



## Community-based trophy hunting of Ibex and Markhor in Tajikistan

### Introduction: Species, Use and Trade

Asiatic ibex *Capra sibirica* and Markhor *Capra falconeri* are wild goats of the mountains of Central Asia. Asiatic ibex is listed in Appendix III by Pakistan, and is assessed as Least Concern in the IUCN Red List. Markhor is listed in Appendix I, and is assessed as Near Threatened in the IUCN Red List, downlisted from Endangered in 2008.

International trade in Asiatic ibex (hereafter “ibex”) and Markhor is primarily of hunting trophies. Both species are trophy hunted in a number of countries in Central Asia – this case study focuses on Tajikistan. Trophy hunting of ibex has been conducted since 1989, and some hunting for meat is also allowed.

Since 2008, wildlife management areas that are protected by locally based groups have been established (called “conservancies”), with the support of organizations such as the Association of Nature Conservation Organizations of Tajikistan (ANCOT), the Government of Germany (via GIZ), Panthera, and others. In Tajikistan, ibex typically inhabit high altitude mountain habitats with sparse shrub vegetation, while Markhor prefer the lower mountain belt with abundant shrubs and trees. These species are managed by separate conservancies (apart from one conservancy that has both). The areas where ibex and Markhor are found also differ in some social aspects, and the respective conservancies are managed by different structures and legal entities. Ibex conservancies are established and managed by community-based NGOs composed of traditional hunters, while Markhor conservancies are established and managed by small limited liability companies (LLC) established by local families, generally involving local traditional hunters.

The communities involved in conservation and sustainable hunting are rural communities in remote areas of Tajikistan, isolated from the cities and leading traditional lifestyles largely dependent on natural resources. There is only very basic infrastructure in these areas, and communities are primarily subsistence farmers and pastoralists, with very few means to generate cash income. Community members can establish an institutional structure (NGOs or LLCs), and apply to the government to gain official wildlife management and protection rights and responsibilities for defined areas, thereby establishing a conservancy. The aim of these conservancies is to support sustainable development and sustainable livelihoods of the community in a way that promotes conservation of - rather than damage to - wild species and the broader ecosystem. Where conservancy organisations are well based in their communities and share benefits with the broader local community, communities develop a strong feeling of ownership and responsibility. Trophy hunting is an important form of sustainable use (alongside non-hunting tourism where possible) that generates economic benefits and incentivizes wildlife protection. Sustainable hunting is specifically aimed at increasing the local value of wildlife to counter two key threats – poaching and land degradation via overgrazing. Conservancy organisations collaborate actively with other community members and various stakeholders (local herders’ associations, government, scientific, conservation and business) in conservancy operation and management.

Historically, before the Soviet invasion, all management of wildlife was informally community-based in Tajikistan, and village hunters themselves decided the rules for wildlife conservation and use. The Soviet government introduced top-down wildlife management, ignoring the traditional ecological knowledge and needs of local communities. This undermined community responsibility and led to massive poaching by local people and outsiders (including the military). The community-based approach is a form of re-establishing sound governance in regions where the central government has no practical capacity to enforce wildlife regulations. The communities involved in hunting and wildlife conservation are remote people living largely traditional lives, with tribal bonds still intact. They draw on local traditional knowledge of the habitats and ranging behavior of the ibex and Markhor, successfully blending it with modern systematic knowledge for good management.

Community members are involved in all aspects of carrying out hunting. Community members are rangers, who monitor the populations and carry out anti-poaching activities; providers of homestays; suppliers of food for hunting tourists; drivers; makers of handicrafts to sell to hunters (traditional socks, gloves, musical instruments and other small souvenirs); and performers who present traditional songs, music and dance to hunting tourists.

The employment and empowerment of women in wildlife conservation is increasing, and the number of female rangers is slowly growing. There are currently five female rangers, with two of them actively involved in hunting. Women are also involved in hunting tourism as homestay owners, cooks, handicraft makers and even tourist and hunting guides.

### Livelihood Benefits

There are currently eight of these community-based conservancies operating in Tajikistan, covering approximately 300,000 ha, with six others at various stages of conservancy formation and implementation extending a level of conservation management across another approximately 120,000 ha. These provide highly locally significant income, jobs, infrastructure, and increases in human capital via building skills and capacities.

Each ibex conservancy carries out hunts of 5-10 ibex each year (out of a total population across the conservancies of approximately 2,500 (see Fig 2)). While hunters pay approximately USD 4,500 to 12,000 per hunt, the conservancies gain USD 4,000 of this (the rest is the commission taken by the hunting broker who actually sells the hunt to the client). Of this, USD 1 000 is paid to the government to obtain the permit, and another approximately USD 1,000 goes to meet the costs of running the hunt from external providers (food, transport, accommodation etc.). The net benefit to the conservancy organization is therefore around USD 2,000. Adjusted for purchasing power parity<sup>1</sup>, this equates to approximately USD 4,280. Of this, (approximately) 20% goes to salaries of rangers (12-15 people), 20% to services provided by villagers (food, accommodation), 30% goes to the conservancy to meet conservancy running costs (e.g. staff, office costs, costs of monitoring and anti-poaching, equipment for rangers, etc.), and 30% is invested in social projects to benefit the local community. For example, this year the *Parcham* ibex conservancy organization, in the Ravvmeddara valley, repaired the village school and equipped it with heating and electricity.

Markhor conservancies may have a quota for Markhor of 2-4, depending on their local population. Hunters pay USD 135,000 – USD 190,000 per hunt, generally to a hunting broker. Of this, the conservancy organisation gains USD 115,000 – USD 135,000. USD 42,000 is paid to the government to obtain the permit and other relevant documentation, and another approximately USD 5,000 is expended to meet the costs of running the hunt (food, transport, accommodation etc.). Conservancies

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<sup>1</sup> The purchasing power parity conversion factor for Tajikistan for 2017 of 2.14 is used (<https://data.worldbank.org/indicator/PA.NUS.PPP?view=map>).

therefore generate USD 68,000 – USD 88,000 net benefit per Markhor hunt. Of this, USD 20,000 – USD 30,000 goes to pay rangers, USD 10,000 – USD 25,000 (depending on the conservancy) is invested in community development, and the remaining income is used to meet conservancy running and development costs, including wildlife monitoring and anti-poaching activities.

Sustainable use of ibex and Markhor through community-based trophy hunting provides around 300 jobs in remote areas among poor villages in Tajikistan, where there are very few other jobs. In the regions where wild ibex and Markhor live, the irrigated agriculture that sustains most rural people in Tajikistan is not possible, and people otherwise rely on grazing, marginal agriculture, jobs outside of the rural area, or remittances from relatives in the city. An estimated 20,000 community members benefit indirectly from wildlife management. In a typical ibex conservancy, for example, about 13 rangers are employed by the conservancy, earning TJS 600 (approximately USD 65) per month. The community members operating homestays will earn approximately TJS 3,500-4,500 (approximately USD 500) during each hunt conducted, and drivers will earn approximately USD 80-100 per hunt. Local shop owners providing supplies will earn around TJS 3,000 (approximately USD 320) over the entire hunting season. Each hunter typically leaves USD 800-1,600 in the village in tips and gear purchases such as binoculars, head lamps, knives, and clothes.

Increasing human potential has been a key priority since the beginning of the conservancy movement, for ANCOT and other supporting organisations. Rangers have gained skills through training and capacity building in areas such as wildlife monitoring, wildlife biology, English language, conversation skills, taxidermy, and leading hunts, as well as minor skills such as camping, working with GPS, compass and maps, and using walkie-talkies. Other community members have gained skills in tourism and financial management, accountancy, cooking, and so forth, while school children have gained education about wildlife and conservation from programs run by the conservancy organisations.

Communities have gained infrastructure benefits, with the conservancies building camps and bridges, repairing roads, and providing books and materials to schools. For example, the *Parcham* conservancy is especially proud of achieving the electrification of the remote village Ravmed through co-financing a small hydropower station. The same conservancy has provided the funding (approximately USD 750) to establish a local microfinance scheme. Other support that conservancies provide to their communities includes the provision of flour & coal for vulnerable families, and helping sick and old people.

More broadly, communities involved in wildlife management have gained a sense of community pride, and previously-illegal hunters have gained a recognised and respected role in conserving wildlife while exercising traditional skills.

Wild goats are not only economically but culturally essential for these communities. Wild ungulates are considered the “animals of the angels”: where these populations have been successfully recovered, people are consider themselves fortunate and honoured in comparison to other communities that have not been able to conserve their wild goats. People see wildlife as a form of safety net, and feel proud to preserve their wildlife for future generations.

If local people did not have the opportunity to participate in trophy hunting and trade of these CITES-listed species, the livelihood impacts would be severe at local level in Tajikistan. There are currently no other replacements for wildlife trade – if this was stopped, local people would return to reliance on farming. This would exacerbate the overgrazing that is currently a key conservation problem in these areas, and some would turn to poaching and illegal wildlife trade. A small amount of tourism is taking place in some conservancies, and these could potentially be developed through targeted and supportive financing, although Tajikistan is not an high-value tourism destination in most markets and this poses a significant challenge. Outside of the conservancies tourism does not play any significant role towards conservation, but is managed purely as a business with no investment into nature conservation. The key stakeholders responsible for decline of species, such as farmers and traditional

hunters, rarely gain any benefits from tourism, so tourism has to date played no role in stopping and reversing species and habitat decline. Even in the conservancies, tourism provides only minor contributions, at best supporting the local household income but providing no substantial funding for the conservancy operations.

### Conservation Impacts

The conservation impacts of community-based management and associated trophy hunting have been positive for populations of the hunted species of ibex and Markhor, and also for their key predator snow leopard.

Community-based management in Tajikistan has engaged communities in wildlife conservation, provided income and jobs that lead people to value wild species and landscapes, and increased community awareness of wildlife. It has led to lower livestock densities, adoption of more sustainable grazing practices, pro-active community involvement in monitoring and anti-poaching, and more effective law enforcement in conservancy areas. This is because the income, jobs and other benefits from hunting motivate and enable people to manage their grazing better to avoid or reduce grazing in areas that wild goats use, reduce incentives to poach, and motivate anti-poaching patrols and wildlife monitoring.

**Today, based on known extent of surveys, newly established conservancy areas, and recent field work, an estimated 2,500 ibex and 2,000 Markhor, as well as 600 argali sheep, 150 urial sheep and 70 snow leopards are protected within community conservancies relying on trophy hunting for their income. This represents around 15% of the national ibex population and 80-90% of the current Markhor population.**

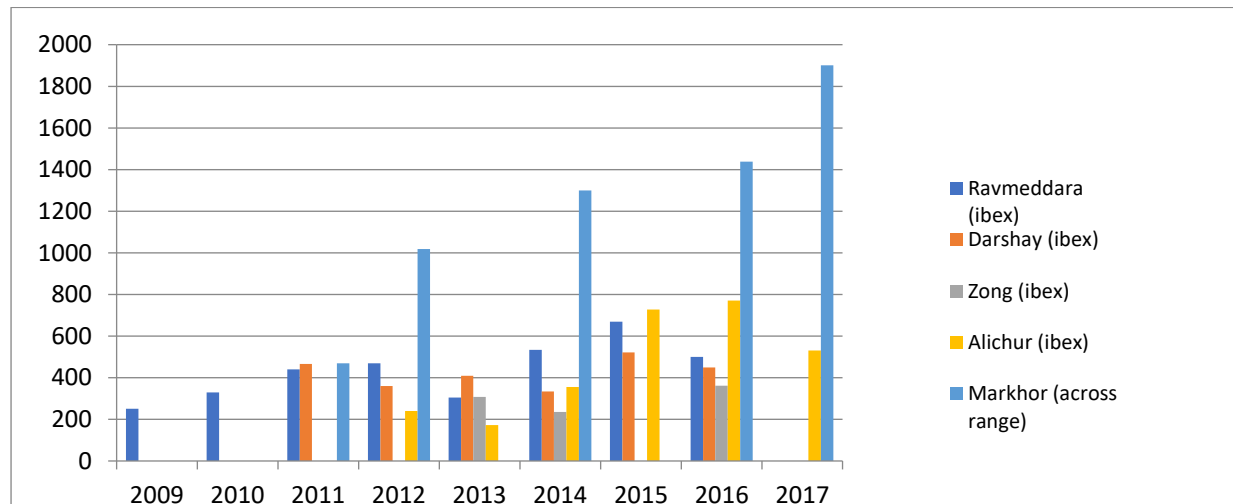
**Ibex:** Across Tajikistan, ibex populations today are healthy only in certain very remote areas and in some well managed hunting areas (community or private). While the national population is unknown, fragmented surveys indicate a total population of approximately 18,000. Over 50% of ibex habitat is not protected (neither in state strict protected areas nor in private/community hunting areas), and in general populations in these areas are either already extinct, decreasing, or with unclear status due to low numbers. Even in strict protected areas, ibex are subject to high levels of poaching for meat, livestock grazing, and degradation and fragmentation of habitat, and populations remain far below carrying capacity. For example, the Tajik National Park (covering around 30% of the ibex habitat) is very poorly protected due to the limited funding available for rangers, and there are no incentives for local communities to protect ibex: rates of poaching and livestock grazing are therefore high.

However, ibex have increased (sometimes dramatically) or remained roughly steady in all conservancies (see Fig 1). For example, in *Parcham* conservancy in Ravmeddara area, the ibex population in 2009 was 251, while the most recent survey in Dec 2018 counted 524 (see Fig 2).

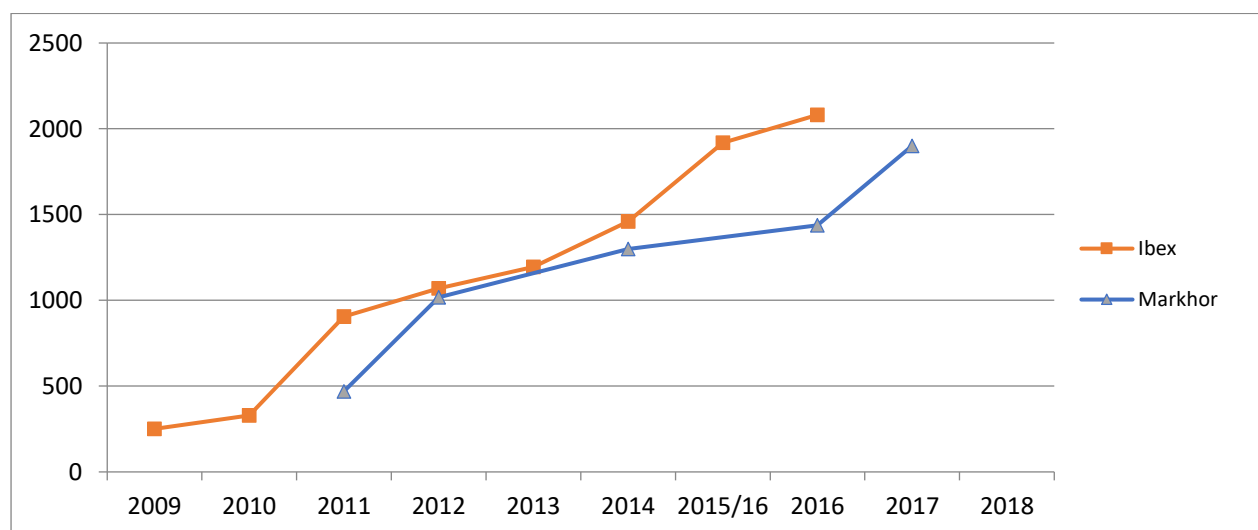
**Markhor:** In 1997 there were an estimated fewer than 350 animals in Tajikistan, an unknown but certainly substantial drop from historic levels. While the Dashtijum Strict Protected Area and Dashtijum Reserve were established in the early 1970s to protect Markhor, these are subject to widespread fuelwood cutting, unregulated grazing, and poaching. Enforcement is weak due to inadequate funding.

Since the establishment of the first locally-run conservancies around the Dashtijum Strict PA and Reserve and their wider surroundings in 2005, protection of animals has significantly improved, and the population of Markhor has rapidly recovered. In 2012, the surveyed number was over 1000 animals, with approximately 80% in conservancy areas. These conservation efforts were motivated by discussions and brainstorming at village level about the idea of trophy hunting once populations had recovered - village people saw the incentives and sense for their livelihoods behind conservation. In 2014, the Markhor population had grown to 1,400 animals. In this year the government of Tajikistan

issued the first permits to conduct trophy hunting – 3 permits were issued and the hunting packages for these were immediately sold, each for USD 80,000. Benefits were gained by the village conservancy organizations, and the motivation for conservation increased. In 2015 six old-age Markhor (over 8 years) were legally hunted, and the price for each hunt was at least USD 100,000. More conservancies were established and more areas were covered by rangers. In 2017 the Markhor survey was led by experts on behalf of the IUCN Caprinae Specialist Group, and recorded 1901 animals, 85% of which were in conservancy areas. Currently, the annual quota for Markhor trophy hunting is 15 animals.



**Fig 1. Populations of ibex in four conservancies in Tajikistan, and Markhor across its range (some state protected areas are not comprehensively surveyed). Conservancies were initiated in 2008. Absence of values indicates lack of surveys, not zero values. Data are from surveys carried out by conservancies, with funding and support from a range of international organisations and development agencies, and with involvement of international experts, including for some the IUCN Caprinae Specialist Group. Data held by ANCOT.**



**Fig 2. Ibex, Markhor and argali populations conserved in community-managed conservancies in Tajikistan. Note these increases reflect both the expansion of conservancies to new areas and**

**populations, as well as increases within most conservancy areas; see Fig 1. Data from surveys carried out by conservancies, with funding and support from a range of international organisations and development agencies, and with involvement of international experts, including for some the IUCN Caprinae Specialist Group. Data held by ANCOT.**

Harvest quotas are set in line with conservation priorities to minimize impact on population numbers, demographic structure, and genetics. Quotas are area-specific and based on the status of the local population, set at a maximum of 1-2% for ibex, and 1% for Markhor, of the entire population in the conservancy.

Overall, therefore, hunting and trade in trophies of CITES-listed species here has led to recovery of the population, habitat conservation benefits, reduced poaching and illegal trade, and it has motivated and funded the collection of much better data on population dynamics.

### Lessons Learnt for CITES Implementation: Challenges, Successes and Failures

Failures or weaknesses of the program to date include inadequate investment into building partnerships with government, inadequate investment into human resources, and lack of specific and transparent mechanisms at local level to make decisions on the spending of funds generated by hunting. Building robust, equitable and transparent benefit allocation mechanisms at local level is a critical challenge for the future, and assisting communities with little experience with cash income to make sound investments for their future.

Key challenges faced by community-based wildlife management and trade in this case include serious weaknesses in governance in Tajikistan. This can make it challenging for conservancies to operate with certainty around allocation of permits and clarity on financial flows.

A key challenge faced by the community-based conservancies is direct or indirect competition with much more powerful private hunting interests, who have traditionally controlled vast hunting areas in Tajikistan and who are not necessarily supportive of the emergence of more inclusive and locally-owned wildlife management efforts. Serious concerns have emerged in recent years regarding the conduct of certain Markhor hunts in particular (outside of the community conservancy system).

CITES regulation is, or could be, a powerful way to leverage greater international oversight of trophy hunting to ensure sound sustainable management processes are followed, for instance in the setting of quotas, allocation of permits to specific concessions, and to ensure that trophies traded are hunted in line with permit conditions. In practice, however, Appendix III (for ibex) is not well implemented, and there is little international support for the conservation measures that national CITES authorities are seeking to uphold. More international pressure from trophy import states to require population surveys carried out by independent and internationally recognized experts is a critical need to help support community conservancies.

The success of this conservancy approach in generating conservation and livelihood outcomes is founded on the active and committed engagement of local people in conservation with the support of international experts in sustainable nature resource management. The incentives generated by hunting to motivate this involvement are crucial – these are people living subsistence lifestyles, who would not be able to spend time and energy pursuing conservation without livelihood benefits. Relative transparency (within the difficult governance environment of Tajikistan) has been critical for success. Finally, partnerships have been crucial: both the building of partnerships between conservancies and supportive NGOs, experts and donors, as well as the building of partnerships among conservancies to form a national Association to represent their interests and give them collective bargaining power in the hunting industry.

## Key References

Broghammer T, Herche C & Lovari S (2017) *Survey of Markhor in Tajikistan 2017: Results and management recommendations*. IUCN Caprinae Specialist Group, Gland, Switzerland. Available at <http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=33640&no=55> [4 June 2019]

Michel S & Karimov K (2017) Recovery Of Mountain Ungulates In Tajikistan Through Community-Based Hunting Management *Caprinae*. August 2017 Available at [http://iucncaprinaesg.weebly.com/uploads/1/1/3/6/113635717/caprinae\\_news\\_august\\_2017.pdf](http://iucncaprinaesg.weebly.com/uploads/1/1/3/6/113635717/caprinae_news_august_2017.pdf) [4 June 2019]

Michel S & Rosen T (2016) Chapter 16.3 Hunting of Prey Species: A Review of Lessons, Successes, and Pitfalls – Experiences from Kyrgyzstan and Tajikistan. In P Nyhus, T McCarthy and D Mallon (eds.), *Snow Leopards*. Elsevier, Cambridge, Massachusetts.

Michel S & Rosen Michel T (2015) *Capra falconeri* (errata version published in 2016). The IUCN Red List of Threatened Species 2015: e.T3787A97218336. <http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T3787A82028427.en>. [04 June 2019].

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