

COMMUNITY BASED CONSERVATION AND MANAGEMENT OF MOUNTAIN UNGULATES IN TAJIKISTAN

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ABSTRACT

Populations of Caprinae in Tajikistan have suffered from unsustainable use and habitat degradation during the Soviet period (until 1991) and from intensive poaching during the years of civil unrest (1992-1997). Nowadays hunting is controlled and restricted by the state, and is completely forbidden for Red Book species as well as in national parks and strict reserves. In the reality the state lacks the means for law enforcement, and poaching together with habitat degradation caused by overgrazing and firewood collection prevent recovery of populations and cause further decline. During the last two decades limited trophy hunting on Marco Polo argali *Ovis ammon polii* in hunting blocks managed by private concessionaires created significant financial means for state budgets and private business. In some areas concessionaires maintain an effective protection system and nowadays highest argali numbers are found in these areas. However a recently issued hunting moratorium challenges the sustainability of private argali management and poaching because of sale of meat and skulls is increasing. No recent reliable numbers are available on argali and estimates range between 1,500 and 15,000 animals. Tajik markhor *Capra falconeri heptneri* and Bukhara urial *Ovis vignei bochariensis* have also been used for international trophy hunting, but without link to any conservation management. Since few years markhor is preserved in two private conservancies, one managed by a former poacher. The scattered groups of few dozens Bukhara urials are lacking effective protection. In the southern Pamirs urial *O. v. vignei* (?) is likely almost extinct. Numbers of ibex *Capra sibirica* remain low after the sharp decline during civil war. In this situation a project for community based management of mountain ungulates has been started in 2008 on the basis of a Tajik Non-governmental organisation (NGO), supported by German Technical Cooperation (GTZ) and Zoological Society for the Conservation of Species and Populations (ZGAP). The project collaborates with hunting concessionaires, managers of private conservancies and supports the development of community initiatives on wildlife management. In March 2009 a local NGO formed by former poachers created the first community based conservancy focussing on protection and sustainable use of ibex. Further similar private and community based initiatives are evolving for management of urial and markhor. The project assists these initiatives in developing management and monitoring systems as well as in fundraising for initial investments. Opportunities for sustainable use of the target species and sharing of revenues for the needs of conservation and local development are to be developed through policy dialogue and improvement of regulatory framework.

Key words: poaching, habitat degradation, trophy hunting, community conservancies, Tajikistan.

RESUMEN

Conservación basada en la comunidad y manejo de ungulados de montaña en Tayikistán

Las poblaciones de caprinos en Tayikistán se han visto afectadas por el uso insostenible y la degradación del hábitat durante la época soviética (hasta 1991) y por una caza furtiva intensa durante los años de guerra civil (1992-1997). Hoy en día la caza está controlada y limitada por el Estado, y está totalmente prohibido cazar las especies incluidas en el Libro Rojo, así como las que están en parques nacionales y reservas. En realidad el Estado carece de medios para hacer cumplir la ley y tanto la caza como la degradación del hábitat causada por el sobrepastoreo y la recolección de leña para combustible, impiden la recuperación de las poblaciones y agravan la degradación del hábitat. Durante las dos últimas décadas, la restricción de la caza del trofeo de argali de Marco Polo *Ovis ammon polii* a los cotos de caza gestionados por concesionarios privados, ha generado importantes ingresos para el presupuesto del estado y para el sector privado. En algunas áreas los gestores mantienen un sistema de protección efectiva, concentrándose en estas zonas las mayores poblaciones de argali. Sin embargo, una moratoria de la caza aprobada recientemente supone un reto para la sostenibilidad de la gestión privada del argali, ya que aumentado la demanda de caza para la venta de carne y cráneos. No hay datos recientes fiables sobre el número de argalis existentes, oscilando las estimaciones entre 1.500 y 15.000. El markhor de Tajik *Capra falconeri heptneri* y el urial de Bukharan, *Ovis vignei bochariensis* también han sido objeto de la caza de trofeo internacional, sin ningún tipo de gestión para su conservación. Desde hace unos años, el markhor se ha conservado en dos reservas privadas, una de las cuales está gestionada por un antiguo cazador furtivo. Los grupos dispersos de pocas docenas de uriales carecen de protección eficaz. En los Pamures del sur es probable que el urial *O. v. vignei* (?) ya se haya extinguido. El número de íbice siberico *Capra siberica* ha permanecido bajo después de la declive acaecido durante la guerra civil. En este contexto, en 2008 se inicio un proyecto comunitario para el manejo de las poblaciones de ungulados de montaña, por parte de una ONG de Tayikistan con el apoyo de la German Technical Cooperation (GTZ) y la Sociedad Zoológica para la Conservación de Especies y Poblaciones (ZGAP). El proyecto colabora con los concesionarios de la caza, los gestores de las fincas privadas y apoya el desarrollo de iniciativas comunitarias sobre la gestión de la fauna silvestre. En marzo de 2009, una ONG local formada por los antiguos cazadores furtivos, estableció la primera reserva comunitaria orientada a la protección y el uso sostenible de los íbices. Hay otras iniciativas parecidas, tanto privadas como comunitarias, para la gestión del urial y del markhor. El proyecto apoya estas iniciativas en la creación de sistemas de manejo y de supervisión, y en la obtención de ingresos para las inversiones iniciales. El diálogo político y la mejora del marco regulador fomentarán las oportunidades para el uso sostenible de la especie seleccionada y la distribución de los beneficios para cubrir las necesidades de conservación y desarrollo local.

Palabras clave: caza furtiva, degradación del hábitat, caza de trofeo, conservación comunitaria, Tajikistan.

INTRODUCTION

Wild mountain ungulates so far have not been in the focus of development cooperation in Central Asia, as they were hardly perceived as valuable resource providing an economic potential for alternative sustainable land use. On the other hand conservation projects so far applied usually “conservation against people” focussing on protected areas, enforcement of laws prohibiting any utilization of rare and endangered species and on public awareness and knowledge raising, hoping this would convince people to refrain from habitat destruction by unsustainable land use and from poaching. In the best case support of alternatively livelihoods was included into projects to divert people from the use of rare wildlife. In the practice these approaches led to an undervaluation of the wildlife as a resource and widely neglected wildlife outside protected areas. Wildlife is without economic value and neither law enforcement nor awareness reached all people, thus poaching and habitat destruction remain rampant.

In this situation the Tajik NGO “Nature Protection Team” started a project “Community based conservation and management of mountain ungulates in Tajikistan” aimed at direct involvement of local people into protection and use of the species for stimulating conservation efforts. The project started in April 2008 and is financially supported by Zoological Society for the Conservation of Species and Populations (ZGAP, Germany), by Centre for International Migration and Development (CIM, Germany) and by the Regional Programme “Sustainable Use of Natural Resources in Central Asia” of German Technical Cooperation (GTZ). The project cooperates closely with the Institute for Zoology and Parasitology and the Pamir Biological Institute of the Academy of Sciences of the Republic of Tajikistan as well as with the state agencies in charge of nature protection.

MOUNTAIN UNGULATES IN TAJIKISTAN - SPECIES AND DISTRIBUTION

Two species in 2-4 subspecies of wild sheep are found in Tajikistan, the argali *Ovis ammon* and the urial *Ovis vignei*.

Pamir argali or Marco Polo sheep *O.a.poli*, locally called “arkhar”, is widely distributed in the highlands of the Eastern Pamirs of Tajikistan and adjacent areas of the Pamirs, Pamiro-Alai and Karakoram in China, Kyrgyzstan, Afghanistan

and Pakistan. The second argali subspecies is Severtzov's or Kyzylkum sheep *O.a.severtzovi* which is nowadays mainly restricted to Uzbekistan's Nuratau Mountains Range, bordering with the Kyzylkum Desert (Harris & Reading 2008). If a small isolated area in the Turkestan Range in Northern Tajikistan's Sughd Region is still inhabited by this rare argali could not be confirmed. Abdusalyamov (1988) shows a distribution point of urial in this area, likely referring to Severtzov's sheep often considered belonging to urial (IUCN/SSC-Caprinae Specialist Group 2000).

The second wild sheep, the urial, locally called "mesh" or "surkhak", inhabits in one subspecies, the Bukhara urial *O.v.bocharensis*, scattered areas in south-west Tajikistan. Another urial distribution range exists in the Wakhan corridor in the Southeast of the country. There in 2008 the project team despite intensive search confirmed only one individual, but across the border in the Afghan Wakhan still a small but sustainable population exists. The urials of this area may belong to the subspecies Ladakh urial *O.v.vignei* (Michel 2009).

Two species of wild goats inhabit Tajikistan's mountains. The Central Asian ibex *Capra sibirica* is widely distributed in all mountain regions of the country. In contrast, the Tajik markhor *Capra falconeri heptneri* is nowadays restricted to a small distribution area in the Hazratishoh and Darvaz Mountain Ranges, but is extinct in other areas of its former range.

Bukhara urial and Tajik markhor have their major population and distribution areas now in Tajikistan. Only small numbers still exist in nearby areas of Afghanistan, Uzbekistan and Turkmenistan. The majority of Marco Polo sheep and the largest habitats of this subspecies belong to Tajikistan if a narrow taxonomic understanding is applied, i.e. if the argalis occurring in Kyrgyzstan north of the Fergana Range are considered as another subspecies, the Tien Shan argali *O.a.karelini* (Koshkarev 2002, Baskin & Daniel 2003).

SITUATION OF MOUNTAIN UNGULATES POPULATIONS DURING SOVIET PERIOD

During the times of the Soviet Union (until 1991) hunting was strictly controlled. Commercial hunting was a state monopoly while sport hunting was possible for the members of state controlled hunting societies, based on a strict permit. The most important characteristic of the Soviet wildlife management

system was the replacement of traditional hunting rules by strict formal state control. At the same time a system of strictly protected areas (zapovedniks) was established, where officially any economic activity was prohibited. In the Tajik SSR in 1988 the first Red Book was published (Abdusalyamov 1988), understood as a list of species under full protection. At the same time first trophy hunting tours on Marco Polo sheep were organized for hunters from western countries.

At the other hand the formally strict protection and regulation even under the Soviet system were not entirely enforced. Violations of the rules for strictly protected areas were rampant, e.g. illegal grazing, fuel wood logging and even hunting took place. Harvest of wild animals by state enterprises was often not sustainable. For instance, hundreds of urials were shot in Southern Tajikistan for meat supply without caring about declining population numbers (pers. comm. local hunters in Hazratishoh Range, 2008). The increase of livestock numbers beyond carrying capacities caused habitat degradation. Some of the management measures implemented in Soviet times nowadays would be considered at least doubtful like the decimation and even extermination of carnivores. Turan tiger *Panthera tigris virgata* went extinct and Persian leopard *Panthera pardus saxicolor* was extirpated in Tajikistan.

RECENT HISTORY AND CURRENT SITUATION

The recent situation of most ungulate populations is still influenced by the impacts of intensive poaching during the years of civil war 1992-1997 and afterwards. The stop of supply with fossil fuel and electricity caused an intensification of fuel wood collection largely affecting ungulate habitats and forage. On the other hand the reduction of livestock numbers and the temporary abandonment of remote pastures improved habitat conditions e.g. for Marco Polo sheep. Nowadays hunting is formally controlled by the state and prohibited for Red Book species (all mountain ungulates except ibex) as well as in national parks and strict reserves. In the reality the lack of financial and personal means make law enforcement difficult and widespread corruption let vanish the respect for law and regulations. On the other hand there are private and community based initiatives oriented towards sustainable use of mountain ungulates.

Limited trophy hunting on Marco Polo sheep in private hunting blocks with an official annual take-off of up to 70 animals has created significant financial means for state budgets (license fee per head approx. 12,000 USD) and private business (USFWS 2008). Nowadays highest argali numbers are found in some concessions due to their effective protection system. But the performance of the concessions is diverse. In 2009 a two years hunting moratorium started, challenging the sustainability of the private argali management. In the result protection of hunting concessions is weakened due to lack of income from hunts and thus poaching for sale of meat and skulls is increasing. In the Pamirs argali and ibex are important sources of meat. Wisely managed, argali and ibex populations could provide an alternative to livestock breeding in marginal areas. While the potential of trophy hunting is obvious there might be as well a potential for a sustainable use of these species for meat.

Tajik markhor and Bukhara urial have also been used for international trophy hunting, but without link to any conservation management. Since few years markhor is preserved in two private conservancies, one even managed by a former poacher. Outside these areas poaching pressure is threatening last remaining groups of markhor and the habitat became fragmented. The remaining scattered groups of few dozens Bukhara urials are lacking effective protection and are intensively poached. In the southern Pamirs the urial (here *O. v. vignei?*) is almost extirpated.

After the sharp decline during civil war the numbers of ibex remain low in most areas. In some valleys of the Western Pamirs ibex is still intensively poached for subsistence, commerce and cultural purposes or sport. The low ibex populations are a limiting factor for snow leopard and are believed to contribute to livestock depredation by snow leopard.

PROJECT APPROACHES

The project's focus is on conservation and sustainable use of the mentioned mountain ungulate species. Central approach is the direct collaboration with the immediate users - traditional hunters, local initiatives, private conservancies and hunting concessionaires. But the project collaborates as well with scientific

institutes and state nature protection and forestry agencies and thus brings together different interest groups. Policy dialogue and improvement of regulatory framework are supported by provision of specific expertise and experience from tests in model areas. A key issue is the support of the assignment of long term rights and responsibilities to defined users for specific areas. Sustainable management of wildlife should be stimulated through direct benefits for conservation and rural development from the consumptive and non-consumptive use of wildlife, as e.g. hunting tourism, subsistence and sport hunting and nature tourism. The project supports the capacity development of local partners for enabling them to manage their hunting grounds and wildlife stocks in a sustainable way. The project is based on a long-term approach, started in 2008, funding is so far secured until 2011, but further continuation is envisaged.

PROJECT ACTIVITIES AND FIRST RESULTS

The project team has conducted field assessments of population status and distribution areas of all four target species. Distribution and status of markhor and Bukhara urial were assessed in their key distribution areas in Tajikistan. Additionally the transboundary urial population was investigated in the Wakhan of Afghanistan. The situation of Marco Polo sheep and its management were assessed in one hunting concession in the Eastern Pamirs. Based on the assessment results and the identified commitment of users and local community members, model areas where project activities are concentrated have been determined.

In the model areas traditional community hunters have been identified and modified and a process of organization development and assignment of hunting user rights was started. Through technical consultation, development of institutional structures and support to the assignment of hunting areas, as well as limited equipment support local user groups are enabled to participate actively in sustainable wildlife management. The project is as well fostering the improvement of management practice in private conservancies and concessions through assessment work and political support of long-term legal use rights. So far management plan development has started in markhor conservancies. The collaboration with one hunting concession managing Marco Polo sheep is considered.

All observations are documented and the development of GIS based data base has been started. The support of the development of a monitoring system on mountain ungulates includes two components completing each other: the development and testing of user based monitoring and the improvement of the approaches applied in user-independent scientific monitoring.

A round table on hunting management was organized to intensify political dialog between different stakeholders. Work on legal and regulatory framework development has been started by conducting a comprehensive analysis of the system in place. In a next step amendments and new legal documents will be discussed and their development and passing will be supported.

First project results are encouraging. Knowledge was gathered about distribution ranges, population status, formal and informal use systems and the threatening factors of mountain ungulates. Three large model areas of 50,000 to 120,000 ha are determined and the collaboration with wildlife users and initiative groups agreed. A team of young Tajik scientists from Tajik National University and Academy of Sciences is established and their capacity is continuously developing.

Most significant result so far is that three local initiatives of informal hunters could be activated for the establishment and management of game management areas for mountain ungulates. The NGO "Parcham" in the Bartang valley has established the first community based conservancy at an area of 47,000 ha covering almost an entire watershed and assigned for five years. This group is already successfully protecting and monitoring the ibex stock on their territory. Numbers are increasing and snow leopard is now regularly registered. First legal harvest may become possible in autumn 2010. The NGO "Yokuti Darshay" in the Wakhan is currently in the stage of registration and area assignment. This community based group plans the reintroduction of the locally exterminated urial. The NGO "Muhofiz" at Hazratishoh Range conducted founding meeting and plans to apply for assignment of territory for management of Bukhara urial and Tajik markhor.

CHALLENGES AND UNSOLVED ISSUES, PERSPECTIVES

Despite the first successes there are several challenges and unsolved issues putting at risk the project's long term impact. The long term assignment of hunting areas to community based and private organizations and definite rights and obligations are required for any stimulation of sustainable protection. This is so far not sufficiently supported by the state nature protection and forestry authorities and related legal frame work is weak. The sustainability of wildlife management will depend on its economical viability. Tax exemptions on land tax are needed for private and community based conservancies. The taxation as pastures imposes too high costs for areas primary managed for conservation purposes and encourages use for domestic livestock grazing which causes forage competition and risk of disease transfer to wildlife. Permit fees are too high for hunting by local people and in some cases even for hunting tourism. Community based organizations should get permits for free or at reduced fee for the use in accordance to confirmed management plans of animals for their own use (subsistence hunting). Adequate benefit sharing systems are not yet established and must provide sufficient means for protection as well as for social economic development of local communities to ensure their support and discourage violations. The number of equitable users must be in accordance to population size and carrying capacity of the managed areas. This is sometimes difficult if too many people in the expectation of individual profit join community based organizations. As long population numbers and/or legal framework not allow the profitable use of animals initial investments might be required as well as possibly some compensation of protection efforts by the user groups.

In the perspective the project will further work on the development of monitoring systems and the conduction of joint surveys in collaboration with state nature protection agencies, scientific institutes and wildlife managers. As far as the responsible state organs are interested and willing to cooperate, the project team would participate in the development of an improved legal and regulatory framework. This includes the development of appropriate benefit sharing systems and possibly the joining of CITES by Tajikistan.

The most efforts will further be made for the support of local initiatives in the development of institutional structures and the establishment of protection and management systems (e.g. management planning). The collaboration with private hunting concessions in the development of sustainable management of areas and populations will be continued and possibly extended to new areas and new partners.

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Income from trophy hunts on old rams of Marco Polo sheep can stimulate conservation. (Photo: Atobek Bekmurodov).

Herd of Marco Polo sheep rams in a hunting concession in the Eastern Pamirs. (Photo: Atobek Bekmurodov).



Project expert and leader of community based group during search for markhor. (Photo: Vladimir Shakula).



Meeting with informal hunters
in Southern Tajikistan.
(Photo: Stefan Michel).



Horns of ibex are deposited
at a holy place in the Wakhan
valley. (Photo: Stefan Michel).



Horns and skins of poached
markhor and urials were
confiscated by project partners
and Tajik border police.
(Photo: Stefan Michel).

Skulls of ibex and Marco Polo sheep, collected in the Eastern Pamirs. (Photo: Atobek Bekmurodov).



Management planning by members of community based organization, assisted by project experts. (Photo: Stefan Michel).

