

Darwin Initiative Main and Post Project Annual Report

To be completed with reference to the “Writing a Darwin Report” guidance: (<http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2019

Darwin Project Information

Project reference	25-027
Project title	Sustaining Snow Leopard conservation through strengthened local institutions and enterprises
Host country/ies	Nepal
Lead organisation	Snow Leopard Conservancy (SLC)
Partner institution(s)	The Mountain Institute, Mountain Spirit, Ennovent
Darwin grant value	GBP 311,807
Start/end dates of project	July 1, 2018 – March 31, 2021
Reporting period (e.g., Apr 2018 – Mar 2019) and number (e.g., Annual Report 1, 2, 3)	Annual Report # 1, July 1, 2018 – March 31, 2019
Project Leader name	Brian Peniston
Project website/blog/Twitter	Snowleopardconservancy.org
Report author(s) and date	Brian Peniston, Shailendra Thakali, Rodney Jackson; April 20, 2019

1. Project rationale

The project locations are in Nepal’s Thame valley of Sagarmatha National Park and Buffer Zone in Eastern Nepal and in the Nar and Phu valleys located within the Annapurna Conservation Area Project in Central Nepal, both protected areas.

The project rationale is to improve the security and resilience of the snow leopard population, its prey and other biodiversity in Manang’s Nar and Phu valleys in Central Nepal and in the Thamo, Thame and Thameteng of Sagarmatha National Park in Eastern Nepal. The specific strategies are: 1) To improve herder grazing and guarding practices while reducing human wildlife conflicts; 2) Pilot snow leopard linked enterprises and 3) Enable local institutions and stakeholders to compete for conservation investments and influence evolving local government policies under Nepal’s new Constitution. The most significant change is that after 9 months, preliminary evidence suggests that wolf predation on domesticated livestock may have overtaken snow leopards as the major risk factor. This hypothesis will be confirmed or rejected in Year 2.

2. Project partnerships

- Project partners were selected based on their active participation in a Darwin funded planning workshop conducted in July 2017 in Kathmandu, with roles and responsibilities designated.
- **Department of National Parks and Wildlife Conservation (DNPWC) – and Sagarmatha National Park and Buffer Zone (SNPBZ):** Main government body with authority over Sagarmatha National Park, and buffer zone. DNPWC has ultimate authority on all biological

sampling and camera trapping within protected area boundaries. This partnership is expanding to include co-financing of a wolf predation study, with approval received in Year 2 Quarter 1. There are on-going discussions with DNPWC at the national level for SLC project staff to participate and collaborate to Nepal's national level snow leopard census scheduled for summer/fall 2019. Standardized snow leopard census techniques and collaboration mechanisms are currently being finalized. When DNPWC approval is granted, SLC will hopefully co-lead in the census of Nepal's Central region, especially in Manang's Nar and Phu valleys and Mustang, and aimed at generating data for the 12-nation Global Snow Leopard & Ecosystem Protection Program (GSLEP) mandate (<http://www.globalsnowleopard.org/>).

- **National Trust for Nature Conservation (NTNC), Annapurna Conservation Area Project (ACAP), Conservation Area Management Committees (CAMC), and Snow Leopard Conservation Committees (SLCC):** All these agencies and committees operate under the jurisdiction of National Trust for Nature Conservation. NTNC must also concur on permission to expand the current SLC collaboration for the national snow leopard census and discussions for this are on-going. Ultimate authority is vested with Department of National Parks and Wildlife Conservation, who grant sub authority to NTNC/ACAP to conduct the snow leopard census in the Annapurna region including the project area (Manang, Nar and Phu valleys). Once mechanisms and standards are finalized NTNC will collaborate with qualified partner organizations to conduct the census in different regions within their authority. Based on positive discussions, the SLC project team expects to collaborate closely with NTNC/ACAP in designing and conducting the census in Manang, Nar, Phu and possibly also in the Mustang valleys. These decisions and permissions are expected by May 2019.
- **Mountain Spirit:** MS remains our vital project partner for project coordination and community mobilization. Their role in the project will expand as other partner capacities are reassessed (see below). Mountain Spirit are the lead partner in the Sagarmatha National Park and Buffer Zone, and now include the lead for activities in the Manang project areas (Nar and Phu valleys). This expanded role results from changes within The Mountain Institute (see below). MS will also take the lead on financial management, with strong technical support and training from The Mountain Institute's finance management staff. Mountain Spirit will also lead on enterprise manuals, through targeted sub consultancies.
- **Global Primate Network (Nepal):** Based on mutual consensus, the partnership with Global Primate Network will not be renewed and is currently in the process of closing out. SLC was not satisfied with GPN's reporting quality, their capacity to complete tasks on time, their commitment to effective communication and coordination with other crucial institutional partners mentioned above (especially NTNC, ACAP and DNPWC). Project and technical reports do not meet scientific and professional standards expected in Nepal. After 6 months of continued constructive criticism and efforts at mentoring, and importantly, reluctance on the part of GPN to make requested improvements to their reports, the parties agreed to end the partnership.
- The project team has identified and contracted with two wildlife scientists as capable replacements for the GPN skill set. These independent consultants will conduct biodiversity-based fieldwork and both have many years of relevant experience. Both scientists have obtained the required permissions to conduct biological monitoring from DNPWC and NTNC. One scientist is hired by DNPWC (with funding previously allocated to GPN) to conduct a wolf survey in Sagarmatha National Park, and will also confirm snow leopard presence and populations. The other scientist is conducting prey counts in Manang valley and especially in Nar and Phu. He completed prey counts surveys in Nar and Phu in 2005. His data will allow longitudinal examination of population trends over the last decade. Both scientists are published authors with proven records of accomplishment for generating quality, peer reviewed survey work.
- **The Mountain Institute (TMI):** Over the last year, The Mountain Institute has been undergoing a series of major personnel changes at the Himalayan Project office and the US Global Office levels. TMI's Executive Director in the US resigned in April 2018, and their Himalayan Program Director resigned in July 2018, leaving important capacity gaps at both levels that remain unfilled. The Acting Global Executive Director is a Board member in a temporary capacity. The Acting Himalayan Program Director (Kathmandu) is a former senior level Government of Nepal staff, but has many other duties and responsibilities under this interim position. Therefore, because of these managerial uncertainties and reduced technical capacity, and by mutual consensus, TMI's technical and time inputs have been reduced and reprogrammed to other partners (especially to Mountain Spirit). TMI and MS have developed the governance training manuals, which will be field-tested in Year 2 Quarter 1. Mountain Spirit will conduct governance trainings in Manang in July, and conduct training in Sagarmatha in the fall (before tourist season

starts). Their capacities and skills will be continually assessed and strengthened where needed, as we move forward.

- **Ennovent:** Ennovent expedited their *Snow Leopard Trails* planning and field activities from year 2, conducting a number of activities in Year 1. This was in response to changing regulations and delayed Government of Nepal permissions for biological sampling. With these delays in mind SLC project Management expedited Ennovent's tasks from year two. Specifically, Ennovent with supervision and the active participation of the SLC management team conducted the first steps of the *Snow Leopard Trail* reconnaissance in Year 1, and as reported in Quarter 3.
- **WWF Snow Leopard National Census:** For past 8 months, WWF has been discussing with National Parks and Wildlife Conservation and National Trust for Nature Conservation to support Government of Nepal's efforts to conduct a national snow leopard census. Discussions were on going for the SLC team to collaborate in this national effort and to conduct the census work in Nar, Phu and Manang valleys. However, we just learned in mid-April 2019 that WWF and Government of Nepal are likely delaying such census work until fall 2019. Initial discussions with all partners have been positive for the team's participation. As mentioned earlier, SLC team is also exploring a direct partnership with DNPWC for Sagarmatha National Park.
- **Rural Municipalities (*Gaun Palika*):** These new government structures are evolving rapidly, adjusting to their newly created powers and authorities. However, some tension continues between the older Central Government Ministries and Departments about the responsibility for handing over as mandated under Nepal's New Constitution: some former officials are resisting such changes to the older status quo. On the other hand, the newly established local government structures are quickly asserting their newfound powers and responsibilities. Thus, there are, and will be some predictable clashes over authority and power and already court cases have been filed to resolve these divisions. These will require some years to resolve. While disappointing, such behaviour has had little impact on project implementation to date, since our focus is primarily with local, rural institutions. In addition, the project team used this additional time to design and field-test the governance manuals, scheduled in Year 2 Quarter 1. Once refined, training is expected to proceed unimpeded, as the proposed project interventions remain uncontroversial.
- Several potent examples of empowered local governments assuming greater responsibilities have emerged, such as the Everest region local authorities taking over issuance of trekking permits from Central Government, which was previously done by the Kathmandu authorities. Such successful examples of devolution are helping pave the way for interventions planned under the Darwin Initiative funds.
- **Local Communities** – As a primarily community-based project, local partners remain the most important constituencies. In the Sagarmatha National Park, Saving and Credit Groups are the project's key partners. During field visits in Year 1, an important new finding emerged. Under new Local Governance Ordinances, there are provisions for preferential funding for women's groups and groups of disadvantaged and indigenous people. Unfortunately, Savings and Credit Groups (S&C) are not eligible for this funding. This presents potential choices how best to register these groups. During field discussions, we found that the S&C groups were considering adapting their constitution and re-registering them as women's groups to take advantage of these preferences. Unfortunately, as registered woman's groups, no male members are permitted and none of the existing women members have greater than 5th grade education. Without literate members, registration and compliance with existing regulations will be challenging. The project is exploring ways to resolve these constraints and explore if women's groups can legally have male advisors, providing they are not formal members. The project expects to design policy guidelines in year 2 to address this challenge. This will aid in getting these local institutions officially recognized by GON and SNPBZ. Enhancing access to government funding (e.g., non-project) is an important project goal and has significant implications for long-term sustainability.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1: Local Governance Strengthening

For this output, two training manuals were produced in Nepali language; one on conservation governance, and a second manual on mediation/conflict/resource mobilization/environmental

safeguarding practices: Both manuals are currently under review and initial field testing and training is planned for Year 2 Q1-Q2, once monsoon is over. Following field-testing, manuals will be revised as needed, finalized and operationalized in Year 2, Q 2. Year 2 Quarter's 2 and 3 will be the primary periods for extensive training.

One Trainer of Trainers will be conducted (for TMI and MS staff in the use of the training manuals). An informal review workshop was conducted, revising manuals for the first round. A further TOT workshop is scheduled immediately before the team heads to the field to test the revised manuals (scheduled for Q2 and Q3 of years 2). Training workshops were postponed due to winter migration of key Government staff. The continued, rapidly evolving roles and responsibilities of new government structures also kept government officials busy to resolve differences and thus they were not clearly focused on new trainings.

The eight Governance trainings will be conducted in 2 sites (4 per site) over the next 2 years starting with a planned training in Manang in late May 2019 and then followed by training in Sagarmatha National Park after June. As mentioned above, these trainings were postponed due to winter migration of key Government staff, and changing government structures that resulted in unclear roles and responsibilities of newly elected government personnel.

Output 2: Facilitate Biodiversity Stewardship by Local Institutions

The main activity was to establish Baseline Snow Leopard and/or Prey / Habitat conditions based on biological sampling and field surveys. This has been delayed, as the Government of Nepal unexpectedly changed their policies and no permissions have been granted nationally. In the meantime, project staff have reviewed published and grey literature and established historical baselines.

The literature review has been complemented by informal consultation with local people in Manang and the Thame Valley, Sagarmatha National Park. Based on these consultations, the estimated snow leopard population in Nar and Phu valleys of Manang is +/- 20 snow leopards (Sources: informal interviews with herders, Fall 2018). However, experts and published literature estimates numbers more like 4-6 individuals (GPN reports, 2018; ACAP reports, various dates, Chettri et al, 2019). In Sagarmatha National Park's Thame valley region, there are no reports of snow leopards being seen or heard over the last 2-3 years (Source: herder interviews, 2019). National Parks and experts say that 3-4 individual snow leopards reside in the park, especially in the Thame and Phortse areas (SNP entrance signage, 2019). All kills over the last 3 years in Thame valley were reportedly made by the common leopard (*Panthera pardus*) or by wolves. A group of Colorado College students conducted an informal depredation study in summer 2018 and reported 60-61 livestock kills by wolves and 3-4 by snow leopards. A common leopard committed one recent livestock kill reported in Feb 2019 in the lower valley. Wolves (*Canis lupus*) have invaded the valley over the last 2-3 years (herder interviews, 2019) and could be responsible for ongoing depredation. Information that is more precise is expected by end of Year 2, as Government is in the process of granting research permissions. As noted, population surveys are under discussion with Department of National Parks of Wildlife Conservation, National Trust for Nature Conservation and WWF Nepal to become a part of larger national snow Leopard census planned this year.

As a major approach to establishing the baseline population, the project planned to conduct Non-invasive Faecal Genetic Surveys. However, biological sampling permission has been delayed and new clarifications are expected in late spring/summer 2019. Darwin funded personnel are currently in the field conducting a blue sheep prey counts, snow leopard occupancy surveys and habitat assessment in Nar and Phu valleys, as well as the livestock depredation study in Manang (on-going, 2019). Preliminary data are expected by end of June 2019. There are no blue sheep in Sagarmatha National Park, where main prey species for snow leopards and common leopards is the Himalayan Thar (*Hemitragus jemlahicus*).

Another component of the baseline was to develop use manuals and conduct camera trap surveys. There are camera trap manuals in English, and are being translated into Nepali. The manuals will support training of park rangers, NTNC/ACAP staffs and SLCC members. As mentioned earlier, the camera trap surveys were delayed due to changed Government policies and restrictions. These activities are now rescheduled for Year 2, with data expected by Year 2 Q3-Q4.

Further baseline components involve developing and implementing a standardized field methods manual for conducting prey and habitat surveys. Permission was obtained from National Parks Department and NTNC/ACAP to conduct a blue sheep prey count, currently on going in the Nar and Phu valleys (Year 2, Quarter 1 2019). Resulting data are expected by the end of August 2019. Stratified sampling frames have been designed, updating methodologies used under the GSLEP standard. Project staff have been in contact with the International and Technical Coordinator for the GSLEP Secretariat (based in Bishkek,

Kyrgyzstan), Dr Koustabh Sharma, who recommended how best to stratify the sampling frames for obtaining more representational habitat and vegetation data, and also more likely predict the presence of predators and prey species. (Personal correspondence, Dr Koustabh Sharma, April 2019). This is the first time the double observer methodology is being tried for blue sheep counts in Nepal. The project hopes to develop a manual using this experience for future use and reference.

Conduct Herder / Livestock Owner Attitude Survey: A herder livestock perception survey was completed in Manang by GPN. Twenty-eight (28) herders were provided with improved herd protection equipment in Manang. A herders' workshop was held in November 2018, with 39 participants. Species identification and herders' attitudes towards predators were assessed, with participants overwhelmingly demonstrating negative attitudes towards the snow leopard. Participants also demonstrated their strong preference for compensation schemes as the best mitigation option, despite acknowledgement that such attacks occurred mostly in unprotected or unimproved corrals. They diagnosed pasture conditions and reported these have been degraded over the last decade. They recommended that compensation schemes be increased to cover a more realistic portion of the costs incurred from actual losses. Participants estimated that there are about 17 snow leopards in the Nyshyang valley, a higher number than most scientific experts based on past studies. Participants indicated that a combination of different techniques would result in greater protection of livestock, ranging from increased awareness, better corrals, improved guarding, use of Foxlights© and other techniques. Thirty-two (32) herders received Foxlights and their effectiveness was evaluated through informal follow up interviews. GPN submitted a draft report in February 2019, and SLC staff identified a number of areas of weakness and requested revisions. This process is on-going, but with the contract with GPN not being renewed, additional work will be needed to fill this gap.

A separate survey of involving 38 herders was conducted by SLC staff in the Thame valley of Sagarmatha National Park in 2019. It was complemented by informal discussions with 48 members of the Saving and Credit Groups. Several important issues were identified: First, current livestock depredation compensation schemes are overly complicated, including a 12 step process that must be completed and resolved within 35 days in order to get compensation. Second, compensation schemes remain highly centralized, despite the formal mandate of more powers being granted to local institutions. Third, reporting typically requires a several day round trip -- unfeasible for many herders.

One of the most important findings in Sagarmatha is that the depredation by wolves (*Canis lupus*) is increasing. For example, 11 herders who were interviewed in December reported that they lost two livestock (2017) and one livestock to snow leopards in 2018, compared to 12 (2017) and 8 (2018) livestock reportedly taken by wolves during the same period in the Thame valley. One common leopard attack was reported, in late February 2019, in a lower elevation pasture. Protecting against wolf depredation will require somewhat different techniques than snow leopards, although herders will likely still blame snow leopards for their losses.

Finally, we identified a problem with literacy relating to group membership and registration. As mentioned earlier, some male herders are the only literate members of the Savings and Credit Groups, which may require some modification in registration if the groups apply for preferential funding under the new Local Government regulations.

Develop Manual / Implement & Monitor Livestock Protection Measures for Herders: A livestock protection manual was developed in late 2018 in Nepali language. This is currently being reviewed and strengthened to make it more comprehensive. The manual focuses mainly on corral improvement at present, but needs more emphasis upon other protection mechanisms such as Foxlights etc. A more systematic evaluation of the effectiveness of Foxlights is also planned. A specific training manual in Nepali is under preparation.

GPN staff members generated snow leopard and herder data for Manang valley in 2014-16. Their data shows a total of 2804 livestock head for Manang valley, based on interviews with 202 herders, (63% male and 37% female). Overall, 67% of all sampled herders were illiterate. From 2014-2016, 1,000 livestock head were reported lost, (62.4 % from depredation, with 59.7 % of all depredation blamed on snow leopards. 7.2 % depredation was blamed on wolves, and 30.1% was blamed on jackals). Seventy-three (73) households reported livestock losses, comprising 25 yaks and 161 juveniles. Total reported losses were valued at US\$89,900, for an average loss of US\$1,237 per household. Most depredation events resulted from surplus killing with 24 incidents reported: 32.6% of all surplus killing was blamed on snow leopards. (All data from Rinzin P. Lama, unpublished thesis, 2018). Lama suggests that investing in improved corrals and improved guarding techniques will reduce conflicts, as well as improving daytime shepherd attendance to reduce future livestock losses from the open pastures. There are some discrepancies in this data compared to GON's Department of Livestock Services statistics from 2018 that

states that there are 2,749 goats, 3,383 male and female yaks, 648 sheep, 945 cattle and 45 buffalo in Upper Manang's valleys. Their data states that there are 1,400 goats in Nar and Phu, 583 sheep, and 2,039 yaks. Livestock Services Data also state there are no buffalo and 243 cattle in Nar and Phu valleys. Some differences are accounted for because Lama's data only refers to select sub-administrative units of Manang, and the Nar and Phu valleys. Livestock number fluctuate year by year, but reconciliation of these differences will be a priority task in Year 2.

Establish & Monitor Pilot Snow Leopard Trails - *** (Originally Planned in year 2): This activity was planned in year 2 but due to keen private sector interest it was expedited with select activities conducted in year 1. See Section 3 below for more details.

Complete Market study in Manang to identify at least one snow leopard linked product: The team focused on the pilot snow leopard trail project in year 1 and identified one local entrepreneur in Manang interested to become the local partner to Ennovent and Trail Angels for the snow leopard enterprise activity. Ennovent is providing management support and related services to strengthen the business model. Additionally, a market study of the Thame Mineral water project is on-going in Sagarmatha National Park and Buffer Zone, with the intention of exploring formal registration of the mineral water company with the Buffer Zone officials (Cooperative member interviews, 2019). Key constraints were identified and solutions proposed, especially for marketing, packaging and branding. As a woman-owned and managed company, group members may have some comparative advantages when applying for funding as a private sector group under the Buffer Zone and Local Government regulations. The market study for the Manang tourism enterprise will continue through Year 2.

Preliminary Feasibility Assessment of Wildlife Damage Relief Fund: Initial data collection has taken place in Sagarmatha National Park. There remains some confusion over the term *relief fund verses compensation fund*, and the legal term for compensation fund remains the norm. The project team is exploring possibilities and implications of registering such activities as a relief fund, under the newly empowered Local Government regulations. There remains some resistance from Central Government Officials on permitting local government bodies to register and operate a compensation or a relief fund, although the new Constitution clearly mandates them with this authority. Local level government registration and operations would address some of the deficiencies of the currently operated compensation schemes.

Output 3: Private Sector Generating Incentives for Snow Leopard Conservation in one or more sites

Complete market study in Manang to identify at least one snow leopard-linked product: This sub objective duplicates the sub objective described above under Output 2. This study has been completed, and we are awaiting the final report from Ennovent (the responsible subcontractor).

Complete Service Design for pilot snow leopard trail in Manang, including route, platform, partners, and pricing: The Initial feasibility study and service design was conducted in Fall of 2018, including a route reconnaissance of the Nar-Phu area followed by platform designs and engagement of international private sector partner(s). A full report on existing trail conditions, listing natural and cultural highlights and a tentative itinerary for conservation-interested tourists was completed. Several potential pilot clients were also identified. Local hotel partners and service providers have yet to be fully identified along with optional pricing structures. A private sector Austrian partner (Trail Angels) participated in the reconnaissance study and is presently integrating the project with their larger global marketing and programmatic agenda. Modules for daily itineraries were compiled based on interviews and observations with stakeholders, thus blending a combination of cultural, historical, natural and sacred site attractions. Basic frameworks for each day and the associated trekking module have been designed, but will need further refinement along with more detailed information on local constraints and opportunities. Local experts capable of performing these nature/cultural interpretations have been suggested and our Ennovent partners are now training local interpretation specialists to complete this aspect. The first paying clients are scheduled to come under a pilot field-testing trek in October 2019. Markets and sales activities are scheduled for the coming quarter but this is an iterative process and will thus be revised as further experience is gained. Detailed interpretive information on the Nar and Phu region information has been initiated and gaps identified. Mechanisms for paying clients to fund some community based activities, such as corral-predator proofing remain under discussion. Ennovent was able to leverage the small amount of Darwin funding to obtain a larger multi-year grant from the Austrian Development Agency (ADA) and express their gratitude for this opportunity. They are also exploring a certification model of operations to ensure that one or more elements of exclusivity remain and will serve as attractions for higher paying clients. The precise benefit sharing models remain under discussion and form a vital part of the activities for Year 2. Without clear benefit sharing mechanisms, the risk is that profits and incentives will be captured by hoteliers and restaurant owners, and thus less likely to trickle

down to the herders suffering livestock losses and who may be more prone to retaliatory killing of predators.

Train local community members in developing and managing the trail: Several interested local community partners have been identified and informal on-the job training has taken place, but training that is more formal is required after finalizing agreements with trail partners and service providers. This step is likely to take time and is a priority for the coming year. Ennovent will lead this activity.

Develop detailed Implementation Strategy to pilot the trail in Manang: A detailed implementation strategy was developed in Q2, fall 2018. Elements are described in more detail above.

Enlist the trained community members as partners in piloting the trail, Year 2: This activity will take place under year 2 implementation.

Initiate the pilot of the snow leopard trail along the identified route and villages, in partnership with key local stakeholders, Year 2 and Year 3 : The first experimental trek trail with paying clients is scheduled for October 2019 tourist season. Partnerships and modalities will be refined based on work undertaken in Year 1, Q3.

Monitor the pilot and incorporate feedback to improve the service, Year 3: This remains planned for year 3 implementation, but feedback from the first paying clients in October 2019 will inform this process.

Output 4: Project Management, Evaluation & Reporting

Complete Annual Work-Plans: Overall project 3 year and the 2018/19 annual work-plans were produced in year 1. A revised work-plan for Years 2 and 3 is being produced and will be submitted to Darwin along with some requested budget reprogramming. Budget totals are expected to remain consistent with the approved grant.

Monitor Key Indicators: No major changes were expected and/or occurred this quarter. Establishing a solid scientific baseline remains a key activity. GPN is still analyzing the camera trap data and has been requested to provide detailed reports before any final contract payments are made to them. GPN is expected to return cameras and other equipment (including non-Darwin initiative funded equipment) so that these will remain available for project personnel to use. They will likely be handed over to the National Trust for Nature Conservation (NTNC) as appropriate.

In the interim, we have reviewed all recent studies, including peer-reviewed literature that has quantified snow leopard and prey populations in each site (Manang and Khumbu), and which greatly strengthens baseline information amassed by the project. Findings suggest that the wolf is replacing the snow leopard as a major depredator of livestock at both sites.

Progress / Final Reports & Disseminate Findings & Lessons Learned: Regular quarterly reports for Q2 and Q3 were produced and submitted. This is the annual (Q4) report. Lessons learned were provided in each report. As this is still an early stage of the project, most of the lessons learned relate to project management and implementation. Project partner GPN's work proved unsatisfactory and the relationship is in the process of being closed. Alternative implementers have been identified and contracted to fill the gaps. Detailed discussions on future plans are noted under the discussion of partnerships above.

Progress towards project Outputs

Progress on Output 1: Local Governance Strengthening is proceeding largely on target. Training manuals have been produced, reviewed, and revised. They will be field tested in Year 2 and improved further based on the rapidly evolving legal interpretations of the new laws concerning government structures. Planned training of Local Government Body (Gaun Palika) staff is scheduled for Year 2, as the manuals are completed. Due to severe winter conditions, many government staff left for to Kathmandu or travelled to the southern parts of Nepal and have only recently been returning to their rural posts. Trainings are being scheduled for the monsoon period (Year 2, Q1) when local officials are more likely in place at their duty stations. Other Government strengthening activities remain as planned, namely scheduled for years 2 and 3.

Progress on Output 2 Facilitate Biodiversity monitoring by local institutions is delayed due to changing Government of Nepal regulations and awaiting permissions for camera trapping and non-invasive scat

sampling. Fortunately, the Government of Nepal is finalizing the new sampling regulations and coordination mechanisms, expected in late spring/early summer 2019. Despite such delays, grey literature and expert interviews have been conducted to obtain preliminary census information and historical trends from secondary data sources. The GON has also prioritized a national snow leopard census and project managers have kept regular contact to ensure that our work will be coordinated with the national effort. Final decisions are expected this summer (2019). With Darwin Initiative funding, we anticipate that our project will contribute to an accurate national snow leopard census, using the standardized GON and GSLEP techniques (that should expand our contribution beyond the originally planned Nar and Phu valleys only). Active discussions are ongoing and the results appear positive. Manuals have been developed and are being translated into Nepali. Grey literature and historical trend data have been collected and collated, with initial data is showing that snow leopard populations in Nar and Phu are as predicted, and very cursory initial data showing at least 5 significant herds of blue sheep and a total population of about 600-700 individuals based on informal observational data. Experts estimate blue sheep herd numbers at 2,300-2,500, which is consistent with historical trends despite the significant die-off from avalanches in 2005 in which an estimated 450 blue sheep perished.

During the snow leopard trail reconnaissance trip, one snow leopard was photographed in the distance and three scrapes were observed. Extreme cold in 2018/9 winter has also reduced domestic sheep herd sizes (Nepali newspaper accounts) and may have resulted in more die-off this year. The on-going blue sheep counts should confirm or refute these generalized predictions. Interviews of herders conducted in Q3 and Q4 confirm snow leopards have not been seen in the Thame valley over the last 2-3 years, perhaps because wolves are replacing them. There are, however, a few cases of depredation by snow leopards. Recent photographic evidence by climbers confirm presence of several snow leopards in Sagarmatha National Park's Phorste region (e.g., pugmarks of a mother and 1-2 cubs, Personal correspondence, Conrad Anker). More direct survey and non-invasive sampling evidence can be completed once necessary permissions are granted by GON. The Chief Warden and his staff have been informed on the project, and stated their willingness to cooperate. Herder interviews in Thame valley indicate that potato crop raiding by thar (*Hemitragus jemlahicus*) is causing serious loss of human food sources, primarily freshly planted potatoes. Project staff are designing deterrence measures for Thamo village where damage has been greatest. Non-invasive techniques such as Florescence strip fencing is among the interventions being considered. As this area is within the national park, compliance with all existing rules and regulations is required.

Progress on Output 3, Private sector generating incentives for snow leopard conservation: This remains in the early stages and major progress is not expected at this time. However, see above for the initial feasibility study and service design, in which trail conditions, listing natural, sacred and cultural highlights and a preliminary day-by-day itinerary designed. A promising local partner has been identified who wants to create a tourism enterprise, but local hotel partners along the route and other required service providers remain to be identified, along with the pricing structure and benefit sharing mechanism. As noted, Ennovent leveraged the limited Darwin funding and obtained a larger grant from Austrian development Agency (ADA), enhancing sustainability prospects. The precise benefit sharing models remain under discussion and is a vital part of the activities in year 2.

3.2 Progress towards the project Outcome

The project outcome remains a multi-year, higher-level aspiration. Progress has been made, especially on strengthening local level institutions and laying the framework for developing snow leopard enterprises (e.g., Snow Leopard Trail). Though the project is still in its early phases, the proposed indicators remain adequate for measuring progress towards the intended outcome(s). By project end, we fully expect to have strengthened local institutions and capacities along with effective mechanisms for reducing livestock depredation from snow leopards. We are exploring ways that depredation reduction strategies can be adapted to counteract depredation by wolves, which is proving a greater larger issue and challenge than anticipated when the project was designed.

3.3 Monitoring of assumptions

The main assumption proving to be challenging is our expectation that the Government of Nepal would have granted all necessary biological sampling permissions by this time. Neither did we anticipate the extended delay in formulating National policies and determining new regulations.

Recruiting talented Citizen Scientists has also been a greater challenge than anticipated, with both project areas heavily dependent upon tourism revenues: project based monthly stipends are not competitive with potential revenues from tourism. Engaging the private sector to pick up some of these duties through trained interpretive guides is one response that initially looks promising. SLC has also engaged a young teacher to work on depredation issues during the school holidays and when schools are out of session. She also owns livestock, which provides added credibility when talking with herders.

Our assumption that wolves will not displace snow leopards in the project work areas remains to be proven. Initial but inconclusive data at this stage is showing that the opposite may be true at least in the Thame valley of Sagarmatha National Park (SNP). This does not appear to be the case in the Phorste valley of SNP. Data on wolves in Manang remains a data gap.

Training assumptions and that trained personnel will use their new skills will be tested in Year 2, following more completed trainings.

Snow Leopard Trail revenues are at a very early initiation phase and have yet to generate any income. This assumption also remains to be tested.

There have been no significant natural or political disasters in Nepal since the start of the project, validating this assumption so far. A recent plane crash at Lukla Airport though tragic and resulting in loss of life, has resulted in any significant decline in tourist numbers. Repaving of airport runways was not predicted, making tourism access to Sagarmatha National Park region more complex, however. Again, tourist numbers have not dropped at this time.

3.4 Impact: achievement of positive impact on biodiversity and poverty alleviation

The SLC project seeks to create community-based actions that contribute to stronger local institutions that in turn help protect and maintain snow leopard populations and their prey. We want local herders to perceive snow leopards as more valuable alive, rather a pest to be eliminated. Biodiversity benefits at this stage of the project are difficult, even impossible to quantify with any predictive certainty. Anticipated project biodiversity impacts are in progress, primarily affecting local community members. The project does expect to create local level political policy changes, instead increasing awareness and commitment for allocating and utilizing local government funds for conservation purposes. Such changes are not expected to accrue until close the project end, being dependent upon mobilized and trained government staff experienced with one or more annual budget cycle under the new governmental structure.

Wellbeing and local level poverty alleviation can only be measured after the various snow leopard enterprises have been operational for at least one year. Presently, these changes are imperceptible. Reduced livestock depredation and compensation for loss will continue to follow prior and/or known protocols. As such, they provide inadequate compensation and may even be a deterrent for herders to report depredation events except occasionally. It is anticipated that any measure for assessing potential poverty change will need to look beyond basic income changes or financial compensation and encompass a much larger definition of “wellbeing” factors that help generate measurable changes toward biodiversity conservation and stewardship of the commons.

4. Contribution to the Global Goals for Sustainable Development (SDGs).

The project continues, in an incremental way to support SDC target 15.4 especially focused on conservation of mountain ecosystems and their biodiversity. Project activities in year one all contributed to conservation of snow leopards and their prey in their native high mountain habitats. The Snow Leopard Conservancy continues to be a member of the United Nations Mountain Partnership, as does its partner organization The Mountain Institute. Given the project’s early stage, information has not yet been shared with Mountain Partnership except notification of the grant acceptance during this reporting period.

Based on our experience, as well as other comparable programs, we believe developing these goals at the community level will likely take 5-10 years. Starting with building and then demonstrating trust, showing the power of collaborative development-conservation initiatives or identifying robust incentive schemes, followed by skills training and participatory monitoring is very time-consuming and highly contingent upon regular and ongoing technical, fiscal and personnel resources. Mountain rural people are occupied by many day-to-day needs, into which the project has to find its way. However, our incremental efforts at the community level will be vital to enabling and sustaining policy decisions made at the national and international levels.

5. Project support to the Conventions, Treaties or Agreements

As stated in the original proposal, the SLC project is consistent with and supports The Convention on Biodiversity goals and particularly the Aichi Targets at national levels, especially targets 3, 7, 11, 12, 14, 16 and 18. The project also supports Nepal’s National Biodiversity strategy and the International Treaty on Plant Genetics for Food and Agriculture. All activities conducted in year remain consistent with these directives. It is too early in project implementation to see or expect measurable changes.

In particular the project strongly supports Nepal's Snow Leopard Action Plan with project staff actively conducting discussions with Government of Nepal, Department of National Parks and Wildlife Conservation (DNPWC) and World Wildlife Fund (WWF) Nepal. We are contributing to formulating consistent methodologies for conducting the planned national snow leopard census. At the same time, the Government of Nepal has been slow to finalize their policies and revise regulations on biological sampling.

6. Project support to poverty alleviation

It is too early to assess any changes in poverty alleviation this outcome. We expect the project to provide tangible incentives for herders and those local households involved in trekking, especially focused on cultural heritage, snow leopards and nature. As a project that is primarily community based, only slight changes in income should be anticipated. Most changes in poverty status are better measured by assessing broader wellbeing indicators, which track more subtle and gradual change, such as community ability to adapt to climate change, political forces, etc.

7. Project support to gender equality issues.

The major gender related activities conducted this reporting period is the support and training the project provided to the Savings and Credit (S&C) groups in Sagarmatha National Park. As mentioned earlier, these groups have predominately women members, although about 20% of the Thame Thenge group are males. The new local government structures in Nepal (*Gaun Palika*) provide mechanisms for preferential funding to women's groups and groups composed of indigenous people. One constraint of changing the registration of the Saving and Credit groups is that most women members have only a 5th grade education, making compliance with written protocols difficult. The project is exploring ways for converting male members of the groups to advisory roles and whether this would comply with the Government of Nepal registration regulations for savings and credit groups. As Advisors males could retain a role in assisting the S&C groups, assisting with record keeping and accounting functions, but under non-voting status. New Government Structures mandate a minimum number of women holding positions and thus the project is working closely with these elected women representatives. Special parts of the governance training manuals deal with this subject.

The Thame Mineral Water Enterprise is entirely women owned and operated. The project is working with management and members to strength different aspects of their enterprise, especially marketing, sales and branding. Discussions are on-going to redesign the label for mineral water bottles to emphasize the conservation of snow leopards and also that the enterprise is women owned and operated.

8. Monitoring and evaluation

Project monitoring and evaluation systems remain as designed and stated in the original proposal. The attitude surveys carried out by one project partner (GPN) were deemed inadequate and will be repeated with improved survey design in year 2. Delays in permissions for biological sampling have resulted in delayed information of baseline snow leopard and prey species. Surveys to fill these critical gaps are on-going for Year 2 Quarter 1. Grey and published literature reviews were undertaken in Year 1, confirming estimates of expected total snow leopards as stated in the original proposal.

9. Lessons learnt

Output 1: Resolution of changing Government of Nepal regulations and policies on biological sampling is taking much longer than anticipated, and is delaying efforts to establish the biological baseline. The project has limited or very limited capacity to speed-up this kind of decision-making.

For Output 3: Private sector: Without clear benefit sharing mechanisms, the risk is that nature-based profits and incentives will be captured by hoteliers and restaurant owners, without sufficient trickle down to the herders -- who are most likely to suffer livestock loses and hence be more prone to retaliatory killing of predators. We are investigating the option of special Snow Leopard trekking groups providing funds to the community for predator-proofing. We are also focussing on training local resource institutions (e.g., herders groups, women-run savings and credit groups) to submit compelling proposals of Gaun Palika development funds.

Resolution of the registration of Savings and Credit groups as women's groups can affect long term sustainable funding of these local institutions. Local level policy changes may be needed to support this action.

10. Actions taken in response to previous reviews (if applicable)

Not Applicable (This is the first annual report and no earlier comments have been received).

11. Other comments on progress not covered elsewhere

Sampling frames for conducting snow leopard and prey counts have been strengthened, notably with the double count method for ungulate surveys. As part of biological monitoring, sampling will follow recommendations formulated under the GSLEP PAWS protocol, including ensuring representative site selection in the best interests of extrapolating data to the landscape level. Prior sampling was based on selecting grids that only encompassed GIS-defined prey habitat, but SLC suspects that these model inputs for classifying habitat suitability may incorporate some error. Such protocols were previously endorsed under the SLIMS approach, and which is now being replaced by more robust methodologies. SLC has consulted with GSLEP's primary scientist in charge of sampling and have revised our protocols accordingly (pers. comm, emails, March 2019).

The exit strategy for the privatization of the Snow Leopard Trail has been expedited, now that Ennovent has identified a local entrepreneur in Manang and connected him with the private sector Austrian partner. They will pilot the Snow Leopard Trail activities this October with paying clients, expecting this to further refine their product(s), marketing and sales models based on experience gained. Ennovent is also expediting private sector funding for nature and cultural interpretation experts, several years before we had planned this.

12. Sustainability and legacy

Project activities are confined to Nepal only. Discussions with the Government of Nepal, National Trust for Nature Conservation and World Wildlife Fund/Nepal are on-going with the project committed to integrating our snow leopard and prey counts with the planned National Snow Leopard census. With that project somewhat delayed, SLC is moving forward with complementary studies of wolf depredation in Sagarmatha National Park and blue sheep counts in Manang's Nar and Phu valleys. Results from efforts are expected to provide valuable information adding to the National snow leopard census, when permissions are granted.

Strengthening the private sector engagement in the enterprise components of the *Snow Leopard Trail* should enhance sustainability: Initial interest among paying customers is strong enough for the team to plan the first paying visitors for October 2019. Ennovent is also leading the training along with hiring local interpretive guides, sustaining this activity from private sector funds.

The project is also working closely with the Thame Mineral Water Company, to make this function less of a village cooperative and more as a fully functioning private enterprise benefiting the Savings and Credit Group, with 5-10% of profit supporting snow leopard conservation activities. Strengthening business, accounting and management skills will be required, as it is still be operated more as a family operation at this stage.

The work to strengthen Local Government awareness of the importance of conservation issues and the need to program selected activities into the government's annual planning and budget cycles is on-going. It is too early in the implementation project to see measurable or demonstrated results.

13. Darwin identity

The project is still in its early implementation stages and has thus generated limited scientific data at this stage, so information sharing or public dissemination of the project has been limited. A short slide show is being prepared to highlight the findings from the herder group consultations in Sagarmatha National Park. It will clearly state Darwin's generous role in funding the activities.

The Government of Nepal, National Trust for Nature Conservation and other conservation agencies are all aware of the project and Darwin's generous funding. Several conservation organizations have stated their intent to apply for Darwin funding, indicating both awareness and that they value this type of funding opportunity.

14. Project expenditure

Table 1: Project expenditure during the reporting period (*1 July 2018 – 31 March 2019)

Project spend (indicative) since last annual report	2018/19 Grant (£)	2018/19 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Monitoring & Evaluation (M&E)				
Others (see below)				
TOTAL				

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2018-2019

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
<p>Impact</p> <p><i>Snow leopard populations are sustained and their prey and habitat protected through institutionalized conservation finance and stewardship at local levels and can be replicated to other sites.</i></p>		<p>Too early in implementation to detect and report measurable changes</p>	
<p>Outcome</p> <p>Strengthened local institutions & livelihoods, diversified enterprises, reduced livestock losses, and climate- smart villagers committed to sustaining stable snow leopard and prey populations and better overall biodiversity</p>	<ol style="list-style-type: none"> 1. 0.1 0.1Stable Snow Leopard Density of $\pm 0.5- 1.0 /100 \text{ km}^2$ (Khumbu) & $\geq 1.0- 2.0/ 100 \text{ km}^2$ (Manang) 2. 0.2 > 9 local institutions (+/- 50 Officials) in 2 sites report 25% increase in enterprise & conservation supported activities targeting 750 households 3. Up to 750 households in 2 sites engaged in snow leopard & biodiversity protection activities 4. Depredation & human wildlife conflicts reduced by 30% over 3 years 5. Community understanding increased by 30% of important linkages between 5.climate change, pasture management impacts & snow leopard populations, Baseline Year 1, Results Year 3 	<ol style="list-style-type: none"> 1. Too early for measurable change (survey not conducted yet – see text) 2. End of project outcome; Too early to record changes 3. Early stages of implementation 4. Baseline depredation data being collected 5. Too early to record changes 	<p>Key actions: Obtain permission, reprogram some budget and conduct baseline biological surveys in Year 2, all 4 quarters required to complete.</p>
<p>Output 1.</p> <p>Training and Capacity building provided stakeholder institutions;(Savings & Credit Groups, Buffer Zone Sub-Committees, Conservational Area Management Committees, Herder User Groups & local Rural municipality (<i>Gaun Palika</i>) governments);</p>	<ol style="list-style-type: none"> 1.1 20 officials from Two local government institutions trained (6 workshops x 3 days each) in: a) transparent, conservation governance finance management, funds mobilization & mediation in 2 sites (Year 1: 3 trainings; Year 2: 1 Training; Year 3: 2 trainings) 1.2 Conservation mainstreamed into annual and 5 year plans 	<ol style="list-style-type: none"> 1.1 Year one trainings postponed due to rapidly changing Government roles and tensions between Local and Provincial Government agencies, planned for Year 2 	

	<p>agreements, measured against the baseline of zero (*NOTE: These are new Government of Nepal Structures under the new Constitution): Assessed in Year 2 & Year 3</p> <p>1.3 Conduct 4 training in 50 formal and informal leaders from 9 local stakeholder groups (5 communities in Manang and 4 in Khumbu, representing +/- 750 Households) in Human Wildlife Conflict mediation & preventative measures; Years 2 & Year 3</p>	1.2: Too early to see results, Planned for year 3	
Activity 1.1 Two Training Manuals produced, a transparent, conservation governance, and b) mediation /conflict/ resource mobilization manual		Two Training Manuals produced:: Both manuals completed in Nepali, are under review.	Training planned in Year 2 Q1-Q2, manuals being finalized and operationalized in Year 2, Q 1.
Activity 1.2 One Trainer of Trainers conducted (for TMI and MS staff):		Informal Review workshop conducted.	Formal workshop after revisions to manual are completed, in Year 2 Quarter 1
Activity 1.3: Eight Governance trainings conducted in 2 sites over 3 years		Postponed due to winter migration of key Government staff, and changing government structures that resulted in unclear roles and responsibilities of newly elected government personnel.	Planned to start in Year 2 now. Training planned in Year 2, Q 1 and Q2.
Activity 1.4: Before and After Training skill assessments x 8 trainings		Year 2 activity	Year 2, Q 1 1nd Q2 activities
Activity 1.5: Number of conservation activities in One year Rural Municipality Plans		Year 2 and 3 activities	
Activity 1.6: Number of conservation Activities in 5 Year Rural Municipality		Planned for Year 3	
Activity 1.7: Total amount of revenues raised from Gov't of Nepal sources for local conservation recorded	Measurable results expected by year 3		
Activity 1.8: Four Herder and Human Wildlife Mediation and prevention trainings; 2 trainings x 2 sites; years 2 and 3	2 herder workshops completed in Manang, and 3 informal herder workshops completed in Khumbu	Follow up with more in depth trainings in Years 2 and 3, in both sites	

<p>Activity 1.9: Number of Trained Herders practice some form of preventative measures on their lands /herds</p>	<p>To be completed and monitoring done after trainings completed in Year 2; 2 improved corrals completed in Manang; 32 herders received Foxlights and training in Manang</p>	
<p>Output 2. Local Communities (750 households) protect & stabilize or improve snow leopard & prey numbers, habitat conditions in Manang and Khumbu sites</p>	<p>2.1 Annual rate of change assessed for snow leopard abundance in 1 site (Manang), through (a) DNA baseline survey (Year1) & repeated in Year 3; and (b) annual camera trap surveys (Year 1-3 Manang, potential expansion to Khumbu Years 2 & 3)</p> <p>2.2 Stable Prey and Habitat demonstrated by Year 3 in 2 sites</p> <p>2.3 15 local Protected Area rangers trained in camera trapping, prey & habitat surveys (Year 1 in Manang; Year2 in Khumbu)</p> <p>2.4 30-50 herders trained on improved livestock guarding and husbandry techniques, documenting and monitoring annual livestock depredation losses at Manang and Khumbu (Year 1& 2)</p> <p>2.5: 50-75% of trained herders confirm value of improved livestock practices, including use of cost-effective, deterrents (e.g. Foxlights, guard dogs) and adopt climate-smart practices, including improved pasture management.</p> <p>2.6 20 Citizen Scientists” (Snow Leopard Scouts) trained Manang in wildlife monitoring techniques and linked to development of Snow</p>	<p>2.1: Delayed due to changing Government of Nepal GON regulations and government decisions to delay and/or reverse all snow leopard biological sampling permissions granted nationally in 2018</p> <p>2.2: Planned Year 2 activity</p> <p>2.3 Training delayed due to delayed permissions on part of government</p> <p>2.4: Two workshops conducted with 28 and 32 herders trained in wildlife conflict management on Manang in 2018; Consultations and training in Khumbu completed in spring 2019 with 38 herders and 48 Savings and Credit group members. Additional follow up trainings planned in both sites</p> <p>2.5: Herders confirmed value of improved corrals in Manang training, spring 2018; 32 herders received Foxlights and training in their use, Monitoring effectiveness is ongoing. Foxlights distribution planned in Khumbu in Yr 2 Q1 based on requests from herders in 2019 meetings at 3 sites in Thame valley, in order to supplement units already in place</p> <p>2.6: Three day training of 20 Snow Leopard scout in conservation awareness completed Manang in 2018. Two conservation awareness programs conducted in Manang and in Pokhara for 100 and 200 students respectively. Additional</p>

	<p><i>Leopard Trails</i></p> <p>2.7 People's attitudes & understanding of clear linkages between increased revenues, climate smart agro-pastoralism & snow leopard conservation increased by 30% in Manang, Baseline Year 1; Results: Year 3</p>	<p>monitoring training delayed until camera trap permissions granted and cameras in place.</p> <p>2.7: Too early to measure changes in attitudes, not expected until year 3 (or later). Baseline attitude survey completed but not of acceptable quality. Training must be repeated.</p>
Activity 2.1: Establish baseline snow leopard and/or prey/habitat	<p>Biological sampling permissions delayed.</p> <p>Prey count survey permission received and on-going</p>	Permission expected in early Year 2 Quarter 1 or 2
Activity 2.2: Conduct non-invasive faecal survey	Permission denied country wide in 2018, due to changing National regulations	Permission granted for prey count in ACAP; wolf survey in Sagarmatha; permissions for faecal sample collection on hold by government but negotiations on-going
Activity 2.3: Develop manual and conduct camera trap survey	Manual developed and camera trap survey expected to start in August 2019	Expected in August 2019
Activity 2.4: Develop manual and Conduct Prey and Habitat surveys	Manuals developed and blue sheep prey and habitat survey on-going in Summer 2019	Survey on-going, Preliminary data by Fall 2109
Activity 2.5: Conduct Herder/ Livestock Owner Attitude Surveys	Two Herder surveys completed in Manang, Informal herder surveys completed in 3 sites in Khumbu, spring 2019	Herder survey to be repeated in Manang as initial survey requires follow up. Alternative experts hired and surveys are on-going; more surveys will be needed.
Activity 2.6: Develop Manual/ Implement & Monitor Livestock Protection Measures for Herders	Manual developed and herder training completed in Manang.	Training planned in Year 2
Activity 2.7: Establish & Monitor <i>Snow Leopard Trails</i>	Trail route established, initial reconnaissance completed and Trail will be field tested with paying clients in Fall of 2019. Local entrepreneur partner identified in Manang.	Route established and will be piloted with paying clients in Fall 2019

Activity 2.8: Preliminary Feasibility Assessment of Wildlife Damage Relief Fund	Preliminary assessment of current wildlife compensation schemes in Khumbu completed in spring 2019	Data collection in Khumbu is on-going.
Output 3: Private Sector Generating Incentives for Snow Leopard Conservation in one or more site		
Activity 3.1: Complete market study in Manang to identify at least one snow leopard-linked product, Year 1	Local Snow Leopard tourism partner identified in Manang and business planning and management support being provided.	On-going support required throughout Year 2
Activity 3.2: Complete Service Design for pilot snow leopard trail in Manang, including route, platform, partners, and pricing, Year1	Private sector partners identified and incorporating the Trail concept into their Global Trail Angels program	See section 3 above for detailed description of progress
Activity 3.3: Train local community members in developing and managing the trail, Year 1	Local interpretive guides selected and training on going by private sector partners	On-going support required throughout Year 2
Activity 3.4: Develop detailed Implementation Strategy to pilot the trail in Manang, Year 1	Completed, see section 3 above	Largely completed. Information gaps identified and will be filled prior to first client visit in fall 2019
Activity 3.5: Enlist the trained community members as partners in piloting the trail, Year 2	Expedited and will be conducted in Year 2 Q1/2	See section 3 above for detailed explanations
Activity 3.6: Initiate the pilot of the snow leopard trail along the identified route and villages, in partnership with key local stakeholders, Year 2 and Year 3	Expedited and will be conducted in Year 2 Q1/2	See section 3 above
Activity 3.7: Monitor the pilot and incorporate feedback to improve the service, Year 3	Planned for Year 3, with regular monitoring and feedback following each trip	Year 3 activity

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact: (Max 30 words) (27) Snow leopard populations are sustained and their prey and habitat protected through institutionalized conservation finance and stewardship at local levels and can be replicated to other sites.</p>			
<p>Outcome: (Max 30 words) Strengthened local institutions & livelihoods, diversified enterprises, reduced livestock losses, and climate- smart villagers committed to sustaining stable snow leopard and prey populations and better overall biodiversity</p>	<p>0.1 Stable Snow Leopard Density of ±0.5- 1.0 /100 km² (Khumbu) & ≥1.0- 2.0/ 100 km² (Manang) > 9 local institutions (+/- 50 Officials) in 2 sites report 25% increase in enterprise & conservation supported activities targeting 750 households Up to 750 households in 2 sites engaged in snow leopard & biodiversity protection activities Depredation & human wildlife conflicts reduced by 30% over 3 years Community understanding increased by 30% of important linkages between climate change, pasture management impacts & snow leopard populations, Baseline Year 1, Results Year 3</p>	<p>0.1a) 2 snow leopard genetic surveys conducted using scat samples over 3 years b) Prey counts in each site, 2x annually Local institutional records, focus groups, local enterprises registered with local bodies Project monitoring records Local institution & Wildlife Dept /Conservation Area records / reports Attitude & Perception surveys toward climate change impacts on pastures on prey & community attitudes towards depredation & predators</p>	<p>Permission to collect scats will be provided by DNPWC Sufficient Citizen Science volunteers & University students participate in volunteer data collection & monitoring Depredation rates vary widely by site & are prone to exaggeration in local reports; Wolf predation increasing dramatically & project reduces wolf-related livestock loss rates to accepted levels based on changing attitudes Measures to reduce daytime wolf attacks implemented & accepted by herders Wolves will not displace snow leopards from Khumbu or Manang No major natural disasters during work period & political situation sufficiently stable or supportive</p>
<p>Outputs: 1. Outputs: 1. Training and Capacity building provided for local government and</p>	<p>1.1 20 officials from Two local government institutions trained (6 workshops x 3 days each) in: a) transparent governance; and b)</p>	<p>1.1 Training attendance records, Years 1, 2 and 3 1.11: Before and after training surveys demonstrate increased capacity/skills</p>	<p>Trained people & institutions use their skills to reduce livestock loss & promote snow leopard conservation;</p>

<p>stakeholder institutions; (Savings & Credit Groups, Buffer Zone Sub Committees, Conservational Area Management Committees, Herder User Groups & local Rural municipality (Gaun Palika) governments);</p>	<p>finance management, funds, mobilization & mediation in 2 sites (Year 1: 3 trainings; Year 2: 1 Training; Year 3: 2 trainings)</p> <p>1.2 Conservation Mainstreamed into annual and 5 year plans agreements, measured against the baseline of zero (*NOTE: These are new Government of Nepal Structures under the new Constitution): Assessed in Year 2 & Year 3</p> <p>Conduct 4 training in 50 formal and informal leaders from 9 local stakeholder groups (5 communities in Manang and 4 in Khumbu, representing +/- 750 Households) in Human Wildlife Conflict mediation & preventative measures; Years 2 & Year 3</p>	<p>Years 1 -3</p> <p>1.1 Local Government One Year Plans fund conservation activities; (Year 2= 2 plans, Year 3 = 2 plans; Life of Project: 4 plans) Local Five Year Plans fund conservation activities (Year 3, 2 plans)</p> <p>1.2 Amount of Conservation revenues generated from local government sources increased from zero in 2017.</p> <p>1.3.1 Training attendance records 1.3.2 # herders and livestock owners implementing and monitoring preventative measures.</p>	<p>Gaun Palika (Rural Municipality) staff will meet with local people / organizations & fairly consider their requests for support;</p>
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<p>2. Local Communities (750 households) protect & stabilize or improve snow leopard & prey numbers, habitat conditions in Manang and Khumbu sites</p>	<p>Annual rate of change assessed for snow leopard abundance in 1 site (Manang), through (a) DNA baseline survey (Year 1) & repeated in Year 3; and (b) annual camera trap surveys (Year 1-3 Manang ,potential expansion to Khumbu Years 2&3)</p> <p>Stable Prey and Habitat demonstrated by Year 3 in 2 sites</p>	<p>200 Faecal (genetics) samples collected, analysed & entered into central / local database Data base of individual snow leopards verified from photo records entered into database</p> <p>2.2 Baseline wild prey (blue sheep) abundance survey conducted in Manang (Year 1) based on transect counts (including 20 habitat plots)</p> <p>2.2.1 Training Attendance records; Prey numbers recorded from observed at fixed points along transects (including Snow Leopard Trails); monitoring</p>	<p>Permission for biological (scats) sample collection approved by DNPWC; samples not degraded</p>
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	<p>5-15 local Protected Area rangers trained in camera trapping, prey & habitat surveys (Year 1 in Manang; Year 2 in Khumbu)</p> <p>30-50 herders trained on improved livestock guarding and husbandry techniques, documenting and monitoring annual livestock depredation losses at Manang and Khumbu (Year 1&2)</p> <p>50-75% of trained herders confirm value of improved livestock practices, including use of cost-effective, deterrents (e.g. Foxlights, guard dogs) and adopt climate-smart practices, including</p>	<p>comparative photographs for change</p> <p>Training certificates issued after training workshop</p> <p>Survey photographic data collected by rangers</p> <p>Monitoring Manual developed & utilized by other park staff & local stakeholders/herders & Snow Leopard Scouts (Manang)</p> <p>Training Attendance records; Number of depredation events per year per site/location entered into Protected Areas database</p> <p>Herder & community perception survey,</p>	<p>Livestock depredation measures will be kept effective & ahead of the ability of predators to learn & thus habituate to such deterrents</p> <p>Snow Leopard Trials generates sufficient sustainable funding from tourism sources beyond life of project</p> <p>Monitoring information will help feed growth in tourism trekking / snow leopard trips</p> <p>Growing, sustainable numbers of visitors (trekkers)</p>
<p>Snow leopard linked enterprise/s identified, piloted and provides conservation incentives</p>	<p>3.1 18 local stakeholder institutions (approximately 50-60 officials) trained in business planning, 2 trainings, (Manang and Khumbu) +/- 750 households, Year</p>	<p>3.1 Criteria developed to assess snow leopard and enterprise linkages, Training Attendance Records</p>	<p>Tourism in Nepal does now experience any natural disasters (earthquakes etc) or external shocks (like kerosene shortages, air plane crashes, lengthy</p>

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	<p>1</p> <p>3.2 One product based enterprise identified and feasibility assessed in Manang linking enterprise and snow leopard & biodiversity conservation; Year 2</p> <p>3.3 One service design completed for snow leopard trail at Manang site, with local stakeholders, serving 5-8 communities, +/- 50-80 HHs; Year 1</p> <p>3.4 One implementation strategy developed and verified to pilot snow leopard trail in Manang; Years 2 and 3</p> <p>3.5 30+ Households receive cash incentives from income generated through snow leopard trail in 4 communities in Manang; Year 3</p> <p>3.6 10+ Pilot snow leopard linked micro- enterprise projects serving 750 households identified and funded through small grants project in Manang and Khumbu, Years 2 & 3. (Done by TMI and MS)</p>	<p>Market study manual, Project report, Year 1</p> <p>Service design document including process description for trail development</p> <p>Implementation Strategy and progress report</p> <p>Report of income generated and profits shared</p> <p>Business plan template adapted for snow leopard conservation micro- enterprise, small grants programs initiated, Baseline Year 2, Result: Year 3</p>	<p>border closings that deter international or domestic tourists</p> <p>Institutions & households willing to adopt new, innovative business planning, fiscal management & implementation practices</p> <p>Additional funding for enterprise pilot successfully raised from donors</p> <p>Continued growth of trekking Tourism sector</p> <p>Micro-enterprise activities generate sufficient funds to serve as conservation incentives</p>
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Activities (each activity is numbered according to the Output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

Governance

Two Training Manuals produced, a) transparent governance, and b) mediation/conflict/resource mobilization

One Trainer of Trainers conducted (for TMI and MS staff)

Eight Governance trainings conducted in 2 sites over 3 years

Before and After Training skill assessments x 8 trainings

Number of conservation activities in One year Rural Municipality Plans

Number of conservation Activities in 5 Year Rural Municipality

Total amount of revenues raised from Gov't of Nepal sources for local conservation recorded

Four Herder and Human Wildlife Mediation and prevention trainings; 2 trainings x 2 sites; years 2 and 3

Number of Trained Herders practice some form of preventative measures on their lands/herds

Output 2 : Facilitate Biodiversity Stewardship by Local Institutions:

Establish baseline snow leopard and/or prey/habitat

Conduct non-invasive faecal survey

Develop manual and conduct camera trap survey

Develop manual and Conduct Prey and Habitat surveys

Conduct Herder/Livestock Owner Attitude Surveys

Develop Manual / Implement & Monitor Livestock Protection Measures for Herders

Establish & Monitor Snow Leopard Trails

Preliminary Feasibility Assessment of Wildlife Damage Relief Fund

Output 3: Private Sector Generating Incentives for Snow Leopard Conservation in one or more site

Complete market study in Manang to identify at least one snow leopard-linked product, Year 1

Complete Service Design for pilot snow leopard trail in Manang, including route, platform, partners, and pricing, Year 1

Train local community members in developing and managing the trail, Year

Develop detailed Implementation Strategy to pilot the trail in Manang, Year 1

Enlist the trained community members as partners in piloting the trail, Year 2

Initiate the pilot of the snow leopard trail along the identified route and villages, in partnership with key local stakeholders, Year 2 and Year 3

Monitor the pilot and incorporate feedback to improve the service, Year 3

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
Established codes								
	Two herder Perception & attitude surveys, Manang	28 and 39 persons	100% Nepali	67				
	Herder survey in Khumbu at 3 sites	38 Herders, (22 women)	100% Nepali	38				
	Saving and Credit Group awareness workshops x 3 sites, Khumbu	48 persons, 32 women	100 % Nepali	48				
	Herder Protection measures completed	two corrals improved; 32 herders received Foxlights in Manang						
	Two Conservation awareness programs in Manang & Pokhara	100 students and 200 students respectively	100% Nepali	300 students				
	One exploratory Snow Leopard Trail	7 experts	3 Nepali, 4 foreigner					
	Module design workshop Snow Leopard Trails	7 experts	3 Nepali, 4 foreigner					

Table 2 Publications

Title	Type	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from

	(e.g. journals, manual, CDs)					(e.g. weblink or publisher if not available online)
None planned or completed this reporting period						

Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	Yes
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	No
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	X none relevant this period
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	None
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	yes
Do not include claim forms or other communications with this report.	None attached