Darwin Initiative: Final Report

To be completed with reference to the "Writing a Darwin/IWT Report" Information Note: (https://www.darwininitiative.org.uk/resources-for-projects/reporting-forms-change-request-forms-and-terms-and-conditions/).

*It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)*

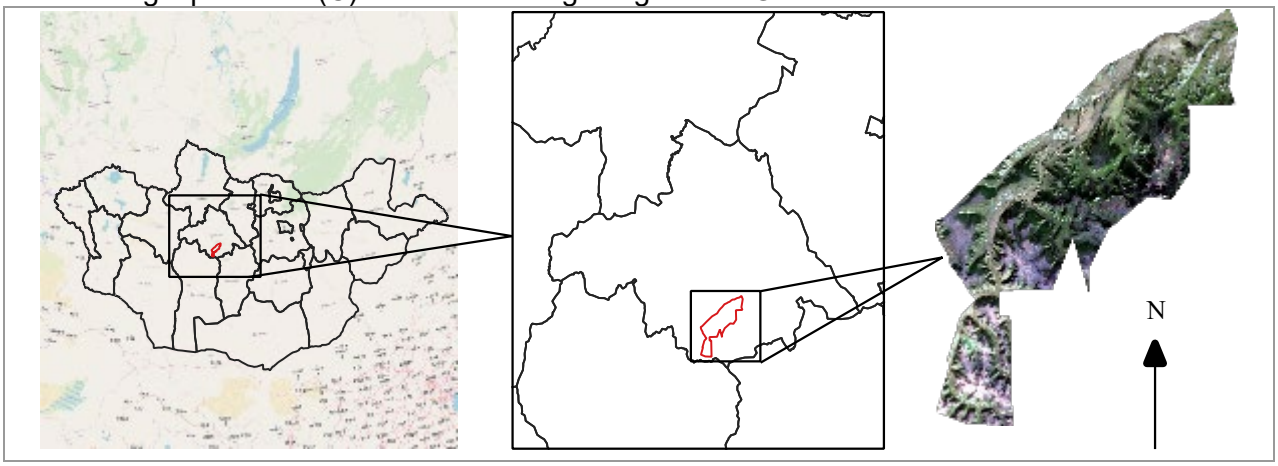
Darwin Project Information

Project reference	25-012
Project title	Steppe up: Community-led recovery of Mongolia's iconic species and forest- steppe ecosystem
Host country/ies	Mongolia
Lead organisation	Zoological Society of London
Partner institution(s)	Ministry of Environment and Tourism (MET), *Governor* Office of *Arkhangai,* Arkhangai Environmental Department (AED), Arkhangai Police Agency (APA), National University of Mongolia (NUM), Independent Research Institute of Mongolia (IRIM), Arkhangai Forestry Unit (AFU), Union of conservation Communitiess (UCC)
Darwin grant value	£329,952
Start/end dates of project	2nd July 2018 – 31st March 2021
Project Leader name	Monica Wrobel (Head of Asia, Conservation and Policy)
Project website/blog/Twitter	https://www.zsl.org/conservation/regions/asia/mongolia
Report author(s) and date	Monica Wrobel, Tungalag Ulambayar, Myagmarsuren Shagdarjav, Khaliun Tsog.

1 Project Summary

The project targeted the Khoid Mogoin Gol-Teel LPA in Bulgan soum, Arkhangai aimag covering 1370 km2 land, part of the Khangai mountain range in central Mongolia. About 70 percent of the LPA is rangeland (pastures) and the reminder is covered by the forest and rocks.

Site map: (A) Khoid Mogoin Gol-Teel (KMG-T), in Arkhangai, Mongolia. (B) Position of KMG-T in Arkhangai province. (C) Remote sensing image of KMG-T



Healthy ecosystems in Arkhangai not only safeguard the future of its wildlife, but also underpin the livelihoods and socio-cultural identities of local nomadic communities, and their resilience to climate change. These communities heavily depend upon the pastureland for raising livestock for subsistence and income, the forests for collection of firewood, non-timber products and building materials, and wildlife for subsistence and cultural beliefs. As ecosystem-degradation of these resources escalates, this resilience is eroded, undermining livelihoods of livestock herders and driving communities into poverty. Furthermore, this drives gender inequality and a gender imbalance, with women experiencing the adverse impacts due to existing stereotypes and traditional belief systems.

Illegal wildlife hunting, livestock overgrazing and resulting rangeland deterioration, and illegal logging in the LPA forest-steppe ecosystem imperils not only its iconic and globally-threatened species, but also the communities that depend upon this landscape. Species including the Saker falcon (*Falco cherrug*), Steppe eagle (*Aquila nipalensis*) Siberian marmot (*Marmota sibirica*) and Musk deer (*Moschus moschiferus*) have immense cultural significance for Mongolians: the falcon is the national bird; the eagle an enduring symbol of the nomadic way of life; and the marmot and deer are the source of many traditional household products. These species occupy one of the largest remaining intact temperate rangeland ecosystems globally, but one that is critically threatened by uncontrolled economic overexploitation. Without robust interventions, the overexploitation of pastures and forests will drive fatal degradation and loss of Mongolia's critical forest-steppe ecosystem, a key threat to its globally-significant wildlife and dependent local communities.

At project conception, the project partnership conducted a pre-project threat assessment, site survey and stakeholder mapping and engagement exercise. This identified the area as subject to high levels of over-exploitation and habitat loss and ecosystem degradation, but also with the potential for positive transformation and a deeply committed and concerned local community keen to safeguard the forest-steppe ecosystem and traditional lifestyle. This highlighted the area as an ideal pilot site for a community-led Local Protected Area (LPA) model to arrest degradation of this critical ecosystem and support recovery of culturally-significant species while supporting herders' wellbeing.

The project designed to establish the institutional model for the LPA to promote socio-ecological resilience and support the recovery of the focal species in year one. This model wiould disincentivise the over-exploitation of the forest-steppe habitat, by securing the economic wellbeing and food security for these forest-steppe dependent communities. The project supposed to achieve this through improving local capacity in biodiversity monitoring, sustainable forest management, and rangeland management, overseen through the development of an inclusive and democratic governance structure for the LPA.

2 Project Partnerships

The project partnered with various national and local level stakeholders as described below:

Ministry of Environment and Tourism, Mongolia (MET) is the principal government body responsible for environmental issues in Mongolia. MET assisted ZSL with general oversight of project implementation and supported by development of community conservation policies (e.g. CBOs), improving environmental law, state registration, and SMART implementation. In association with the recent appointment of a new Focal point for Community-based Conservation, the MET is interested to learn from practical experiences of working with CBOs, and creation of the LPA management model. ZSL is a member of the SMART Working Group at the MET. The project report and publications were disseminated to stakeholders, including MET.

National University of Mongolia (NUM) The collaboration between NUM and ZSL began in 2003 and has grown to encompass a wide range of successful initiatives since then. It has included conducting a highly-demanded international summer field course; developing Mongolia's first comprehensive IUCN Regional Red List; producing publications such as the field guide to the mammals of Mongolia and peer-reviewed articles in the Journal of Biological Sciences; extensive, ground-breaking biological monitoring, such as camera trapping at Gobi oases; and Wild Bactrian camel population surveys. The professors and experts from the Department of Biology of the School of Arts and Sciences, NUM, support the project's annual

biodiversity monitoring and target species monitoring in the LPA jointly with ZSL and Volunteer Rangers (VRs). Professor Gombobaatar Sundev supported the coordination of the project's workshop and developed three year biodiversity monitoring report for project target species with Saker falcon, steppe eagle, musk deer and marmot.

Union of Conservation Communities (UCC) of the LPA is a created umbrella organization uniting 11 Community based organizations (CBO) and overseeing the LPA management. On March 26th 2019, 75 LPA representatives agreed on LPA management structure and elected Board members. In August 19th 2019 70 LPA representatives held their second forum, which formalized UCC establishment, reviewed the LPA management progress towards implementing the annual management plan comprising CBO-level management plans. The Union facilitates the development of sustainable and economically viable business models, as well as providing training and technical support to build the capacity of the community to effectively manage their livestock assets and financial resources. Naming of herder organizations changed from Forest Users Group (changed in year two) to CBO following the legal terms used in the Mongolian Law on Environmental Protection Article 3.

Independent Research Institute of Mongolia (IRIM) is a research NGO led the development and implementation of socio-economic surveys of LPA communities. The IRIM conducted the socio-economic baseline surveys in year one and the endline survey in 2018 and 2021 respectively.

UK Embassy, ZSL has good relationship with the British Embassy in Mongolia with regular meetings to update achievements of UK-financed projects and collaborate in different events, including wildlife exhibition 'Inspire Me' Festival and 'GreatTrainJourney' on the 55th anniversary of UK-Mongolia diplomatic relations etc. The British Embassy organised a reception on the occasion of ZSL Asia Program Director Monica Wrobel's mission to Mongolia on 24th April 2019 and invited all project partners. James Holder, the Vice ambassador had a mission trip to the Arkhangai aimag in August 2019, visited the LPA and gave an opening to the UCC's meeting and met Bayanbulag VSLA members. ZSL Mongolia director had a meeting with Mr. Philip Malone, the Ambassador on 10 May 2020 to update him on the project progress and shared future plans of ZSL Mongolia. The project achievement was also included in a video created by the British Embassy on the occasion of World Wildlife Day.

The Arkhangai Police Department, the newly established Ecological Police Agency's branch in Arkhangai provides expertise in conducting relevant training to CBO members and VRs, and participates in SMART patrolling reduce illegal exploitation of wildlife and natural resources. The Eco police also provided simple protocols for community members on how to handle law enforcement situations, and how to collect evidence while ensuring personal safety and informant anonymity within the existing regulations.

ZSL and the Eco Police Department of Mongolia signed an MOU on 21 February 2020 which includes commitments to support the prevention of illegal logging and poaching, increase newly-recruited police officers' knowledge of the environmental regulations and improve their capacity to engage effectively with LPA communities.

The Arkhangai Forestry Unit (AFU) worked closely with ZSL Mongolia on all forest-related project activities, including: establishment of the new LPA forest user groups (current CBOs); LPA forest mapping; CBO management plan; forest community workshops. This partnership was a significant achievement as the AFU provided expertise to local communities that was not previously accessible, including advice on forest cleaning, marking the cut areas, tree planting, supporting natural regeneration, suppressing forest fires and pests etc. The AFU helped developing eleven CBO's Forest management plan in October 2019.

Arkhangai Aimag Environmental Department (AED) has proved to be an important local partner, working closely with project staff on supporting aimag-level conferences and capacity building training for local communities. The AED also provided legal advice to ensure the growth of the eleven new CBOs.

Governor Office of Arkhangai supported the project through facilitating and hosting state and local level conferences (e.g. forest and rangeland conferences), including giving the opening remarks and highlighting CBO's contribution to aimag environmental plans. The Governor's

Officer also supported the formulation of local regulation for the CBOs and rangeland management.

Bulgan Soum Government actively supported the project as 44% of the LPA lies within their territory. The governor attended community forums, capacity building training and supported the establishment and certification of CBOs. The UCC also supported the implementation of the Bulgan soum Governor's Plan in the areas of rangeland and forest management.

Khangain Nuruu National Park (KNNP) was established in 1996 and borders with the southern boundary of the LPA, encompassing a similar mountainous forest-steppe ecosystem. KNNP rangers worked closely on community-based natural resource management, including forest and rangeland management. Given the overlap in project objectives they had been supportive of project activities and were interested in potentially implementing SMART patrolling in their park.

Pasture User Association of Arkhangai (PUAA) worked closely on pasture management plan development of CBOs as part of the Rangeland Responsibility Regulation (RRR) of Bulgan soum and facilitating the plan approval by bag (county) and soum parliaments. The PUAA supported CBOs by conducting capacity building training sessions for rangeland management, leading discussion among the member herders and reaching agreements to implement rangeland management plans of the CBOs.

Partnership achievements, lessons, strengths or challenges: the project maintained positive working relationships with local government agencies including the AED, AFU, and Bulgan soum Governor Office through awareness raising and capacity building activities. The project also gained the trust and cooperation of the new CBOs who strongly support the UCC leadership towards inclusive and democratic decision-making by the stakeholders. Each stakeholder contributed to implementation and supported the additional income generation for CBOs while undertaking measures to prevent forest fires, pests and support the natural regeneration of the forests.

Among the eleven new CBOs, two were passive as compared to the other nine despite having the same project support. Joining CBOs and participating in collective action for LPA management is voluntary, but the project made some effort to encourage the two CBOs for more frequent actions. The UCC Board may have better strategies to handle the non-performing members following the project end.

At the completion of project year one, ZSL evaluated Arig Bank performance and found out that the progress was poor towards achieving the agreed deliverables. As a result, ZSL decided to terminate its contract with Arig Bank. The implementation of activities under Arig Bank's contract was transferred to the UCC and its Executive Director (with significant VSLA and community development expertise), and ZSL (utilizing the new Country Director's expertise in community-based conservation and pastoral institutions) and through consultancy support for small business development including ecotourism, sustainable cashmere and dairy production. This change became significant achievement in year two as it allowed strengthening the UCC, the umbrella body of CBOs, and its direct management of the LPA and saving transaction costs for LPA capacity building from Ulaanbaatar.

3 Project Achievements

3.1 Outputs

Output 1: Annual biodiversity monitoring programme within LPA in place providing data for informed conservation interventions, management plans and policy. Biodiversity monitoring will target key species and forest and rangeland species richness.

Biodiversity monitoring plans for the key species developed in Year one and were updated by consultation with VRs during refresher trainings prior to the fieldwork in June-July 2019, January and June 2020 and January 2021. (Indicator 1.1)

Line transect, distance sampling, direct observation, and camera traps are used for biodiversity monitoring at the LPA. A total of 31 camera traps were deployed within three sites in larch forests to determine species richness in 2019 and collected 10,000 mammal photos including musk deer, red deer, roe deer, wild boar, lynx and gray wolf. Marmot monitoring was conducted with direct

observation method in July 2019 and June 2020 and Steppe eagle, Saker falcon and Mask deer monitoring had done with line transect in January 2019 and 2020, and February 2021. The total number of individual marmots recorded in 2019 has increased by 36% in 2020 and Saker falcon and Steppe eagle has increased by 21.4% and 38.1% respectively in 2021 compared to the number in 2019. The population number and density of Musk deer has been relatively stable.
17 VRs conducted regular wildlife surveys during SMART patrols (total of 91 patrols) (Indicator 1.2. At the Project End-line study, 44% of respondents said the wildlife population has increased over the past three years, 9.3% said it has decreased, and 46.7% said it has remained unchanged and 45.3% of the respondents said poaching has decreased and 14% decreased significantly, 4.7% increased, 10.7% remained unchanged and 25.3% did not know.
Baseline 1.1 and 1.2: No biodiversity monitoring programme; No biodiversity monitoring surveys. **Change 1.1 and 1.2:** Biodiversity monitoring programme in place with new methods for camera-trap musk deer surveys, and marmot point-count surveys; three year annual biodiversity monitoring conducted for target species and observations during SMART patrols by VRs.

Output 2: Model of community-led sustainable forest management in place in LPA safeguarding 275 km2 of vulnerable forest in Arkhangai.

Three-year surveys conducted in four sites to pilot different forest management strategies, (plots in: i) illegally burnt logged forest; ii) forest undergoing regeneration through replanting; iii) forest undergoing active forest cleaning (e.g. deadwood removal); and iv) natural forest undergoing no intervention (the control plot) guided the development of CBOs Forest Management Plans in October 2019 (Indicator 2.1).

The project supported the FMP implementation for ten CBOs guided by the results of the Forest inventory by AFU in October 2019 and the Site Survey. (Indicator 2.2). These activities include forest thinning (e.g. deadwood removal by 55 members from eight CBOs earning MNT (£) from two ha, and collecting firewood (99 cubic meters), preparing one-year old saplings for reforestation in riparian areas of Tamir river in March 2020, fencing 8 ha burnt and degraded forest in January 2020 to support natural regeneration. Spring 2020 was challenging with a week-long forest fire unfolding in the LPA from Apr 28 to May 4. Around 100 CBO members proactively engaged in fighting the fire. The Naranbulag CBO fenced a spring and planted 50 elm and willow trees along the river for protection. In December 2020, the UCC led the third-year deadwood removal activity involving 85 CBO members with AED and AFU. CBOs earned GBP, and the costs involved were GPB. (Indicator 2.2).

17 VRs received training on SMART patrolling techniques with necessary equipment (Blackview smartphone, GPS and headtorch (Indicator 2.3), VRs conducted patrolling twice a month using SMART method (198 times), reported 67% of the police-registered violation cases (Indicator 2.3). VRs received cash incentives of GBP GBP by March 2021. (Indicator 2.3).

LPA also partnered with Arkhangai Police Department to train 22 VRs for SMART patrolling and enforcing environmental regulations on 15 November 2019 as part of the FMP to stop illegal logging. (Indicator 2.3). On 26 2019, ZSL joined the SMART Working group at the MET, which aims to developing a national SMART system for improving the law enforcement, biodiversity monitoring in the protected areas. (Indicator 2.3).

Baseline 2.1, 2.2 & 2.3: no forest surveys and forest management interventions defined and piloted, no LPA forest management plan; zero community patrol units. **Change 2.1, 2.2, & 2.3:** Conducted two-year biomass survey but no change above ground biomass in the forest and identified representative plots, informed FMP formulation; nine CBOs carried forest management activities; 17 VRs conducted SMART patrols. Local stakeholders obtained experience of community-based forestry management based on this forestry partnership model.

Output 3: Model of community-led sustainable pasture management in place in LPA. Rangeland experts from the National Agricultural University (NAU) conducted soil and vegetation surveys in August 2019 and September 2020 across 30 plots and 37 plots respectively in the LPA. The survey classified LPA pastures into five classes, including high mountain-meadow; medium and lower mountain; mountain valley meadow; and floodplain pastureland of the South Tamir and Mogoin rivers informing CBO management actions. (Indicator 3.1).

The project organized Arkhangai aimag's first conference on the "Responsible Rangeland Management" in cooperation with the PUAA in December 2018. The goal of the conference was to facilitate the approval of RRR which defines aimag's rangeland management strategies. This conference brought together 80 community members, soums governors, soum land managers, veterinary specialists and livestock breeders. The conference supported the draft RRR and recommended to submit to the Aimag Citizen Representatives Khural (CRK) for its approval. Meanwhile, LPA CBOs started the implement of the RRR plan by fencing of winter grazing sections in four CBO territories to produce extra feed; and planted forage species in 10 ha in Bayanbulag CBO; and prepared hay for winter. (Indicator 3.2)

The rangeland vegetation map with plant classification and soil types and estimated grazing capacity for CBOs was made with agreed grazing areas and 11 CBOs boundaries. The map was used for pasture planning (of nine CBOs) and M&E, which was developed in a participatory manner involving 102 herders. The project supported the implementation of the pasture management plans by supplying fencing materials, covering some transportation costs and providing management oversight. In July and August 2020 four CBOs fenced critical springs to protect from livestock trampling, six CBOs fenced essential patches at winter camps to preserve winter foraging areas, and three CBOs rested winter grazing areas during the summer. (Indicator 3.3)

Baseline 3.1, 3.2, & 3.3: no soil nutrient and compaction surveys; no pasture management plans and interventions in the LPA. **Change 2.1, 2.2, & 2.3:** the LPA has the baseline information on rangeland condition including vegetation and soil types, grazing capacity, and rangeland health, which informed rangeland management actions specified in the pasture use plans of eleven CBOs. However, the project could not succeed in reducing rangeland degradation, but the maintained the baseline condition without worsening further.

Output 4: Holistic inclusive livelihood model, including production and access to market, in place in LPA, resulting in improved income opportunities

A ZSL Business consultant facilitated a participatory SWOT analysis jointly with 256 CBO members to identify each CBO's business potentials, their need for support and agree on business plans, which resulted in approved Business Plans. The CBOs received equipment worth of £to run small businesses based on these business plans and CBO needs for dairy production, vegetation, ecotourism, and forage planting. The CBOs earned approximately £from their businesses in 2020 (Indicator 4.1).

Besides the business development, 479 community members (multiple attendance) from ten CBOs learned about VSLA, of which 224 members decided to join the VSLA and committed to follow the rules. The eight CBOs totally collected £, where their social fund reached £, and a saving fund totaled to £ (Indicator 4.2) Importantly, herders obtained access to essential financial services with affordable interest rates with no collateral required and learned to make financial decisions and be accountable to peers. For instance, 87.7% of the End line survey respondents (*N*=150) said they had benefitted from VSLAs. 91.4% of them reported to have access to secure, low-interest loans, 87.9% consider that such access contributed to improving their livelihoods, and 82.1% improved their financial literacy and financial discipline thanks to VSLAs.

Also, the CBO members learned to obtain livelihood gains from deadwood removal activities guided by professional organizations such as AFU and AED as described in Output 2 earlier.

CBO members learned to save costs thanks to increased trust, reciprocity and social assistance network and their collective labour for labour-intensive work such as hay making and fencing strategic grazing patches.

These efforts resulted in the decrease of multidimensional poverty index (MPI) from 0.115 to 0.084 in early 2021. In other words, the proportion of the poor in the total population, decreased from 29.7% to 22.9%. The intensity of multidimensional poverty decreased from 0.389 to 0.365. This means that 38.9% of households who lived below poverty line at the baseline level dropped to 36.5%. (Indicator 4.3).

Baseline 4.1, 4.2, & 4.3: No business plans, lack of access to loans and saving opportunities; limited incomes sources (meat and cashmere). **Change 4.1, 4.2, & 4.3:** Nine CBOs with 127

members have their business plans; eight VLSAs operating with a total of £ fund; CBOs earned approximately £ while implementing business plans and benefited from the project support for equipment and tools necessary for maintaining their business. The poverty rate decreased with increased income sources and collective action.

Output 5: Effective and equitable LPA governance model in place in LPA, enabling robust monitoring and evaluation incorporating the data from other outputs, and sustained engagement with nearby communities and local and national government.

The community members learned to participate and make collective decisions through two all-member forums and three board meetings of UCC facilitated by the project. At these meetings CBO members agreed on the LPA structure (a Board represented by each CBO, Monitoring council consisting of seven members, and executive body including the Executive director, 10 CBO leaders and 17 VRs) with a democratic constitution that respects and protects its members' rights. The forum elected the Board director, appointed the Executive director who was competitively selected, discussed and approved LPA management plans.

The Second forum established the UCC, the umbrella association managing the LPA, consisting of 272 herders. These members also participated in the governance process within their affiliated CBO, that included agreeing on collective action among CBO members, discussing and approving CBO constitution, electing CBO's leader, and appointing CBO VRs and attending the regular CBO meetings. Also, activities of nine VSLAs involved regular meetings for approving VSLA protocol and appointing 8 leaders, 8 secretaries, 8 box keepers and 16 cashiers. These activities for institution building, complying with agreed rules, attending regular meetings for collective decision-making encompass participatory governance processes by the legitimate LPA authority for natural resource management and M&E for the progress of the approved plans.

All the plans at both UCC and CBO levels, (forest and rangeland management, and business plans) were informed by the results of forest, rangeland surveys and biodiversity monitoring conducted across the LPA. These were also results of participatory discussions and decision-making within each CBO and at UCC level gatherings.

The research, conservation, and capacity-building activities in the LPA benefited from the partnerships with the national (NUM, NAU, MET, Eco Police. IRIM) and local organizations (PUAA, AFU and Aimag and Soum Governments) and their expertise.

At the trade fair "Eco-Friendly Product-2019" in Ulaanbaatar, the MET informed participants about legal provisions for community-based natural resource management and expressed its commitment for further support to community-based conservation, and awarded best performing CBOs from the LPA.

Baseline 5.1, 5.2, 5.3, 5.4: no LPA management and KPIs existed, no LPA monitoring, LPA was in paper only; **Change 5.1, 5.2, 5.3, 5.4:** UCC umbrella organisation with eleven member CBOs established and operating the LPA management with approved plans; UCC forums and CBO meetings, plans, reports are main tools for collective and democratic decision-making and LPA management; Legitimate institutional structure in place with decision-making (Board), executive (Executive director and VRs and monitoring (Monitoring Council) authorities. This experience of LPA management model building was documented in the 'Local Protected Area Management Model in Mongolia: A case of Khoid Mogoin Gol - Teel LPA' book.

3.2 Outcome

The project Outcome statement was "1660 km^2 of Arkhangai's forest-steppe secured and sustainably managed as a LPA, supporting globally-endangered species' recovery, equitably safeguarding communities; culture and livelihoods, and providing a framework for replicating the LPA model". The project achieved its intended Outcome by creating a model for LPA management by a community-based institution that operates in partnership with national and local organisations to conserve the LPA ecosystem and improve community well-being. As shown by the results of biodiversity monitoring and an independent socio-economic survey, the population of the target species has increased or maintained through positive changes in behaviors and practices of LPA herders while achieving poverty reduction and livelihood

improvement. In addition, fundamental governance processes for participatory decision-making and fair distribution of benefits and responsibilities were mainstreamed across LPA management and learned by CBO members. Measured results are stated below against the baseline parameters by each indicator.

Along with these positive achievements, the project lessons include the complexity of improving rangeland condition within a three-year project lifetime, which is intrinsically related to higher scale problems such as global market price fluctuation for cashmere, pandemic outbreak, and national political changes. These factors influenced the result of having no significant change in rangeland health in the LPA, and at least there was no worsening trend as shown by the surveys.

Indicator 0.1: Key populations of indicator species representing steppe biodiversity within the LPA are stable or increased compared to year 1 baselines by the project end. Particularly, a) the Siberian marmot (*Marmota sibirica*) population remains stable, b) the Musk deer population (*Moschus moschiferus*) increases by 5% c) and the populations of Saker falcon (*Falco cherrug*) and Steppe eagle (*Aquila nipalensis*) increase by 10%.

Change from Baseline: Final biodiversity monitoring result showed the changes of population from year one as follows: a) the Siberian marmot population (Marmota sibirica) - 342 individuals with increased 36% b) the Musk deer population (Moschus moschiferus) - 20 individuals with increase of 25%; and c) the population of Saker falcon (Falco cherrug) – 46 individuals with increase of 21.4%, and Steppe eagle (Aquila nipalensis) - 78 individuals with 38.1% increase.

Indicator 0.2: 1370 km^2 of forest-steppe habitat safeguarded by a functional Community Patrol Unit (CPU) under an effective LPA which achieves zero-poaching and a 75% reduction in incidents of illegal logging from the baseline (= year 1) by project end.

Baseline: In 2018, the AED reported zero poaching and three illegal logging incidents. However, this report included only those violations resolved at the Court, excluding intercepted cases not submitted to the Court. **Change:** In 2020, zero poaching was recorded in the LPA and no illegal logging reports recorded by SMART patrols, or in the local police department reports.

Indicator 0.3 Women and ethnically marginalised groups within the LPA community have equal representation in LPA-management decisions (baseline = year 1) by project end.

Baseline: The baseline was not available as there was no LPA management body. Two women were in the LPA management board (year one), remote herders lacked access to information, and participation in decision-making and choice of actions. **Change:** Two women (of 11) are still in the LPA management board; seven monitoring council members of LPA (100%) were women; 40% of LPA training participants were female. The CBO herders benefited from 380 different capacity building activities reaching 5177 participants (with multiple attendance by some active members) enabling their access to learning, exchanging ideas, decisions and collective actions towards improving their wellbeing.

Indicator 0.4: At least 60% of (total = ca. 100) households within LPA show an increase in overall economic wellbeing index scores, with women and men benefiting equally within households (baseline = year 1) by project end.

Baseline: The mean multidimensional poverty index (MPI) is 0.115, with 30% of LPA households estimated to live below the national poverty line. Lack of access to financial services, affordable loans and savings. **Change:** The MPI decreased to 0.084 or the share of the poor fell from 29.7% to 22.9%. The intensity of multidimensional poverty decreased from 0.389 to 0.365 (IRIM). 91% of herders participated in the End line survey confirmed to benefit from low interest loans, and 88% said to improve their livelihood thanks to VSLA membership.

Indicator 0.5: 275km2 (100%) of forest within LPA managed sustainably and showing no decline in above-ground woody biomass (baseline = year 1) by the project end.

Baseline: The baseline survey defined 497km2 forest land of which, burnt (15 km2), pest affected (0.4km2), 481,6 km2 (tree covered). **Change:** There were no major changes on this condition according to a remote sensing study (Marshall-Stochmal et al., 2020) and it was hard to measure on-the-ground changes in the vast forest without accurate forest inventory.

Indicator 0.6: Framework for the expansion of LPAs across Central Mongolia is in place, with buy-in from relevant government agencies, NGOs, and key target communities; and the process of producing official steppe-forest LPA guidelines has begun, by the project end.

Baseline: No current framework existed for LPA-level management that is applicable for Central Mongolia. **Change:** The project laid out the LPA management model with democratic constitution and management institution along with management tools and instruments that resulted in initial conservation outcomes and positive social changes. The model was described using IUCN PA management framework, published and shared with stakeholders. The LPA experience was shared with other conservation organizations during the online forum organized by MET. ZSL Mongolia was also invited to develop two LPA Management Plans in Gobi-Altai and Zavkhan provinces by the MET and UNDP-implemented ENSURE project.

3.3 Monitoring of assumptions

Outcome Assumption 0.1: The recently reintroduced marmot population is assumed to be very vulnerable at present, and achieving a stable population will present a major success but is achievable. The other 3 key species are more established so the specified population growth rates are expected as the impact of the project's interventions are felt. Disease outbreaks in wild populations do not occur, or occur at such a rate so as to not affect the trajectory of population recovery **Comments:** During the project it was revealed that in addition to the vulnerable, reintroduced marmot population in the Mogoinkhon and Tekhkharaikh community area, there were several populations of marmot existing within the LPA. Musk deer surveys were difficult for monitoring because of their habitat in high-mountain, and dense forest, with harsh weather conditions. There was no reported disease outbreaks for wild population, so this is assumed to be true.

Outcome Assumption 0.2: LPA community continues to have the undivided support of the local police agency and capacity to detect and respond to poaching and logging incidents, and make arrests. **Comments:** Discussions with communities throughout the project lifetime reiterated the uniformly strong community support to reduce poaching and logging in the LPA. The new partnership with the Eco Police Agency provided further specialised law enforcement support to communities.

Outcome Assumption 0.3 – 0.4: Mongolian socio-economic climate remains stable and the community adheres to the self-imposed criteria for equal participation set to ensure balanced participation of men, women and ethnically marginalized people e.g. set target numbers of women and men and marginalised people to equally benefit and participate in the proposed programmes and share in the decision-making process. **Comments:** Mongolia's socio-economic climate stayed relatively stable, and the IRIM baseline survey revealed that gender equity in the LPA was relatively progressive for Mongolia thus favorable for women's participation for LPA management and CBO, VSLA management.

Outcome Assumption 0.5: No natural disasters, such as forest fires or disease impacting standing forest. **Comments:** In project year two, the spring was particularly dry and dusty and there was a fire within the LPA. Fortunately, the Temeenchuluu CBO was able to quickly extinguish one such steppe-forest fire before its outbreak.

Outcome Assumption 0.6: Government support for community-based conservation remains strong. **Comments:** The project had good support from the local government and national government (MET) for its community-led management approach, the support provided sustainability of LPA management.

Output Assumption 1.1 – 1.2: No natural disasters, such as forest fires, or particularly harsh winters (dzuds) significantly negatively impact wildlife populations. **Comments:** During the project there was no significant natural disasters except the forest fire mentioned in Outcome Assumption 0.5.

Output Assumption 2.1 – 2.2: Local community members remain engaged with trialling a range of management techniques to pick those most effective and suitable to their needs. **Comments:** Local communities were proactive in attending workshops and community representatives have been actively engaged in major year project management techniques, including forest cleaning, fencing of natural regeneration, pasture management, VSLA and SMART activities. From eleven

CBOs one was not as active as others in participating in collective activities but did not impact the overall LPA community engagement.

Output Assumption 2.3: Techniques to maintain community engagement and tackle the risk of corruption with CPUs work effectively in the LPA context. The inclusion of individuals from a large number of households helps embed and institutionalise the CPU in community life. **Comments:** The first and second LPA management workshops approved the UCC constitution which set up democratic governance principles with fair and equal share of responsibilities and benefits among the members including the CPU. Each new member is sworn not to harm the mother nature and fight with those harming the nature (including prospective VRs) before joining a CBO. Every CBO also has the By-law that complies with the UCC Constitution that each member must abide. These instruments were shown to be good enough to prevent the corruption at the CPU level.

Output Assumption 3.1 – 3.2: Rangeland management model developed in Arkhangai is appropriate to other forest-steppe ecosystems in Mongolia with similar socio-economic and climatic features. **Comments:** The rangeland issues facing the LPA communities were representative of those facing similar concerns not only forest-steppe zone but communities across Mongolia. However, the model was developed in the context of forest-steppe ecosystem thus there is no doubt about the applicability of the model in the same ecozone.

Output Assumption 3.3: No serious drought years heavily impact the region, reducing the availability of water sources and grazing. In this scenario the project would revise some elements of pasture management trials to place a greater emphasis on water use. This both ensures community buy-in, by being relevant to their needs, and community wellbeing in the short-term. **Comments:** There was no droughts during the project period.

Output Assumption 3.3: Not all households are actively engaged in livestock grazing, and some of those that are engage at very low levels, for example elderly families whose children have moved to the city. Therefore, an 80% of households participating will cover the vast majority of livestock grazing. **Comments:** Although the IRIM baseline survey (*N*=150) stated about 98% of LPA households involved in livestock husbandry, this concerned the number of herder households residing in the LPA. The assumption was valid as the project team travelled across the three bags where the LPA is stretched and worked with the present families; the number seemed to be far below the official soum statistics (400). This implied that there were many registered with the soum but do not live in the LPA. Also, there were households registered with the aimag center but reside within the LPA. Therefore, the total number of households present in the LPA was estimated to be around 300. The UCC membership was 162 households at the project end, 54% of the LPA current population.

Output Assumption 4.1: Local markets for cashmere and dairy, and local and global markets for ecotourism remain stable, and harsh unpredictable weather conditions don't impact goat survival or cashmere production. **Comments:** There were no major changes in local and global markets in first two years. However, in year three due to COVID-19, the lockdown started and international and local travel was restricted causing a sharp fall of cashmere price. However, food transportation was allowed and meat demand increased for the locked population, supply of which substituted the lost cashmere income.

Output Assumption 4.1: Fair and equitable benefits sharing principles enshrined in LPA management under output 5, ensure that participation in project business enterprises is available to all community members (women, old, young etc.) and that this contributes to reducing inequity. **Comments:** This assumption held as the LPA livelihood support benefitted 118 women from nine CBOs (44% of the total), and overall female participation in the project capacity-building activities was 40%.

Output Assumption 4.2: Though marginalised in household decision making, women play a significant role in household budget management. This should support both achieving an equal gender balance, and enable a high rate of uptake - increasing as VSLAs become more cemented and the benefits become more apparent. **Comments:** The baseline IRIM surveys confirmed the women's role in household level business where over 90% of dairy processing and 70% of dairy sales is handled by women. Besides comments in prior Assumption 4.1, in eight VSLAs established the women were elected as book-keepers (100%), and members of the UCC Monitoring Council (100%).

Output Assumption 4.3: Livelihood diversification occurring during the project is a result of uptake of new sustainable livelihoods and represents an improvement in communities' wellbeing and resilience. **Comments:** New livelihood models aimed to be not only sustainable, but voluntary participation of CBO members required the collective commitment to reduce unsustainable, exploitative practices of natural resources. The new income sources such as deadwood removal and non-timber product use, dairy product processing, ecotourism were all facilitated by the project

Output Assumption 4.3: Livelihood model developed in Arkhangai is appropriate to other forest-steppe ecosystems in Mongolia with similar socioeconomic features. **Comments:** Given herder dependence upon livestock and associated livestock products (ecotourism, dairy etc.) the livelihood model was applicable to similar forest-steppe communities similar to Assumptions 3.1-3.2.

Output Assumption 5.1: Traditional customs and equitable and democratic principles are reconcilable within an effective institution. **Comments:** CBOs and UCC umbrella structure demonstrated to be an effective community institution that has encompassed traditional customs and democratic rules agreed by members.

Output Assumption 5.2: Government support for, interest in, and desire to take lessons from this project remains strong. **Comments:** The national and local government authorities were actively engaged in the project throughout the its lifetime and developed together an exit strategy on how to handover the produced results and processes.

Output Assumption 5.3: An important element of effective governance is engagement with third parties. Moreover, a very important element of effective governance of this LPA, which is planned to provide a framework to scale up the LPA model across central Mongolia, is engagement with the nearby communities, local and national government which will establish this. **Comments:** Stakeholders' interest in the project was significant, and involved a variety of a government agencies and community stakeholders. The COVID restrictions in year three limited the project's ability to share the results and lessons learned through planned Community Forum and Stakeholders exchange, thus at least several presentations during various online forums and sharing of the ZSL report and other project-printed materials were done.

Output Assumption 5.4: Individuals carefully selected to take part in exchange visits on the knowledge exchange are suitably influential in their own communities to drive future LPA declaration and management decisions. **Comments:** Various capacity building events were mostly inclusive and voluntary for CBO members. If numbers were limited CBOs decided who should participate. For instance, 12 community members nominated from 8 CBOs participated in knowledge exchange trip to Western aimags' CBOs and shared their experience with others.

Output Assumption 5.4: Engaging government officials and community leaders with the LPA approach contributes to the end goal of increasing support from each for scaling up the LPA model. **Comments:** This assumption was held. Given great interest of the government, most capacity-building activities included government organisations, used their expertise, and made efforts to lead to the scaling-up the LPA management model. The Government acknowledged the project achievements during local and national level events.

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

Project impact: Central Mongolia's forest-steppe ecosystem safeguarded through a LPA network, with flourishing populations of globally-endangered species and local communities' wellbeing and socio-cultural traditions secured through equitable sustainable resource-use and diversified livelihoods.

Higher impact on biodiversity conservation and poverty alleviation: In Mongolia, LPA is the most favored PA model, as shown in the Environmental Information Database of the MET. A total of 2745 LPAs were registered as of 2021, covering almost 60% of Mongolia's territory (У. Тунгалаг et al., 2021). The reasons for such popularity include a) ease of establishment and registration; 2) it allows herder households to stay within the LPA territory; c) with this PA status, the area can avoid mining licensing both for exploration and extraction. The creation of the community-led LPA model by the DI-funded project inspired the establishment of more LPAs formally managed rather than being just in "paper" (Reading et al., 2016) and triggered interest to learn from the project experiences. Specific branding of the project included the federal

structure of the LPA management institution (UCC) compatible with the geography and traditional social grouping of the pastoral community, participatory governance processes at both UCC and CBO levels, the community SMART patrolling, and local partnership of environmental organizations. Such signature actions and other conventional capacity-building efforts made the project impactful not only in Arkhangai province but also among the national conservation community. Impactful outcomes included increased or maintained population of target species, zero poaching and near-zero illegal logging, and reduced poverty among the LPA herder households, and improved well-being. The -ZSL team developed a guidebook to assert the establishment of the LPA management model in Mongolia using IUCN PA classification and management framework demonstrating all essential elements of Category VI PA management being in place within Khoid Mogoin Gol – Teel LPA (У. Тунгалаг et al., 2021).

3.5 Contribution to Global Goals for Sustainable Development (SDGs)

The project contributed to Mongolia's sustainable development commitments by contributing to the following specific SDG's:

SDGs' 1, 8 and 2 through the poverty reduction (the MPI decline from 0.115 to 0.084) among the LPA herders, increase of the average monthly household income (£ to £) (Activity 2.4) and improved access to financial services of VSLAs (Activity 4.5), small business development (Activity 4.1), and better marketing opportunities (Activity 4.2 and 4.3).

SDG5: As described in Section 4.4 on Gender, 100% of the Monitoring Council members of CBOs and VSLA book-keepers were women. Also, 18% the UCC's Board members and 70% of CBO secretaries were female (Activity 5.1). Despite the busy daily routine, women made 40% of all the training participants throughout the project time (Activity 4.1) and 44% of the small business beneficiaries.

SDG13: A series of conservation actions by the UCC members (forest and rangeland management actions) contributed to increasing herders' adaptation to climate change and supported the capacity of carbon sinks in the LPA.

SDG15: The contribution by establishing the baseline condition for wildlife and forest and rangeland ecosystems in the LPA, regularly undertaking biodiversity monitoring, and training and education to communities (Activity 1.2–1.4), changed community attitudes and practices (Activity 5.1). The UCC, an institution which manages the LPA wildlife and forest and rangeland ecosystem was established and strengthened to maintain the conservation activities (Activity 5.1). The population count for target species increased thanks to project-supported actions.

3.6 Project support to the Conventions or Treaties (e.g. CBD, Nagoya Protocol, ITPGRFA, CITES, Ramsar, CMS, UNFCCC)

In support of Mongolia's commitment to the CBD and National Biodiversity Strategy and Action Plan (NBSAP) 2015-2025, this project contributed to biodiversity conservation goals through developing a scalable model of LPA ecosystem management led by herder communities, which enables sustainable resource use to conserve and enhance biodiversity and ecosystem resilience while adhering to the principles of gender equality and social inclusion (GESI).

The project contributes to Mongolia's NBSAP through strengthening the PA network and improving the management and capacity of PAs (Goal 5: Objectives 10 & 11) and developing community-based forest management and biodiversity protection (Goal 11: Objective 16).

Specific contribution to the **Aichi Biodiversity Targets** were as follows:

- **1: People are aware of the value of biodiversity and of steps they can take to conserve and maintain it.** Awareness of biodiversity value was increased through a series of training events, the LPA community was empowered to manage resources and conserve the biodiversity through the Union of CBOs.
- **2: Biodiversity values integrated into local development and poverty reduction strategies.** The LPA model integrated poverty reduction with biodiversity conservation by supporting communities to manage their ecosystem more sustainably and generate biodiversity-based revenue streams.

- **5: Reduced habitat loss degradation and fragmentation.** Sustainable management of natural resources through the LPA model led by the UCC achieved initial results to reduce over-exploitation by stopping illegal activities and supporting restoration.
- **7: Sustainable management of areas under agriculture and forestry.** The LPA management by the UCC tested locally appropriate sustainable forest and rangeland management models. Both management models were adaptively revised utilising data from biodiversity, above-ground biomass and soil surveys.
- **11: 17% of terrestrial areas are conserved through effectively and equitably managed protected areas (PAs).** Although Mongolia currently has 20% PA coverage in the entire territory, limited resources constrain their effectiveness. The framework for the expansion of an effective and equitable LPA model will therefore make a key contribution to this objective.
- **12: Improved conservation status of threatened species.** The project achieved an increase of the local populations of Saker Falcon (*Falco cherrug*) EN, Steppe Eagle (*Aquila nipalensis*) EN, and recently reintroduced Siberian Marmot (*Marmota sibirica*) and stabilise the population of Musk deer (*Moschus moschiferus*) VU;.
- **14: Ecosystems providing essential services restored, accounting for needs of local communities and the vulnerable.** The LPA model prevents over-exploitation of critical ecosystems by educating and inspiring local resource users, restoring ecosystem services. Equitable LPA governance aims to ensure the benefits are fairly shared.
- **17: Implementing Mongolia's National Biodiversity Strategy and Action Plan (NBSAP).** Biodiversity monitoring in the LPA feeds into reporting against Mongolia's NBSAP, through annual workshops, to support implementation and wider learning.
- **18: Traditional knowledge and practices of local communities respected and integrated into biodiversity conservation, with their full and effective participation.** The LPA model utilises traditional knowledge and practices under all outputs, from biological monitoring and forestry management to effective governance structures. Community members have full ownership of all outputs.

3.7 Project support to poverty alleviation

By empowering 10 LPA CBOs to sustainably manage local natural resources, key environmental drivers of poverty were alleviated (MPI decline by 0.031) through improved income security (small business, access to finances), and food security through improved ecosystems and greater climate change resilience. (Indicator 2.2, 2.3, 2.4, 3.3, 5.3)

Each community member in the LPA has the opportunity to participate in conservation and livelihood activities through CBO meeting and a CBO representative in the LPA management authority and benefit from learning and member support. The principal beneficiaries of the poverty alleviation efforts were therefore the herder households in the LPA.(Indicator 5.1, 5.2)

Other beneficiaries of this work included residents of the nearby Aimag centre, Tsetserleg which indirectly benefit from the sustainable management of the LPA and its provision of ecosystem services. An obvious example of this was the forest cleaning activity which provided firewood to Aimag residents at cheaper prices than logged timber at the local market (Indicator 2.4)

The project facilitated improved financial security for eight CBOs through the establishment of VSLAs which provides loan at interest rates of 3% (against the average bank interest rates of 20%). Alternative sustainable incomes sources were described extensively in this report and included direct incomes earnt on forest thinning, eco-tourism, and trade fairs to sell LPA products (e.g. dairy). (Indicator 4.1, 4.2) Direct impacts of poverty alleviation from this project in the forms of improved economic wellbeing were increased income from sustainable natural resource management and diversified livelihood sources, and greater income security from VSLAs. (Indicator 4.3)

3.8 Gender equality

Utilising an improved understanding of gender issues following IRIM's sociological survey, the project established to embed GESI principles and promoted gender equality within LPA

management and within activities. To provide equitable training opportunities for training and skill development, the 380 trainings to 5177 community members (including multiple attendance), 40% of attendees were female. Less overall engagement by women in project activities can be primarily attributed to the types of activities conducted in labour intensive activities like forest thinning, deadwood removal, and volunteer ranger patrols. However, examining gender ratios in training on pasture management and VSLAs, female participation is 41% and 45%, respectively. (Indicator 0.3)
Gender equity within UCC leadership 18% of its board members are women. However, the Monitoring Council established to monitor UCC decision making on behalf of CBOs is an all-female council (of seven members) which can have a major influence on ensuring gender equity in LPA management decision-making. Female participation in key positions reflect conventional gender roles in Mongolia as women dominate the CBO secretary (70%), VSLA secretary (63%) and Monitoring Council member (100%) positions.

3.9 Programme indicators

- **Did the project lead to greater representation of local poor people in management structures of biodiversity?**
- **Were any management plans for biodiversity developed and were these formally accepted?**
- **Were they participatory in nature or were they 'top-down'? How well represented are the local poor including women, in any proposed management structures?**
- **How did the project positively influence household (HH) income and how many HHs saw an increase?**
- **How much did their HH income increase (e.g. x% above baseline, x% above national average)? How was this measured?**

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

Ten CBOs includes all neighborhoods sharing the same resources within LPA and were focused on community-level actions to implement solutions with respect to use natural resources and wildlife conservation. Each member has the opportunity to exercise his/her rights and secure access and control over the land resources. (Indicator 1.2 and 5.1) Everyone has the right to be elected various management bodies, including LPA board, CBO leader, Monitoring council, VSLA positions by votes of peers. For instance, two women were elected in the LPA management board, seven in the Monitoring council (Indicator 0.3).

Were any management plans for biodiversity developed and were these formally accepted?

The biodiversity conservation actions were incorporated into the UCC natural resource management plan and CBO-level rangeland and forest management plans, containing SMART patrolling against illegal logging and poaching, participating in annual biodiversity monitoring led by NUM, supporting forest and rangeland ecosystems contributing to wildlife habitat conservation and water protection. All plans were approved at CBO and UCC levels, and implementation progress was discussed at the CBO and UCC meetings. Most activities for biodiversity conservation involved training and education for CBO members and developing their skills for biodiversity monitoring and teaching about the ecosystem role of forests and rangelands, and wildlife species.

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

Project officers jointly with local experts facilitated forest management and business plans using participatory problem analysis and SWOT analysis. All CBO members were invited, including older adults and women. In rangeland management and business management plans, women's participation was as equal as the men's. However, for forest management plan formulation, male members were more active as activities such as forest cleaning require more masculine labor. We reported before that women were well represented at VSLAs and CBO Monitoring Councils

compared to the Board where minority were female. Regarding rangeland management plans at the CBO level, the formulation was guided by the Aimag PUA, who gathered good experiences within the aimag and know the challenges of negotiating with herders about reducing livestock numbers to reduce grazing pressure. Therefore, to reach the aimag level target to improve rangeland health, the PUA also had extended discussions to convince herders to go for livestock number reduction. Overall, formulating the plans was participatory to bring a commitment of the CBO members from its design based on the problems they faced, such as rangeland degradation, water shortage, illegal logging, and poaching.

How did the project positively influence household (HH) income and how many HHs saw an increase?

Totally 303 members were able to diversify their income sources during the project. Particularly, the support to forest cleaning, establishment of VSLAs, and provision of necessary equipment for small businesses produced the desired results for household income diversification. 224 members, which is 82.3% of 303, participated in VSLAs and increased their savings 22-25 % and 92 member received loan from their collective savings.

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

From the Baseline level, the MPI decreased by 0.031 units as shown in the Endline study. The proportion of the poor in the total population decreased from 29.7% to 22.9%. The poverty intensity fell from 0.389 to 0.365. 38.9% of households living below poverty line at the baseline level dropped to 36.5%. The IRIM team used multidimensional poverty index that measures not only economic well-being but educational, health and food security parameters (IRIM, 2021). The study also made a small sample comparison of the livelihood indicators of CBO members against non-CBO respondents and found significantly higher living among the project beneficiaries. Therefore, it concluded that the project made a significant contribution to the livelihood improvement of the LPA households.

3.10 Transfer of knowledge

In January 2020, Project conducted eco-tourism training for 40 (20 men and 20 women) CBO members with certifications.

On 19th-20th August, Vice Ambassador of The British Embassy of Mongolia visited the project site and attended the UCC all members' conference.

On 4 March 2021, a ZSL officer presented SMART patrolling of VRs in LPA at the SMART International Partnership Platform and Mongolia's SMART partners working group included WWF, WCS and ZSL established by MET (Annex 7.2).

Fifteen VRs certified as Rangers by Arkhangai Environmental Department (Annex 7.11).

ZSL Mongolia published Guidebook "Local Protected Area Management Model: A case of Khoid Mogoin Gol - Teel LPA" and distributed to the partners and stakeholders (Annex 7.33).

On 8th November 2020, the project organised a meeting with UNDP project-supported communities and forest user groups in Arkhangai and MET involving 47 people. CBOs activities including forest, rangeland, wildlife management and VSLA introduced by CBOs members at the meeting. (Annex 7.32)

3.11 Capacity building

A ZSL officer was invited to the SMART Partners Working Group meetings at MET to share the project experience. He also presented the ZSL Mongolia experience of SMART patrol piloting at the SMART International Working Group.

The ZSL Mongolia Country Director was invited to share LPA experience with CBO network online meeting organized by the MET. She was interviewed by an international journalist published at Mongabay talking about how traditional ecological knowledge and scientific research being combined for conservation.

4 Sustainability and Legacy

The project has gained significant local attention and has been instrumental in organising several province-level conferences, including the First Rangeland management conference of Arkhangai aimag (24th December 2018), the First Sustainable forest management conference (7th March 2019), and a series of other awareness-raising and capacity building events for project sustainability.

UCC is a project-supported umbrella organisation uniting 11 CBOs and overseeing the LPA management with the approved governance structure, clear boundaries for each CBO agreed with member herders and documented in the map, and implementing the agreed plans for collective goals of the LPA conservation. The LPA management elements have some degrees of the self-sustaining basis, including Output 2: Sustainable forest management; Output 3: Sustainable rangeland management; Output 4: Cooperatives managing sustainable business models and VSLAs; and Output 5: the LPA management authority. Given the continued support of local partners, the UCC will carry out these functions with community members. As the project progressed, it steadily handed over the management and operations to the UCC. Major UCC activities were self-sustaining without project inputs in year three. However, the intensity of educational and capacity-building events will be much less, and financial support will cease out. For instance, maintaining the operation of the CPU (SMART patrol) needs technical and financial support from the local authorities to cover at least fuel costs. The CPU was critical for stopping poaching and illegal logging; thus, the soum and aimag level support is necessary. As part of the exit strategy, the soum governor verbally committed to support the CPU. Also, Bulgan soum Citizen Representative Khural allocated a GBP sourced from non-timber product use tax as per the Law on Natural Resource Use Tax to support communities. In addition, Temeenchuluut CBO received a GBP grant for road maintenance from the Local Development Fund in 2021. These efforts were encouraging, but UCC dialogues with the local authority continue.

Technical support for collecting SMART data and using it for decision-making must go through existing ties with ZSL as there is no existing platform nationally. The current SMART Working Group was created to exchange pilot experiences and learn from each other.

Under the MOU signed between ZSL and the Eco Police Department of Mongolia on 21 February 2020, the EPD committed to support the prevention of illegal logging and poaching in the LPA and respond to violation reports of SMART patrolling VRs. (Output 1 and 2)

The AFU will also continue its support for forest management by providing expertise for forest cleaning, marking the cut areas, tree planting, maintaining natural regeneration, suppressing forest fires and pests, etc. (Output 2).

The PUAA agreed to support rangeland management as all CBOs are now registered with the PUAA and became its members (Output 3). The UCC will be in charge of sustainable economic and business development by providing training and technical support to effectively manage livestock assets and financial resources (Output 4 and 5). Nine CBOs will continue their small business, which began in 2020 with equipment provided by the project as part of the approved business plans.

Output 1: Biodiversity monitoring at the LPA will be unlikely to be maintained by the UCC as this requires scientific expertise for wildlife, forest, and rangeland ecosystems and requires substantial costs. The project communicated with the Khangai Mountain Protected Area Administration as the LPA is in their buffer zone and learned that the PA has a budget shortage to conduct regular biodiversity monitoring within its assigned territories.

ZSL Mongolia applied to IWT Challenge Fund proposing a capacity-building of the newly established Ecological Police. This proposal has a community-based component to demonstrate how EPD can partner with local communities to tackle IWT by choosing the LPA as a pilot site. If successful, this project will further strengthen UCC's function and financial capacity to level off self-sustenance. The project staff and partners will collaborate on this new project or work on other ZSL conservation projects. ZSL handed over necessary equipment and tools to CBOs and will use assets such as cameras and vehicles for conservation purposes.

5 Lessons learned

What worked well, and what didn’t work well?

The participatory, bottom-up approach was critical in gaining the LPA Community support, and benefitting herders' knowledge about LPA resources and geography, and mobilizing other resources such as labor and financial contribution. In addition, bringing scientific research and resource assessments and enabling herders' exchange with researchers and access to scientific information was an eye-opening experience for CBO members. Also, an inclusive partnership approach bringing local professional organizations (AFU, PUAA, AED) and bridging their relationship with the new UCC (including personal level collaboration) provided a fruitful network that would last beyond the project lifetime.

There were two challenges the project had to address, including the initial non-performance of Arig Bank and the COVID outbreak in year three. Due to Arig Bank's failure to deliver the planned results and its association with Spirits Mongolia, the project progress was delayed in year one. The details were discussed in the half-year report, and technical adjustments were made following the change request in December 2018. Due to COVID restrictions, the project could not have an LPA-wide forum to inform the results and collaboratively reflect on the project achievements and brainstorm on future actions. The wrap-up meeting involved only CBO leaders and soum government officers. The participatory process of establishing eleven CBOs and their capacity-building consumed a significant amount of time in discussing their benefits (legal, governance, environmental) and facilitating community meetings over the winter period (due to adverse weather and geographic spread of community households).

If you had to do it again, what would you do differently? Given the substantial time required for community capacity building, the project will consider seasonality of training and other community activities (summer and fall time is more suitable) and mobilise local knowledge by recruiting experienced local experts and training them as capacity-building resources. Field activities such as forest thinning, fencing and suppressing forest fires, etc. require necessary food budget, which was insufficiently considered in the project design. Providing food during these events is a vital hospitality gesture from the project side when local community members voluntarily contribute their labour, time, and transport means to the collaborative activities.

What recommendations would you make to others doing similar projects? 1) Partnership with the local stakeholders from the project design stage is crucial to provide further cooperation during the implementation and guarantees positive changes. 2) Working and building capacity of mobile pastoral communities in Mongolia is time-consuming thus project planning and implementation should well consider the adequate progress estimation.

What key lessons have been learnt as a result of this project? As described earlier, there were two key lessons—the selection of Arig Bank to deliver community-based outputs. At the same time, it lacked sufficient expertise in this field. The lesson learned was to have an accurate check and validation of the partner's competencies for delivering the expected results before making a collaborative proposal. The second was the COVID outbreak which harshly periled highly participatory projects such as our community-based conservation project restricting all community forums, exchanges, and collective decision-making. Unless the Government secures the preventative measures, there is not much the project can do about addressing this to avoid any human casualties caused by large gatherings.

5.1 Monitoring and evaluation

The project did not make any changes in the initial project design except the discontinuation of the partner contract with Arig and used the approved logframe for the implementation. The Monitoring & Evaluation system was laid out at the levels of the LPA community and ZSL team.

The CBO members elected their representatives for the LPA management authority (UCC) in May 2019, and established a Monitoring Council to monitor UCC decisions and performance on behalf of the CBOs which commenced governance processes, including monitoring and evaluation of the progress. UCC Board and CBO meetings discussed issues around how to monitor and evaluate LPA performance against KPIs and project indicators, and how to adapt work plans addressing the challenges emerged. This way, UCC and CBO members learned to monitor collective work and evaluate results.

Throughout the project period, ZSL maintained weekly country team meeting and monthly regional meeting calls with ZSL HQ where LPA briefs were made. Completion of milestones were monitored throughout the project using tools such as weekly updates, monthly financial reports,

annual work plan, and annual donor reports submitted using ZSL's web-based systems, including activity, indicator, and finance tracking. The M&E system also used external expertise as follows: a) Baseline and endline socio-economic survey by IRIM (Annex 7.26 and Annex 7.27); joint biodiversity monitoring with NUM (Output 1); forest pilot survey by the expert from the Institute of Geography and Geoecology (Output 2); and rangeland assessments by NAU (Output 3).

The findings of all these assessments guided the project plans and CBO actions. For instance, rangeland survey informed about the status of rangeland health within each CBO (mostly exceeding carrying capacity with varying degrees of overgrazing) led to Rangeland management plan that CBOs currently implementing. The IRIM study revealed major changes in CBO members attitudes, livelihoods and overall wellbeing at the project beginning versus its end.

5.2 Actions taken in response to annual report reviews

The project responded to all issues raised in the reviews of annual reports and discussed the reviews with our partners and beneficiaries time. Most comments concerned documenting the progress and improving the reporting (Annex 7.37).

6 Darwin identity

ZSL Mongolia consistently recognised the generous support of the UK Government and DI throughout the project communications and products. Fruitful cooperation with the British Embassy in Mongolia promoted our work and DI to high-level government authorities, private and non-profit organisations and conservation institutions in Mongolia. Some examples include:

- Brief on DI was made and its logo displayed during workshops and meetings (380 in total) with local communities, government authorities, and project stakeholders.
- Presentations introducing the project at various workshops and meetings, and acknowledged the DI grant as an key funding source.
- The project partnered with the British Embassy in Ulaanbaatar for organizing a reception on the 24th April 2019 on the occasion of Mrs. Monica Wrobel's mission to Mongolia. The reception was an excellent opportunity to recognise the UK Government's contribution with high level government officials and partners.
- The three videos about the LPA mission aired on Arkhangai TV twice weekly for 3 months carried DI logo (Annex 7.8)
- All Information boards marking the LPA boundaries and the equipment transferred to CBOs displayed the DI & ZSL logo stickers (Annex 7.14).

The project also received positive evaluation from the partners' side and in general conservation community in Mongolia as follows:

- The ZSL project received the "Best environmental organisation – 2019" award in Arkhangai aimag. The Aimag Governor presented the award and acknowledged the project contribution to the environmental conservation in the aimag (Annex 7.34).
- During the 2019 Eco-Friendly Product Exhibition in Ulaanbaatar, the project officer shared experiences and initial achievements with the exhibition participants that received positive feedback. (Annex 7.21).
- The project achievements were also displayed in the published ZSL Mongolia Report (1000 copies) and shared with stakeholders (Annex 7.35)
- DI-funded conservation work in Arkhangai was presented in a video produced by the British Embassy of Mongolia created for the World Wildlife Day at the Embassy's official Facebook page. (Annex 7.36)

7 Impact of COVID-19 on project delivery

Since February 2020, Mongolia had different measures in response to the Coronavirus outbreak in neighboring countries, including a complete curfew, shutting down the border, travel restrictions, closing schools, and a ban on public gatherings. Fortunately, the project completed major planned activities by adjusting the workplan before the domestic spread started in November 2020. ZSL Mongolia shifted to virtual meetings avoiding face-to-face meetings in compliance with the government instructions. It took safety measures by distributing facial masks and hand sanitisers during the small-scale meeting in the LPA. The herders could not benefit from ecotourism income supported by the project. They also had to face income loss from the fallen cashmere prices due to border closure. Virtual meetings with aimag and soum officials

worked well but did not work for herders who lack access to cellphone networks and the internet. Fortunately, COVID did not impact the project work but restricted the project end community forum to have a proper reflection and celebration of achievements and brainstorm on the future actions.

8 Finance and administration

8.1 Project expenditure

Project spend (indicative) since last annual report	2020/21 Grant (£)	2020/21 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Others (see below)				
TOTAL				

Staff employed (Name and position)	Cost (£)
Tungalag Ulambayar, Country Director	
Samuel Merson, Project Coordinator	
Khaliuna Bale, Finance officer	
Munkhzul Tserendorj, Technical Specialist	
Myagmarsuren Shagdarjav, Admin and Logistics support officer	
Erdenetsolmon Ganbaatar, Project officer	
TOTAL	

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

Other items – description	Other items – cost (£)
Review, translation, printing of reports Medical kits Vehicle maintenance and repair Stationary and communication Exchange visit Field consumables Public outreach	

TOTAL	

8.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)
New Zealand Embassy in Beijing Small grant for Dairy production	
IWT Challenge Fund proposal: Mongolia's New Ecological Police: Global Standards and Community Engagement	
TOTAL	

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

8.3 Value for Money

The project secured the equivalent of £ additional cash and in-kind support from CBO members and VSLA funds for various community-based activities such as annual deadwood removal. These co-funding were in the form of labor, food, transportation and construction materials.
The project utilised ZSL's value for money principles: economy, efficiency, effectiveness, and equity.
Arkhangai government partners' (AFU, AED) involvement was cost effective as they provided their expertise with no monetary forms despite invaluable contribution to CBO capacity-building. By using existing infrastructure, administrative costs were minimised without risk to project implementation.
The project minimised international travel costs to cover only vital travel for training purposes, while utilising more of national expertise where possible.
Most training and field activities were carefully designed to be both multi-faceted (e.g. delivering multiple sessions in a single event), and impactful. Therefore, events were combined or organised in parallel to reduce unnecessary logistical expenses. The project utilised meeting venues and training facilities provided by Soum Government and AED where possible.
Multi-stakeholder agreements for equitable sharing of responsibilities and benefits were mainstreamed in all management documents, and practices for strict enforcement throughout the project.

9 OPTIONAL: Outstanding achievements of your project during the (300-400 words maximum). This section may be used for publicity purposes

I agree for the Darwin Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here)

We agree for ECTF and the Darwin Secretariat to publish the content of this section.

Annex 1 Project's original logframe, including indicators, means of verification and assumptions.

Note: Insert your full logframe. If your logframe was changed since your Stage 2 application and was approved by a Change Request the newest approved version should be inserted here, otherwise insert the Stage 2 logframe.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Central Mongolia's forest-steppe ecosystem safeguarded through a LPA network, with flourishing populations of globally-endangered species and local communities' wellbeing and socio-cultural traditions secured through equitable sustainable resource-use and diversified livelihoods.			
Outcome: 1660km^2 of Arkhangai's forest-steppe secured and sustainably managed as a LPA, supporting globally-endangered species' recovery, equitably safeguarding communities' culture and livelihoods, and providing a framework for replicating the LPA model.	0.1 Key populations of indicator species representing steppe biodiversity within the LPA are stable or increasing compared to year 1 baselines by the project end. Particularly, a) the Siberian marmot (Marmotasibirica) population remains stable, b) the Musk deer population (Moschusmoschiferus) increases by 5% c) and the populations of Saker falcon (Falco cherrug) and Steppe eagle (Aquila nipalensis) increase by 10%.	0.1 Annual LPA biodiversity surveys feeding into LPA Management Plan and reporting against Mongolia's NBSAP (2015-2025)	The recently reintroduced marmot population is assumed to be very vulnerable at present, and achieving a stable population will present a major success but is achievable. The other 3 key species are more established so the specified population growth rates are expected as the impact of the project's interventions are felt.
			Disease outbreaks in wild populations do not occur, or occur at such a rate so as to not affect the trajectory of population recovery.
	0.2 1660 km^2 of forest-steppe habitat safeguarded by a functional CPU under an effective LPA which achieves zero-poaching and a 75% reduction in incidents of illegal logging from project baseline (= year 1) by project end.	LPA records; CPU SMART patrol logs; Illegal logging reports produced from SMART data; SMART reports showing evidence for patrol coverage and threats encountered; 'threat assessment'	LPA community continues to have the undivided support of the local police agency and capacity to detect and respond to poaching and logging incidents, and make arrests
	0.3 Women and ethnically marginalized groups within the LPA community have equal representation in LPA-management decisions (baseline = year 1) by project end	Socioeconomic survey (baseline & project end): self-reporting by women in the LPA, verifying that women and ethnically marginalized groups have equal share of decision making in the LPA	Mongolian socio-economic climate remains stable and the community adheres to the self-imposed criteria for equal participation set to ensure balanced participation of men, women and ethnically marginalized people , e.g. set target numbers of women and men and marginalized people to equally benefit and participate in the proposed programmes and share in the decision -making process.

	0.4 At least 60% of (total = ca. 400) households within LPA show an increase in overall economic wellbeing index scores, with women and men benefiting equally within households (baseline = year 1) by project end.	Socioeconomic survey (baseline & project end): scores on overall economic wellbeing index, compiled from range of metrics identified in year 1	
	0.5 275km2 (100%) of forest within LPA managed sustainably and showing no decline in above-ground woody biomass (baseline = year 1) by project end.	Forest management records, woody biomass monitoring (baseline & project end), annual phenology and species richness forest plot results, GIS analysis	No natural disasters, such as forest fires or disease impacting standing forest.
	0.6 Framework for the expansion of LPAs across Central Mongolia is in place, with buy-in from relevant government agencies, NGOs, and key target communities; and the process of producing official steppe-forest LPA guidelines has begun, by project end.	All protocols and management plans produced under project; recommendations on LPA framework formally received by MET	Government support for community-based conservation remains strong.
Output 1: Annual biodiversity monitoring programme within LPA in place providing data for informed conservation interventions, management plans and policy. Biodiversity monitoring will target key species: Saker Falcon (Falco cherrug) EN, Steppe Eagle (Aquila nipalensis) EN recently reintroduced Siberian Marmot (Marmotasibirica) EN, Musk deer (Moschusmoschiferus) VU; and forest and rangeland species richness.	1.1 Biodiversity monitoring plans for all key species and wider ecosystem developed for use by the annual monitoring programme, utilising local ecological knowledge, by year 1.	Annual biodiversity surveys, Local Ecological Knowledge	No natural disasters, such as forest fires, or particularly harsh winters (*dzuds*) significantly negatively impact wildlife populations.
	1.2 Biodiversity monitoring surveys completed in year 1, 2 and 3 of the project	Annual and final project reports of biodiversity monitoring surveys (species richness) feeding into reporting against Mongolia's NBSAP (2015-2025) and LPA management plan	

Output 2: Model of community-led sustainable forest management in place in LPA safeguarding 275 km^2 of vulnerable forest in Arkhangai	2.1 National University of Mongolia and ZSL led annual above ground biomass surveys of 275 km2 of sustainably managed forest in LPA, and comparable forest in the control site, in place by year 1	Annual and final project reports of above ground biomass feeding into reporting against Mongolia's NBSAP (2015-2025) and LPA management plan	Local community members remain engaged with trialling a range of management techniques to pick those most effective and suitable to their needs.
	2.2 Forest management interventions (including harvesting and thinning techniques) defined and piloted by year 2, and informing adaptive management of LPA's forests by year 2.	Forest management intervention plan, forest management pilot records, forest management workshop records	
	2.3 One Community Patrol Unit (CPU) of 40 members, divided into local patrol teams, with women actively participating in coordination roles, conducting twice-weekly SMART patrols by year 2.	CPU agreements and contracts, SMART reports showing patrol frequency, coverage and composition	Techniques to maintain community engagement and tackle the risk of corruption with CPUs work effectively in the LPA context. The inclusion of individuals form a large number of households helps embed and institutionalise the CPU in community life.
Output 3: Model of community-led sustainable pasture management in place in LPA,	3.1 National University of Mongolia and ZSL led annual soil nutrient and compaction monitoring in sustainably managed LPA pasture, and control pasture, in place by year 2.	Annual and final project reports of rangeland health monitoring feeding into reporting against Mongolia's National Biodiversity Program (2015-2025) and LPA management plan	Rangeland management model developed in Arkhangai is appropriate to other forest-steppe ecosystems in Mongolia with similar socioeconomic and climatic features.
	3.2 Pasture management interventions (including reducing grazing pressure, marmot-friendly livestock management and leaving areas un-grazed to recover) defined and piloted across 5 experimental plots by year 2, and informing pasture management plan within LPA by year 2.	Pasture management intervention plan, marmot-friendly pasture-management recommendations, pasture management pilot records, pasture management workshop records	
	3.3 Sustainable rangeland management system in place, utilising sustainable traditional knowledge and practices, with	Pasture management records, grazing land use agreements	No serious drought years heavily impact the region, reducing the availability of water sources and grazing. In this scenario the project would revise some elements of pasture management trials to place a greater emphasis on water use.

	80% of households (total = ca.400) participating (baseline = no rangeland management system) by project end.		This both ensures community buy-in, by being relevant to their needs, and community wellbeing in the short-term.
			Not all households are actively engaged in livestock grazing, and some of those that are engage at very low levels, for example elderly families whose children have moved to the city. Therefore, an 80% of households participating will cover the vast majority of livestock grazing.
Output 4: Holistic inclusive livelihood model, including production and access to market, in place in LPA, resulting in improved income opportunities	4.1 Environmentally sustainable and economically viable cashmere, dairy and ecotourism business models and other livelihoods as identified by women developed in LPA by year 1.	Business viability indicator (this is a measure designed by Arigbank to assess companies attractiveness for investment), Post-LPA value chain analysis (conducted by Arig bank)	Local markets for cashmere and dairy, and local and global markets for ecotourism remain stable, and harsh unpredictable weather conditions don't impact goat survival or cashmere production.
			Fair and equitable benefits sharing principles enshrined in LPA management under output 5, ensure that participation in project business enterprises is available to all community members (women, old, young etc.) and that this contributes to reducing inequity.
	4.2 At least 1 VSLA within LPA by year 1 consisting of ca. 20 members becoming business literate, with members representing 20% of households (total = ca. 400); 2 VSLAs representing 40% of households by year 2, and 3 VSLAs representing 60% of households, (with equal gender balance) by project end.	VSLA records demonstrating consistent engagement and attendance at VSLA meetings designed to accommodate semi-nomadic communities, Socioeconomic survey (baseline & project end),	Though marginalised in household decision making, women play a significant role in household budget management. This should support both achieving an equal gender balance, and enable a high rate of uptake - increasing as VSLAs become more cemented and the benefits become more apparent.
	4.3 Livelihoods diversified from an average of 2.0 occupations per household within the LPA during the scoping survey to 2.5 by project end	Socioeconomic survey (baseline & project end).	Livelihood diversification occurring during the project is a result of uptake of new sustainable livelihoods and represents an improvement in communities' wellbeing and resilience.
			Livelihood model developed in Arkhangai is appropriate to other forest-steppe ecosystems in Mongolia with similar socioeconomic features

Output 5: Effective and equitable LPA governance model in place in LPA, enabling robust monitoring and evaluation (incorporating the data from other outputs) and sustained engagement with nearby communities and local and national government	5.1 LPA management authority, composed of community members and representatives from project partners, meeting monthly and involved in coordination of all outputs, to enable their continuation post project, by year 1	LPA constitution, LPA management authority registration records, LPA management authority meeting minutes	Traditional customs and equitable and democratic principles are reconcilable within an effective institution
	5.2 KPIs, specified under other outputs, are monitored by the LPA management authority and monitoring data is fed into the LPA management plan and Mongolia's NBSAP (2015-25) to enable lesson-learning from the LPA pilot.	KPIs, LPA management plan, NBSAP reporting, meeting minutes	Government support for, interest in, and desire to take lessons from this project remains strong.
	5.3 5 relevant national and local government officials, including CBD national focal point, have visited LPA and are supporting the production of steppe-forest LPA guidelines by project end.	Government visit reports, minutes of national and local government meetings on LPA approach, project reports shared with officials	An important element of effective governance is engagement with third parties. Moreover a very important element of effective governance of this LPA, which is planned to provide a framework to scale up the LPA model across central Mongolia, is engagement with the nearby communities, local and national government which will establish this.
	5.4 15 community leaders from identified nearby community groups, resident in vulnerable areas, which are suitable for replicating the LPA approach, have conducted knowledge exchange visits to the LPA and are supportive of the model by project end.	Exchange visit reports,	Individuals carefully selected to take part in exchange visits on the knowledge exchange are suitably influential in their own communities to drive future LPA declaration and management decisions.
			Engaging government officials and community leaders with the LPA approach contributes to the end goal of increasing support from each for scaling up the LPA model

Activities

1.1 Conduct expert workshop (including Local ecological knowledge experts) on biodiversity monitoring techniques appropriate to site and target species

1.2 Produce Biodiversity Monitoring Plan for LPAs in Central Mongolia's Forest-Steppe Ecosystems

1.3 Train local community members in required biodiversity monitoring techniques, also provide refresher training as needed

1.4 Conduct annual biodiversity monitoring, covering target species and species richness of birds and invertebrates

2.1 Conduct above-ground biomass surveys in LPA and control site

2.2 Define and map 3-4 suitable test plots within the LPA forest area.

2.3 Co-produce methods and management design for each test plot, based on existing options for boreal/taiga forest management, and introduce the forest management implementation and relevant practice

2.4 Support community members to implement forest management activities defined for each test plot.

2.5 Run a SMART recruitment workshop with LPA members to inform community of SMART and establish CPU members.

2.6 Co-produce SMART protocol for the LPA, and provide relevant training, based on CPU member capacity

2.7 Conduct twice weekly SMART patrols

2.8 Produce annual logging reports from analysis of collected SMART data

2.9 Improve signs and information boards along the LPA border and main roads

2.10 Conduct annual community workshop in improved adaptive forest management techniques in an iterative process as results from the trials become available

2.11 Co-produce final scalable forest management plan which balances forest yield and biodiversity, using annual biodiversity data and above-ground biomass data from forest management trial plots

3.1 Conduct soil nutrient and compaction surveys in LPA and control site

3.2 Define and map 3-4 suitable test plots within the LPA pasture area.

3.3 Co-produce methods and management design for each test plot, based on existing options for steppe/pasture management, with communities and introduce the pasture management implementation and relevant practice

3.4 Support community members to implement pasture management activities defined for each test plot.

3.5 Conduct annual community workshop in improved adaptive pasture management techniques in an iterative process as results from the trials become available

3.6 Co-produce final scalable forest management plan based on optimum biodiversity and rangeland carrying capacity, using annual biodiversity data and above-ground biomass data from pasture management trial plots

4.1 Co-produce new business models, in partnership with local communities, for eco-tourism and pasture related products, utilising Arig banks' business viability analysis techniques

4.2 Secure access to market for ecotourism and pasture related products from the LPA through working with international and in country buyers

4.3 Conduct workshop to establish community cooperative for small enterprises with legal support.

4.4 Provide small business training and support to LPA cooperative members

4.5 Co-produce, with local communities, a locally appropriate VSLA protocol, and enrol initial participants

4.6 Deliver ongoing training and support to VSLA members, and members of the LPA community wishing to participate

4.7 Design socio-economic survey protocol for LPAs, using established wellbeing indices, including livelihood diversity and income

4.8 Conduct socioeconomic surveys in LPA and control site to collect baseline data in year 1 and project end data in year 4

5.1 Establish an effective and democratic LPA management authority following GESI principles, to meet monthly for project coordination and including community members and representatives from key partners.

5.2 Hold annual workshops to feed monitoring results from output 1 and other outputs to into adaptive management planning and Mongolia’s reporting against its NBSAP

5.3 Run exchange visits for leaders from nearby community groups to observe the LPA and encourage them to establish LPAs in their own regions, also to include relevant government officials 5.4 Share completed set of LPA protocols, plans and reports with Ministry of Environment and Tourism to produce framework for expansion of LPA model, and basis for LPA guidelines to be published post-project.

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

Project summary	Measurable Indicators	Progress and Achievements
Impact **Central Mongolia's forest-steppe ecosystem safeguarded through a LPA network, with flourishing populations of globally-endangered species and local communities' wellbeing and socio-cultural traditions secured through equitable sustainable resource-use and diversified livelihoods.**		The forest-steppe ecosystem has been safeguarded with an increase of iconic species (Siberian Marmot-36%, Musk Deer-25%, Saker Falcon-21% and Steppe Eagle-38%) in the LPA through a model conservation management by CBOs represented in the Union of Conservation Communities and partnership with professional organizations and government institutions. The well-being of LPA herders improved through increased access to information, education, and financial services (joining VSLAs), and strengthened collective action for conservation by positively changing their attitudes and practices, and livelihood opportunities by diversifying income sources and reducing poverty (MPI declined by 7%).
Outcome 1660km^2 of Arkhangai's forest-steppe secured and sustainably managed as a LPA, supporting globally-endangered species' recovery, equitably safeguarding communities' culture and livelihoods, and providing a framework for replicating the LPA model.	0.1 Key populations of indicator species representing steppe biodiversity within the LPA are stable or increasing compared to year 1 baselines by the project end. Particularly, a) the Siberian marmot (*Marmota sibirica*) population remains stable, b) the Musk deer population (*Moschus moschiferus*) increases by 5% c) and the populations of Saker falcon (*Falco cherrug*) and Steppe eagle (*Aquila nipalensis*) increase by 10%. 0.2 1660 km^2 of forest-steppe habitat safeguarded by a functional CPU under an effective LPA which achieves zero-poaching and a 75% reduction in incidents of illegal logging from project baseline (= year 1) by project end. 0.3 Women and ethnically marginalized groups within the LPA community have equal representation in LPA-management decisions (baseline = year 1) by project end 0.4 At least 60% of (total = ca. 400) households within LPA show an increase in overall economic wellbeing index scores, with women and men benefiting equally within	0.1 The project conducted three-year biodiversity monitoring surveys within the LPA. Research results recorded increased numbers: a) the Siberian marmot population (*Marmota sibirica*) - 342 individuals with increased 36% b) the Musk deer population (*Moschus moschiferus*) - 20 individuals with 25%; and c) the populations of Saker falcon (*Falco cherrug*) – 46 individuals with increased 21.4%, and Steppe eagle(*Aquila nipalensis*) - 78 individuals with 38.1% ((Note:these surveys are conducted by ecologists with seventeen community VRs). 0.2 Seventeen VRs were certified from nine CBOs and conducted 91 SMART patrols with zero-poaching recorded in their territory. The LPA patrols recorded zero poaching and no illegal logging for soum police reports from 2020. (0.3 Two women were elected in the LPA management board (among 11 members); seven Monitoring council members of LPA management authority all female; with on average 40% of training participants being women. () 0.4 The project increased herders' livelihood through engaging them in forest deadwood removal, VSLAs, and enabling their participation in national dairy trade fairs, and supporting contracts with aimag market buyers. As a result, eight VSLAs had a total of GBP in their Savings & Loan Fund in late 2020. During the project, CBOs made a total of GBP co-funding of conservation activities. According to the IRIM endline study, the Multidimensional Poverty Index (MPI) among LPA community decreased from 0.115 to 0.084 (by 0.031). This means, the proportion of the poor in the total population, decreased from 29.7% to 22.9%. The intensity of multidimensional poverty decreased from 0.389 to 0.365 (by 0.024). This implied that 38.9% of households living below poverty line at the baseline dropped to 36.5% (). 0.5 The project conducted forest biomass surveys in the pilot plots in November 2019, and no major changes in woody biomass were reported. The project supported forest natural regeneration in 8 ha, did reforestation in 0.5 ha, and forest deadwood removal in 30 ha and forest, organized forest pest prevention training jointly with Aimag Forest Unit 0.6 The project conducted 380 training sessions and meetings during the project lifetime where 5177 CBO members (including multiple attendance) were involved in overall LPA

	households (baseline = year 1) by project end. 0.5 275km2 (100%) of forest within LPA managed sustainably and showing no decline in above-ground woody biomass (baseline = year 1) by project end. 0.6 Framework for the expansion of LPAs across Central Mongolia is in place, with buy-in from relevant government agencies, NGOs, and key target communities; and the process of producing official steppe-forest LPA guidelines has begun, by project end.	management. The project established ten CBOs within the LPA that now united under the Union of Conservation Communities (UCC) a NGO to manage the LPA and set up a LPA management model. The project developed and published a LPA model management book using the IUCN protected area management framework to share its LPA model experience.
Output 1. Annual biodiversity monitoring programme within LPA in place providing data for informed conservation interventions, management plans and policy. Biodiversity monitoring will target key species: Saker Falcon (Falco cherrug) EN, Steppe Eagle (Aquila nipalensis) EN recently reintroduced Siberian Marmot (Marmotasibirica) EN, Musk deer (Moschusmoschiferus) VU; and forest and rangeland species richness.	1.1 Biodiversity monitoring plans for all key species and wider ecosystem developed for use by the annual monitoring programme, utilising.local ecological knowledge, by year 1 1.2 Biodiversity monitoring surveys completed in year 1, 2 and 3 of the project.	1.1. A Biodiversity monitoring plan for all four key species was developed in year one and updated in consultation with VRs during the subsequent refresher training in June-July 2019 and January 2020, June 2020 and January 2021. 1.2. Biodiversity monitoring surveys were completed in year two in June 2019 (marmot point-count surveys, four camera-trap grid surveys (31 cameras with 10000 images included mammals, musk deer, red deer, roe deer, gray wolf, etc.) and January 2020, June 2020, January 2021 (line-transect surveys of musk deer, steppe eagle and saker falcon). 17 VRs also conducted regular wildlife observations during SMART patrols (total of 91 patrols) The advice of wildlife experts contributed to biodiversity monitoring plan's updates and training of Volunteer rangers, the important partner for both annual monitoring as well as the regular wildlife observations during SMART patrolling.
Activity 1.1 Conduct expert workshop (including Local ecological knowledge experts) on biodiversity monitoring techniques appropriate to site and target species		The wildlife expert workshop was conducted on 4th January 2019 involving six experts specialised on mammals, birds and insects. The experts had comprehensive discussions on appropriate methods for biodiversity monitoring and reached a consensus for using methods including 1) species identification, 2) distance sampling, 3) total count, 4) survey of indirect tracks and signs, 5) survey of breeding raptor species, and line-transect for musk deer.
Activity 1.2 Produce Biodiversity Monitoring Plan for LPAs in Central Mongolia's Forest-Steppe Ecosystems		The Biodiversity Monitoring Plan for the LPA was completed in January 2019. The plan was discussed among VRs during refresher training in 2020 and 2021. It was subsequently updated with new surveys (camera-traps for musk deer, marmot point-counts) and new patrol routes. Voluntary rangers conducted fortnightly bird species monitoring.
Activity 1.3 Train local community members in required biodiversity monitoring techniques, also provide refresher training as needed		The project conducted the first training for local community members to introduce biodiversity monitoring and SMART patrolling techniques on the 12th January 2019. 27 CBO members

	participated and 10 members volunteered to act as VR based on their interest. Each volunteer ranger provided with a certificate of VR and a Blackview smartphone (compatible with SMART Cybertracker), GPS and headtorch as necessary tools for SMART patrolling and biodiversity surveys. In year two, a refresher training for biodiversity monitoring involved 109 local community members to support camera-trap, line-transect and point-count surveys for focal species. In year three, refresher training was conducted for twelve VRs. In year three, the project developed a Field guide on the vertebrates of the Khangai mountain range including 15 fish species, 2 amphibian species, 32 mammal species, 160 bird species with photos and descriptions.
Activity 1.4 Conduct annual biodiversity monitoring, covering target species and species richness of birds and invertebrates	The year one biodiversity monitoring survey conducted on 13-15th January 2019 and established the baselines for target species. Key results included: a) the Siberian marmot population estimate of 220 individuals, b) Musk deer population estimate of six individuals c) and Saker falcon estimate of 38 individuals and Steppe eagle estimate of 57 individuals. In June 2019, community members identified four survey sites as important/threatened musk deer habitat, where 31 camera traps were deployed and point-count suveys were conducted for three marmot populations. In January 2020, line-transect surveys were conducted for musk deer, steppe eagle and saker falcon. Beyond annual focal species surveys, 91 SMART patrols were conducted which includes general monitoring for wildlife species. Third year annual biodiversity monitoring was conducted between 25 June - 03 July 2020. During the fieldwork, community VRs were trained on target bird species (saker falcon/steppe eagle), survey methodology (line transects), and species identification. Key results included: a) the Siberian marmot population estimate of 342 individuals, b) Musk deer population estimate of 20 individuals c) and Saker falcon estimate of 46 individuals and Steppe eagle estimate of 78 individuals. During the extensive field surveys on birds in the area, project team listed a total of 241 species of birds belonging to 21 orders, 149 families and 241 genera in the LPA site in 2019-2020. In February 2021, biodiversity monitoring was conducted for target species with line transit and point observation method with 12 VRs. The total number of individual marmots recorded in 2019 has increased by 36% in 2020 and Saker falcon and Steppe eagle has increased by 21.4% and 38.1% respectively in 2021 compared to the number in 2019. The population number and density of Musk deer has been relatively stable. 17 VRs conducted regular wildlife surveys during SMART patrols (total of 91 patrols) (Indicator 1.2. According to the Project End-line study, 44% of respondents said the wildlife population has increased over the past three years, 9.3% said it has decreased, and 46.7% said it has remained unchanged and 45.3% of the respondents said poaching has decreased and 14% decreased significantly, 4.7% increased, 10.7% remained unchanged and 25.3% did not know.

Output 2. Model of community-led sustainable forest management in place in LPA safeguarding 275 km^2 of vulnerable forest in Arkhangai	2.1 National University of Mongolia and ZSL led annual above ground biomass surveys of 275 km^2 of sustainably managed forest in LPA, and comparable forest in the control site, in place by year 1. 2.2 Forest management interventions (including harvesting and thinning techniques) defined and piloted by year 2, and informing adaptive management of LPA's forests by year 2 2.3 One Community Patrol Unit (CPU) of 40 members, divided into local patrol teams, with women actively participating in coordination roles, conducting twice-weekly SMART patrols by year 2.	2.1 Forest surveys were conducted at the four survey sites to pilot different forest management strategies, including a plot of: i) burnt and logged forest; ii) forest undergoing regeneration through replanting; iii) forest undergoing active community forest cleaning (e.g. deadwood removal); and iv) natural forest undergoing no intervention (the control plot) 2.2 In October 2019, a forest management plan of ten CBOs were developed with assistance of the Arkhangai Forestry Unit (AFU). The CBOs implemented the forestry management plans (FMP) using different strategies identified in 2.1. 2.3 The project delivered SMART training for 17 VRs (VRs received the certificate, and necessary equipment (Blackview smartphone compatible with SMART Cybertracker, GPS and headtorch), eco-policy officer, environmental inspector and rangers. VRs did a total of 198 SMART patrols during the project
Activity 2.1 Conduct above-ground biomass surveys in LPA and control site		The forest expert was contracted on 16th November 2018 to conduct biomass survey in four sites of LPA. The forest expert conducted the forest biomass surveys at three monitoring sites and one control plot in November 2019. The expert identified areas of suitable plots, provided a general forest profile map for the LPA with specifications of tree species and deadwood stock, and conducted training for community members during the fieldwork and demonstrated field measurements.
Activity 2.2 Define and map 3-4 suitable test plots within the LPA forest area.		The forest survey defined the test plots and control sites at four sites involving six community members. Areas of suitable plots were included in the LPA forest distribution map in the report.
Activity 2.3 Co-produce methods and management design for each test plot, based on existing options for boreal/taiga forest management, and introduce the forest management implementation and relevant practice		The forest expert defined forest management methods for each plot and provided recommendations on management designs including forest cleaning, fencing to support natural regeneration, thinning, reforestation/replanting. As the Law on Forests of Mongolia encourages community management of local forests for capacity of CBOs for forest management through 28 workshops and training events raising awareness of legal framework for CBO management. Also the forest expert conducted training for 50 members from four CBOs on 1-5 December 2018. In other to support the forest management of each forest plot, the forest specialist assisted in developing the FMPs for ten CBOs with the input of the AFU in October 2019. The management plan included detailed activities for forest management in each community In October 2020, the project ran forest management training, including topics of forest fire-insect prevention methods, deadwood removal techniques, and CBO-relevant environmental regulations jointly with the local Emergency Management Agency, AFU, Aimag Environmental Department and the Ecological Police

Activity 2.4 Support community members to implement forest management activities defined for each test plot.	As per recommendations of the forest expert and in accordance with the forest inventory, the project supported forest management activities including the following. From 13-25th January 2019, ZSL facilitated forest cleaning in 10 ha of forest area to prevent forest fire and insect , support natural regeneration, and provide additional income for 80 members from five CBOs. In total the CBOs collected 1130m^3 deadwood, earning MNT equivalent to USD. In November 2019, the forestry specialist trained 88 community members on forest thinning (e.g. deadwood removal), provided training materials on technical methods and safety information. The project facilitated deadwood removal at plot (iii) with the participation of 55 members from eight CBOs. The beneficiary communities earned £750 from two ha preparing 99 cubic meters of firewood. Also, CBOs conducted thinning in over 20 ha areas in collaboration with the AFU. (The project supported the forest regeneration through transplanting (plot ii) young trees, and jointly with the AFU conducted on-site training at the riparian areas on March 19, 2020. Fifteen VRs from eight CBOs received training on techniques on tree planting. CBOs prepared a total of 650 willow and aspen seedlings and reserved for the spring planting. On the World Environment Day 2020, the project organized a reforestation event and planted 1,500 aspen branches in 0.5 ha of LPA riparian area. This was the first time, the riverbank reforestation had taken place using one-year aspen branches in Mongolia. The 63 CBO members fenced 8 ha of forest area at plot ii to support natural regeneration using burnt logs and deadwoods.Environmental inspectors and rangers from AED and Bulgan soum government oversaw the CBO work, which was broadcasted by the Aimag TV. The broadcast was repeated five times) for the public awareness toward reducing illegal activities within the LPA. The project distributed 1000 brochures and leaflets about forest-steppe fire prevention. As a result,Temeenchuluu CBO succeeded early suppressing of a forest fire in March 2020 using methods in the project educational brochure. In spring 2020 was challenging with a week-long forest fire unfolding in the LPA from Apr 28 to May 4. Around 100 CBO members proactively engaged in fighting the fire. In May, Naranbulag CBO fenced a spring head using their social fund money. The CBO also planted 50 elm and willow trees along the river and fenced for protection. In December 2020, the project supported the third year deadwood removal involving 85 CBO members with AED and AFU. CBOs earned £, and the costs were GPB .
Activity 2.5 Run a SMART recruitment workshop with LPA members to inform community of SMART and establish CPU members.	On 12-13th September 2018, ZSL project staff attended a WCS-led SMART workshop in the Small Gobi B Strictly Protected Area (SPA). Consequently, ZSL Mongolia staff had the opportunity to develop a preliminary LPA SMART Protocol during the training for review by regional WCS SMART trainers. The SMART application was translated into Mongolian, LPA Protocol for SMART application was developed, and tested in the field involving volunteer rangers, Cybertracker application was adjusted to consider local issues on protection management for biodiversity monitoring.

	VRs, the soum environmental inspector and forest specialist, conducted three pilot SMART patrols during February and March. The SMART approach was introduced to aimag and soum authorities, the Police department, the prosecutor's office, the environmental department, the AFU, CBO members and other stakeholders at various training events and individual visits to LPA households. SMART recruitment workshops were conducted following the recruitment of community VRs. Follow-up SMART refresher training served an opportunity to recruit additional CBO VRs. Seventeen VRs obtained a certificate of rangers and necessary equipment to conduct patrols.
Activity 2.6 Co-produce SMART protocol for the LPA, and provide relevant training, based on CPU member capacity	The ZSL team delivered field training on the SMART approach with pilot SMART patrol. The Community Patrol Unit members included 17 VRs, one ranger of the AFU, and one forestry specialist of the aimag and soum's environmental department. The SMART protocol developed in year one, was updated in year two during the 15th November 2019 refresher training to reflect support by Arkhangai Police Department. VRs did SMART patrolling in their respective CBO territories within the LPA twice a month. The good performance of the VR SMART patrolling unit was seen in the fact that there were zero cases of illegal collection of pine nuts until September 10 (the date is legally allowed as per the Decree of the Minister of Environment and Tourism). The project officer shared VRs experience at the SMART international exchange through Zoom. (
Activity 2.7 Produce annual logging reports from analysis of collected SMART data	A total of 198 SMART patrols reported 56 environmental infringements to Arkhangai Police (67% of the total). The project also produced a pilot SMART report of all observations of timber collection in the LPA
Activity 2.8 Improve signs and information boards along the LPA border and main roads	Four information boards outlining the LPA boundaries at the key entry points were erected in June 2019.). CBO boundary boards were also set up within ten CBOs ()
Activity 2.9 Conduct twice weekly SMART patrols	Fifteen VRs from nine CBOs conducted SMART patrols approximately twice a month (dependent on personal responsibilities) reaching a total of 198 patrols for three years. Overall, twice weekly SMART patrols shown to be unrealistic for herders who have other household duties. Also, illegal logging and poaching have some seasonal pattern where more frequency required.
Activity 2.10 Conduct annual community workshop in improved adaptive forest management techniques in an iterative process as results from the trials become available	The first conference of the Arkhangai Aimag on 'Sustainable Forest Management' took place on 7th March 2019 (). A total of 151 people attended the conference, including environmental rangers, and CBO members from 19 soums. The participants made recommendations on 13 topics of forest management methods, including forest conservation, prevention from forest fire and pest, and forest cleaning. The project conducted a series of meetings on forest management for 88 community members from nine CBOs, and relevant stakeholders (e.g. AFU, and the forestry specialist) in November 2019.
Activity 2.11 Co-produce final scalable forest management plan which balances forest yield and biodiversity, using annual biodiversity data and above-ground biomass data from forest management trial plots	The forest specialist conducted the forest survey in year one and two jointly with communities. The survey results fed into CBOs' Forest management plans.

		All the activities described under 2.1-2.4 also contributed to this section.
Output 3. Model of community-led sustainable pasture management in place in LPA,	3.1 National University of Mongolia and ZSL led annual soil nutrient and compaction monitoring in sustainably managed LPA pasture, and control pasture, in place by year 2. 3.2 Pasture management interventions (including reducing grazing pressure, marmot-friendly livestock management and leaving areas un-grazed to recover) defined and piloted across 5 experimental plots by year 2, and informing pasture management plan within LPA by year 2. 3.3 Sustainable rangeland management system in place, utilising sustainable traditional knowledge and practices, with 80% of households (total = ca.400) participating (baseline = no rangeland management system) by project end.	3.1 On the 19-23rd August 2019 the project's rangeland expert from the NAU conducted soil and vegetation surveys across 30 plots in the LPA. On 6-13 September 2020, the rangeland expert conducted the second soil and vegetation survey across 37 plots in ten CBOs' areas. During the survey, the rangeland expert provided a pasture management training for ten CBOs' 171 herders. They learned about how to make a pasture management plan, monitor implementation, identify plant species, conduct photo monitoring and define soil quality in their pastures. 3.2 The project organised Arkhangai aimag conference on the "Responsible Rangeland Management", in cooperation with Pasture User Association of Arkhangai on 24th December 2018 (Indicator 3.2). The goal of the conference was to approve a Rangeland Responsibility Regulation (RRR) which governs rangeland management at the aimag level. This conference brought together 80 community members, soums governors, officers responsible for small and medium enterprises, land managers, veterinary specialists and livestock breeders of each soum. CBOs started the implementation of the RRR plan by fencing winter grazing sections in four CBO territories to produce extra feed and planted forage species in 10 ha in Bayanbulag CBO; and prepared hay for winter. In August 2020, The project supported the pasture management by supplying fencing materials, covering some transportation costs and providing management oversight. In July and August 2020, four CBOs protected critical springs using fences, six CBOs fenced essential patches at winter camp areas (preserving winter foraging), and three CBOs managed to rest winter grazing areas during the summer. 3.3 The rangeland survey defined the grazing areas and boundaries of the 11 CBOs in the North Mogoin gol and Teel LPA as well as marked the summer-autumn and winter-spring camping areas. In April 2020, the project team facilitated the development of nine CBOs' five-year pasture management plans in order to reduce overgrazing and negative impacts on the rangeland and forest ecosystems. All nine CBOs (with 261 members) approved the pasture management plans and commenced implementation.
Activity 3.1 Conduct soil nutrient and compaction surveys in LPA and control site		The project-recruited rangeland expert from the NAU conducted soil and vegetation surveys across 30 plots on the 19-23rd August 2019, and the same survey across 37 plots located in ten CBOs' areas on 6-13th September 2020. The rangeland expert also conducted a pasture management training for ten CBOs, involving 171 member herders. Herders learned about how to make a pasture management plan, monitor implementation, identify plant species, conduct photo monitoring and define soil quality in their pastures.
Activity 3.2 Define and map 3-4 suitable test plots within the LPA pasture area.		The rangeland expert defined five experimental plots and control sites for surveys in August 2019. During August surveys, the rangeland expert produced a vegetation map with plant classifications and soil types with estimated grazing capacity for all CBOs residing within the LPA. The rangeland survey defined the grazing areas and boundaries of the 11 CBOs in the North Mogoin gol and Teel LPA as well as marked the summer-autumn and winter-spring camping areas.

Activity 3.3 Co-produce methods and management design for each test plot, based on existing options for steppe/pasture management, with communities and introduce the pasture management implementation and relevant practice	The project supported discussions of a draft RRR developed by the Green Gold project among the LPA community members and Arkhangai aimag authorities on 24th December. In year two, the rangeland vegetation map of the CBOs in the LPA was used for pasture planning and M&E in January 2020. (The project facilitated formalizing process for customary pasture use and grazing boundaries among the 11 CBOs with 102 community members for the approval and implementation of RRR as well as overall natural resource management. Nine CBOs developed pasture management plans on the basis of these discussions and mapping exercises and implemented the plan as described in 3.4 and 3.5.
Activity 3.4 Support community members to implement pasture management activities defined for each test plot.	In August 2019, 23 CBO members attended training on pasture management, plant species identification, photo vegetation monitoring and soil sampling methodology. Subsequent training to support specific pasture management strategies outlined in the plan included: a survey among 127 CBO members on their climate change observations and adaptation practices using Local Indicators of Climate Change Impacts (LICCI) method; and participation in the Sustainable Fibre Alliance workshop in Ulaanbaatar on the 20-24th May 2019, with two CBO members attending the cashmere certification sessions for two standards – Rangeland Stewardship Code of Practice and Animal Welfare Code of Practice. In April 2020, the project team facilitated the development of nine CBOs' five-year pasture management plans in order to reduce overgrazing and negative impacts on the rangeland and forest ecosystems. All nine CBOs approved the pasture management plans and commenced implementation. In August 2020, the project supplied fencing materials, covering some transportation costs and provided management oversight. In July and August, four CBOs protected critical springs using fences, six CBOs fenced essential patches at winter camp areas (preserving winter foraging), and three CBOs managed to rest winter grazing areas during the summer. On 9-19=th March 2021, the project organised training for 156 members of 10 CBOs on how to plant the forage at winter camp plots jointly with the Pasture User Association of Arkhangai /PUAA/. The CBOs members learned how to prepare supplementary fodder.
Activity 3.5 Conduct annual community workshop in improved adaptive pasture management techniques in an iterative process as results from the trials become available	On 24th December 2018, ZSL organis ed the first conference in Arkhangai on "Responsible rangeland management" in cooperation with the Pasture User Association of Arkhangai aimag. The goal of the conference was to discuss a draft RRR which defines rangeland management strategies at Arkhangai aimag level. Participants included 80 community members, governors from 18 soums, and aimag officers responsible for small and medium enterprises, land managers, specialists of veterinary and livestock breeding of each soum. In January-February 2020, the project conducted fourteen community workshops for 261 community members (59% male and 41% female) in adaptive pasture management techniques specifically with each CBOs.
Activity 3.6 Co-produce final scalable pasturemanagement plan based on optimum biodiversity and rangeland carrying capacity, using annual biodiversity data and above-ground biomass data from pasture management trial plots	The CBOs management plans approved, and drafted pasture user agreements agreed with nine CBOs which should contribute to RRR implementation and aiming to reduce rangeland ecosystem degradation within the LPA. However, the RRR has not been approved at Aimag level due to political reasons, and thus plans remained at community level within LPA.

Output 4: Holistic inclusive livelihood model, including production and access to market, in place in LPA, resulting in improved income opportunities	4.1. Environmentally sustainable and economically viable cashmere, dairy and ecotourism business models and other livelihoods as identified by women developed in LPA by year 1. 4.2. At least 1 VSLA within LPA by year 1 consisting of ca. 20 members becoming business literate, with members representing 20% of households (total = ca. 400); 2 VSLAs representing 40% of households by year 2, and 3 VSLAs representing 60% of households, (with equal gender balance) by project end. 4.3. Livelihoods diversified from an average of 2.0 occupations per household within the LPA during the scoping survey to 2.5 by project end.	4.1. Project established ten CBO with 303 herders including 173 male and 130 female. The project completed SWOT analysis on potential CBO business with the participation of 256 members from nine CBOs and identified CBO needs for production equipment. Based on the SWOT, the project developed business plan of each CBO using participatory tools. (). Based on the SWOT results and Business plans, the project provided worth of equipment to CBOs to run small businesses, including dairy production, vegetable growing, community-based ecotourism, and forage planting. The beneficiary CBOs earned approximately using these equipment. 4.2. In total nine CBOs with 224 members discussed and approved their VSLA protocol with associated rules, VSLA uptake was very positive and in total the funds collected £ from eight CBOs, with a social fund of £, and a saving fund of £. (A) 4.3 IRIM endline survey showed that the MPI decreased from 0.115 to 0.084 (by 0.031) between 2018 -2020. In other words, the proportion of the poor in the total population, decreased from 29.7% to 22.9%. The intensity of multidimensional poverty decreased from 0.389 to 0.365 (by 0.024). This means that 38.9 percent of households are estimated to live below poverty line at the baseline level dropped to 36.5 percent.
Activity 4.1 Co-produce new business models, in partnership with local communities, for eco-tourism and pasture related products, utilising Arig banks' business viability analysis techniques.		In year one, twenty-five participants enrolled in the “Business Opportunity” and “Sustainable Fibre” training held in Tsetserleg on 30th November 2018. The second training was held in February 2019 where 35 community members were trained. In December 2019, the project conducted SWOT analyses for nine CBOs to identify potential business involving 122 members, and in January-February 2020, defined possible business products and developed business plans with 134 members. The plans specified necessary investment, required equipment and estimated profits. The identified business areas for nine CBOs included dairy production, cultivation of forage plants, vegetable production in greenhouse and community tourism. In September to October 2019, the project-recruited consultants assessed ecotourism potentials (i.e. historical sites, natural features, infrastructure access) for 11 CBOs, identified possible tour destinations and tourism products, set the CBO boundaries by discussing with CBO members and created maps with tour destinations and horse trekking trails.
Activity 4.2 Secure access to market for ecotourism and pasture related products from the LPA through working with international and in country buyers		Development opportunities for ecotourism, dairy (artisanal cheese), and cashmere were presented and discussed with local community members during the 30th November 2018 training. A cashmere consultant specialist from the Sustainable Fibre Alliance was also in attendance. The project supported a series of events to facilitate the development of greater community capacity and integration into supply networks, including attendance at local trade fairs such as the “Made in Arkhangai” fair in September and the “Eco-Friendly Product Exhibition” in Ulaanbaatar in November 2019.

	On 8th -21st June 2020, the project contracted a local photographer to document the most picturesque landmarks of the LPA which served as material for developing awareness-raising and tourism promotional short videos and four brochures.
Activity 4.3 Conduct workshop to establish community cooperative for small enterprises with legal support.	In January-March 2020, the project supported the establishment of a business contract of Jarantai and Tekh-kharaikh CBOs with the local supermarket and Arkhangai's Pasture User Association to supply with dairy products and cashmere. The project supported certification of Tekh-kharaikh and Bayanbulag CBOs and to establish a business contract with "Sor" cashmere company to supply cashmere prepared according to the standards.
Activity 4.4 Provide small business training and support to LPA cooperative members	The project supported small business training to local communities following the SWOT analysis with them. The forest cleaning activity organised by the project, initiated the LPA business model and facilitated household income generation while maintaining sustainable forest management. In fall 2019, each CBO obtained their ecotourism potential assessed and those with higher potentials their tour routes mapped. In March 2020, necessary equipment for business development was provided to nine CBOs to support eco-tourism, dairy production, and vegetable and forage crop farming. The beneficiary ten CBOs earned approximately £ using these equipment.
Activity 4.5 Co-produce, with local communities, a locally appropriate VSLA protocol, and enrol initial participants	The VSLA protocol was designed and introduced to CBOs in February 2019. The VSLA concept was introduced to 122 community members (with multiple attendance a total of 224 members) discussed and approved their VSLA protocol with associated rules. To support governance, each VSLA voted and assigned a leader, secretary, banker, and accountant under the VSLA protocol.
Activity 4.6 Deliver ongoing training and support to VSLA members, and members of the LPA community wishing to participate	VSLA training was delivered to 479 community members (multiple attendance by some members) from LPA community. By March 2021, VSLA uptake was positive and the funds collected £from eight CBOs, with the social fund of £, and the saving fund of
Activity 4.7 Design socio-economic survey protocol for LPAs, using established wellbeing indices, including livelihood diversity and income	The IRIM designed a "Socio-Economic baseline study on locally protected area" and collected data from 150 households (35% of LPA) in Bulgan soum of Arkhangai province in September 2018. The IRIM also conducted a "Socio-Economic endline study on locally protected area" and collected data from 150 households (35% of LPA) in Bulgan soum of Arkhangai province in February-March 2021 using the same methods and indices.
Activity 4.8 Conduct socioeconomic surveys in LPA and control site to collect baseline data in year 1 and project end data in year 4	The IRIM submitted the Baseline study report in March of 2019. The baseline study reported that 30% of the households were living below the national poverty line; meaning their monthly expenditure was less The IRIM endline survey showed that the MPI decreased from 0.115 to 0.084 (by 0.031) at the Endline study. In other words, the proportion of the poor in the total population, decreased from 29.7% to 22.9%. The intensity of multidimensional poverty decreased from 0.389 to 0.365 (by 0.024). This means that 38.9 percent of households are estimated to live below poverty line at the baseline level dropped to 36.5 percent. As a result, both sub-indices of MPI declined to some extent, resulting in the overall decline in the MPI. Regarding the changes in the socio-economic conditions of the communities in the LPA, the MPI decreased from 0.115 at the baseline level to 0.084. The decrease in the MPI indicates an improvement

		in the socio-economic conditions of the LPA population. Since the livelihood indicators of CBO members were higher than those of non-CBO member's living who were not involved in the project, it can be concluded that the project made a significant contribution to the livelihood improvement of the beneficiary households.
Output 5: Effective and equitable LPA governance model in place in LPA, enabling robust monitoring and evaluation (incorporating the data from other outputs) and sustained engagement with nearby communities and local and national government	5.1: LPA management authority, composed of community members and representatives from project partners, meeting monthly and involved in coordination of all outputs, to enable their continuation post project, by year 1. 5.2: KPIs, specified under other outputs, are monitored by the LPA management authority and monitoring data is fed into the LPA management plan and Mongolia's NBSAP (2015-25) to enable lesson-learning from the LPA pilot. 5.3: five relevant national and local government officials, including CBD national focal point, have visited LPA and are supporting the production of steppe-forest LPA guidelines by project end. 5.4: 15 community leaders from identified nearby community groups, resident in vulnerable areas, which are suitable for replicating the LPA approach, have conducted knowledge exchange visits to the LPA and are supportive of the model by project end.	5.1: To set up the LPA management model in Mongolia, the project facilitated formal organization of herders residing in LPA leading to the establishment of 10 CBOs. Members of ten CBOs had the First Community forum on 26th March 2019 with 75 participants, agreed on LPA management structure, and established a Co-Management Board represented by each CBO. The second Forum on 19th of August 2019 with 80 members established the UCC, an umbrella organisation governing the LPA management. The project conducted 380 activities involved 5177 members (with multiple attendance by some community members) including various CBO-level meeting, training and actions. 5.2: The project organized annual workshop among CBO members to monitor progress towards implementing the UCC's annual management plan, and CBO-level management plans. Overall, 272 LPA herders participated in the process of agreeing on collective action agreements among the members, discussing and approving the CBO constitution, electing CBO's leader, and VRs and attending the regular CBO meetings to discuss activities. Activities of nine VSLAs involved CBO internal meetings for approving VSLA protocol and appointing 8 leaders, 8 secretaries, 8 box keepers and 16 cashiers. All these activities for institutional setting, abiding agreed rules, maintaining regular meetings for collective decision-making encompass the effective LPA governance structure and participatory processes for natural resource management and M&E for the progress. 5.3: The project staff joined the group for community based conservation organisations and SMART working group in April and July 2019. At the Eco-Friendly product exhibition in Ulaanbaatar the project was introduced to participants, including MET hosts. . There were various briefs to MET officers on the LPA's community-based conservation work. To demonstrate the management model for Local Protected Area Management created by the project, ZSL team produced guidebook "LPA Management model in Mongolia: A case of Khoid Mogoin Gol - Teel LPA" using the IUCN PA guideline framework. Due to COVID travel restrictions, the visit by the national level officers to LPA was cancelled, but in January 2021, the newly appointed Soum Governor visited all CBOs to meet herders and learnt about LPA management, and provided very positive feedback. 5.4: With the project support, representatives (12) of LPA herders and aimag/soum stakeholders made exchange visits to the CBOs with best management in the Western Mongolia between 13–23 August The trip inspired them to create Marketing Cooperative to improve livestock husbandry businesses.
Activity 5.1 Establish an effective and democratic LPA management authority following GESI principles, to meet monthly for project coordination and including community members and representatives from key partners.		A series of eight events were organised to introduce the project to the local partners and beneficiaries between September and October 2018 reaching 94 community members in the LPA. Community discussions on the LPA management model were organised on March 26 2019 where GESI principles were introduced to 75 participants. The forum included all project stakeholders and facilitated democratic decision-making on the LPA management model while ensuring equal access to project information by all parties.

	The ZSL Mongolia Country director and the project officer made a round trip visiting seven CBOs between 12-18th May 2019 and delivered training to support the development of 2019 Action Plan. On the 19th August 2019, during the Second Community forum, the UCC elected seven women to the Monitoring Council from participating CBO (to monitor decisions of the Board on behalf of the UCC members), and approved the new UCC Executive Director (Munkhtuvshin. N) selected from a competitive recruitment to coordinate the UCC activities. The Vice Ambassador of the British Embassy in Mongolia opened this forum who visited the project site 10-24 June 2020, the project conducted action plan development workshop for ten CBOs with 102 community members covering pasture, forest management and VSLAs as part of the approved LPA management plan 2018-2023. Overall, the project capacity building activities covered a wide range of topics from rangeland and forest management, small business development, VSLA operation to biodiversity monitoring that laid out LPA management approach among community members and stakeholders.
Activity 5.2 Hold annual workshops to feed monitoring results from output 1 and other outputs to into adaptive management planning and Mongolia's reporting against its NBSAP	The community forum on 26th of March 2019, presented the first workshop towards adaptive management of LPA aligning with NBSAP. During the Second forum on 19th of August 2019, UCC was established by community members. However, COVID spread restricted annual meeting for 2020, instead only CBO leaders had a UCC meeting in February 2021 to talk about results of 2020 work and agree on 2021 plans.
Activity 5.3 Run exchange visits for leaders from nearby community groups to observe the LPA and encourage them to establish LPAs in their own regions, also to include relevant government officials	ZSL supported community members' participation in knowledge sharing event (CBO Fair in UB in November 2019 demonstrating eco-friendly product). This provided a good opportunity to meet other peers involved in community conservation, and sell CBO products for income generation. Between 13th–23rd August 2020, the project organised an exchange trip to Western aimags of Mongolia. The trip team included 12 community members representing 8 CBOs and officers from AED and Bulgan soum government. The objectives of the trip were to learn from the best experiences in community-based ecotoursim and PA management in the Western region. The team visited CBOs engaged in community-based natural resources management and cooperating for livelihood diversification.
Activity 5.4 Share completed set of LPA protocols, plans and reports with Ministry of Environment and Tourism to produce framework for expansion of LPA model, and basis for LPA guidelines to be published post-project	In April 2019, ZSL held a brief with the MET to discuss community-based conservation efforts of ZSL, and shared the project experiences with other stakeholders during Ikh Nart conference in August, and Trade Fair in Ulaanbaatar in November 2019. On 8 November 2020, the project organised knowledge sharing meeting among 47 people and organizations including UNDP project communities, established forest user groups of Arkhangai, staff of the Ministry of Environment and Tourism in Mongolia and other aimag non-government organizations. The project beneficiary CBOs shared their conservation experiences including forest, pasture, wildlife management, VSLA and internal governance procedures of CBOs.

	ZSL Mongolia produced a Country Office report to share the conservation results, including the project conservation work in LPA for 2018-2021. The ZSL team developed a guidebook “Local Protected Area Management model in Mongolia: A case of Khoid Mogoin Gol - Teel LPA”, printed and shared with stakeholders (

Annex 3 Standard Measures

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
Training Measures							
1a	Number of people to submit PhD thesis	1	Mongolia	Male	Study of pine tree in the Khangai mountain	Mongolian	
1b	Number of PhD qualifications obtained						
2	Number of Masters qualifications obtained	2	British, Mongolia	Female, Male	Assessing Changes in Land Cover and Vegetation. Research results on soil, pasture and vegetation in "North Mogoin gol and teel" local protected area, P.Ariunsuren, 2019	English, Mongolian	
3	Number of other qualifications obtained						
4a	Number of undergraduate students receiving training						
4b	Number of training weeks provided to undergraduate students						
4c	Number of postgraduate students receiving training (not 1-3 above)						
4d	Number of training weeks for postgraduate students						
5	Number of people receiving other forms of long-term (>1yr) training not leading to formal qualification (e.g., not categories 1-4 above)	3143	Mongolia	Female, Male	-198 (17 VRs in SMART patrol) -357 (forest management training) -1112 (rangeland management training and fieldwork) -502 (small business training) -592 (biodiversity monitoring and conservation training)	Mongolia	

					-382 (CBO activities: waste cleaning, spring fencing, fencing hayfield, and dead wood removal)		
6a	Number of people receiving other forms of short-term education/training (e.g., not categories 1-5 above)	17	Mongolia	Male	Volunteer Rangers certification	Mongolian	
6b	Number of training weeks not leading to formal qualification	66	Mongolia	Female, Male	- 5 week (forest management) - 11 week (rangeland management) - 5 week (household income generation) - 40 week (conservation and biodiversity survey) -5 week (CBO governance)	Mongolian	
7	Number of types of training materials produced for use by host country(s) (describe training materials)	985 - 227pcs - 87pcs - 117 pcs - 10pcs - 10pcs - 20 pcs - 10pcs - 162 pcs -100 pcs	Mongolia	Female, Male	- ZSL Mongolia report -Local protected area management model book -Field guide to the vertebrates of the Khangai mountain range -Rangeland management guideline -Handbook of community funds -Guide for planting forage -Business project -ZSL brochure -Handbook of Mongolian marmot -Bird book	Mongolian	

		- 10 pcs - 10pcs - 10pcs - 10pcs - 10 pcs - 10pcs - 10 pcs - 10 pcs - 30 pcs - 60 pcs			-Cooperative's rule and related documents - Biodiversity Research report -Forest Research report -Rangeland management -Report on Rangeland management planning -Five-year plan of CBOs - LPA management plan - Map of forest, rangeland and tourism /1:10000 m/ - Presentation on Cooperative intro		
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	Mongolia		Khoid-Mogoin gol Teel LPA management plan	Mongolian	Participatory process?
10	Number of formal documents produced to assist work related to species identification, classification and recording.	1	Mongolia		A field guide the vertebrates of the Khangai mountain range	Mongolian	
11a	Number of papers published or accepted for publication in peer reviewed journals	3	Mongolia		Annex 5	Mongolian	
11b	Number of papers published or accepted for publication elsewhere						Location?

12a	Number of computer-based databases established (containing species/generic information) and handed over to host country						
12b	Number of computer-based databases enhanced (containing species/genetic information) and handed over to host country						
13a	Number of species reference collections established and handed over to host country(s)						
13b	Number of species reference collections enhanced and handed over to host country(s)						

Dissemination Measures		**Total**	**Nationality**	**Gender**	**Theme**	**Language**	**Comments**
14a	Number of conferences/seminars/workshops organised to present/disseminate findings from Darwin project work	380	Mongolia		Biodiversity monitoring, Forest and pasture management, VSLAs, LPA authorities meeting	Mongolia	
14b	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	8	Mongolia		Project achievements. Sharing lesson learnt	Mongolia	

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	12	11 Community based organisations and 1 LPA management authority NGO
22	Number of permanent field plots established	45	4 biodiversity monitoring plot, 4 forest survey pilot plot, 37 pasture survey plot.

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 *(please note that the figure provided here should align with financial information provided in section 9.2)*		Mongolia	Female, Male	Co-funding	Mongolian	-UCC funded GBP for petrol and training meal. -10 CBOs provided GBP for forest cleaning and restoration. -CBOs cleaned wastes in LPA covering 1,470 GBP costs. - invested GBP for income generation activities. - contributed GBP for rangeland management (Fencing water sources, fence the hayfield and pasture rotation)

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)
Scientific article	Assessing Changes in Land Cover and Vegetation Productivity for Threatened Forest-Steppe Ecosystems: A Case Study in Arkhangai Province, Mongolia, Francesca Marshall-Stochmal, 2020	British	Department of Life Sciences, Imperial College London, Buckhurst Road, SL5 7PY Ascot, UK	Female	Mongolian Journal of Biological Sciences, Volume 18, 2020, Ulaanbaatar	Francesca Marshall-Stochmal
Scientific article	Natural regeneration on logging and burned area in the LPA	Mongolia	Mongolia	Female	Institute of geography and Geoecology booklet, 2020, Ulaanbaatar	B.Udval
Scientific article	Research results on soil, pasture and vegetation in "North Mogoin gol and teel" local protected area, PAriunsuren, 2019	Mongolia	Mongolia	Female	Journal of Animal Science, 2019, Ulaanbaatar	P.Ariunsuren
Manual	Shaping a model for Local Protected Area Management: A case of Khoid Mogoin Gol - Teel LPA	Mongolia	ZSL Mongolia, Ulaanbaatar, Mongolia	Female	ZSL Mongolia, 2021	Tungalag.U
Journals	Country Office Report to share the results from ZSL projects, including the project's conservation outcome for 2018-2021	Mongolia	ZSL Mongolia, Ulaanbaatar, Mongolia	Male	ZSL Mongolia, 2021, Ulaanbaatar	Tungalag.U
Manual	A field guide the vertebrates of the Khangai mountain range, S.Gombobaatar, 2021	Mongolia	ZSL Mongolia, Ulaanbaatar, Mongolia	Male	Mongolica printing company, 2021	S.Gombobaatar

Annex 6 Darwin Contacts

Ref No	4198
Project Title	Steppe-up: Community-led recovery of Mongolia's iconic species and forest-steppe ecosystem
Project Leader Details	
Name	Monica Wrobel
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Name	Tungalag Ulambayar
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Partner 1	
Name	Sundev Gombobaatar
Organisation	Head of Biological Resources Programme and Professor of Department of Biology, National University of Mongolia
Role within Darwin Project	Biodiversity monitoring and field survey
Address	
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Email	
Partner 2	
Name	Norovbanzad Davaakhuu
Organisation	Union of Conservation Communities Board/ Spirit Mongolia
Role within Darwin Project	Director of Board, steers Board meeting
Address	
Phone	
Email	
Partner 3	
Name	Enkhmunkh Zolbaatar
Organisation	Police Department in Arkhangai Province
Role within Darwin Project	Partners on SMART patrolling and VR training
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Phone	
Fax/Skype	

Email	
Partner 4	
Name	Tsedendamba Batsugar
Organisation	IRIM (Independent Research Institute of Mongolia)
Role within Darwin Project	Socio-economic surveys of project
Address	
Phone	
Email	
Partner 5	
Name	Munkhtuvshin Nergui
Organisation	Executive Director of Union of Conservation Communities
Role within Darwin Project	Daily management of conservation communities
Address	
Phone	
Email	

Annex 7 Supplementary material (optional but encouraged as evidence of project achievement)

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	✓
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.	✓
If you are submitting photos for publicity purposes, **do these meet the outlined requirements (see section 10)?**	✓
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	✓
Do you have hard copies of material you need to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	✓
Have you involved your partners in preparation of the report and named the main contributors	✓
Have you completed the Project Expenditure table fully?	✓
Do not include claim forms or other communications with this report.	