BACKGROUND PAPER FOR POLICY RECOMMENDATIONS TO MANAGE UNUSUAL AND CONFLICT SITUATIONS INVOLVING SNOW LEOPARDS

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## Background

Snow leopards are under threat. The Bishkek Declaration 2017, endorsed by the 12 snow leopard range countries, recognizes that threats to snow leopards are on the rise and that there is a need to develop policies and build capacity at multiple levels. It also identifies the role of the GSLEP Secretariat in strengthening snow leopard conservation across its distribution range through collaboration and sharing information about best practices, capacity building and policy recommendations.

The GSLEP Secretariat recently received requests from various representatives of the Steering Committee to consult with snow leopard experts and develop a policy brief on managing snow leopards in unusual or conflict situations. Although snow leopards are mostly elusive, they occasionally come in contact with people and livestock. This policy brief has been prepared by a working group of international and range country snow leopard scientists and conservationists. The document is in continuation of the earlier nine policy briefs called "Background Papers for Snow Leopard and Ecosystem Conservation Forum Policy Recommendations (2017)" that addressed different themes relevant to snow leopard conservation.

This policy brief, prepared by the working group upon request of the GSLEP Secretariat, is meant to be a resource for range country governments to develop or adapt their standard operating procedures (SOPs) and policies to manage snow leopards in unusual or conflict situations. The guidelines in this policy brief are based on the most up-to-date information and scientific evidence. The guidelines may also be used to create awareness material for local communities and other stakeholders, and to support appropriate community-based conservation initiatives.

## Human interactions with snow leopards over livestock predation

Research has shown that snow leopards prefer to prey on wild ungulates such as blue sheep, ibex, markhor and argali, but, opportunistically, they also kill livestock when available. Snow leopards seldom attack livestock in the pastures if they are actively guarded. If unattended, however, livestock becomes easy prey for them, especially the stragglers. Domestic sheep and goat, and the young or weak among horses, yaks, and cows fall prey to the snow leopard. Poorly constructed night time corrals with low walls or unsecured doors or windows are also vulnerable to attacks. Such cases are relatively rare but often result in multiple livestock getting killed in a single attack.

## Managing snow leopard killing livestock in the pastures

- Snow leopards seldom attack livestock that are actively guarded. If, however, livestock are attacked by snow leopards in the pastures, it is recommended that the grazing area is shifted for $\mathbf{4 - 1 0}$ days. This is because snow leopards tend to stay close to their kill for several days and grazing in the same area could cause further attacks.
- It is strongly advised against disturbing the carcass in the pasture or collecting meat from it. This is to minimize the risks of the snow leopard killing additional livestock, and contracting serious zoonotic diseases carried by snow leopards, or their parasites.


## Managing snow leopard killing livestock in corrals

- In instances of snow leopards getting inside corrals and killing livestock, immediate and spontaneous release of the snow leopard from the corral or any other confined space must be prioritized. The snow leopard must be left a way to escape; minimal human disturbance ensured; and the cat be allowed to leave on its own without being forced out or confined. The snow leopard will need to be allowed time to leave on its own after it has finished eating a portion of the kill. The cats are usually exhausted in multiple kill cases, and should be given time to recover and move away on their own. People tend to confuse their exhaustion with old age or weakness, and think that taking them into captivity would help the animal. This should be avoided, and spontaneous release facilitated.
- Any attempt to confine or capture the snow leopard must be discouraged and avoided. Apart from being inappropriate, these attempts cause high level of stress to the animal and increase the chances of injury to the animal and people, potentially also leading to legal and health complications.
- The longer the snow leopard spends in confinement, the higher the level of stress it experiences, and greater
the chances that it injures itself. Release of the animal should be the priority and managers should encourage local communities to release the snow leopard immediately without holding the animal in the corral.
- Attempts to capture-and-release snow leopards should be avoided, and, instead, spontaneous release must be facilitated. Capture-and-release attempts, apart from causing high levels of stress and posing danger to the animal, also encourage local communities to lock-up snow leopards when they get into corrals. This can also cause the animal to be inadvertently mistreated, injured or killed in the process.
- Attacks on people are extremely rare, but snow leopards may try to defend themselves especially when cornered or confined in a limited space. This can result in serious human injury. If a snow leopard enters a corral, the door and other possible exits should be left wide open and unencumbered; people and dogs should stay away, and crowds must not be allowed to gather. This will help the snow leopard to leave the area. Sometimes the snow leopard may take several hours until it leaves.
- If a snow leopard kills a goat or sheep inside or near a corral and has moved away, one carcass may be shifted 1$\mathbf{2} \mathbf{~ k m}$ away from the corral in the direction that the predator is likely to have gone, taking necessary health and safety precautions. Where there are no feral dogs, dragging the carcass will leave a trail scent, which the snow leopard can potentially track to find it. Doing this may improve the chances for the predator to not come back to the corral. Depending on the size of the animal, snow leopards can stay on the kill for anywhere between 2-10 days. If such a method is employed, it must be done with utmost sensitivity, and avoided in instances where it can appear insensitive to the local people. It is important to keep in mind that, apart from imposing economic hardships, affected families may also experience fear or emotional loss when their livestock is killed.
- Often predators end up killing several animals when they attack livestock in corrals. In case of surplus killing, it is recommended that the additional carcasses are removed carefully once the snow leopard has left, making sure strict hygiene is maintained to prevent contracting diseases such as plague, rabies and other serious infections that can be lethal to humans.
- There is usually a high probability that a snow leopard will come back to the corral the night after the first attack in the corral. One should be on alert for the following week. To reduce the risk of repeated attacks, the following actions are recommended:
$\diamond$ Guard dogs: If available, 1-2 dogs may be tied on a long leash, towards the direction where the predator came from. Dogs tend to raise alarm more actively when tied close to each other. When the dogs raise an alarm, they must be assisted immediately with noise and lights, else their lives will be at risk.
$\diamond$ Noise: Metal bells may be hung half meter up from the ground around the corral so that they make a sound when touched. Alternatively, pieces of metal may be hung that move in the wind and thereby create noise when hitting each other. Empty bottles (or bottles with some water inside) also create a 'whistle' sound when the wind blows.
$\diamond$ Lights: Area near the corral may be illuminated. If there is no access to electricity or flashlights, shiny pieces of metal or other material like old DVDs may be hung together to reflect moon or starlight. Where there's no risk of accidental fires, dipping pieces of cloth in diesel and hanging them near the corral may help as the scent may keep carnivores away. Predator deterrent flashing lights can be useful if used in moderation and not used continuously.
$\diamond$ Change: Regularly changing the guarding and scaring methods over the nights is useful. Snow leopards adapt fast and often learn the redundancy of any deterrent, thus making it important to keep changing tactics.


## Situations where people have trapped a snow leopard and general advice to manage situations of conflict over livestock depredation:

- In situations where a snow leopard may have been trapped or confined, it is vital to discourage crowds from gathering, ensure that everyone remains calm, and silence is maintained so as not to stress the animal further. The discussions should be moved away from the corral as soon as possible, as too much commotion will further frighten the livestock and the trapped snow leopard.
- Community leaders should be brought into the dialogue as soon as possible. Cooperation of community leaders may be sought to convince people to release the snow leopard immediately.
- Government compensation should be assured to affected people without the need for capturing the snow
leopard. The damage caused by the snow leopard should be evaluated in presence of the village leaders so that appropriate compensation can be arranged. A unilateral assessment may create mistrust with local people. All necessary formalities should be completed to enable fast provisioning of compensation as per the applicable State laws.
- The situation can be highly charged, and people often have an emotional attachment to the livestock that has just been killed. It is of utmost importance to manage the situation with patience, care and sensitivity.
- Past incidences and plans for the future are important to assess. It is likely that the same community has experienced such incidences in the past and it is likely to experience them in the future.
- The community must be helped to prevent repeat attacks by snow leopards. All livestock holding corrals in the community must be immediately surveyed to identify factors predisposing certain corrals to snow leopard attack, and collaborative plans made to help to make them predator proof. Such proactive discussions and planning helps garner the community and affected family's trust and support. NGOs working locally may be involved to support such efforts.
- Taking the custody of the trapped snow leopard from the community should be avoided and spontaneous release prioritized as:
$\diamond$ Taking custody of the animal from the community creates the impression that they received help from the manager because they had trapped the snow leopard and it will encourage them to do so again.
$\diamond$ It will encourage other communities to trap snow leopards.
$\diamond$ It shifts the blame of livestock loss squarely on the snow leopard and encourages people to mistreat the animal, which could lead to injuries and even death of the snow leopard.
$\diamond$ It could separate a mother from her cubs.
$\diamond$ It is resource intensive to care for a snow leopard in captivity. Even an injured snow leopard is better capable of looking after itself in the wild.
$\diamond$ It shifts the ownership and responsibility of wildlife from being a shared one to squarely on the manager and the government.
- Conservation-friendly behaviour of people and herders must be incentivised through fast-processing of compensation that may be due. Amplifying good behaviour through formal recognition and channels in local media may act as a positive reinforcement.
- Several models of community-based initiatives can assist in managing conflicts over livestock predation. These include community-based livestock insurance programs, collaborative predator proofing of corrals, livelihood and other incentive programs that aim at building conservation partnerships with local communities. The GSLEP secretariat facilitates training of managers and practitioners in PARTNERS Principles for community-based conservation and can be requested to organize such training.


## Capture and relocation of the snow leopards should not be undertaken as:

- There is no scientific evidence to show capture and relocation as being effective in reducing livestock predation by snow leopards. Removal of animals can disrupt existing social structures such as dependent cubs and mothers getting separated, or dominant males getting removed.
- Almost all adult snow leopards kill livestock occasionally. If there is capture and removal each time there is livestock predation, snow leopards are likely to go extinct.
- Capture-and-relocation operations are stressful for the animal and may even increase the risks of injury and death.
- Capture and release by managers may encourage local people to trap and mistreat snow leopards if they enter corrals.
- Relocating animals to a new area may cause its mortality or increase conflicts as snow leopards may try to home in.


## Encountering an injured snow leopard

- It is best to leave it alone and move away. Snow leopards, like other wild animals, are resilient. As a predator hunting animals larger than itself in some of the most treacherous terrain, snow leopards often get injured, but
on most occasions recover to full health, and are also able to survive and reproduce with disabilities such as a lost eye or a few lost claws. Injuries may also result from males fighting with each other. Sometimes an injured snow leopard may die in the wild; in such cases, its home range is taken over by a different individual within a matter of weeks.


## Encountering abandoned cubs

- Snow leopard mothers spend considerable time away from their cubs, hunting and actively patrolling to make sure their cubs are safe from other predators. Sometimes she might leave them alone for as long as 20 hours at a time. She does so even when the cubs are just a week old. People sometimes discover cubs and feel the need to rescue them, assuming the mother may have died. This needs to be actively discouraged.
- If cubs are encountered without their mother, the area must be immediately vacated. No cameras should be put in close vicinity, nor should any person wait in the area. Snow leopards have very good eyesight and the presence of humans will obstruct the mother's ability to return to the cubs.


## Encountering snow leopards in non-mountainous habitat

- Sometimes, in their dispersal attempts, snow leopards may traverse 60 or more kilometres of flat plateaus, wide valleys, or steppe habitats to reach another mountain. Snow leopards are adapted to mountains, and when feeling threatened they either escape into steep cliffs or lie down hiding. In the open steppe there is no terrain that the snow leopards can escape to. Consequently, they may act erratically and try to trot or run away at a steady pace. If encountered in non-mountainous habitat, the snow leopards should be left undisturbed and most importantly, not be chased for any reason including photography. They are likely to move on the same night, as they typically travel at night, and rest during the day.


## Exceptional circumstances under which snow leopards may be chemically immobilized

- The individual has been caught in a poaching snare or a trap and can not be released without chemical immobilization.
- The individual has somehow strayed so far inside a town that it is impossible for it to find its way back to the habitat on its own.


## Encountering snow leopard carcasses

- The carcass should not be approached by untrained people. The snow leopard could transmit serious zoonotic diseases to humans.
- People should be encouraged to report it to nearest government officials who should request a veterinarian equipped with personal protective equipment to handle the situation.
- Handling carcasses by untrained people can seriously jeopardize the chances of learning more about the dead animal in necropsy.


## Encountering snow leopards at unusual elevation ranges or new locations

- Snow leopards are known to use a wide elevation spectrum, where they can be seen at altitudes as low as 800 m in some parts of their range, and as high as $5,300 \mathrm{~m}$ in others. Encounters with snow leopards are unusual, but being reported more frequently now due to easy access to high quality cameras available on smartphones accessible to most people.
- It is rare, but not unusual for snow leopards to be seen at lower altitudes, on or close to roads, and even close to settlements.
- As should be the case with any sighting of endangered wildlife, snow leopards should be observed from a safe distance, without creating unnecessary noise or movements to disturb their behaviour.
- Awareness programs that encourage local people to stay calm, not panic and understand the best practices and SOPs are much needed. Training programs for managers in conflict management, the ethics and techniques of animal captures and welfare, and community-based conservation would be very useful in helping manage snow leopards in conflict and unusual situations ethically and safely. GSLEP Secretariat and technical partner organizations may facilitate such the development and delivery of training programs across the snow leopard's range., and training programs for managers, would be very useful in helping manage snow leopards in conflict and unusual situations ethically and safely.


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