**Pakistan's Community-based Trophy Hunting Programs and Their Relationship to Snow Leopard Conservation**

**Prepared by:**
Rodney Jackson
Snow Leopard Conservancy
18030 Comstock Ave, Sonoma, CA 95476
Email: rodjackson@mountain.org

**For consideration by**

***The Snow Leopard Network (SLN) Committee on Position Statements***

**Final**
**August 30, 2004**

---

*Note*: Due to the many acronyms in this memorandum, a glossary is provided on page 8.

**Introduction:** In June-July 2004, the Snow Leopard Conservancy (SLC) recently conducted field visits to three important snow leopard sites in Pakistan's Northern Areas: Hushey and Skoyo villages in Baltistan and the Khunjerab Village Organization (KVO) in Gojal. The purpose was to launch environmentally appropriate small-scale, village-based conservation and depredation alleviation initiatives aimed at protecting snow leopards, prey species, their habitats and associated mountain biodiversity, while benefiting humans at the same time.

The World Conservation Union – IUCN (Pakistan) and WWF-Pakistan have devoted special effort to ensuring that local communities have strong economic incentives to protect wildlife and the associated biodiversity. For example, all seven KVO villages within the buffer zone of Khunjerab National Park (KNP) receive 80% of annual park entrance fees and jointly participate in trophy hunting programs, while Hushey, the Skoyo-Karabathang-Basingo (SKB) area and the Shahi Khyber Imamabad Welfare Organization (SKIWO) communities also participate in trophy hunting programs along with receiving other tangible benefits from IUCN-Pakistan under its Mountain Areas Conservancy Project (MACP).

According to local residents, populations of Asiatic or Himalayan ibex *(Capra sibirica)* and flare-horned markhor *(Capra falconeri falconeri)* have increased notably due to a significant reduction in poaching, much to the benefit of snow leopard whose number has also grown. However, in several areas, most notably Hushey, there appears to be a concommittent rise in incidents of snow leopards attacking domestic stock.

Trophy hunting for ibex and markhor in the Northern Areas is highly valued by local communities and acts as a major economic and conservation incentive. Thus snow leopard conservation initiatives must be designed and implemented with an understanding of how local communities perceive the cats in light of their Community-based Trophy Hunting Programs (CTHPs). The objectives of this memorandum are to:

1) Highlight the pressing need for CTHP sponsors and managers to address the increasingly widespread perception among local communities that snow leopards are detrimental because they prey upon trophy animals (as well as domestic livestock);

2) Encourage the Snow Leopard Network (SLN) and its partners to work closely with IUCN-Pakistan and concerned Pakistani government agencies to ensure that local communities act on the premise that income from trophy hunting should support all wildlife and biodiversity, and not just ibex or markhor conservation;
3) Recommend that the SLN develop a Policy Statement for addressing important questions relating to trophy hunting of snow leopard prey species, including a response to the proposition that snow leopard should be included in the list of hunted species;
4) Recommend that Pakistan acts immediately to adopt the National Snow Leopard Strategy developed by WWF-Pakistan in its present or amended form; and
5) Encourage the sharing, through the SLN, of information on depredation alleviation measures among concerned government agencies, conservation organizations and individuals.

**Community-based Trophy Hunting Programs (CTHPs) in Pakistan:** CTHPs were developed by IUCN between 1995 and 1999 under the UNDP-funded Pre-Investment Feasibility project for - Maintaining Biodiversity in Pakistan with Rural Community Development (PRIF). A major objective of PRIF entailed the promotion of sustainable use of wild resources by encouraging conservation of wild species and contributing to local community development. A CTHP involving two species of *Caprinae* (wild goat and sheep), markhor and Asiatic ibex, was developed to provide an economic incentive for communities to conserve biological diversity, including habitat for wildlife. Programs have been implemented in each of the areas we visited: the Hushey Community Conservation Area (CCA) in eastern Baltistan, the SKB trophy hunting area along the Indus River in western Baltistan, the SKIWO area of Gojal, and the nearby KVO CCA to be opened for blue sheep *(Pseudois nayaur)* hunting. In addition, WWF-Pakistan established an ibex trophy hunting program in Bar Valley in Nagyr, Hunza.

As a result of the perceived success of PRIF, there is now a full-scale project known as the *Mountain Areas Conservancy Project* (MACP) that is funded primarily by the Global Environment Facility (GEF) through UNDP. This 10.3 million dollar project covers two conservancies in the Northern Areas (Gojal and Nanga Parbat) and another two in the Chitral District of North-west Frontier Province (Tirich Mir and Qashqar), for a total of 16,300 km², mostly within snow leopard range. Project partners include the regional forest or wildlife departments, along with NGOs like the Aga Khan Rural Support Programme (AKRSP), WWF-Pakistan and the Himalayan Wildlife Foundation. For detailed information, see the progress reports posted on the project's website: http://www.macp-pk.org. Key project outputs are to:

- Strengthen capacity to conserve biodiversity at the community level;
- Impart conservation values, promote information sharing, and develop a knowledge base on biodiversity, particularly related to sustainable use;
- Monitor project activities on biodiversity and socio-economic effects;
- Assist communities to attract outside support for long-term eco-development;
- Promote policy and legislation to better support participatory conservation; and
- Establish and operationalize endowment funds for sustaining conservation and the sustainable use of biodiversity.

Licenses are sold to both foreign and domestic hunters, with revenue from hunting fees returning to the communities where the trophy animals were shot. Foreign hunters pay US $3,000 for Himalayan ibex and $25,000 for markhor. Domestic hunters pay Rs. 25,000 (about $450) for ibex, but are not permitted to hunt markhor. The National Council for Conservation of Wildlife (NCCW) allocates quotas for CITES listed species like markhor in accordance with *CoP 10* that specifies a maximum of 6 animals annually, divided among all provinces containing markhor, and based on information provided in their respective conservation plans. Until 2000, the fees were divided with 25% going to the government as a license fee, and the remaining 75% to the Village Conservation Committee (VCC) in which the hunt took place, as a trophy fee. In 2000, this ratio was changed to 20/80 to conform with *CoP 11* (Appendix 2) stipulations

(Shackleton 2001). Trophy hunts can be booked through a special website: http://www.Trophyhunting-Pk.Info/index1.htm.

Based on field studies by George B. Schaller, there are probably two subspecies of markhor in Pakistan: the flare-horned markhor *(C. f. falconeri),*which combines the Kashmir and Astor forms that occur in Chitral and the Northern Areas, and the straight-horned markhor *(C. f. megaceros)* combining the Kabul and Suleiman forms, for a total population of less than 2,500-3,000 animals (Shackleton 1997).

To qualify for participation in the program, each CTHP must prepare a Conservation Management Plan that at least addresses the specific concerns necessary for conservation of the hunted species. However, as noted by Shackleton (2001:20), the plan should cover other issues related to biodiversity conservation such as fuelwood collection and agroforestry management, alternative energy sources, grazing, irrigation and fodder production, reduction in livestock numbers, and livestock predation prevention measures.

Participating communities are expected to conduct regular 'watch and ward' patrols to ensure that target species are not being illegally hunted or poached, and undertake specific measures to enhance habitat so that target populations can be increased, especially with regard to the proportion of trophy-sized males. The government may elect one or more individuals to fill the role of Honorary Wildlife Officer responsible for working with the local people to reduce poaching, conserve or monitor the resident markhor and ibex population. Local Village Wildlife Guides (VWGs) are recruited and paid from the special Village Conservation Fund (VCF) established and operated by the authorized village organization or Village Conservation Committee. IUCN provides technical support and seed money for establishing the VCF, with the accruing interest being used to pay for the conservation costs like monitoring of wildlife by the VWGs, raising of tree nurseries, enhancing fodder and fuel wood production, or other actions for improving the habitat.

**The Example of Skoyo:** While most CTHPs appear to be functioning reasonably well, the SKB area is a notable exception with reports of continued poaching and reluctance to coexist with snow leopards (Shackleton 2001; our observations). In the eyes of Skoyo villagers, markhor are worth considerably more than snow leopard, which are judged a bothersome depredator. During meetings they claimed two motives for wanting snow leopards killed or the population at least reduced in number. First, to protect wild ungulates such as ibex or markhor, and secondly, to protect domestic stock from depredation. Shafqat Hussain (2003), the originator of an apparently successful program called Project Snow Leopard (PSL) to address livestock depredation by snow leopard confirmed such feelings from this and other markhor CTHPs.

SLC was repeatedly requested by villagers to provide compensation for markhor predation by snow leopard during a snow leopard survey methods training workshop organized jointly by Project Snow Leopard and SLC. Similar requests were made last year (Mock and O'Neil 2003), with villagers complaining that snow leopard killed not only small or weak markhor, but also trophy-sized males.

As noted, Skoyo villagers are already being compensated for approved livestock depredation losses due to snow leopard under PSL, an innovative livestock insurance program started in 1999 (Hussain 2000). PSL involves a partnership with local livestock owners who contribute to a fund by paying an annual premium based on the number of sheep and goats they own (Fund 1), with additional revenue accruing from the profit of trekking expeditions operated by a local agency (Fund 2). The scheme is structured such that villagers monitor each other with specific incentives to encourage compliance and avoid cheating. Compensation payments are intended to discourage herders from engaging in the formerly widespread practice of retaliatory killing of snow leopards. Informal interviews indicate that Skoyo villagers are proud of their program – the only one in the region – and the compensation that it brings to them for depredation losses from snow leopard.

The SKB trophy-hunting area offers opportunities for hunting ibex and flare-horned markhor, with the latter being the most sought after and valued species, and readily accessible to hunters not wishing to undertake a difficult trek. As part of an agreement with IUCN, livestock grazing has been reduced in key markhor habitat. Joint winter surveys are undertaken to set upper harvest quotas for the following year, based on male age, composition and number. It has been recommended that a viable population of 200 individual markhor should be maintained in SKB.

According to the markhor conservation plan for the SKB area (Anon. 1999), surveys between 1995 and 1999 indicated a population of 130-150 markhor, with six trophy-sized males being spotted in May 1999. Through the guidelines developed by IUCN, a quota of one trophy markhor has been set, based on two consecutive winter surveys yielding a population of at least 50 markhor with a minimum of four trophy-sized animals. According to the guidelines, if this level cannot be met, the following year's quota should be set at zero. In the future, if 150 markhor (including eight trophy males) were to be seen during two consecutive surveys, the quota could be increased to two animals. Surveys in 1999, 2000 and 2001 indicated a total of 71, 45 and 71 animals respectively. These figures seem to conflict with website claims that the number of markhor in SKB have increased from 42 in 1995 to 150 animals in 2001 (a 3.5 fold population rise in just over seven years).

To date, three successful trophy hunts have taken place in the SKB Community Conservation Area, all during the past 3-4 years. Each hunt is scheduled for winter, when markhor descend to the Indus River's southern bank, so that the hunter can drive along the Skardu-Gilgit road and then shoot across the river to his intended target on the opposite bank. Foreign hunters have participated in two hunts, while the third markhor was apparently taken by a government official, reportedly as *quid pro quo* for the construction of a jeep bridge across the Indus River linking Skoyo village with the Skardu-Gilgit road.

Trophy hunting fees have generated considerable income for SKB under the current 80% (community) and 20% (government) allocation system. Thus, each Skoyo family has earned up to Rs. 9,000 from each hunt, totaling US $4,034, with the remaining sum of $2,466 being deposited in the VCF, including 10% into its Snow Leopard Conservation Fund. A similar process applies in other villages within the CCA, regardless of the number of households, so that actual household payments have been considerably less in other settlements. For example, Basingo that has 129 households compared to Skoyo's 26 households. This has lead to inequities and internal management problems that could be resolved, at least partly, by ensuring the CTHP is perceived as equally beneficial to all communities within the CCA.

**CTHPs and Snow Leopard Conservation:** A review in 2001 by wild goat and sheep expert David Shackleton of the IUCN/SSC Caprinae Specialist Group concluded that CTHPs were "not yet" working in Pakistan, but that IUCN is "cautiously optimistic about the impact of the CTHP on markhor and ibex conservation" because poaching has been reduced, livestock numbers have declined, and communities are increasingly receptive towards biodiversity conservation (Shackleton 2001:44). Because ibex and markhor, and now blue sheep (with the first hunt of this species to be auctioned in 2004) are the main prey of snow leopards, any CTHP must inevitably impact the local snow leopard population.

Shackleton's report made a most pertinent observation, "successful *Caprinae* conservation leads to increased numbers of prey populations. It can also result in increases in snow leopard numbers, and hence more livestock depredation." The review recommended that "anti-predator techniques and information should be made part of all conservation programs" in order to address legitimate concerns of villagers (Shackleton 2001:43).

SLC found evidence that this dynamic may indeed be occurring in Hushey, with a resulting increase in village resentment toward snow leopard. In Skoyo, as noted, concerns over snow leopard predation on

markhor have become paramount. As a result of the high economic value placed on Caprinae by CTHPS, snow leopards are now perceived as threats not only to village livestock, but more importantly, as a threat to the economic benefit of the village. Additionally, the high value yielded by markhor CTHPs has lead almost inevitably to the idea that snow leopard would yield even greater value. As one high official in the Northern Areas administration asked, "What about a snow leopard trophy hunting program?" Thus, snow leopard conservation and trophy hunting have apparently now become linked, at least psychologically in the minds of the villagers, and on a political and economic basis in the eyes of government planners. Clearly, we should be concerned over unanticipated consequences of CTHPs that foster resentment or prompt desire for even greater income and thus negatively impact snow leopard survival.

The question of trophy hunting of snow leopards was raised by Shackleton (2001:42) who wrote, "A reasoned argument has been made for a quota of one snow leopard per year for the whole of Pakistan. This hunt would be auctioned internationally, and the proceeds placed in a fund administered by GoP (NCCW) [Government of Pakistan] in conjunction with provincial governments and possibly NGO representatives. The fund would be used to provide aid to communities in which predation is significant and has been demonstrated to occur." Trophy hunting fees as high as $150,000 have been suggested.

If seriously proposed, an exemption on the part of CITES would have to be obtained for snow leopards, which are listed on Appendix 1. Also if a snow leopard hunt were to be offered, Pakistan would very likely be subject to an international outcry. O'Gara (1988) suggested sports hunting of snow leopard in Mongolia, but officials subsequently withdrew such a proposal following widespread objections from the international community, especially conservation organizations.

As Shackleton observed in his review for IUCN, "allowing even one hunt for snow leopard would be strongly rejected by some members of the international conservation community, despite the fact that illegal killing of snow leopards will continue." Instead, he recommended taking actions to demonstrate that CTHPs can operate smoothly and successfully, and suggested that IUCN-Pakistan and WWF-Pakistan approach the IUCN/SSC Cat Specialist Group and the International Snow Leopard Trust (ISLT) to discuss practical approaches to reducing snow leopard predation.

**Suggested Actions:** This unnatural dichotomy between predator and prey, and the imbalanced economic rationalization for trophy hunting merits the immediate attention of project sponsors, government officials and the conservation community.

Following wide-ranging snow leopard status surveys in Baltistan, Hussain (2003:32) concluded that species-focused conservation policies, particularly those targeting ungulates for the promotion of trophy hunting, constitutes an additional threat to snow leopard conservation in Pakistan --- if villagers were to justify retaliatory killing on the grounds of both livestock and markhor depredation. There is an urgent need to re-orient CTHPs and their attendant communities away from a *single species* conservation viewpoint to a more holistic approach encompassing *multiple species and ecosystem* management imbedded within an incentive package to benefit <u>all biodiversity</u> – and not just the species bringing the immediate economic gain. Local herders should be reminded that predation is "part of life," as snow leopards have co-existed with people since the beginning of livestock domestication dating back at least 9,000 years (Nowell and Jackson 1996). Rather, in large measure, the loss of livestock reflects the failure of a livestock owner to adequately protect his animals from wild predators by robustly watching over them during the daytime, or housing them in a secure and predator-proof pen at night.

Snow leopard predation on wildlife is, of course, a part of the natural order and the growing perception that predation be stopped to preserve village income may best be countered through an ecosystem approach to CTHPs. The substantial economic benefit that accrues from villagers laudable efforts at

Caprinae conservation would be more usefully viewed as reward for ecosystem conservation that ensures a sufficient wild prey base to sustain the endangered top predator species.

The IUCN/SSC Caprinae Specialist Group posted a Position Statement on trophy hunting on its website (www.callisto.si.usherb.ca:8080/caprinae/thunt.htm) that highlighted the importance of science-based harvest planning, advising against hunting for purely economic reasons, or encouraging "predator control with the sole goal of increasing the availability of trophy males."

Toward this goal, IUCN should convene meetings to review and revise CTHPs to ensure that all communities understand that trophy hunting fees also serve as "economic compensation" for depredation losses which cannot be avoided through greater vigilance or better guarding practices. Such funds should be used, at least in part, to predator-proof each village's night-time enclosures and thereby preclude continued multiple loss resulting from nighttime predation of sheep and goats. Depredation alleviation measures and information must become part and parcel of MACP, and indeed all ongoing and future conservation programs in Pakistan. Local people need to be better educated on the ecological role and importance of large predators, including such functions as removing less fit and/or surplus individuals from the prey population.

Greater effort is needed to ensure that the funds accruing from trophy hunting fees are in fact used for actions targeting biodiversity maintenance or enrichment. Conservation plans for each CTHP should be updated and receive peer review, while sound monitoring programs using standardized survey techniques should be implemented without any further delay, as recommended by Shackleton (2001, pages 46-47).

A good argument can be made for training Village Wildlife Guards in snow leopard survey and monitoring, as was initiated by SLC this summer in Skoyo and KVO. Snow leopard sign counts complement ongoing ungulate counts. However, the capacity of VWGs to mount a credible ibex, markhor or blue sheep census hinges upon them getting more rigorous training and oversight from a qualified biologist. The MACP project should therefore significantly increase its funding to communities for strengthening annual ungulate counts and also to support basic mapping and characterization of wildlife habitat. More precise population monitoring may better enable local communities to resist outside pressure to turn a blind eye to unauthorized hunting by some local officials.

Several communities in the Northern Areas are beginning to reverse the age-old practice of killing every snow leopard caught within a livestock pen, or setting traps after a cat has killed many sheep and goats. This far-sighted action was demonstrated first in 1998 by KVO resident Ulfat Karim and featured in a CNN world-wide broadcast. In 2003, and again earlier this year, communities in Baltistan released snow leopards back into the wild after they killed livestock and were trapped in the pens. In June, Hushey village was awarded the Disney Wildlife Conservation Fund's 2004 Conservation Hero Award for Asia for releasing unharmed a snow leopard implicated in depredation, despite the village suffering from repeated loss of sheep, goats or crossbreeds recently (www.SnowLeopardConservancy.org/hushnotes.htm) Every effort should be made to encourage other communities to take similar action, while improving their guarding and livestock husbandry practices.

In collaboration with WWF-Pakistan, ISLT has initiated projects aimed at addressing livestock depredation by snow leopard in Chitral, while this year SLC launched community-based depredation alleviation initiatives in Baltistan and Gojal in the Northern Areas. Among the measures being implemented are the promotion of handicrafts, provision of veterinary care, improved animal husbandry practices, and predator-proofing of nighttime livestock pens. Villagers in Gojal and Skoyo have also been trained in snow leopard survey and monitoring techniques, along with the use of remote cameras in an effort to more accurately document population size. Such measures should be expanded across the snow leopard's range in Pakistan.

Finally, it is recommended that the SLN consider developing a policy to address snow leopard conservation-related questions pertaining to trophy hunting, from the perspective of both prey species and the predator itself. These will not only help guide Pakistan's CTHPs toward greater sustainability and ecological relevance, but also serve as a basis for the development and evolution of programs in other countries such as Tajikistan.

---

**References Cited**:


Anon. 1999. Markhor Conservation Plan (for SKB and BK Conservation Areas, Skardu). Unpublished report prepared by IUCN-Pakistan with Markhor Conservation Committee, 22 pages.

Hussain, S. 2000. Protecting the snow leopard and enhancing farmer's livelihoods: a pilot insurance scheme in Baltistan. *Mountain Research and Development*, 20: 226-231.

Hussain, S. 2003. The status of snow leopard in Pakistan and its conflict with local farmer livelihoods. *Oryx* 37**:** 33-37.

Mock, J. and O'Neil, K. 2003. "Local peoples attitudes towards wildlife and wildlife depredation in Pakistan's Northern Areas." Consultancy report submitted to the Snow Leopard Conservancy, 73 pages + appendices.

Nowell, K. and Jackson, P. (Compilers and Ed.).1996. Wild Cats: Status Survey and Action Plan. IUCN/SSC Cat Specialist Group, Gland, Switzerland. 382 pages.

O'Gara. B.W. 1988. Snow leopards and sport hunting in the Mongolian People's Republic. Pages 215-225 In: H. Freeman (ed). *Proceedings.5th International Snow Leopard Symposium.* International Snow Leopard Trust and Wildlife Institute of India, Seattle, Washington. 269 pages.

Shackleton, D.M. (Ed. & compiler). 1997. *Wild Sheep and Goats, and their Relatives: Status Survey and Conservation Action Plan for Caprinae*. Prepared by IUCN.SSC Caprinae Specialist Group, Gland, Switzerland and Cambridge, UK., 390 pages.

Shackleton, D.M. 2001. A Review of Community-Based Trophy Hunting Programs in Pakistan. Report prepared for Mountain Areas Conservancy Project, IUCN-Pakistan and National Council for the Conservation of Wildlife, Ministry of Environment, Local Government and Rural Development, Pakistan (available online from: http://www.macp-pk.org/docs/trophyhunting_review.PDF)


---

## Glossary of Terms:

| | |
|---|---|
| AKRSP | Aga Khan Rural Support Programme |
| CCA | Community Conservation Area |
| CITES | Convention of Trade in Endangered Species of Fauna and Flora |
| CTHP | Community-based Trophy Hunting Program |
| CoP | Conference of the Parties to CITES |
| GEF | Global Environment Facility |
| IUCN | The World Conservation Union - formerly International Union for Conservation of Nature |
| ISLT | International Snow Leopard Trust |
| KVO | Khunjerab Village Organization |
| MACP | Mountain Areas Conservancy Project (IUCN-Pakistan) |
| NCCW | National Council for Conservation of Wildlife |
| PRIF | Pre-Investment Feasibility Project for Maintaining Biodiversity in Pakistan with Rural Community Development |
| SKB | Skoyo-Karabathang-Basingo |
| SLC | Snow Leopard Conservancy |
| SLN | Snow Leopard Network |
| SKIWO | Shahi Khyber Imamabad Welfare Organization |
| SSC | Species Survival Commission - The World Conservation Union-IUCN |
| UNDP | United Nations Development Programme |
| VCC | Village Conservation Committee |
| VCF | Village Conservation Fund |
| VWG | Village Wildlife Guide |
| WWF-P | Worldwide Fund for Nature, Pakistan |