

Snow Leopard Conservation Grants, Snow Leopard Network

FINAL REPORTS FOR 2014 PROJECTS

DUE: 15 FEBRUARY 2015

Please submit your final report by the due date above. We would appreciate it if you could follow the suggested format below. Additionally, please send us copies of any detailed technical report(s), papers, and other output arising from this work. Please refer to your original proposal for items such as objectives, methods, etc. unless those were substantially altered during the course of the work. If so, please explain why.

1. Executive Summary: No more than 750 words. Please describe the original goals and the final results of your project. This may be used in press releases and other publicity material about the Grants Program, so please write it for the general public who may not have scientific background.

The project entitled **scaling up community managed livestock insurance schemes for snow leopards in Nepal** was conducted in Kangchenjunga Conservation Area (KCA; 27° 24' to 27° 57' N and 87° 39 to 88° 12' E) in eastern Himalayas of Nepal, which was gazetted a protected area and declared as gift to the earth by Government of Nepal in 1997. KCA extends over 2,035 sq km and encompasses an impressive mountain landscape ranging in altitude from 1,200–8,586 m. Government of Nepal entrusted the management responsibility of KCA to local communities establishing Kangchenjunga Conservation Area Management Council (KCAMC) in 2006. Based on the KCAMC's 40th board meeting decision we conducted community meetings in different hamlets consulting local farmers and herders and established three CMLIS, two for dholes and one for dhole and snow leopard. Directives of all three CMLISs were prepared, discussed at the meetings and endorsed by KCAMC. We are facilitating respective CMLISs to collect the details of herders and their livestock to be included in insurance scheme. Up to now, 88 households/herders included their 575 livestock in Tapethok CMLIS and 49 households/herders included their 226 livestock in Yamphudin CMLIS. Herders and livestock data collection is in process in Lelep, Tapethok and Yamphudin. Basic training to all three CMLIS is provided for record keeping, management of funds and effective administration of CMLIS.

Snow leopard CMLIS are in place in Lelep, Yamphudin and Wolangchung Gola VDCs since 2006. Now, all four VDCs of KCA have snow leopard CMLIS. We provided start up funds to the newly established CMLIS. Livestock owners are also paying premium to include their livestock into CMLIS. Effectiveness of CMLIS is studied interviewing local farmers and herders (n=160). 62.5% respondents reported that retaliatory killing of dhole and snow leopard is reduced after implementation of CMLIS in KCA.

2. Objectives: What was the purpose of the project? How was it expected to contribute to the knowledge or conservation of snow leopards, their prey, or habitat?

We worked with KCAMC to significantly reduce snow leopard mortality with the aim of no human caused mortality in CMLIS.

Specific objectives of the project were:

1. Establish one new CMLIS designed based on the current snow leopard CMLIS in KCA
2. Train community members in the administering of the effective CMLIS
3. Train and equip community members to monitor the activities of dholes, snow leopards, and their prey

species in established transects

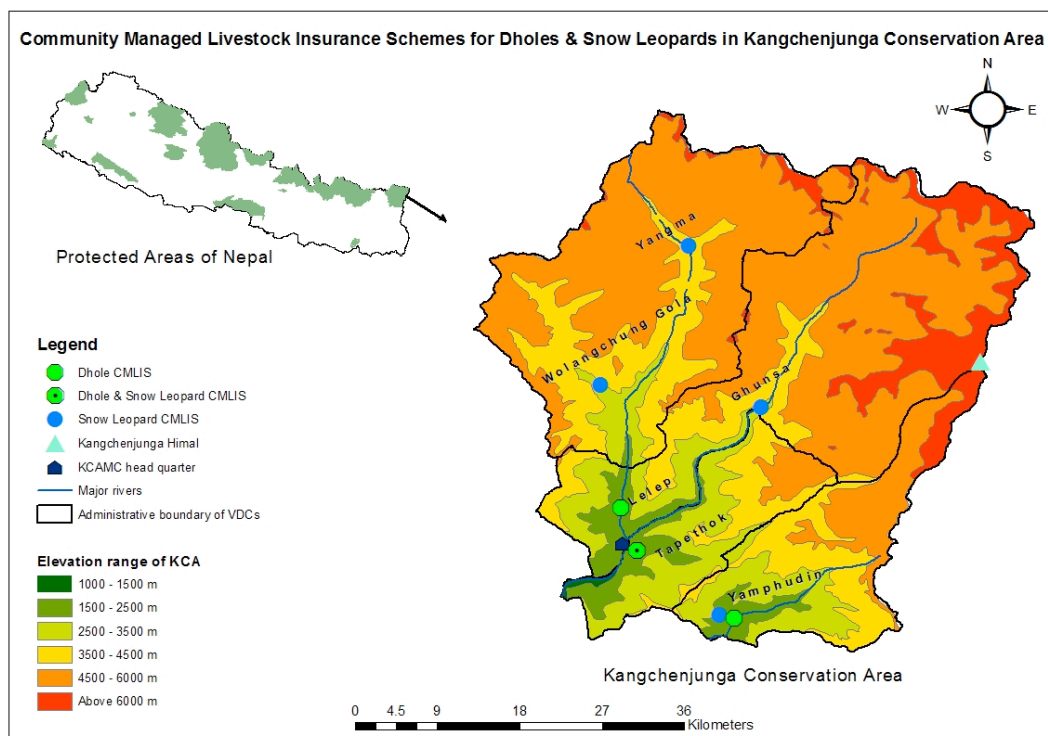
3. Methods: Describe the methods you used in detail, so that someone else could repeat the work, or, avoid the problems that you encountered.

This project was implemented in Kangchenjunga Conservation Area (KCA; 27° 24' to 27° 57' N and 87° 39' to 88° 12' E) in eastern Himalayas of Nepal, which was gazetted a protected area and declared as gift to the earth by Government of Nepal in 1997. KCA extends over 2,035 sq km and encompasses an impressive mountain landscape ranging in altitude from 1,200–8,586 m. The protected area adjoins the Qomolangma National Nature Reserve in Tibet to the north and is contiguous with the Khangchendzonga Biosphere Reserve (Khangchendzonga BR) in Sikkim, India, to the east (Bhuju et al. 2007), thus providing an opportunity to promote trans-boundary conservation initiatives. The KCA comprises temperate, alpine and nival climatic zones with more than 60% consisting of rocks, glaciers and rivers (Bhuju et al. 2007). The seasonal climate is dominated by the monsoon occurring between June and September with an annual rainfall of 2,055 mm in 2007, and a maximum monthly precipitation of about 500 mm in July decreasing to about 340 mm in September (Devkota et al. 2012). KCA falls within the global 200 eco-regions and has gained global significance as it is included in WWF's innovative landscape level eco-region conservation program.

Rotational herding practice as subsistence livelihood is in existence since recorded history in KCA. Herders-snow leopard conflict occurs when the snow leopard prey upon the livestock in pasture lands. We have focused on the primary threat and worked to directly increase snow leopard and other large carnivores including dhole survival by mitigating conflicts with livestock implementing compensation schemes and improved husbandry.

WWF Nepal developed and tested a community managed livestock insurance scheme (CMLIS) in 2005 for snow leopards simultaneously with preventative and curative mitigation measures (Gurung et al. 2011). Significant advantages of the CMLIS included that it is self-sustaining and locally managed thereby ensuring it was economically viable and effective in preventive retaliatory killing of snow leopards. The main strength of the CMLIS was that it was designed and developed in close cooperation with the affected herders' communities.

We made collaboration with KCAMC to establish new CMLIS for snow leopards and dholes in priority areas (Map 1). KCAMC 40th board meeting decided to establish three CMLIS in priority areas for dholes and snow leopard (Lelep, Tapethok and Yamphudin). Local communities and herders were consulted to establish CMLIS. Meetings were organized with representatives of local farmers and herders for CMLIS formation and to prepare directive for effective implementation of CMLIS.



Map 1. CMLIS for snow leopards and dholes in KCA

The snow leopards CMLIS were established by WWF-Nepal in 2005.

4. Results: Please describe in detail the results of your project. Please illustrate clearly how your stated goals and objectives could be met. You may wish to include tables or graphs in this section if appropriate. This section will be very important to explain the value of these grants to funders of the Snow Leopard Conservation Grant Program. Please be clear, concise, and thorough.

We established three CMLIS, two for dholes and one for dhole and snow leopard, in Lelep (for dholes), Tapethok (for snow leopards and dholes) and Yamphudin (for dholes). Directives of all three CMLISs were prepared, discussed at the meetings and endorsed by KCAMC. We are facilitating respective CMLISs to collect the details of herders and their livestock to be included in insurance scheme. Up to now, 88 households/herders included their 575 livestock in Tapethok CMLIS and 49 households/herders included their 226 livestock in Yamphudin CMLIS. Herders and livestock data collection is in process in Lelep, Tapethok and Yamphudin. Basic training to all three CMLIS is provided for record keeping and effective administration of CMLIS.

Start-up funding is provided to all newly established CMLIS. Local herders started to pay a premium into that fund to include their livestock into the scheme. Each CMLIS made provision that the fund earns interest to be used for compensation and loans can be taken from the fund for community investments.

A community-based verification mechanism for assessing any claims is established. The CMLIS is responsible for monitoring of livestock loss, decision making and collection of premiums, verification of claims as well as compensation, conservation awareness to herders, snow leopard, dhole and prey monitoring, and has the right to change directives if needed with consultation of KCAMC.

The CMLIS are established simultaneously with various types of mitigation measures. These measures include the establishment of a community-based snow leopard/dhole monitoring system, institutionalization of CMLIS, campaigns of conservation awareness and works to reduce livestock losses by providing better

herding and vigilance, use of corrals, scare devices, and establishment of veterinary services. All these measures have potential for income generating activities. As newly established CMLIS, all above mentioned mitigation measures needed to be strengthened in coming days in KCA. We have supported one undergraduate student to undertake a study on effectiveness of CMLIS in KCA. Questions regarding contribution of CMLIS on snow leopard and dhole conservation, snow leopard/dhole retaliatory killings situations after implementation of CMLIS were asked to local farmers and herders. A total of 120 households and 40 key informants were interviewed during the study. In Tapethok and Yamphudin CMLIS, 74% respondents reported that CMLIS has contributed to conserve snow leopard and dholes while 23% reported as same as before and 3% reported that the CMLIS did not have any contribution towards snow leopard/dhole conservation (fig 1).

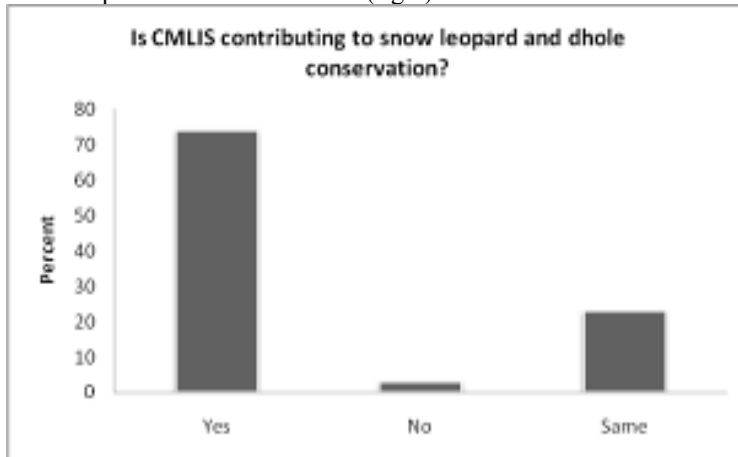


Fig 1. CMLIS contribution to snow leopard and dhole conservation in Tapethok and Yamphudin

A question on dhole and snow leopard retaliatory killing after implementation of CMLIS was asked in all CMLIS implemented villages. In average 62.5% respondents reported that retaliatory killing of dhole and snow leopard is reduced after implementation of CMLIS. 27.5% respondents did not have any idea and 10% respondents said that the retaliatory killing is still happening (fig 2).

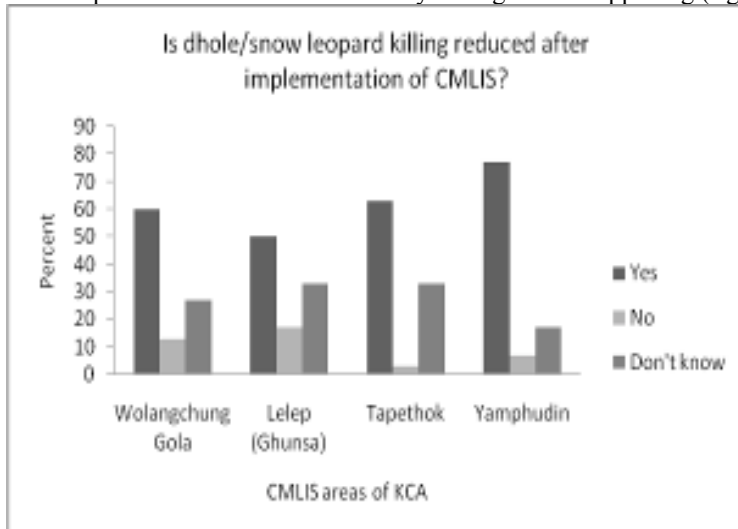


Fig 2. Dhole and snow leopard retaliatory killing reduced after implementation of CMLIS in KCA

The interview survey indicates increasing trend of snow leopard and dhole population. 49% respondents reported increased population, 30% reported as same and 21% reported decreased population of dholes and snow leopards in last ten years (fig 3).

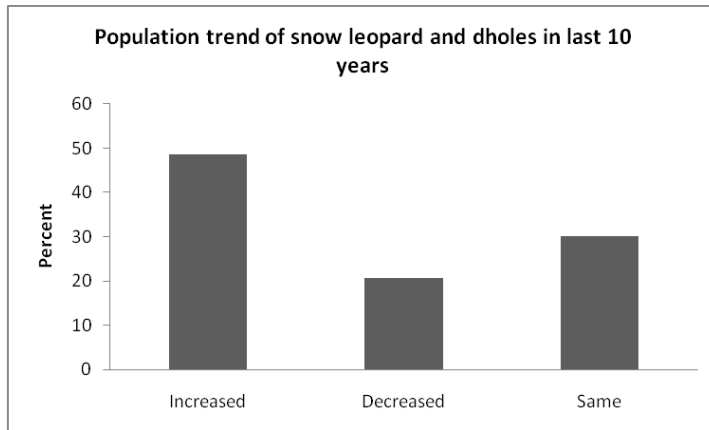


Fig 3. Dhole and snow leopard population trend in last ten years

Respondents reported that livestock depredation is primary threat of dholes and snow leopards (63.5%). Encounter with humans and livestock are secondary threats.

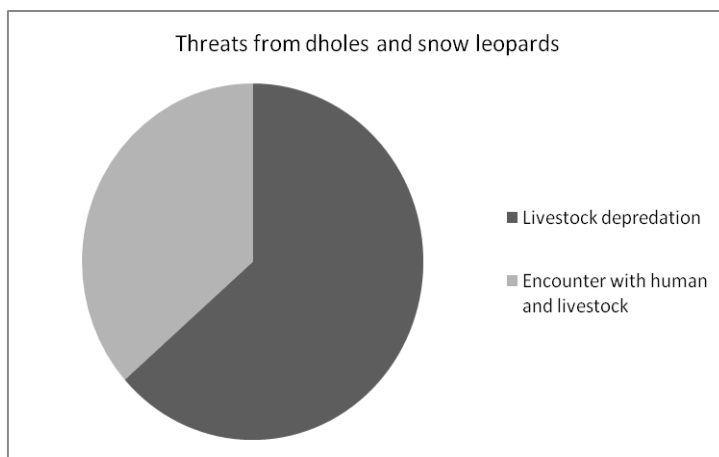


Fig 4. Threats of dholes and snow leopards to local community

5. Discussion: Please evaluate your own work. What did you learn that could help others wishing to do similar projects? How do you see the results being applied to conservation? What additional work is now needed based on your findings?

Remoteness of KCA and busy schedule of local communities for their daily subsistence were challenging to accomplish project activities which have demanded more time and efforts. Snow leopards and dholes are not the only species causing damage to livestock but also other predators (wolf, common leopard, clouded leopard, leopard cat, black bear etc.) are also causing damage to small and large livestock in pasture land and in the settlements areas as well in KCA. Wolf depredation is considered high at higher altitudes since last year.

One adult Yak/Chouri cost minimum \$600 but the livestock owner gets only \$30 - \$40 from the CMLIS relief fund if livestock are killed by snow leopards or dholes. Livestock owners/herders are demanding higher amounts (not only relief fund but compensation) of their livestock for losses by predators. Herders are also demanding relief/compensation fund if their livestock is killed by any predator.

We realized proper record keeping of CMLIS (applications, relief fund distribution and financial transaction of CMLIS etc.) is important and needs increased local capacity for effective administration of CMLIS.

We have given more time and efforts to reach more herders and still are in process of reaching them to collect their livestock details to be included in CMLIS. At the same time we are talking more about Snow leopard/ dhole conservation, CMLIS and improved husbandry practice (caring of livestock in pastureland to protect from predators).

We are holding discussions with CMLIS and KCAMC to provide relief fund if insured livestock is killed by any predator (dhole, snow leopard, wolf, common leopard, clouded leopard, leopard cat, black bear etc.) and there should be provision of insurance to all type of livestock (small and large size livestock). Proper record keeping and monitoring can be maintained employing a trained local individual for few years to smoothly run the CMLIS activities in long run. Herders are not losing livestock from predators only but also from livestock diseases which is causing significant economic loss. Herders are requesting livestock vaccination program to overcome losses from diseases. A livestock vaccination programme would be helpful to include in the CMLIS in the future.

Regular monitoring of species and illegal activities in KCA is crucial and needs unified effort of KCAMC, government authority, community based organizations and local individuals. KCAMC and local elite people are supporting herders for effective implementation of CMLISs. Herders themselves are realizing that some compensation is better than none. They were not getting any relief fund for their livestock losses in the past if killed by snow leopards/dholes in Tapethok village of KCA. We still need to guide and build local capacity a few more years to make the CMLIS locally managed and self-sustaining. It is important that conservation authorities are now showing concern for their losses. Herders are positive towards CMLISs, so are asking for other carnivore schemes as well. Herders and communities from outside KCA are also requesting for CMLIS work where snow leopards, dholes and other predators are causing damage to livestock.

6. Photographs: If you have good photographic (preferably digital) images of your project that we could use to advertise the Grants Program, please submit them at this time. Please be sure to include a brief description of the photo and provide the credits for the photographer.



Photo 1. Livestock killed by predator in KCA. Photo by: Peema Sherpa



Photo 2. Landscape view from Tapethok village of KCA. Photo by: Ambika Pd. Khatiwada



Photo 3. Deforestation and human influence in natural habitat causing habitat poaching for endangered species like SL and dhole in KCA Photo by: Ambika Pd. Khatiwada



Photo 4. Livestock are also means of transportation in high altitude of Kangchenjunga CA. Photo by: Peema Sherpa

If you have any questions on the format or other aspects of your final report, please contact us at grants@snowleopardnetwork.org.

Final reports and digital images should be emailed to grants@snowleopardnetwork.org.