9	Provide training for the staff of protected areas on monitoring methods in cooperation with leading scientific institutions and implement the SMART technology.	2	
<b>5.0</b>	<b>Enhance international cooperation</b>		
5.1	Improve and harmonize legal mechanisms to protect transboundary migrations of Bukhara Deer ( <b>see – 8.2, 9.1</b> ).	2	
5.2	Agree on measures for the exchange of Bukhara Deer between the Range States, including the preparation and approval of relevant international agreements.	1	
5.3	Provide centralized coordination and information exchange among Signatories and all stakeholders.	1	
5.4	Strengthen international cooperation and information exchange, <i>inter alia</i> , by implementing special conservation measures for the following transboundary populations: in the middle Amu Darya in Uzbekistan and Turkmenistan; the upper Amu Darya of Afghanistan and Tajikistan; Afghanistan and Uzbekistan, Zarafshan in Uzbekistan and Tajikistan; Syrdarya in Kazakhstan and Uzbekistan.	1	
5.5	Publish the list of CMS National Focal Points and leading national Bukhara Deer experts for each Signatory/Range State on the CMS website.	1	

	<b>Measures to be taken</b>	<b>Urgency<sup>1</sup></b>	<b>Responsibility</b>
5.6	Organize regular meetings of the Bukhara Deer Range States in line with and in the frame of meetings of the Central Asian Mammals Initiative (CAMI).	3	
5.7	Complete joint surveys and Bukhara Deer census in transboundary areas, between Uzbekistan, Tajikistan, Afghanistan; as well as between Uzbekistan and Turkmenistan.	2	
5.8	Improve legal mechanisms to ensure safe transboundary migrations of Bukhara Deer as well as training and cooperation with border guards and customs.	1	
5.9	Raise funds for conservation programmes and develop comprehensive project proposals, both at country level and for transboundary populations, for submission to appropriate funding schemes and donors.	1	
5.10	Develop and agree on bilateral agreements and transboundary protected areas management plans.	2	
<b>6.0</b>	<b>Captive breeding and reintroduction</b>		
6.1	Conduct an inventory of suitable Bukhara Deer habitat with the view to facilitate the expansion of Bukhara Deer range.	1	
6.2	Further enhance existing reintroduction programmes, especially outside the main Amu Darya River valley to ensure the survival of deer in case of local ecological disasters and population declines ( <b>see 7.3, 7.4, 7.5, 7.6, 8.4, 8.5, 9.3, 9.4, 10.6</b> ).	1	
6.3	Use best practices available and methodological guidelines for planning practical reintroduction activities. <sup>3</sup>	1-3	
6.4	Evaluate the previous experience in the development of reserve groups of the species in isolated areas outside the historical range in ecosystems atypical for the species (in particular, the experience of Tajikistan in mountain-valley territories), and determine the relevance and prospects of resuming work in this direction, taking into consideration associated risks for both deer and for ecosystems in general.	3	
6.5	Undertake a critical assessment of the captive breeding and (re)introduction programmes, evaluate these with respect to the husbandry conditions, the quality of the genetic stock and the purpose of these facilities for tourism or captive breeding.	1	

<sup>3</sup> E.g. "Technical guidelines for restoration and reintroduction of the Bukhara deer in its natural environment"

<https://wwf.ru/en/resources/publications/booklets/technical-guidelines-for-restoration-and-reintroduction-of-the-bukhara-deer-in-its-natural-environment/>

	Measures to be taken	Urgency <sup>1</sup>	Responsibility
<b>Country-specific measures</b>			
<b>7.0</b>	<b>Kazakhstan</b>		
7.1	Develop the protected area system in the riparian forests of Syrdarya in accordance with the officially approved government plans.	1	
7.2	Increase the area of the Ile-Balkhash Reservat by adding additional habitats of the Bukhara Deer to the territories of the existing sanctuaries.	1	
7.3	Implement reforestation programmes in natural habitats (in Ili-Balkhash, Syrdarya).	1	
7.4	Develop and implement a programme for Bukhara Deer reintroduction in the Ily-Balhash Reserve including translocation, adaptation and release of about 200 animals from Karatchingil to Ily-Balhash in five years.	1	
7.5	Consider reintroducing Bukhara Deer in a number of potential sites, which have already been evaluated as suitable habitat, namely in the game management entity "Manul", National Nature Park Altyn-Emel, Ily river, "Kyzyltau" Baijurkum forestry (Syrdarya, Turkestan oblast), Arysksii district of Southern-Kazakhstan oblast.	2	
7.6	Conduct a feasibility study to assess options for reintroduction of Bukhara Deer in the lower Syrdarya (Delta) and the Zhanadarya estuary as well as for safe transboundary migration between Kazakhstan and Uzbekistan.	3	
7.7	Conduct a feasibility study to initiate reintroduction of Bukhara Deer in the upper reaches of the Ili river.	3	
7.8	Elaborate options for creating ecological corridors along Ili river from Kapchagai to the foothills, and along Syrdarya from Turkestan to the Aral - without land enclosures, but with the provision of a favourable regime for occurrence and migration of BD.	2	
7.9	Develop ecotourism in Ily-Balhash, Syrdarya.	3	
<b>8.0</b>	<b>Tajikistan</b>		
8.1	Implement measures to prevent the degradation of Bukhara Deer habitat by building dams to prevent extreme floods, establish fire-prevention measures, facilitate regular water supply of the ecosystem in an optimal mode by building a pumping station and clearing canals, if necessary (Zeravshan, Tigrovaja Balka).	1	
8.2	Establish a system of ecological corridors and buffer zones along the border with Afghanistan.	2	

	<b>Measures to be taken</b>	<b>Urgency<sup>1</sup></b>	<b>Responsibility</b>
8.3	Identify in the Parkhar region and adjacent territories disturbance factors and the level of forage resources competition with livestock, which affect the population growth.	2	
8.4	Undertake an assessment of the captive breeding and reintroduction activities in Romit, including exploring the possibility of creating a new enclosure for breeding the animals, and develop a plan for future Bukhara Deer conservation activities in the area.	1	
8.5	Assess the feasibility of captive breeding, reintroduction and monitoring programmes in Sarikhosor and Dashtijum.	3	
8.6	Develop, coordinate and implement a system of measures to prevent the injury and death of Bukhara Deer on transboundary migrations between Tajikistan and Uzbekistan in the upper Zarafshan river basin.	1	
8.7	Strengthening cooperation with neighbouring states on captive breeding of Bukhara deer (including consideration of the feasibility of creating a transboundary enclosure)	3	
<b>9.0</b>	<b>Turkmenistan</b>		
9.1	Develop a system of ecological corridors and buffer zones (without land allotment, land used for various economic purposes included) in the upper and middle reaches of Amudaria to ensure safe transboundary migration of Bukhara Deer.	1	
9.2	Develop and propose the reorganization of the system of protected areas in the Turkmen part of the Amu Darya basin, taking into account the territory of the Dzharguzer site (4,200 hectares, as a source for the resettlement of deer), the Karakumdyra floodplain between the Dzharguzer and the Kelif lakes, and the Kelif reserve (103,000 hectares), revise its boundaries	2	
9.3	On the Karakumdyra (Kelifsky sanctuary, as well as 30-35 km below the Nichke settlement), conduct a survey of tugai and saxaul associations to organize reproductive sites for deer from Dzharguzer.	2	
9.4	In the Ulyshor, Rakhmankel and Yeraji wetlands, along the Altyn Asyr Main Turkmen Collector, select a site for organizing a reserve for deer introduction.	2-3	
9.5.	Revise the boundaries of the Yeradzhinsky nature reserve (30,000 hectares) and highlight the need to transfer its territory under the responsibility of the Amu Darya state reserve	2-3	

	<b>Measures to be taken</b>	<b>Urgency<sup>1</sup></b>	<b>Responsibility</b>
9.6	Develop, coordinate and implement a system of measures to prevent the injury and death of deer on transboundary migration between Turkmenistan and Uzbekistan in the middle reaches of the Amu Darya River.	2	
9.7	Explore the feasibility of creating an ecological corridor between the Amu Darya (Turkmenistan) and Kyzylkum (Uzbekistan) Zapovedniks, as well as between Nazarkhan (LABR cluster, Uzbekistan) and tugai forests in the lower reaches of the Amu Darya in Turkmenistan to ensure occurrence and safe transboundary migration of Bukhara Deer.	3	
9.8	Restore the riparian forests in natural habitats (lower Amu Darya and other areas).	2	
9.9	Develop ecological tourism in the middle and lower reaches of the Amu Darya River as an alternative for the local population to generate additional income and reduce the pressure on the forest's ecosystems.	2	
<b>10.0</b>	<b>Uzbekistan</b>		
10.1	Implement urgent special measures for resettling a part of the Badai-tugai population to avoid further ecosystem degradation and serious risks of increased mortality.	1	
10.2	Establish a new reserve: Sudochje-Akpetki with an area of 280.507 ha (with the prospect of organizing a transboundary protected area, migration Uzbekistan-Kazakhstan); Increase the territory of Kyzylkum Reserve in the middle reaches of the Amu Darya River through the inclusion of additional sections of tugai forests. Consider organizing protected areas in the Upper Amudarya - an area near Termez, which is home to a native transboundary subpopulation. Strengthen protection in Zarafshan National Nature Park.	2	
10.3	Consider the possibility of expanding the Zeravshan National Park by including the border area with Tajikistan (upper Zarafshan) and riparian massifs on the left bank of the Zeravshan River.	2	
10.4	Elaborate the possibility of creating an ecological corridor between the Amu Darya (Turkmenistan) and Kyzylkum (Uzbekistan) reserves, as well as between Nazarkhan (LADR cluster, Uzbekistan) and tugai lower Amu Darya in Turkmenistan, to ensure occurrence and safe transboundary migration of Bukhara Deer.	2	
10.5	Restore natural habitats (middle course of the Amu Darya, lower Amu Darya and Zarafshan) and develop restoration proposals.	2	
10.6	Reintroduce Bukhara Deer in the Jangibazar and the Urgench of the recently established Khorezm National Natural Park.	3	



	<b>Measures to be taken</b>	<b>Urgency<sup>1</sup></b>	<b>Responsibility</b>
10.7	Develop, coordinate and implement a system of measures to prevent injury and death of deer during transboundary migration between Tajikistan and Uzbekistan in the upper Zarafshan River.	1	
10.8	Analyze the negative impact of industrial enterprises on the largest population of Bukhara Deer in LADR/ Badai-Tugai, and develop, coordinate and implement measures to reduce this negative impact.	2	
10.9	Develop ecotourism in the Lower Amu Darya Biosphere Reserve, Zeravshan.	3	
10.10	Consider the possibility of signing a Memorandum of Understanding between Afghanistan and Uzbekistan in order to conduct joint research on the status of the transboundary population in the Termez area (Maimun tugai).	3	
<b>11.0</b>	<b>Afghanistan</b>		
11.1	Conduct biophysical (habitat modelling, population estimate, etc.) and socio-economic studies, to develop Sustainable Land Management and Integrated Land Management plans, if security permits, for Draqaq protected area.	1	
11.2	Participate in and consider signing the CMS Bukhara Deer MOU.	1	
11.3	In accordance with the Memorandum of Understanding signed in 2020 between Afghanistan and Tajikistan, establish a system of ecological corridors and buffer zones along the border with Tajikistan.	2	