



Darwin Initiative: Final Report

Darwin Project Information

Project reference	22-009
Project title	Securing Shuklaphanta Wildlife Reserve's Grassland and wellbeing of local communities
Host country(ies)	Nepal
Contract holder institution	Zoological Society of London
Partner institution(s)	Department of National Parks and Wildlife Conservation (DNPWC), National Trust for Nature Conservation (NTNC), Himalayan Nature (HN)
Darwin grant value	£ 284,417
Start/end dates of project	1 April 2015 to 31 March 2018
Project leader's name	Hem Sagar Baral
Project website/blog/Twitter	https://www.zsl.org/conservation/regions/asia/Shuklaphanta-wildlife-reserve-%E2%80%93-nepal https://himalayannature.org/index.php/2017/01/17/darwin-initiative-securing-shuklaphanta-wildlife-reserves-grasslands-and-wellbeing-of-local-communities/
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1 Project Rationale

The project was designed in consultation with Shuklaphanta National Park (ShNP) and the Buffer Zone Management Committee (BZMC), a representative committee of communities living around the park, to address the problem of unregulated and illegal grazing inside the park. ShNP Management Plan identified overgrazing in core and peripheral areas as a major cause of the decline of grassland habitat and wildlife. Nearly 17,000 cattle each day, constituting 75% of those owned by buffer zone communities, used to graze freely within the core and peripheral area of the park. The frequent and unregulated sharing of grazing land not only resulted in overgrazing, but also had increased the risk of disease transmission between domestic ruminants and wild animals. For example, 20 swamp and hog deer died in a foot and mouth disease (FMD) outbreak in 2010-11.

Cattle, however, play a significant role in the local economy. Over 22,000 households (143,395 people) residing in the buffer zone were dependent on livestock for their income and nutritional needs at the start of the project. Cattle management was based on traditional

herding practices leading to low milk yields and the need for adequate fodder resulted in park encroachment. There were inadequate veterinary facilities to address livestock health concerns, which often led to severe economic losses from cattle deaths and lost productivity and income due to unhealthy cattle, e.g. low milk production. Women, typically responsible for fodder collection, were at risk of injury from accidents and animal attack while climbing trees to collect fodder in and around ShNP. These concerns were highlighted by communities and DNPWC during meetings with NTNC and ZSL.

The project was implemented in Shuklaphanta National Park located in far western lowland Nepal, in Kanchanpur district. The protected area, established in 1976, covers an area of 305km². An additional 243.5km² area around the core protected area was declared as a buffer zone in 2004, and in 2017 it was upgraded from a Wildlife Reserve to a National Park largely due to the improved status of biodiversity in the core.

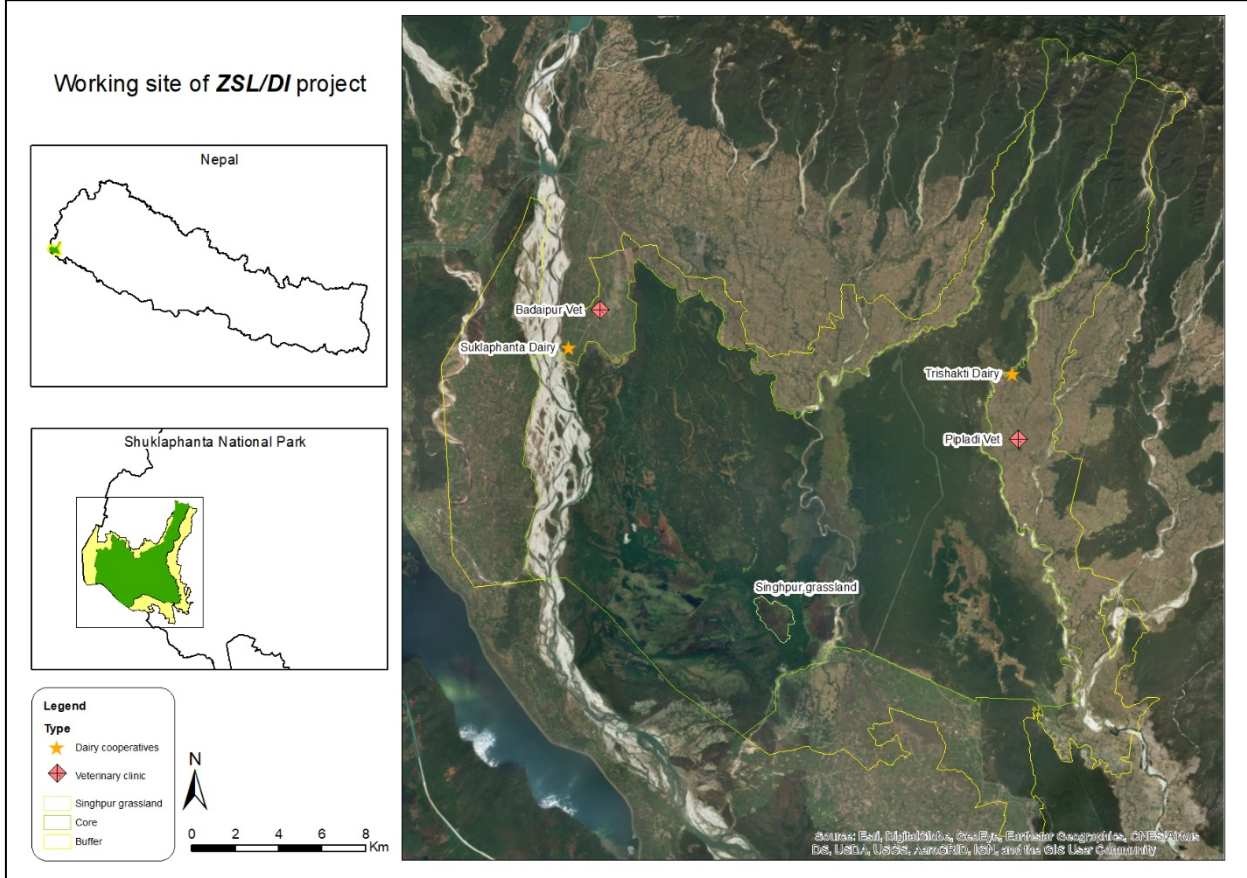


Fig 1: Map of the project location

2 Project Partnerships

Strong project partnerships have been key to securing the sustainability of project activities. ZSL ensured the involvement of all partners and major stakeholders in project design and implementation, including the Department of National Parks and Wildlife Conservation (DNPWC), National Trust for Nature Conservation (NTNC), Himalayan Nature (HN), Buffer Zone Management Committee (BZMC), Local Municipality, District Livestock Services Office (DLSO) and local communities.

A Programme Coordination Committee (PCC) was formed at the start of the project chaired by the Deputy Director General of DNPWC, with the Section Head of DNPWC and the Country Manager of ZSL-Nepal as members. The project proposal was shared with PCC for review and approval to carry out project activities. PCC was also responsible for facilitating monitoring by the national government. Similarly, a Project Management Unit (PMU) was formed in ShNP for the implementation of this project, chaired by the Chief Conservation Officer of ShNP and with representatives of NTNC and ZSL as members. Other important stakeholders were invited to PMU meetings such as the Chairman of BZMC and

representatives from local conservation organisations. The role of PMU was to ensure coordination among partners, BZMC and local communities; to monitor progress; and to facilitate project activities and report to PCC. PCC and PMU meetings were held regularly to ensure: the smooth implementation of project activities; information sharing; progress monitoring; and the forging of effective partnerships with all project partners and stakeholders. ZSL provided necessary technical assistance and coordination among the partners to ensure effective implementation, monitoring and evaluation. All the partners and relevant stakeholders were involved during implementation, monitoring and evaluation of the project.

As community members were the direct beneficiaries of the project and also partially responsible for the sustainability of project activities, community engagement was critical for the success of this project. Communities were engaged through regular meetings, ongoing informal engagement taking place within communities, and active participation in activities. The involvement of community members in the selection of sites for veterinary clinics, the development of guidelines for the operation of dairy cooperatives, and in finding solutions to improve fodder accessibility has been key in achieving the project's success beyond what was envisaged.

Another major achievement of the project in terms of partnerships was the engagement of DLSO during project implementation as a major stakeholder. DLSO is the government agency responsible for the development and promotion of livestock husbandry in Nepal. The DLSO of Kanchanpur District played a key role in running the veterinary clinics early in the project and has now taken over ownership of them, securing their long-term sustainability. Regular progress updates were shared with all partners to ensure local ownership of all project outputs and the continued support of all stakeholders beyond the life of the project.

3 Project Achievements

3.1 Outputs

Output 1: Two fully functional veterinary clinics established within the ShNP buffer zone.

Two veterinary clinics supported by the project are now operating within the buffer zone. A new building, and structures to provide shelter for cattle and people are in use at Badhaipur veterinary clinic. Both veterinary clinics are fully functional, well equipped and are providing services to the community; they have been formally handed-over to DLSO, which is committed to their continued operation. Four veterinary staff were supported for the clinics during the project period to start-up the centres.

During the final year of the project the two veterinary clinics reached 9,840 households (an increase of 222% compared to the baseline of 3053 households served in year 1) and they treated 304% more cases than during the baseline year. Baseline cases served=5829; Cases served in year 3= 23,575 (Annex 7.2(b)). Similarly, the number of FMD vaccinations delivered by the veterinary clinics have increased more than fivefold, with 4680 cases in year 3 compared to 748 cases in year 1.

Output 2: Women-run dairy cooperatives facilitating more productive cattle farms within the ShNP buffer zone.

The cooperatives established by the project were extremely successful in promoting more productive and sustainable cattle farms within ShNP buffer zone. Two women-led cooperatives were established by the project with a total membership of 136 households. Two training sessions on administration and accounts were organized for cooperative members in Years 1 and 3, and 18 participants (14 female and 4 male) from the two cooperatives were trained. Similarly, a training session was organised in year 1 for interested farmers on rearing commercial livestock, with 25 community members (19 female and 6 male) trained.

A total of 87 households (project target = 20 households) have used the cooperative's services to purchase improved breeds of livestock and maintain their livestock sheds. Similarly, the revolving fund provided by the project grew by 30%, NPR 354,152 (GBP 2,468) through interest on soft loans and monthly savings by members. The average milk production for cooperative members increased by 64% compared to the baseline. Cooperative members earned NPR 5,201,250.00 (GBP 36,245.64) through milk sales in the third year of the project (total milk sold= 104,025 litres; average market price= 50 NPR/litre; NPR:GBP

conversion=143.5:1). In aggregate cooperative members earned 54,274.43 GBP by selling milk in years 2 and 3.

Output 3: Grassland management guideline in place and operational.

Grassland management guidelines for ShNP were endorsed and published by ShNP. Best practice approaches from current grassland management and management trials conducted in Singhpur grassland were incorporated into the guidelines. Similarly, 70 people from communities, DNPWC and NTNC were trained in grassland management techniques. Grazing pressure dropped substantially through the project with a 31% reduction in the number of cattle entering ShNP, under the 50% reduction target originally set for the project (Year 1 baseline = 16,998, 2018 survey = 11,665). This reduction in grazing pressure was less than target as the export of unproductive livestock to India, which had previously helped to control grazing pressure increases, was banned during the project to adhere to national quarantines imposed.

Fodder seedlings distributed to 136 cooperative member households have enabled them to grow fodder in their private farms reducing their dependency on the ShNP grasslands. The number of households planting fodder species increased by 127% (from 358 in year 1 to 815 in the final year). Finally, the project facilitated 136 HHs to adopt stall feeding practices by providing feeder pans, a chaff cutter machine and grass/fodder species. Similarly, a nursery supported by the project has provided 50,207 fodder seedlings to buffer zone households, allowing them to plant trees in community areas and farmlands. Trees provide fodder as well as fuelwood for the communities and thus reduce the pressure on the national park.

Output 4: Annual biodiversity monitoring programme for ShNP in place.

The project supported annual monitoring surveys for key indicator species in ShNP including Hodgson’s bushchat, tiger and prey base, and rhino. All the collected data has been submitted to ShNP, which published the results for use by all stakeholders and partners. Results from the surveys were incorporated into the grassland management guidelines and the management plan being prepared for the national park.

Output 1:	Two fully functional veterinary clinics established within the ShNP buffer zone.			Output achieved.
	Baseline	Change recorded by 2018 (end of the project)	Source of evidence	
Indicator 1 Two clinics refurbished and equipment procured by the end of year 1.	Clinics lack basic facilities	Two veterinary clinics refurbished in Badaipur and Pipladi. Clinics handed over to DLSO. Medicine and equipment support provided four times during project life.	Annex 7.1	The engagement of the DLSO has been a highlight of the project ensuring long-term sustainability in the operation of these clinics.
Indicator 2 Four veterinary staff recruited and trained by the end of year 1.	0	Four veterinary staff provided services from two clinics. Trained staff will be retained by the clinics through internal funding sources and	Annex 7.2 (a)	Project facilitated the hire of veterinary staff, so providing veterinary services to a larger

		contribution from DLSO and partners.		population (indicator 3, 4).
Indicator 3 Each veterinary clinic served at least 1750 (revised value) households by the end of year 2 and 2500 (revised value) households by the end of year 3.	Badaipur clinic = 1264 Households and Pipladi = 1789 Households	Badaipur clinic = 3716 Households and Pipladi = 6124 Households	Annex 7.2 (b)	Above target. Significant increase in the number of households served by both clinics. This number has steadily risen in year 2 and 3.
Indicator 4 Each clinic vaccinates at least 500 (revised value) cows against Foot and Mouth Disease by the end of year 3.	Badaipur= 500 Pipladi= 248	Badaipur= 3135 Pipladi= 1545	Annex 7.2 (b)	Above target. The coverage of veterinary clinics has increased and hence a significantly higher number of livestock were vaccinated against Foot and Mouth Disease.

Output 2:	Women-run dairy cooperatives facilitating more productive cattle farms within the ShNP buffer zone.			Output achieved.
	Baseline	Change recorded by 2017	Source of evidence	
Indicator 1 Two dairy cooperatives with 15-25 female members established through existing cooperative legal structures by year 1.	0	2 cooperatives. Total members = 136 Shuklaphanta cooperative = 53 members Trishakti cooperative= 83 members	Annex 7.3, 7.4, co-operative operational guidelines, ShNP report 1	The project was able to engage significantly more than the target number of women in the cooperatives. The cooperatives were linked with ShNP and BZMC for long-term sustainability

				and monitoring.
Indicator 2 Number (target = 20) of households with improved cows obtained with support from the project by the end of year 2	0	87 households	Annex 7.5 and 7.6	Above target. Indicator achieved beyond expectation.
Indicator 3 20% increases in household annual milk yield, consumption and commercialisation from year 1 baselines.	Baseline household annual milk production Trishakti = 890.24 litre/year Shuklaphanta = 998.58 litre/year Baseline total annual milk marketed = 27,557.5 litre/year.	64% increase in household annual milk production Trishakti = 1,099.39 litre/year Shuklaphanta = 1,997.17 litre/year 277% increase in total annual milk marketed = 104,025 litre/year	Annex 7.7	Above target. Average values derived from per day milk yield and marketing. Increased values from year 1 baselines for Shuklaphanta and total marketed milk.

Output 3:	Grassland management guidelines in place and plan operational.			Output achieved.
	Baseline	Change recorded by 2017	Source of evidence	
Indicator 1 10 reserve staff and 40 community members trained in grassland management techniques by the end of year 2.	0	23 park staff and 47 community members trained	Annex 7.8 (a, b, c, d)	Above target. 70 staff and community members trained in grassland management in Year 2.
Indicator 2 50% reduction of area of ShNP experiencing illegal grazing from year 1 to year 3	16,998 cattle entering inside the park per day	31% decline. 11,665 cattle entering inside the park per day	Project partner report	Number of livestock entering inside the park has reduced by 31.37%. Less than target due to cessation of exports of

				unproductive cattle which had previously acted to slow the rate of increase in grazing pressure.
Indicator 3 Number of households planting fodder species increases by 20% from year 1 baseline by the end of year 3.	358 households	Number of households planting fodder species increased by 127%. 815 households (1,655 kg of seeds and 200,000 sets of Napier distributed)	Annex 7.9, 7.10 (Letters from vet centres)	Above target.
Indicator 4 Number of households practicing stall feeding increases by 30% from year 1 baseline by the end of year 3.	0	136 households	Annex 7.9, 7.10 Photo 2 Project partner report	All cooperative households are directly engaged in stall feeding.

Output 4:	Biodiversity monitoring programme for ShNP in place.			Output achieved.
	Baseline	Change recorded by 2017	Source of evidence	
Indicator 1 Baselines for key indicator species established for year 1 of the project in consultation with other stakeholders	Baselines not established for year 1 of the project for Tiger, Swamp Deer, Hog Deer and Hodgson's Bushchat	Baselines established for Tiger, Swamp Deer, Hog Deer and Hodgson's Bushchat Baselines: Tiger 15 Swamp Deer 2301 (2014) Hog Deer density 6.76 ±3.42/km ²	Annual report ShNP (2017)	The report is in Nepali and is provided as supplementary document.

		Hodgson's Bushchat 7		
Indicator 2 Monitoring surveys carried out in year 2 and year 3 of the project	No ongoing monitoring surveys	Ongoing monitoring conducted. Results below: Tiger 17 (13% increase) Swamp Deer – estimated stable (final results pending) Hog Deer density: 10.52 /km ² (ca. 50% increase) Hodgson's Bushchat 7 (stable)	Annual report ShNP (2017) Partner report Hodgson's Bushchat survey (ShNP 2017)	The report is in Nepali and is provided as supplementary document.
Indicator 3 Results are fed into ShNP Management Plan and grassland management guidelines by the end of year 3	ShNP management plan outdated and no grassland management guidelines	Results fed into the plan and guidelines. Grassland Management guidelines endorsed, published and being implemented. Management Plan for ShNP now being reviewed by DNPWC.	Grassland management guidelines document provided as a supplementary document.	

3.2 Outcome

The project achieved its intended outcome of '*Healthy grassland ecosystems in and around Shuklaphanta National Park contribute to the well-being of 2500 households through productive livestock, better access to veterinary service and more accessible fodder resources*'. Given the improved status of biodiversity DNPWC upgraded Shuklaphanta to a National Park in February 2017.

Healthy grassland ecosystems in and around Shuklaphanta National Park have been secured. 54 km² of grassland is under evidence-based management, with data from annual biological monitoring feeding into adaptive management plans. Management and monitoring of permanent grassland management trial plots is being conducted to improve understanding of the grassland ecosystem and how it changes over time. Illegal grazing inside the core of national park has reduced by 31.37% (see output 3). The number of cases of zoonotic diseases registered by the two clinics declined by 11% over the course of the project, and no zoonotic disease outbreaks occurred.

This has led to increasing populations of grassland-health indicator species (those species with fast population growth rates, which therefore respond quickly to interventions). The hog deer population increased by around 50% from ca. 6.76/km² to ca.10.52/km². In addition grassland-dependent bird species populations have remained stable despite significant

pressures from outside ShNP. The Bengal Florican population has remained stable at 8 individuals despite pressures on the Indian side of their range, outside the protected area, where they are vulnerable to bushmeat hunting and poaching. The Hodgsons Bushchat population in their wintering grounds in Shuklaphanta have remained stable at 7 individuals over the 3 year project.

The grassland is also supporting increased populations of key grassland dependent species with slower population growth rates, which have migrated (both through natural and assisted migration) into ShNP. The tiger population increased by 13% from 15 to 17 over the project period (results from 2017-18 tiger survey not yet available). The rhino population increased by 112.5%, from 8 to 17, including 5 translocated rhinos from Chitwan National Park, or by 50% from 8 to 12, excluding translocations.

The healthy grassland ecosystem has been supported by, and in turn contributed to, increased wellbeing, gender equity (see section 4.6) and livelihood sustainability for over 2500 households. The physical capital of the 22,000 households in ShNP buffer zone has been protected. As a result of the services provided by the veterinary clinics livestock losses have decreased by 67% compared to the baseline year. Access to fodder and firewood was increased for households across ShNP buffer zone through nurseries providing trees and fodder species, which also decreased pressure on natural resources (see output 3).

Cooperative members (136 households) have significantly increased economic wellbeing. There has been a 200% increase in those assessed as being middle class, There has been a 69% decrease in those assessed as being poor or ultra-poor. Cooperative member’s incomes have also increased and are now on an upwards trajectory. Cooperative members earned GBP 36,246 through milk sales in the third year of the project; an increase in annual milk income of 277%. In aggregate communities earned GBP 54,274 by selling milk in years 2 and 3. The annual income from milk sales by the community members more than doubled in year 3 as compared to year 2 (GBP 18,028.79), demonstrating the continuing upwards trajectory in community income. Due to the continued operation of a growing, revolving loans fund, this upward trend in income is expected to continue post-project.

The financial services available to cooperative members have substantially increased through the project, supporting economic development and wellbeing. The revolving fund provided by the project grew by 30% during the project through interest on soft loans and monthly savings by members. This will provide long term financial capital to support improved and resilient incomes for communities. Furthermore, farmers have been made aware of and facilitated to access the existing national livestock insurance scheme. Cooperatives also provide small contributions to poor households to help insure their livestock. Support from cooperatives has enabled 179 livestock to be insured.

Community members from the communities where the cooperatives are established (ca. 2,500 households) have indirectly benefited from the increased income and financial capital available in their community.

Outcome:	Healthy grassland ecosystems in and around Shuklaphanta Wildlife Reserve contributes to the well-being of 2500 households through productive livestock, better access to veterinary services and more accessible fodder resources.			Outcome achieved. Given the improved status of biodiversity DNPWC upgraded Shuklaphanta to a National Park in February 2017.
	Baseline	Change by 2018	Source of evidence	
Two VDCs around ShNP actively	0	Communities managed 8.1 km ²	Annual Report	

implementing community managed grassland guidelines covering at least 10 km ² of the buffer zone by year 3.		of the buffer zone according to guidelines: Kasrol (2.7 km ²), Samadaiji (0.9 km ²), Jhalari (1.1 km ²), Beldandi (1.4 km ²), Hattithala (2.0 km ²).	ShNP (2016) Buffer Zone Progress Reports	
DNPWC managing grasslands according to guidelines in at least 16 km ² of the PA by the end of year 3.	0	ShNP managing 54.5 Km ² of grassland according to guidelines.	Annual Report ShNP (2017)	Above target. Support for management of grassland was provided to the park. Staff trained in year 2 of the project completed grassland management in year 3 following the grassland management guidelines. However, manual management of the grassland is time consuming and some of the grassland experienced uncontrolled burning.
Key biodiversity metrics stabilised or improved within SHNP by year 3. Increase of tiger population from 15 to 20, swamp deer and hog deer populations stable, Hodgson's Bushchat and Bengal florican population increased by 10% from 2014 levels.	Tiger population: 15 (ShNP 2015 census) Bengal Florican population: 8 (BCN, 2015) Swamp deer Population 2301 (ShNP 2014)	Tiger population: 17 (ShNP 2016/17 census, 2017/18 census results to be released on 29 July 2018 – World Tiger Day) Bengal Florican: data still beign analysed (estimated 8 birds – ShNP preliminary data)	Annual report ShNP (2017)	The project supported ShNP in annual monitoring of key species. The populations of tigers and their prey species have increased. However, populations of threatened grassland dependent

	Hodgson's Bushchat 7 (ShNP/ZSL 2014) Hog deer: 6.76 ±3.42/km ²	Swamp Deer: data being analysed (estimated stable population – ShNP/NTNC preliminary data) Hodgson's Bushchat 7 (ShNP/ZSL 2017) Hog Deer density: 10.52/km ² (2017)		bird species have remained stable, due to threats outside ShNP.
80% reduction in zoonotic disease outbreaks by the end of year 3.	171 cases treated by two clinics in 2014	100% reduction in outbreaks of zoonotic diseases (none occurred) in project period. Community members are more aware of livestock diseases and are seeking veterinary services (100% reduction). 11% decline in cases treated by two clinics, to 152 cases in 2018.	Annex 7.2 (c)	Increased use of veterinary services has led to detection of more cases. Greater awareness as well as use of veterinary services to vaccinate livestock has helped mitigate the spread of zoonotic diseases
Economic losses from lack of veterinary care reduced by 50% from year 1 baseline	105 livestock lost to diseases in year 1	35 livestock lost to disease during year 3. 67% reduction in economic losses from lack of veterinary care.	Annex 7.11 (Letters from veterinary centres)	Above target. Increased access to veterinary health care has resulted in a significant drop in the number of livestock lost
At least 50% of	Total respondent=	200% increase in	Well-being	Above target.

<p>households' respondents (disaggregated by gender) report average improvement in wellbeing scores (using locally defined indicators and material style of life) by year 3 compared to Year 1 baseline.</p>	<p>132 households (76 Female and 56 Male respondents)</p> <p>Middle class 24.24% (20 F, 12 M)</p> <p>Average 46.97% (36 F, 26 M)</p> <p>Poor 21.97% (16 F, 13 M)</p> <p>Ultra-poor 6.82% (4 F, 5 M)</p>	<p>those assessed as being middle class, and a 69% decrease in those assessed as being poor or ultra-poor.</p> <p>Total surveyed = 136 HHs</p> <p>Middle class 72.79% (99 HHs) (89 F, 10 M)</p> <p>Average 18.38% (25 HHs) (22 F, 3 M)</p> <p>Poor 5.88% (8 HHs) (8 F)</p> <p>Ultra-poor 2.94% (4 HHs) (4 F)</p>	<p>assessment of Women-run Dairy Cooperative members (NTNC, 2018)</p>	<p>The assessment was completed through establishing local indicators (shed improvement status, leadership development, rise in annual income, change in status of toilet and, cooking fuel used).</p>
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3.3 Impact: achievement of positive impact on biodiversity and poverty alleviation

The project made major contributions to its intended impact: *improvement in Shuklaphanta Wildlife Reserve's habitat with associated increases in grassland dependant wildlife, underpinned by a more sustainable livelihood base for communities.*

In the project term the livelihoods of two communities living in ShNP buffer zone were enhanced through women-led livestock cooperatives and improved veterinary clinics (outcome indicators 5 and 6, output indicators 1.3 and 2.3). Simultaneously overgrazing and the overexploitation of natural resources in ShNP was dramatically reduced through the adoption of sustainable grazing practices (output indicator 3.2), grassland management (outcome indicators 1 and 2) and the provision of alternative sources of resources (output indicator 3.4). This has led to the development of a site-tailored model of sustainable livelihoods and effective grassland management. And to established institutions (women-led livestock cooperatives, and veterinary clinics (output indicators 1.1 and 2.1)), which will continue to operate, and improve community wellbeing and grassland health.

These outputs have led to an increase, during the project term, in the health of the grassland habitat. They have also led to both increasing populations of grassland health indicator species and increased populations of key landscape species, which are dependent on grassland (output indicator 4.2 and outcome indicator 3). The wellbeing of local communities has increased significantly and sustainably (outcome indicator 6). The project has also had a major impact on gender equity both locally and in terms of providing a model for expansion (see section 4.6).

In the longer term such locally focussed changes will expand across ShNP through the ongoing delivery of evidence-based grassland management, veterinary services and the continuing growth of livelihood cooperatives – all supported by an engaged ShNP authority and DLSO. This will contribute to substantial and sustainable increases in the populations of grassland dependent wildlife over time. With fewer incursions into ShNP and communities benefiting from the initiatives put in place by the project the link between sustainable management increased wellbeing and conservation has been concretely demonstrated to local

communities, promoting support for conservation for the long-term. Though an increasing tiger population, along with populations of other species, poses increased risks of human-wildlife conflict, other work conducted by ZSL in ShNP (funded by IUCN-KfW's Integrated Tiger Habitat Conservation Programme) is focussing on mitigating this so that support for conservation can continue to grow, with communities realising net benefits from healthy ecosystems.

Additionally, the successful model will have, and is already having, impacts beyond what was forecast in the impact. Firstly, with the development of the Terai Grassland Management Guidelines, a draft of which has been submitted to DNPWC. These provide a blueprint, based on the success of this project, to expand grassland management across the ecologically critical and unique Terai Grasslands. Secondly the community engagement and livelihood development model developed under this project, through women-led cooperatives and revolving soft-loan facilities, has provided valuable insights and lessons learnt for ZSL's integrated conservation and development projects across 6 protected areas in Nepal and India, working with thousands of community members annually.

4 Contribution to Darwin Initiative Programme Objectives

4.1 Contribution to Global Goals for Sustainable Development (SDGs)

The following SDGs are relevant to the project:

Goal 1: No poverty and Goal 2: Zero Hunger: The project has provided support to 87 households to purchase improved breeds of livestock through cooperatives. Cooperative members have benefited from increased milk production (64% increase in project period) either through direct income (54,274.43 GBP in the project period) or better nutrition. Veterinary clinics have provided health services resulting in a decrease in the number of livestock lost to disease (67% reduction in livestock lost to disease in project period).

Goal 3: Good Health and Wellbeing: Better nutrition for children is available. Members have started stall feeding their livestock reducing the risk to livestock as well as to people who previously entered the park in order to collect fodder; mainly women. Veterinary clinics have successfully reduced the incidence of zoonotic diseases and prevented any outbreaks. Through its income generating activities, and the increased resources it has dedicated to fodder collection, the project has contributed to increased wellbeing of local communities in the project site.

Goal 5: Gender Equality: The Women-led livestock cooperatives established under the project have made major contributions to promoting women's independent income generation, gender equality, and ultimately to community development. Loans have been provided to 78 women members to purchase improved breeds of livestock (see section 4.6)

Goal 15: Life on Land: Through grassland management, veterinary services preventing the transmission of disease from livestock to wildlife, and the series of measures deployed to enhance community wellbeing and reduce their dependence on and the overexploitation of natural resources, the project is contributing to the effective conservation of ShNP's grasslands, thus protecting and restoring the threatened grassland ecosystem. Similarly, the species monitoring programme has enabled the national park management to make informed decisions on conservation priorities and adaptive management.

4.2 Project support to the Conventions or Treaties (CBD, CITES, Nagoya Protocol, ITPGRFA)

Convention, treaty, agreement	Project contribution to meet national obligations
Convention of Biological Diversity	<p>Awareness raising radio programmes have been broadcast for grassland and biodiversity conservation (Target 1). Site specific grassland management guidelines, which support targets 4, 5, 7 and 9 of the CBD, have been prepared and endorsed by ShNP. Similarly, grassland management work, as part of the trial plots, contributes to targets 12, 17, 18 and 19 by collecting robust data. The project also supports local communities to reduce fodder collection pressure on forests and enhances the wellbeing of communities by supporting improved breeds of livestock and by providing fodder seedlings; all contributing to target 12.</p> <p>Several interaction meetings with the focal point for CBD and CITES in Nepal have been carried out. Project objectives and results from the project have been shared. Suggestions of how the project could enhance its contribution to the CBD, including through data reporting to contribute to meeting the national commitment to the CBD and CITES, have been incorporated.</p>
National Biodiversity Strategy and Action Plan	<p>The overall goal of the project is in line with the NBSAP. The draft management guidelines support meeting the target of the NBSAP for the 'sustainable management of at least five grasslands and five wetlands inside protected areas prepared and implemented by 2020.'</p>

4.3 Project support to poverty alleviation

The project was designed to make the maximum contribution to poverty alleviation through both direct and indirect measures, while also conserving biodiversity. The project established women-led dairy subcommittees with 136 members which provided financial support to poor households to purchase improved breeds of livestock. Cooperatives directly helped 87 community members via the soft loan programme to upgrade dairy farms, leading to increased food security as well as income from dairy production. Average local income was increased through moving local dairy products up the existing dairy value chain. Community members collectively earned 54,274.43 GBP during the project period from milk sales. The project also upgraded two veterinary clinics to provide services to an additional 7000 households. Access to quality services from the veterinary clinics has led to a 67% reduction in livestock losses to disease.

Milk production and the quantity of milk marketed has increased contributing to increased food security, better nutrition for children and family members and direct income for the local community households. Because cooperatives function as a revolving fund, providing monetary assistance to poor households, these benefits are expected to expand and continue beyond the project life supporting poverty alleviation in the region.

As a key tool under the livelihood cooperatives the revolving soft-loan funds have provided financial services to cooperative members, which are a key tool to support economic development. Similarly the project has facilitated community members to access the national livestock insurance scheme. These financial services will be sustained after the project, and the revolving soft-loan fund continues to grow, this will support ongoing poverty alleviation in the buffer zone of ShNP.

In addition these initiatives have been focused on supporting communities to be less dependent on natural resources and make use of them more sustainably. This has improved the health of the grassland ecosystem (see section 3.2), and consequently the ecosystem services and natural capital available to local communities.

4.4 Gender equality

As women are primarily engaged in rearing livestock and fodder collection, they are the main beneficiaries of the project. The project has focused on providing better access to fodder, health care of livestock.

One of the key outputs of the project is women's empowerment through engagement and providing opportunities for income generation via the setup of two women-led cooperatives. Almost all members of the subcommittee are women, which also helps promote women's role in the economy and decision making. The project has empowered women with decision-making abilities in the selection and disbursement of loans. The cooperatives have already provided soft loans to 87 households to purchase improved breeds of livestock.

The project is also supporting cooperative members to conduct regular meetings and be represented at larger forums such as workshops and meetings held by ShNP and BZMCs. This has helped empower women cooperative members to play a larger role in local decision making.

The project is also promoting stall feeding practices through awareness raising programmes and fodder seedling support, which reduces the number of women going inside the park to collect fodder. This will have a positive impact on the health of women and reduce the risk of injuries sustained inside the park through animal attacks and falling out of trees while collecting fodder.

4.5 Programme indicators

- **Did the project lead to greater representation of local poor people in management structures of biodiversity?**

Yes. The project facilitated the community management of grassland and increased community coordination and representation with ShNP. The project activities and engagement of various stakeholders has enabled better relations between ShNP and local communities as well as engendered a positive attitude of local communities toward biodiversity conservation.

- **Were any management plans for biodiversity developed?**

Grassland management guidelines for Shuklaphanta National Park have been endorsed and published, and are now being implemented. ShNP management plan has been developed and is currently being reviewed by DNPWC. Similarly, the Terai Grassland Management Guidelines are now under development, and a draft has been submitted to DNPWC for review.

- **Were these formally accepted?**

The ShNP Grassland Management Guidelines and biological monitoring report were endorsed by the government.

- **Were they participatory in nature or were they 'top-down'? How well represented are the local poor including women, in any proposed management structures?**

During the preparation of both documents, field level discussion with all stakeholders (partner organisations, BZMCs and its users' committees) was completed. Women-led livestock cooperatives are the main institution developed under this project and they have prioritised the representation of women and marginalised groups.

- **Were there any positive gains in household (HH) income as a result of this project?**

Women-led livestock cooperative members earned 54,274.43 GBP during the project period from milk sales. In addition, buffer zone households receiving veterinary support and fodder seedlings also had increased income from livestock farming. However, this was not measured directly.

- **How many HHs saw an increase in their HH income?**

A total of 136 households reported a direct increase in their income from livestock farming.

- **How much did their HH income increase (e.g. x% above baseline, x% above national average)? How was this measured?**

Cooperative members earned GBP 36,246 through milk sales in the third year of the project; an increase in annual milk income of 277%. The result was a 200% increase in those assessed as being middle class, and a 69% decrease in those assessed as being poor or ultra-poor.

4.6 Transfer of knowledge

The project did not provide any formal qualifications. However, the project supported 5 Nepalese staff (all msle) who were trained in project implementation and biodiversity conservation. The Terai Grassland Management Guidelines now under development as a result of the project will transfer knowledge gained under the project to policy makers and practitioners across Nepal.

4.7 Capacity building

The project during its life trained 90 community members and partner staff on biodiversity conservation and livelihood skills eg. Grassland management, livestock husbandry and cooperative management. A total of 73% of trained members were female. In addition, the project facilitated DLSO to recruit and train four veterinary staff. The capacity of five project staff was also increased in project management, coordination and implementation.

5 Sustainability and Legacy

The key achievements toward guaranteeing the sustainability of the project activities were:

- 1) Active involvement of ShNP, BZMC and DLSO in the setup of the veterinary clinics. Clinics handed over to DLSO in a formal programme organised by ShNP, BZMC, NTNC, HN, and ZSL. DLSO agreed to provide support for these clinics in future through their annual programmes. Similarly, radio awareness programmes broadcast by this project were important for marketing the presence of the clinics, and ensuring a high rate of uptake of the clinics by communities.
- 2) The establishment of women led-cooperatives was led by the local communities and BZMC and they are now fully embedded and well-positioned to continue for the long-term. BZMC fully owns the operation and management of these cooperatives and has guideline documents for their management and operation for the future.
- 3) Support was provided to upgrade the nursery managed by NTNC and DLSO. NTNC has a permanent presence at the site and also runs several community development projects. NTNC supplied seedlings of fodder species as the demand from the communities increased and will continue to do in future.
- 4) Experimental plots to study the effect of management interventions based on the recommendations in the draft grassland management guidelines were set up. Results from the experimental plots helped to evaluate the effectiveness of various interventions and assisted ShNP in selecting optimal grassland management methods. ShNP Grassland Management Guidelines have been published and are under review ahead of long-term implementation.

Together these achievements will contribute to a sustained legacy for the project outcome.

6 Lessons learned

Collaboration: Joint collaboration between partners is essential for a successful project. Collaboration during project development is critical as it leads to the development of a project that is owned by all and is sustainable beyond the project life.

Administration: Agreeing a detailed work plan specifying the responsibilities of all partners is vital.

Implementation: Utilising established community-managed institutional bodies, such as dairy development subcommittees sitting under the umbrella of BZMCs, has proven to be easier than establishing new institutions. Additionally, as direct beneficiaries are managing the subcommittee, a greater sense of ownership and effective management is achieved, leading to greater success for the project.

GESI: The engagement of women in income generating activities such as cooperatives has led to better management and utilisation of the cooperative funds. It has also provided a platform for building better social relationships and understanding. Cooperative meetings are held regularly, at least once a month, and have provided an opportunity for local women to discuss a range of issues, including those beyond the project scope.

6.1 Monitoring and evaluation

There were no major changes in project design. The M&E system provided an effective way to monitor project progress throughout the project life. However, three changes were approved in the logframe. Output indicators 1.3, 1.4 and 2.3 were revised as follows:

Indicator 1.3 revised from:

- *'Each veterinary clinic served at least 750 households by the end of year 2 and 1250 households by the end of year 3'*
- *to 'Each veterinary clinic served on average 1750 households by the end of year 2 and 2500 households by the end of year 3'.*

Indicator 1.4 revised from:

- *'Each clinic vaccinates at least 300 cows against FMD by the end of year 3.'*
- *to 'Each clinic vaccinates on average 500 cows against FMD by the end of year 3'.*

Indicator 2.3 revised from:

- *'Increases in household annual milk yield, consumption and commercialisation from year 1 baselines'*
- *to '20% increase in household annual milk yield, consumption and commercialisation from year 1 baselines'.*

Internal and External Evaluations of the work

Ongoing Monitoring and Evaluation

The Programme Coordination Committee (PCC) and Project Management Unit (PMU) were set up as the key monitoring units for project monitoring and evaluation. ShNP office regularly monitored the project sites in coordination with project partners. Regular visits from the project manager and DNPWC were conducted for project monitoring and evaluation. A consultant hired by the project also provided an independent assessment of the project implementation especially on: the setup of the clinics; livestock insurance; market identification; and farmers' access to market. The results of this assessment were critical in identifying and integrating DLSO as a key part of the project. The consultant was also important in identifying and setting up the livestock insurance mechanism for the project.

Government-led Monitoring and Evaluation

Government led monitoring and evaluation of the project was carried out by a team led by the Deputy Director General of DNPWC. An assessment of the project progress and impact was provided. This monitoring and evaluation judged the project to be performing strongly and was important in encouraging government ownership of the project, and thus securing its sustainability.

Darwin Initiative Mid-term Project Evaluation

A mid-term project evaluation was made by the Darwin Initiative and project team to measure the degree of resource use efficiency, relevance, and effectiveness. During the visit the team carried out participatory interaction with key stakeholders (ShNP, DLSO, BZMC, and farmers), project partners (ZSL, NTNC and HN) and committee members. The team observed the upgraded veterinary clinics of Badaipur and Pipaladi Asaina and the monitoring team also observed newly purchased improved breeds of cows/buffaloes as well as fodder plants and forage cultivation fields distributed by the project. The team members were Mr. Simon Mercer from the Darwin Initiative - UK, Dr. Bhagawan Raj Dahal from ZSL Nepal, ShNP, NTNC-SCP, ZSL-ShNP team members and other stakeholders. The mid-term evaluation notes from the Darwin Initiative stated that the project was highly relevant to local context and acknowledged the robust management structure and clear gender focus of the project. This positive feedback further helped to encourage government ownership of the project and secure its sustainability. (www.darwininitiative.org.uk/assets/uploads/2017/05/Information-Note-Nepal-MTR-FINAL.pdf)

6.2 Actions taken in response to annual report reviews

Feedback for annual report (AR1) for which following response was included in HYR2 and AR2. Response was drafted in consultation with project partners and agreed by all partners.

N o.	Comment	Next half year report	Next Annual report	Responses made
1	Targets for Output 1 (indicators 1.3 & 1.4) need to be revised upwards to reflect the actual baseline figures reported in AR1	X		Target revised for indicator 1.3 and 1.4 in HY2.
2	Provide more information about training carried out e.g. for cooperative members (such as training schedule and capacity of trainers)		X	Separate report and the CVs of two trainers provided as supplementary documents.
3	Identify the level of increases (%) expected over baselines for milk yield and milk sales as end of project indicators	X		Target revised in HY2 report.
4	Provide evidence for cooperative registration (scans of registration documents)	X		Provided as supplementary document together with HY2 report.
5	Provide evidence (report) for baseline figure and methodology used for level of grazing inside ShNP	X		Provided as supplementary document together with HY2 report.
6	Provide copy of draft grassland management guidelines		X	Grassland management guideline document provided as supplementary document

7	Reassess outcome assumption 1 in light of the unstable political situation affecting movement and transport in Nepal		X	Re-assessment on assumption 1 has been completed and is reported on above.
8	Improve Darwin Initiative identity via ZSL website and improved on-line project profile.		X	Darwin Identity improved at site, and nationally and internationally via newsletters, partner websites and the ZSL website.

7 Darwin identity

The project was branded as a Darwin Initiative project throughout project materials. The support for this project by the Darwin Initiative and activities covered by this project has been featured in the quarterly newsletter published by ZSL. A copy of the newsletter has been provided as a separate attachment together with this report. The project was featured on ZSL's and partners' websites and thanked the Darwin Initiative for its support. The Darwin Initiative logo was used on major items and structures built for the veterinary clinics and project related publications. Project news was also published through ZSL's official twitter account making the project's Darwin Identity clear.

Awareness raising materials and publications produced with support from this project bear Darwin Initiative logos and acknowledge its support. All the project partners and local communities are fully aware of the Darwin Initiative's support. Within Nepal there is a good understanding of the Darwin Initiative among both government and local NGOs. Tweets published about the project through ZSL's official twitter accounts have linked back to the Darwin social media accounts.

8 Finance and administration

8.1 Project expenditure

Project spend (indicative since last annual report)	2017/18 Grant (£)	2017/18 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)			5	
Consultancy costs			-3	
Overhead Costs			12	Reduced expenditure on cost recovery by partners.
Travel and subsistence			10	Some international travel was match funded.
Operating Costs			5	
Capital items (see below)			-	
Others (see below)			-13	Increased unit cost of

				printing compared to original budget.
TOTAL			6.5	

Staff employed (Name and position)	Cost (£)
Pradeep Raj Joshi, Field Manager	
Pawan Gautam, Field Manager	
Sandip Maharjan, Admin/Finance Assistant	
Hem Sagar Baral, Country Manager	
Ram Bahadur Karki, Field Assistant	
Damber Mahato, Field Assistant	
Sandip Chaudhary, Driver	
Tek Raj Bhatt, Sr. Programme Officer	
Hemanta Yadav, Project Coordinator	
Anil Prasai, Officer	
Jog Raj Rana, Driver	
Suraj Kushmi, Vet Techs	
Dhani Ram Chaudhary, Vet Techs	
Nirmala Pant, Vet Techs	
Suman Malla, Clinic Support Staff	
Shankar Lal Tharu, Clinic Support Staff	
Dev Raj Joshi, Clinic Support Staff	
TOTAL	

Capital items – description	Capital items – cost (£)
NA	
TOTAL	

Other items – description	Other items – cost (£)
Social Welfare Council Evaluation	
Grassland Guidelines Printing	
TOTAL	

8.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)
ZSL	
DNPWC, NTNC, HN	
TOTAL	

Source of funding for additional work after project lifetime	Total (£)
ZSL	

8.3 Value for Money

Economy: The new building required for one of the veterinary clinics was constructed by NTNC to reduce cost and ensure a high quality, given their experience of constructing conservation infrastructure in Nepal. To ensure value for money, BZMC and the community was engaged to provide additional resources and the labour required for construction. Through the initiatives of ShNP and DLSO the land required for the building clinic construction was made available by from local municipal government. For the operation of dairy cooperatives, a voluntary management committee of members was formed. Both cooperatives have been run efficiently on a very low administrative cost from the project start, both ensuring value and sustainability as it will be possible for these costs to continue to be met locally post-project. As far as possible, every procurement from the project was made locally. All training delivered by the project were conducted locally. Experienced trainers available locally were used for minimising training cost.

Efficiency/ Effectiveness: The veterinary centres have succeeded in providing excellent service since the engagement of the project to enhance their capacity. They have over delivered on all target indicators. Similarly, the dairy cooperatives proved to be efficient in providing targeted services with the support of the project, and have over delivered on target indicators.

Equity: Free veterinary medicines were provided by the project to ensure that the poorest community members could benefit equitably from veterinary clinics. In the same way, the project also provided soft loans for improved livestock at very low interest rates, coordinated by the cooperatives with their inclusive governance structures ensuring equitable distribution of benefits. Trained staff and community members were employed by ShNP in grassland management in year 3 reducing the need for additional training costs.

Legacy: The investments now being made by community members into insurance, veterinary services, fodder plantations, and equipment needs will provide value for money beyond the life of the project.

Annex 1 Project's original (or most recently approved) logframe, including indicators, means of verification and assumptions.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact:</p> <p>This project will lead to improvement in Shuklaphanta Wildlife Reserve habitat with associated increases in grassland dependant wildlife, underpinned by a more sustainable livelihood base for communities.</p>			
<p>Outcome:</p> <p>Healthy grassland ecosystems in and around Shuklaphanta Wildlife Reserve contributes to the well-being for 2500 households through productive livestock, better access to veterinary services and more accessible fodder resources.</p>	<p>Indicator 1: Two VDCs around ShNP actively implementing community managed grassland guidelines covering at least 10 km² of the buffer zone by year 3.</p> <p>Indicator 2: DNPWC managing grasslands according to guidelines in at least 16 km² of the PA by the end of year 3.</p> <p>Indicator 3: Key biodiversity metrics stabilised or improved within SHNP by year 3. Increase of tiger population from 15 to 20, swamp deer and hog deer populations stable, Hodgson's Bushchat and Bengal florican population increased by 10% from 2014 levels.</p> <p>Indicator 4: 80% reduction in zoonotic disease outbreaks by the end of year 3.</p> <p>Indicator 5: Economic losses from lack of veterinary care reduced by 50% from year 1 baseline.</p> <p>Indicator 6: At least 50% of households respondents (disaggregated by gender) report average improvement in wellbeing scores (using locally defined indicators</p>	<ol style="list-style-type: none"> 1) VDC annual report, project reports 2) SHNP annual report, project reports 3) ShNP annual report, project reports 4) ShNP reports, clinic reports 5) Veterinary clinics log book of service recipient in the clinic, project reports, household surveys 6) Socioeconomic profile survey report of households; report of baseline and annual changes in wellbeing. 	<p>Assumption 1 Nepal political situation remains conducive to work.</p> <p>Assumption 2 Partners involved remain committed to the project.</p> <p>Assumption 3 Communities recognise the benefits from management practices and adopt them.</p>

	and material style of life) by year 3 compared to Year 1 baseline.		
<p>Outputs:</p> <p>1. Two fully functional veterinary clinics established within the SHNP buffer zone. We will establish two clinics, one in the south-eastern corner of the Reserve and the other in the Northeast, to enable access to the highest number of farmers and highest level of people-reserve interaction and highest number of cattle.</p>	<p>1.1 Two clinics refurbished and equipment procured by the end of year 1.</p> <p>1.2 Four veterinary staff recruited and trained by the end of year 1.</p> <p>1.3 Each veterinary clinic served at least 1750 households by the end of year 2 and 2500 households by the end of year 3. <i>(revised target-in year 2)</i></p> <p>1.4 Each clinic vaccinates at least 500 cows against FMD by the end of year 3. <i>(revised target- in year 2)</i></p>	<p>1. Grassland management guidelines</p> <p>2. Biological and socioeconomic survey reports</p> <p>3. Training manuals and evaluation reports</p> <p>4. Veterinary clinic records</p> <p>5. GIS and satellite maps of grassland areas</p> <p>6. Project progress reports</p> <p>7. Peer-reviewed papers</p> <p>8. Website information, blogs, social media, images and videos</p> <p>9. Department of Agriculture and Cooperatives records</p> <p>10. Department of Livestock Services records and reports</p>	<p>1 Ministry of Agriculture and Cooperatives, Government of Nepal continues promoting improved cow breeds to increase milk yields</p> <p>2 Existing dairy value chains and markets remain in place during and after the project.</p> <p>3 Appropriate grassland management, fodder plantations and introduction of stall feeding are sufficient to support the food needs of the improved cows</p>
<p>2. Women-run dairy cooperatives in place facilitating more productive cattle farms around SHNP.</p>	<p>2.1 Two dairy cooperatives with 15-25 female members established through existing cooperative legal structures by year 1.</p> <p>2.2 Number (target = 20) of households with improved cows obtained with support from the project by the end of year 2.</p> <p>2.3 20% increase in household annual milk yield, consumption and commercialisation from year 1 baselines. <i>(revised target- in year 2)</i></p>		
<p>3. Grassland management guidelines in place and plan operational. The plan will be prepared for DNPWC to improve grassland habitat, which will also include sections on community managed grasslands.</p>	<p>3.1 10 reserve staff and 40 community members trained in grassland management techniques by the end of year 2.</p> <p>3.2 50% reduction of area of SHNP experience illegal grazing from year 1 to</p>		

	<p>year 3.</p> <p>3.3 Number of households planting fodder species increases by 20% from year 1 baseline by the end of year 3.</p> <p>3.4 Number of households practicing stall feeding increases by 30% from year 1 baseline by the end of year 3.</p>		
<p>4. Annual biodiversity monitoring programme for SHNP in place. Target species include Bengal tiger (<i>Panthera tigris</i>), swamp deer (<i>Cervus duvaucelii</i>), hog deer (<i>Axis porcinus</i>), Bengal florican (<i>Houbaropsis bengalensis</i>) and Hodgson's bushchat (<i>Saxicola insignis</i>)</p>	<p>4.1 Baselines for key indicator species established for year 1 of the project in consultation with other stakeholders</p> <p>4.2 Monitoring surveys carried out in year 2 and year 3 of the project</p> <p>4.3 Results are fed into SHNP Management Plan and grassland management guidelines by the end of year 3</p>		
<p>1.1 Hold community meetings to discuss clinic set up, benefits and needs.</p> <p>1.2 Conduct survey on current levels and use of veterinary services.</p> <p>1.3 Choose and agree the location to ensure maximum benefit with DNPWC and VDCs</p> <p>1.4 Set up the veterinary clinics, refurbishing as needed and procuring equipment</p> <p>1.5 Recruitment and training of vets, technicians and support staff, especially on new cattle breeds and other needs as determined by Activity 1.1</p> <p>1.6 Encourage gradual handover to the DNPWC via regular joint monitoring visits</p> <p>1.7 Clinics handed over to DNPWC</p> <p>1.8 Reporting</p> <p>2.1 Assessment of current livestock holdings in the 4 VDCs adjacent to SHNP and identify potential farmers interested in adopting an improved cow(s), using FPIC</p> <p>2.2 Familiarisation visit for interested farmers to area where improved cattle farming is in place</p> <p>2.3 Facilitate purchase of improved breed of cows – e.g. via soft loans, facilitating access to existing government loan programmes</p>			

- 2.4 Promote and link to existing livestock insurance schemes for households investing in improved breeds of cows
- 2.5 Facilitate increased milk commercialisation through regional/national milk traders in local markets
- 2.6 Reporting and preparation of a peer-reviewed paper
- 3.1 Meeting with DNPWC with relevant stakeholders to discuss grassland management plan as per the SHNP management plan. Set up core committee to draft management guidelines and lead activities. Director General of DNPWC will be head of the committee.
- 3.2 Meeting with VDC leaders and buffer zone user groups to discuss community needs in terms of grassland use. Set up committees for community managed grasslands/make use of existing forest user groups.
- 3.3 Conduct literature review, field visits, villager perception surveys to be reflected in the management plan
- 3.4 Draft management plan and review meetings with committee and other stakeholders.
- 3.5 DNPWC publish grassland management guidelines for SHNP, including community managed areas
- 3.6 Provide training for capacity building on grassland management (10 DNPWCs staff and 40 community members)
- 3.7 Identify areas for nurseries and/or existing nurseries to strengthen and plant fodder species
- 3.8 Implement grassland management awareness and teaching programme in the 4 VDCs
- 3.9 Set up grassland management plots and provide tools to SHNP to be used by community and DNPWC
- 3.10 Support DNPWC to draft national Terai grassland management guidelines to be finalised after the completion of this project
- 4.1 Hold discussions with relevant conservation agencies (e.g. DNPWC, NTNC, WWF, BCN) working in SHNP to encourage data sharing and cooperation and agree on monitoring protocols
- 4.2 Provide technical and logistic support for annual monitoring surveys for target species. The project will conduct some surveys – e.g. Hodgson's bushchat and hog deer – and will liaise with other NGOs/SHNP to get survey results on other target species (i.e. tigers and Bengal floricans), providing technical advice wherever needed.
- 4.3 Collate information and publish yearly monitoring reports

Annex 2 Report of progress and achievements against final project logframe for the life of the project

Project summary	Measurable Indicators	Progress and Achievements	Actions required/planned for next period
<p>Impact</p> <p>This project will lead to improvement in Shuklaphanta Wildlife Reserve habitat with associated increases in grassland dependant wildlife, underpinned by a more sustainable livelihood base for communities.</p>		<p>In the project term the livelihoods of two communities living in ShNP buffer zone were enhanced through women-led livestock cooperatives and improved veterinary clinics (outcome indicators 5 and 6, output indicators 1.3 and 2.3). Simultaneously overgrazing and the overexploitation of natural resources in ShNP was dramatically reduced through the adoption of sustainable grazing practices (output indicator 3.2), grassland management (outcome indicators 1 and 2) and the provision of alternative sources of resources (output indicator 3.4). This has led to the development of a site-tailored model of sustainable livelihoods and effective grassland management. And to established institutions (women-led livestock cooperatives, and veterinary clinics (output indicators 1.1 and 2.1)), which will continue to operate, and improve community wellbeing and grassland health</p> <p>These outputs have led to an initial increase, during the project term, in the health of the grassland habitat. And to both increasing populations of grassland health indicator species and increased populations of key landscape species, which are dependent on grassland, being supported (output indicator 4.2 and outcome indicator 3).They have also increased the wellbeing of local communities</p>	

(outcome indicator 6).

In the longer term these locally focussed changes will expand across ShNP through the ongoing delivery of evidence-based grassland management, veterinary services and the continuing growth of livelihood cooperatives – all supported by an engaged protected area authority and DLSO. This will contribute to substantial and sustainable increases in the populations of grassland dependent wildlife.

Additionally the successful model will have, and is already having, impacts beyond what was forecast in the impact. Firstly with the development of the Terai Grassland Management Guidelines, a draft of which has been submitted to DNPWC. These provide a blueprint, based on the success of this project, to expand grassland management across the ecologically critical and unique Terai Grasslands. Secondly the community engagement and livelihood development model developed under this project, through women-led cooperatives and revolving soft-loan facilities, has provided valuable insights and lessons learnt for ZSL's integrated conservation and development projects across 6 protected areas in Nepal and India, working with thousands of community members annually.

The project has also had a major impact on gender equity both locally and in terms of providing a model for expansion (see section 4.6).

<p>Outcome Healthy grassland ecosystems in and around Shuklaphanta Wildlife Reserve contributes to the well-being for 2500 households through productive livestock, better access to veterinary services and more accessible fodder resources.</p>	<p>Indicator 1 Two VDCs around ShNP actively implementing community managed grassland guidelines covering at least 10 km² of the buffer zone by year 3.</p>	<p>Near target. Communities managed 8.1 km² of the buffer zone according to guidelines: Kasrol (2.7 km²), Samadaiji (0.9 km²), Jhalari (1.1 km²), Beldandi (1.4 km²), Hattiithala (2.0 km²). A total of 50,207 fodder seedlings were distributed to the community members by project partner NTNC.</p> <p>Above target. Grassland management guidelines have been finalised. ShNP has managed a 54.5 km² area of grassland through the interventions suggested in the grassland management guidelines using its internal sources and support from its partners in years 2 and 3. Similarly, project support was provided for the management of Singhpur phanta and Shuklaphanta grasslands. 70 technicians and community members were trained in grassland management interventions and techniques.</p> <p>Near target. The tiger population increased by 13% from 15 to 17 in 2016-17 (results from 2017-18 tiger survey not yet available).</p> <p>The swamp deer population remained stable.</p> <p>The hog deer population increased by around 50% from ca. 6.76/km² to ca.10.52/km².</p> <p>The Bengal Florican population has remained stable</p> <p>The Hodgsons Bushchat population remained stable</p> <p>The rhino population increased by 112.5%, from 8 to 17, including 5 translocated rhinos from Chitwan</p>	<p>Post Project Continuation</p> <p>Operation of veterinary clinics.</p> <p>Continuation of annual monitoring surveys.</p> <p>Coordination with DLSO to facilitate farmers supported by the project to access more benefits from government schemes.</p> <p>Additional training for ShNP and NTNC staff in grassland management.</p>
	<p>Indicator 2 DNPWC managing grasslands according to guidelines in at least 16 km² of the PA by the end of year 3.</p>		
	<p>Indicator 3 Key biodiversity metrics stabilised or improved within SHNP by year 3. Increase of tiger population from 15 to 20, swamp deer and hog deer populations stable, Hodgson's Bushchat and Bengal florican population increased by 10% from 2014 levels.</p>		

		<p>National Park.</p> <p>The grassland is also supporting increased populations of key grassland dependent species with slower population growth rates, which have migrated (both through natural and assisted migration) into ShNP.</p>	
	<p>Indicator 4 80% reduction in zoonotic disease outbreaks by the end of year 3.</p>	<p>Above target. Zero cases of zoonotic disease outbreaks recorded during project period. Cases of zoonotic disease in livestock decreased in year 3 compared to year 1.</p>	
	<p>Indicator 5 Economic losses from lack of veterinary care reduced by 50% from year 1 baseline.</p>	<p>Above target. This increased detection and treatment capability resulted in reduction of livestock death by 67%</p>	
	<p>Indicator 6 At least 50% of households' respondents (disaggregated by gender) report average improvement in wellbeing scores (using locally defined indicators and material style of life) by year 3 compared to Year 1 baseline.</p>	<p>Above target. Cooperative members saw a 200% increase in those assessed as being middle class, and a 69% decrease in those assessed as being poor or ultra-poor.</p>	
<p>Output 1. Two fully functional veterinary clinics established within the ShNP buffer zone. We will establish two clinics, one in the south-eastern corner of the Reserve and the other in the Northeast, to enable access to the highest number of farmers and highest level of people-reserve interaction and</p>	<p>Indicator 1 Two clinics refurbished and equipment procured by the end of year 1.</p>	<p>On target. Two clinics were supported and are providing services to the community members (9,840 HHs in year 3). The clinics were handed over to DLSO for future operation and management. Following a request from the community members, and as a value addition to the project, structures such as livestock holding pens, and sheds for livestock and community members were established at the veterinary clinics.</p>	

highest number of cattle.	Indicator 2 Four veterinary staff recruited and trained by the end of year 1.	<p>On target. Additional temporary staff were supported for the clinics' operation in coordination with the DLSO. DLSO has agreed to retain additional staff from government funds.</p> <p>Above target. An increase in the services provided by both clinics was recorded progressively throughout the project period. In the final year of the project, both clinics provided services to 9,840 households.</p> <p>Above target. The increase in capacity of both clinics resulted in 4680 (3135+1545) Foot and Mouth Disease vaccinations in the final year alone.</p>
	Indicator 3 Each veterinary clinic served at least 1750 households by the end of year 2 and 2500 households by the end of year 3. <i>(revised target- in year 2)</i>	
	Indicator 4 Each clinic vaccinates at least 500 cows against FMD by the end of year 3. <i>(revised target- in year 2)</i>	
Activity 1.1 Hold community meetings to discuss clinic set up, benefits and needs.		A total of 10 meetings were held to discuss the setup and operation of the Clinics in year 1 (See Annex 4.9 of AR1)
Activity 1.2 Conduct survey on current levels and use of veterinary services.		Survey was conducted at the start of the project.
Activity 1.3 Choose and agree the location to ensure maximum benefit with DNPWC and VDCs		A total of 4 meetings were held with community representatives and project partners. The meetings agreed two sites for veterinary clinic support in Badaipur and Pipladi in Year 1 of the project.
Activity 1.4 Set up the veterinary clinics, refurbishing as needed and procuring equipment		Veterinary clinic in Badaipur, west of ShNP (new building supported) and one in Pipladi east of ShNP (partially supported for renovation). Project also provided supplies, equipment and medicine in years 2 and 3.
Activity 1.5 Recruitment and training of vets, technicians and support staff, especially on new cattle breeds and other needs as determined by Activity 1.1		New veterinary staff were recruited by NTNC. The project also supported staff already in place.
Activity 1.6 Encourage gradual handover to the DNPWC via regular joint monitoring visits		Veterinary clinics were handed over to DLSO through a formal programme. A series of meetings were held, led by ShNP, with DLSO for developing partnership for the project. The addition of DLSO enabled the sustainability of the clinics.
Activity 1.7 Clinics handed over to DNPWC		Veterinary clinics were handed over to DLSO through a formal programme. The activity was completed before the planned timeframe.
Activity 1.8 Reporting		All reports submitted within timeframe.

Output 2. Women-run dairy cooperatives facilitating more productive cattle farms within the SHNP buffer zone.	Indicator 1 Two dairy cooperatives with 15-25 female members established through existing cooperative legal structures by year 1.	<p>On target. Two women-run dairy cooperatives were set up with 136 (83+53) members.</p> <p>Above target. Dairy cooperatives provided loans to 87 household members to purchase improved breed of livestock.</p> <p>Above target. An increase in milk production (64%) and income from selling milk (277%) was recorded during the project period.</p>
	Indicator 2 Number (target = 20) of households with improved cows obtained with support from the project by the end of year 2.	
	Indicator 3 20% increase in household annual milk yield, consumption and commercialisation from year 1 baselines. <i>(revised target- in year 2)</i>	
Activity 2.1 Assessment of current livestock holdings in the 4 VDCs adjacent to ShNP and identify potential farmers interested in adopting an improved cow(s), using FPIC		Socio-economic assessment completed. 84 % of the households were found to rear livestock.
Activity 2.2 Familiarisation visit for interested farmers to area where improved cattle farming is in place		Interested 50 farmers identified and two areas for familiarisation visit completed by partners in year 1.
Activity 2.3 Facilitate purchase of improved breed of cows – e.g. via soft loans, facilitating access to existing government loan programmes		In total, 87 cooperative members received soft loans to purchase improved breed of livestock.
Activity 2.4 Promote and link to existing livestock insurance schemes for households investing in improved breeds of cows		DLSO was engaged in securing better market opportunities for increased milk production. There was a strong request from communities to setup a milk collection centre and chilling facility to store milk and prevent it spoiling before it can be delivered to the market.
Activity 2.5 Facilitate increased milk commercialisation through regional/national milk traders in local markets		A staggering 277% increase in the annually marketed amount of milk was recorded.
Activity 2.6 Reporting and preparation of a peer-reviewed paper		Reporting completed. Newsletter articles on project published on Darwin Initiative.
Output 3 - Grassland management	Indicator 1	Above target. Grassland management guidelines were prepared for ShNP. 23

guidelines in place and plan operational	10 reserve staff and 40 community members trained in grassland management techniques by the end of year 2.	park staff and 47 community members were trained in grassland management techniques. Below target. Cattle entering inside the park decreased by 31.37% over the project term, from 16,998 per day to 11,665 per day. Less than target due to cessation of exports of unproductive cattle which had previously acted to slow the rate of increase in grazing pressure. Based on the grassland management guidelines and existing practices of ShNP, grassland management work was carried out. Experimental plots established in year 1 of the project were treated with management interventions following the same methods used in the first year. The aim of grassland management was to maintain desired grassland assemblages and heterogeneity to maximise biodiversity. Above target. The number of households planting fodder species increased from 358 to 815 households through the life of the project. An increase of 127%. Above target. The number of households practicing stall feeding increased from 0 to 136 households through the life of the project. From the nurseries supported by the project, fodder seeds and seedlings were provided to the community.
	Indicator 2 50% reduction of area of SHNP experience illegal grazing from year 1 to year 3.	
	Indicator 3 Number of households planting fodder species increases by 20% from year 1 baseline by the end of year 3.	
	Indicator 4 Number of households practicing stall feeding increases by 30% from year 1 baseline by the end of year 3.	
Activity 3.1 Meeting with DNPWC with relevant stakeholders to discuss grassland management plan as per the ShNP management plan. Set up core committee to draft management guidelines and lead activities. Director General of DNPWC will be head of the committee.	Meetings held with DNPWC and ShNP and a committee was formed under the lead of the Deputy Director General of DNPWC. Grassland management guidelines was prepared and endorsed by DNPWC.	
Activity 3.2 Meeting with VDC leaders and buffer zone user groups to discuss community needs in terms of grassland use. Set up committees for community managed grasslands/make use of existing forest user groups.	Community managed grasslands supported in three communities Kasrol, Samadaiji and Jhalari.	

<p>Activity 3.3 Conduct literature review, field visits, villager perception surveys to be reflected in the management plan</p>	<p>Support was provided to ShNP in collecting the opinions and needs of the local communities to integrate into the site management plan. The draft of the management plan was prepared and submitted to DNPWC for approval.</p>
<p>Activity 3.4 Draft management plan and review meetings with committee and other stakeholders.</p>	<p>Draft management plan in place.</p>
<p>Activity 3.5 DNPWC publish grassland management guidelines for SHNP, including community managed areas</p>	<p>Site specific grassland management guidelines prepared and published.</p>
<p>Activity 3.6 Provide training for capacity building on grassland management (10 DNPWCs staff and 40 community members)</p>	<p>Grassland management training was provided to 47 community members and 23 DNPWC and NTNC technicians.</p>
<p>Activity 3.7 Identify areas for nurseries and/or existing nurseries to strengthen and plant fodder species</p>	<p>Support provided for the operation of the nursery in Chandmari managed by NTNC, and to upgrade the existing nursery at DLSo. The nurseries distributed 50,207 seedlings.</p>
<p>Activity 3.8 Implement grassland management awareness and teaching programme in the 4 VDCs</p>	<p>Awareness raising radio jingles aired through local FM radio stations. Newsletter published and distributed. Informative posters and pamphlet were also produced and distributed.</p>
<p>Activity 3.9 Set up grassland management plots and provide tools to SHNP to be used by community and DNPWC</p>	<p>Five grassland management experimental plots created in year 1 were managed in year 2 and year 3 following the research design.</p>
<p>Activity 3.10 Support DNPWC to draft national Terai grassland management guidelines to be finalised after the completion of this project</p>	<p>Draft submitted to DNPWC.</p>
<p>Output 4 – Annual biodiversity monitoring programme for SHNP in place. Target species include hog deer (<i>Axis porcinus</i>), swamp deer (<i>Cervus duvaucelii</i>), Bengal tiger (<i>Panthera</i></p>	<p>Indicator 1 Baselines for key indicator species established for year 1 of the project in consultation with other stakeholders</p> <p>Baselines for six indicator species were established. Monitoring surveys were conducted in the second and third year. Results have been fed into the ShNP management plan, under review, and the grassland management guidelines, published and endorsed.</p>

<p><i>tigris</i>), Bengal florican (<i>Houbaropsis bengalensis</i>) and Hodgson's bushchat (<i>Saxicola insignis</i>).</p>	<p>Indicator 2</p> <p>Monitoring surveys carried out in year 2 and year 3 of the project</p>	
	<p>Indicator 3</p> <p>Results are fed into SHNP Management Plan and grassland management guidelines by the end of year 3</p>	
<p>Activity 4.1</p> <p>Hold discussions with relevant conservation agencies (e.g. DNPWC, NTNC, WWF, BCN) working in ShNP to encourage data sharing and cooperation and agree on monitoring protocols</p>		<p>On target. Meetings were held with various conservation organisations working to conserve the biodiversity of Shuklaphanta National Park. Meetings were coordinated by ShNP and DNPWC. The meetings provided a forum to share information and strengthen cooperation between the conservation partners.</p>
<p>Activity 4.2</p> <p>Provide technical and logistic support for annual monitoring surveys for target species. The project will conduct some surveys – e.g. Hodgson's bushchat and hog deer – and will liaise with other NGOs/SHNP to get survey results on other target species (i.e. tigers and Bengal floricans), providing technical advice wherever needed.</p>		<p>On target. Support provided for Hodgson's bushchat survey, tiger monitoring, Swamp deer survey and tiger prey base survey. Project staff provided technical support for the monitoring work.</p>
<p>Activity 4.3</p> <p>Collate information and publish yearly monitoring reports</p>		<p>On target. Compilation of data from surveys led by ShNP was completed.</p>

Annex 3 Standard Measures

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
Training Measures							
1a	Number of people to submit PhD thesis	0					
1b	Number of PhD qualifications obtained	0					
2	Number of Masters qualifications obtained	0					
3	Number of other qualifications obtained	0					
4a	Number of undergraduate students receiving training	0					
4b	Number of training weeks provided to undergraduate students	0					
4c	Number of postgraduate students receiving training (not 1-3 above)	0					
4d	Number of training weeks for postgraduate students	0					
5	Number of people receiving other forms of long-term (>1yr) training not leading to formal qualification (e.g., not categories 1-4 above)	0					
6a	Number of people receiving other forms of short-term education/training (e.g., not categories 1-5 above)	113	Nepalese	70 Female and 43 Male	Cooperative Management, Livestock Husbandry and grassland management	Nepali	
6b	Number of training weeks not leading to formal qualification						
7	Number of types of training materials produced for use by						

	host country(s) (describe training materials)						
Research Measures		Total	Nationality	Gender	Title	Language	Comments/ Weblink if available
9	Number of species/habitat management plans (or action plans) produced for Governments, public authorities or other implementing agencies in the host country (ies)	1					
10	Number of formal documents produced to assist work related to species identification, classification and recording.	0					
11a	Number of papers published or accepted for publication in peer reviewed journals	0					
11b	Number of papers published or accepted for publication elsewhere	0					
12a	Number of computer-based databases established (containing species/generic information) and handed over to host country	2					Tiger and prey database/ Hodgson's Bushchat dataset
12b	Number of computer-based databases enhanced (containing species/genetic information) and handed over to host country	2					Tiger and prey database/ Hodgson's Bushchat dataset updated
13a	Number of species reference collections established and handed over to host country(s)	1					Tiger library created and updated for ShNP
13b	Number of species reference collections enhanced and	1					Tiger library

	handed over to host country(s)						created and updated for ShNP
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Dissemination Measures		Total	Nationality	Gender	Theme	Language	Comments
14a	Number of conferences/seminars/workshops organised to present/disseminate findings from Darwin project work	4	Nepali	Mixed	Various related with project on biodiversity and livelihoods	Nepali	
14b	Number of conferences/seminars/workshops attended at which findings from Darwin project work will be presented/disseminated.	13	Nepali	Males	Various --- skill transfer visit for human-wildlife conflict reduction, biodiversity monitoring, indicator species, government-ZSL partnership for conservation etc	English	

Physical Measures		Total	Comments
20	Estimated value (£s) of physical assets handed over to host country(s)		

Physical Measures		Total	Comments
21	Number of permanent educational, training, research facilities or organisation established		
22	Number of permanent field plots established		Please describe

Financial Measures		Total	Nationality	Gender	Theme	Language	Comments
23	Value of additional resources raised from other sources (e.g., in addition to Darwin funding) for project work	123,963					

Annex 4 Aichi Targets

	Aichi Target	Tick if applicable to your project
1	People are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	
2	Biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	
3	Incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.	
4	Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.	
5	The rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	
6	All fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.	
7	Areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	√
8	Pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.	
9	Invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.	
10	The multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.	
11	At least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.	
12	The extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.	√
13	The genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for	

	minimizing genetic erosion and safeguarding their genetic diversity.	
14	Ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	
15	Ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.	
16	The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.	
17	Each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.	√
18	The traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.	√
19	Knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	√
20	The mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.	√

Annex 5 Publications

Type * (e.g. journals, manual, CDs)	Detail (title, author, year)	Nationality of lead author	Nationality of institution of lead author	Gender of lead author	Publishers (name, city)	Available from (e.g. web link, contact address etc)
Bylaws for dairy cooperatives manual	Tri-Shakti and Shuklaphanta improved cows/buffalo milk production sub-committee (2016)	Nepalese	Nepalese	Female	Tri-Shakti and Shuklaphanta improved cows/buffalo milk production sub-committee	https://drive.google.com/open?id=0B3qsekxWABYuSDVlbWp1TWINcU0 https://drive.google.com/open?id=0B3qsekxWABYubW5fNTRscDA5Q1U
Operational guidelines for dairy cooperatives	Tri-Shakti and Shuklaphanta improved cows/buffalo milk production sub-committee (2016)	Nepalese	Nepalese	Female	Tri-Shakti and Shuklaphanta improved cows/buffalo milk production sub-committee	https://drive.google.com/open?id=0B3qsekxWABYudTBXT3lubW1SekU https://drive.google.com/open?id=0B3qsekxWABYuRGZyOHFoOGh6V3M
Guidelines	Grassland Management Guidelines	Shuklaphanta National Park, 2017	Nepalese	NA	Shuklaphanta National Park	Supplementary document
Newsletter	Prithivi Quarterly newsletter	ZSL (2016/17)	Nepalese	NA	ZSL	Supplementary document
Newsletter	Project article	Tek Raj Bhatt, Hem Sagar Baral (2016)	Nepalese	Male	Darwin Initiative	http://www.darwininitiative.org.uk/assets/uploads/2016/05/May-2016-IDB-Newsletter-FINAL.pdf

newsletter	Project article	Tek Raj Bhatt, Hem Sagar Baral (2016)	Nepalese	Male	Darwin Initiative	http://www.darwininitiative.org.uk/assets/uploads/2017/01/Darwin-Newsletter-January-2017-Conservation-Conflict-Final.pdf
newsletter	Project newsletter	ZSL 2017	Nepalese	NA	ZSL	
Poster	Awareness raising posters	Gyanada Acharya 2016	Nepalese	Female	HN	https://himalayannature.org/index.php/2017/01/17/darwin-initiative-securing-shuklaphanta-wildlife-reserves-grasslands-and-wellbeing-of-local-communities/

Annex 6 Darwin Contacts

Ref No	2850
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Partner 2	
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Organisation	Shuklaphanta National Park
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Email	
Partner 3	
Name	Sharad Kumar Singh
Organisation	Himalayan Nature
Role within Darwin Project	Main coordinator on behalf of HN
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Fax/Skype	
Email	

	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.	
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.	X
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
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.	
Have you involved your partners in preparation of the report and named the main contributors	X
Have you completed the Project Expenditure table fully?	X
Do not include claim forms or other communications with this report.	