Darwin Initiative Main and Post Project Annual Report

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

Submission Deadline: 30th April 2020

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 Province Forest Unit, Union of CBOs
Darwin grant value	£329,952
Start/end dates of project	2nd July 2018 – 31st March 2021
Reporting period	Apr 2019 – Mar 2020: Annual report 2
Project Leader name	Monica Wrobel (Head of Asia, Conservation and Policy)
Project website/blog/Twitter	https://www.zsl.org/conservation/regions/asia/mongolia
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1. Project rationale

Biodiversity Challenges in Arkhangai: Illegal wildlife hunting, livestock overgrazing and resulting pastureland deterioration, and illegal deforestation in Central Mongolia's 1370 km^2 Khoid Mogoin Gol-Teel Local Protected Area (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 grassland 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.

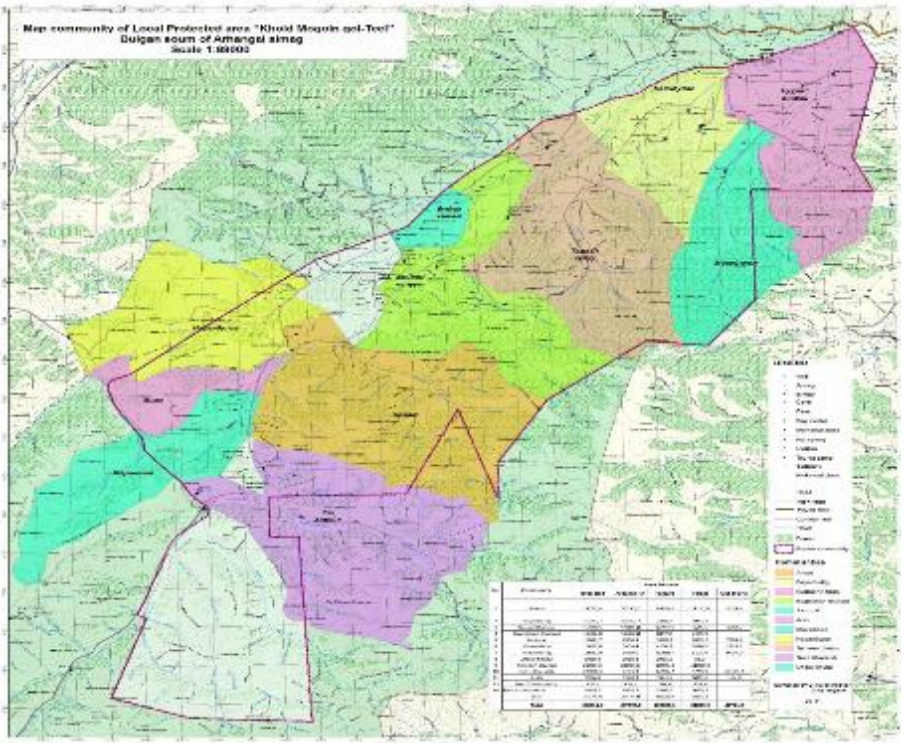
Human development challenges: Healthy ecosystems in Arkhangai not only safeguard the future of its wildlife, but also underpin the livelihoods and socio-cultural identities of Mongolia's nomadic communities, and their resilience to climate change. These communities heavily depend upon the pastureland for raising livestock for subsistence and income, the forests for firewood collection 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.

In year one the project established the institutional model for the LPA to promote socio-ecological resilience and support the recovery of the local species. This model will 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 will achieve this through improving local capacity in biodiversity monitoring, sustainable forest management, and pasture management, overseen through the development of an inclusive and democratic governance structure for the LPA.

Project problem identification: 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 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 LPA model to arrest degradation of this critical ecosystem and support recovery of culturally-significant species.

Project Map: The Khoid Mogoin Gol-Teel Local Protected Area and CBO areas (highlighted in different colours) in Arkhangai, Mongolia.



2. Project partnerships

Formal partnerships:

National University of Mongolia (NUM) supports the project's annual biodiversity monitoring surveys on target species, Musk deer, Steppe eagle, and Saker Falcon. Professor Gombobaatar Sundev supported the coordination of the project's workshop to develop a biodiversity monitoring plan in year one and visited the project site in January 2020 to conduct year year two surveys for Saker falcon, steppe eagle, musk deer and marmot.

Spirit Mongolia joined the new umbrella organization (NGO) created by the ten Community Based Organisations (CBOs) in the LPA. As agreed at the Community Forum on March 26th 2019, Spirit Mongolia obtained two seats in the Board of the Union of Conservation Communities and is thus participating in the implementation of project activities.

Union of Conservation Communities (UCC) of the LPA is a newly created umbrella organization uniting 11 CBOs and overseeing the LPA management. On March 26th 2019, 75 representatives of various LPA stakeholders held their first community forum to establish UCC

and elect Board members. In August 19th 2019 70 LPA representatives held their second forum, which reviewed the LPA management progress towards implementing the community association's annual management plan and 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 FUG (as shown in the first report) to CBO following formal terms agreed by members reflected in all subsequent documents to comply with the Law on Environmental Protection Article 3.

Ministry of Environment and Tourism, Mongolia (MET) is the principal government body responsible for environmental issues in Mongolia. They have assisted ZSL with general oversight of project implementation and have supported community group development (e.g. CBOs), improving environmental law, state registration, and SMART implementation. In association with the recent appointment of a Focal point for Community-based conservation, the MET is interested to learn from practical experiences of working with CBOs managing the LPA.

Local partnerships: We have developed several local partnerships with government agencies critical to implementing project activities with local communities.

The Arkhangai Police Department, the newly established Eco police Agency's arm in Arkhangai is providing expertise in conducting relevant training to CBOs, and participating in SMART patrolling to stop and reduce illegal over-exploitation of wildlife and natural resources. The Eco police have also conducted capacity building training to community Volunteer rangers (VR) and have provided simple protocols for community members on how to handle law enforcement situations, and how to collect evidence materials while ensuring their safety and informant anonymity, as well as effectively working within the existing legal framework.

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 LPAs being formed across Central Mongolia.

The Arkhangai Forest Unit (AFU) is working closely with ZSL on all forest-related project activities, including: establishment of new LPA forest user groups (FUG); LPA forest mapping; FUG management plan; forest community workshops. This partnership has been a significant achievement as the AFU has 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 developed 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 trainings for local communities. They have also provided legal advice to ensure the effective development of the eleven new CBOs.

Governor Office of Arkhangai has supported the project through facilitating and hosting state and local level conferences (e.g. forest and pasture conferences), including giving the opening remarks and highlighting CBO's contribution to aimag environmental plans. The Governor's Officer have also supported the formulation of local regulation for the CBOs and pasture management.

Bulgan Soum Government has proactively supported the project as 44% of the LPA lays within their territory. The governor has attended community forums, capacity building trainings and supported the establishment and certification of CBOs. Project has been supporting the implementation of the Rangeland Responsibility Regulation (RRR) of Bulgan soum.

Khangain Nuruu National Park (KNNP) was established in 1996 and borders the southern border of the LPA, encompassing a similar habitat of mountainous forest-steppe. KNNP management and rangers have been working closely on community-based natural resource management, including forest and pasture management. Given the overlap in project objectives they have been supportive of project activities and are interested in potentially implementing SMART patrolling in their park. The project is sharing information about biodiversity monitoring and SMART patrolling.

Pasture User Association of Arkhangai (PUAA is closely working on pasture management plan development of CBOs as part of the RRR of Bulgan soum and facilitating the plan approval by bag (county) and soum parliaments. The PUAA is supporting CBOs by conducting capacity building trainings for pasture management, leading discussion among the member herders and reaching agreements to implement pasture management plans of the CBOs.

Partnership achievements, lessons, strengths or challenges: In the second year, the project has maintained positive working relationships with local government agencies including the AED, AFU, and Bulgan soum governor through awareness raising and capacity building activities. The project has 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. The first joint action of local stakeholders was the forest cleaning activity on November 2019 where 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.

The project has facilitated the establishment of 11 new CBOs on LPA territory in formulating their Constitution, making a collaboration agreement among members, setting a CBO management structure, agreeing each CBO boundaries and creating maps, formulating business plans, and forest management plans within the LPA. Nevertheless, two CBOs have been passive as compared to the other nine despite having the same project support. Joining CBOs participation in collective action for LPA management is voluntary, but the project has made several efforts to activate the two CBOs. We are expecting UCC Board to facilitate more active participation.

Following the completion of project year one, ZSL evaluated Arig Bank to be making insufficient progress towards satisfactorily completing its agreed deliverables. As a result, ZSL decided to terminate its contract with Arig Bank. The implementation of activities under Arig Bank's contract has now been transferred to 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 (ecotourism, sustainable cashmere and dairy production.(Annex canceled contract). This change became significant achievement in year two as it has 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. The day-to-day management guidance by Arkhangai-based officer and regular visits of the ZSL Mongolia Country Director have resulted in the speedy delivery of year one and two Arig Bank activities.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1

Activity 1.1 This activity has been completed.

Activity 1.2 The initial biodiversity monitoring plan was completed in year one. The biodiversity monitoring plan was discussed among Volunteer Rangers (VR) during training in June and July 2019, and January 2020. Given seasonal delays prohibiting surveying of marmot in year one, the monitoring plan was updated to include point-count surveys for marmot at six sites, whilst new camera-trap surveys were also introduced. Beyond these new methods, four additional survey sites were chosen for monitoring within the VRs' CBO areas (Annex 4.1, 4.35).

Activity 1.3 In support of initial training provided in year one, in year two, refresher-training for biodiversity monitoring surveys was conducted during three sessions for 109 local community member participants (with some members attending multiple trainings). As a result of the training, participants improved their knowledge and skills on survey methods (Activity 1.2) and annual report one. Refresher training on conducting wildlife surveys during SMART patrols (Annex 4.2).

Activity 1.4 Year two biodiversity monitoring surveys were conducted on June and July 2019, and January 2020, establishing year two counts for target species (Annex 4.3). In June, 23 cameras were installed in four sites identified by communities as important/threatened musk deer habitat (surveying from June 2019 until March 2020). Point-count surveys of three marmot sites (two of which were reintroduction sites) was also conducted during these surveys. Marmot survey

sites were surveyed fortnightly from June until September 2019, and winter line-transect surveys were conducted in February 2020 for musk deer and focal bird species. (Annex 4.4).

Output 2

Activity 2.1 The technical forest expert conducted second year forest biomass surveys at three monitoring sites and one control plot in November 2019 (Annex 4.5). 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 This activity has been completed and reported in year 1.

Activity 2.3 In November 2019, the four sites selected in consultation with the forestry specialist to pilot different forest management strategies, including a plot of: i) illegally logged forest; ii) forest undergoing regeneration through replanting; iii) forest undergoing active community forest cleaning (e.g. deadwood removal); and iv) natural forest with no human disturbance (the control plot) (Annex 4.6). To support the management of each forest plot, the the AFU conducted forest inventory for ten CBOs in October 2019 establishing the baseline conditions of the forests and created CBO forest maps. This provides the basis for forestry activities by each CBO, including forest thinning, supporting natural regeneration, preventing forest fires and infestation of pests.

Activity 2.4 As per recommendations of the forest expert and in accordance with the forest inventory, the project began forest management activities in year two including the following.

In November 2019, the forestry specialist trained 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 2,355,600 MNT (£750) from two hectares preparing 99 cubic meters of firewood. Also, CBOs conducted thinning in over 20 ha areas in collaboration with the AFU (Annex 4.7).

To support management of the forest undergoing regeneration through replanting (plot ii), the project 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 (Annex 4.8)

The 63 CBO members fenced 8 ha of forest area 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 documented by the Aimag TV. (Annex 4.9)

The video has been broadcasted five times (Annex 4.10) to raise public awareness and reduce 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. The fire would have caused significant damage to the forest and surrounding communities if it continued unabated.

Activity 2.5 The major recruitment workshops were conducted and reported in year one. However, in year two, several SMART training sessions provided the opportunity to recruit five new VRs from recently joined CBOs. 15 active VRs obtained training certificates, and received necessary equipment for patrolling, including 12 Blackview smartphone (compatible with SMART Cybertracker), GPS and headtorch (Annex 4.11).

Activity 2.6 The SMART protocol for the LPA and initial training was conducted in year one, and was updated in year two (Annex). On the 15th November 2019 the project jointly with Arkhangai Police Department organized a refresher training on SMART and law enforcement methods for 22 VRs (Annex 4.12). A total of 109 rangers (counted multiple attendance) participated in SMART patrol training sessions for year two.

Activity 2.7 Community SMART patrols have been informing local police reports of illegal activities in the LPA. According to the reports, 54 cases of the environmental violations were registered in Arkhangai province, and 36 of them (67%) were reported by VRs using SMART. This an exceptional achievement, and police officers appreciated the contribution in detecting violations and noted ZSL's support for their patrol and monitoring capacity (Annex 4.13). SMART

reports were also used for internal monitoring and contributed to an preliminary annual report detailing 23 ranger records of illegal timber logging in LPA forests..

Activity 2.8 Four information boards outlining the LPA boundaries at key entry points were setup in June 2019. These boards contain information on prohibited activities inside the LPA. Also, ten CBOs installed community information boards within their territories. All boards display logos of ZSL and Darwin Initiative fund (Annex 4.14). In December 2019, the project commissioned a video content about the LPA, SMART patrolling by VRs, which was aired on Arkhangai TV.

Activity 2.9 On 17-18 June 2019, the VRs contributed to the organization of a public religious ceremony held at the sacred Suvarga Khairkhan Mountain by providing awareness information on the LPA and piloting test patrols for preventing littering during the event (Annex XX). On June 23rd SMART patrols in year two were launched and seven VRs conducted test patrols at high-risk illegal logging areas in Bayanbulag CBO. In year two, fifteen VRs from nine CBOs conducted SMART patrols on average twice monthly (dependent on personal responsibilities) totaling to 91 patrols (Annex 4.15).

Activity 2.10 In year two, the project conducted a series of meetings on forest management with 88 community members (nine CBOs), and relevant stakeholders (i.e. AFU, forestry specialist).

Activity 2.11 Forest survey was undertaken in year two by the project forest specialist jointly with communities. Year two surveys of forest plots informed forest management activities of CBOs. These data will be used to revise management actions in year three on the basis of results and data collected throughout the project.

Output 3

Activity 3.1 On the 19-23rd August 2019 the project's rangeland expert (from the National Agricultural University) conducted soil and vegetation surveys across 30 plots 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 (Annex 4.16)

Activity 3.2 During the August surveys, the rangeland expert produced a vegetation map with plant classifications and soil types and estimated grazing capacity for all CBOs 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 (Annex 4.17).

Activity 3.3 In year two, the rangeland vegetation map of the LPA was used for pasture planning and M&E in January 2020. (Annex 4.18). The project facilitated formalizing process for customary pasture use and grazing boundaries among the 11 CBOs for the approval and implementation of Responsible Rangeland Regulation (RRR) as well as overall natural resource management. 102 community members participated in discussion to agree and confirm pasture use, forest and riparian areas (Annex 4.19). Nine CBOs have developed pasture management plans on the basis of these discussions and mapping exercises.

Activity 3.4 In August 2019 during surveys, 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 include: 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 2019, with two CBO members attending the cashmere certification sessions for two standards – Grassland Stewardship Code of Practice and Animal Welfare Code of Practice.

CBOs started the implementation of the RRR plan by fencing of winter grazing sections in four CBO territories to produce extra feed (Annex 4.20); and planted forage species in 10 ha in Bayanbulag CBO; and prepared hay for winter.

Activity 3.5 In January-February 2020, the project conducted fourteen community workshops involving 261 community members (59% male and 41% female) in adaptive pasture management practices specific to each CBO. Workshops covered a variety of themes, including spatial pasture use planning, traditional mobility and pasture reserving strategies. (Annex 4.21)

Activity 3.6 Nine CBOs approved their pasture management plans contributing to RRR implementation to reduce LPA rangeland ecosystem degradation in year two (Annex 4.22).

Output 4

Activity 4.1 On July 24th, the project organized a meeting with 25 members from six CBOs in Tsetserleg city, Arkhangai to enable exchanged of ideas on livelihood diversification activities potential in their areas. Following up to the work of Arig Bank in year one, in December 2019, the project conducted SWOT analyses for nine CBOs potential business involving 122 members, in January-February 2020, identified 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 (Annex 4.23).The event also included a brief training session on how to develop a small-scale business plan.

Activity 4.2 The project supported a series of events to facilitate the development of greater community capacity and integration into supply networks. On the 13-14 September, the project organised a "Made in Arkhangai" trade fair to sell LPA products (e.g. dairy, meat) to nearby local markets. Five CBOs participated and earned approximately £1000. The Aimag governor supported the efforts, and commended the LPA's high-quality dairy products (Annex 4.24)

The project supported participation of 20 community members in the 'Eco Friendly Product Exhibition' hosted by the MET on November 2019 in Ulaanbaatar. Participating CBOs brought handmade wooden products, dairy products and charcoal, earning 25.7 million MNT (7800 GBP). The "Mogoinhon" CBO received the second place for their bio-coal, carved ger and dairy products (Annex 4.25). Temeenchuluu CBO hosted tourists in 2019 earning 30 million MNT (9000 GBP).

Activity 4.3 In January-March 2020, the project supported the establishment of a business contract for Jarantai and Tekh-kharaikh CBOs with the local supermarket and PUAA to supply their dairy products and cashmere (Annex 4.26). Following certification of Tekh-kharaikh and Bayanbulag CBOs, they established a business contract with "Sor" cashmere company to supply cashmere prepared according to their processing standards.

Activity 4.4 In year two, the project conducted training to support income opportunities from LPA products. These included forest thinning (Activity 2.4), and eco-tourism for 47 CBO members. In January 2020, the project identified tourism potential (i.e. historical sites, natural features, infrastructure access) for 11 CBOs and created a map with tour destinations and horse trekking trails (Annex 4.27). In March 2020, necessary equipment for business development was provided to nine CBOs for eco-tourism, dairy production, vegetable and forage crop farming (Annex 4.28).

Activity 4.5 – 4.6 Eight CBOs with a total of 224 members discussed and approved their VSLA protocol with associated rules (Annex 4.29). To support governance, each VSLA voted and assigned a leader, secretary, banker, and accountant under the VSLA protocol. Ten CBO received VSLA training benefitting 479 community members (multiple attendance by some members). VSLA uptake has been very positive and in total the funds have collected £10,100 from eight CBOs, with a social fund of £750, and a saving fund of £9350. Currently, £5200 loan has been granted to members (Annex 4.30).

Activity 4.7 and 4.8 Final surveys to be completed in year three.

Output 5

Activity 5.1 In project year one, the UCC was formed, however some notable developments were made in year two. The ZSL Mongolia Country director and the project officer made a round trip visiting seven CBOs between 12-18th May and delivered training to support the development of 2019 Action Plan. On the 19th August during the second annual 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 (Annex 4.31).

In year two, regular VSLA meetings provided an important vehicle for maintaining CBO activities for environment protection, including forest management, pasture management, household income generation, and caring for group members.

Overall, the project capacity building activities involved 1988 members (including multiple attendance) as part of the UCC activities. These covered a wide range of topics from rangeland and forest management, small business development, VSLA operation to biodiversity monitoring.

Activity 5.2 The UCC held the second annual forum on 19th of August 2019 bringing 70 members of seven CBOs. The goal was to review the progress towards implementing the UCC's annual management plan, CBO-level management plans contributing to NBSAP implementation. During the conference each CBO reported on their activities towards NBSAP (Annex 4.32).

Activity 5.3 ZSL supported community members' participation in knowledge sharing events (Community-based organization Fair in Ulaanbaatar in November 2019 demonstrating eco-friendly products). These events provided a good opportunity to meet other stakeholders involved in community conservation and sell their products for income generation (Activity 4.2).

Activity 5.4 Compilation of LPA project management results and documentation is ongoing. In April 2019, ZSL held a meeting with the MET to discuss ZSL's community conservation, and shared experiences with stakeholders during Ikh Nart conference and CBO Fair in Ulaanbaatar.

3.2 Progress towards project 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 grassland species richness.

Biodiversity monitoring for all four key species conducted in year one, and updated in year two to accommodate new methods for surveying musk deer by camera-trap and marmots by point-count surveys (Indicator 1.1). Following year one, a refresher-training was conducted over three sessions for 109 local community members (with some members attending multiple trainings). Year two surveys covered key species through a combination of line-transects, point-counts and camera trapping (Indicator 1.2). Ongoing surveys by 15 VRs were conducted over 91 SMART patrols. Results of biodiversity surveys were presented at the UCC year two annual forum.

Baseline 1.1 and 1.2: No biodiversity monitoring programme; No biodiversity monitoring surveys. **Change 1.1 and 1.2:** Biodiversity monitoring programme updated with new methods for camera-trap musk deer surveys, and marmot point-count surveys; Year two annual biodiversity surveys conducted for target species and during SMART patrols (Annex 4.2; 4.3) informing CBO conservation plans for year three.

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

Ten CBOs, the forest managing institutions in the LPA were established and received their CBO Certificates. Year two, forest surveys were conducted for four survey sites, including: pilot plots on burnt & logged area, natural regeneration, forest thinning and natural forest sites in November 2019 to inform forest management (Indicator 2.1).

Supported forestry management activities for ten CBOs using the results of the Forest inventory conducted by AFU in October 2019. (Indicator 2.2). These activities include forest thinning (e.g. deadwood removal by 55 members from eight CBOs earning 2,355,600 MNT (£750) from two hectares, 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 (Indicator 2.2).

Partnered with Arkhangai Police Department to train 22 VRs for SMART patrolling and enforcing environmental regulations on 15 November 2019. (Indicator 2.3). On 26 2019, ZSL officer was included in the SMART Working group at the MET, which aims to developing SMART system for improving the law enforcement, biodiversity monitoring in the protected areas. (Indicator 2.3).

109 VRs (multiple attendance) received training on SMART patrolling techniques with necessary equipment (Blackview smartphone, GPS and headtorch (Indicator 2.3), 15 Vrs conducted patrolling twice a month using SMART method (85 times), reported 67% of the police-registered violation cases (Indicator 2.3). In year two, these VRs from nine CBOs received cash incentives of GBP 1200 GBP by March 2020. (Indicator 2.3).

Baseline 2.1, 2.2 & 2.3: no above ground biomass surveys; no forest management interventions defined and piloted, no LPA forest management plan; zero community patrol units. **Change 2.1,**

2.2, & 2.3: Above ground biomass surveys identified representative plots, informed forest management; 10 CBOs undertook forest management activities; 15 VRs conducted patrols.

Output 3: Model of community-led sustainable pasture management in place in LPA.

Rangeland surveys were conducted in August 2019 across 30 plots in nine CBOs territories (Indicator 3.1), alongside LPA vegetation map development showing the rangeland ecosystem health (Annex 4.16; 4.17). 17 sites were classified as degraded by overgrazing (Indicator 3.1).

The map included other resources, such as forests, lakes, rivers, hayfields used by 11 CBOs, and 102 herders participated in participatory mapping. A total of 127 herders participated in climate change survey to identify adaptation practices using Local Indicators of Climate Change method. The survey results contributed to the development of the pasture management plans of nine CBOs, and drafting Rangeland Responsibility Regulation (RRR), training of 261 community members (59% male and 41% female) in adaptive pasture management practices (Indicator 3.3).

Baseline 3.1, 3.2, & 3.3: no LPA soil nutrient and compaction surveys; no pasture management interventions defined and piloted; no LPA pasture management plan. **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 nine CBOs.

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

The newly established ten CBOs have 272 herder members (154 male and 118 female), who collectively identified their business potentials, agreed on business plans with the ZSL support. CBOs received equipment worth of 18075 GBP to run small business for dairy products, vegetation and forage farming. 127 herders learned how to do SWOT analysis to identify suitable businesses and formulate business plan in a participatory manner. (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. These days, VSLAs of eight CBOs collected £10,100 where their social fund reached £750, and the saving fund totaled to £9350. Currently, £5200 are used as low-interest loans by VSLA members. (Indicator 4.2).

The results of the project livelihood support activities, including forest thinning, eco-tourism, dairy product sale, VSLAs, and other income generation through business plans will be assessed by the socio-economic survey by year three. (Indicator 4.3).

Baseline 4.1, 4.2, & 4.3: Current cashmere and dairy production is being managed, largely unsustainably and no ecotourism model exists; no VSLAs are established in the LPA; on average households have 2.0 occupations. **Change 4.1, 4.2, & 4.3:** Nine CBO with 127 members have adopted and implemented their business plans; eight VLSAs operating with £10100; 47 herders trained to run horse trekking and host ger hotel, four CBOs contracted to supply dairy/cashmere.

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. (Indicator 5.1). At these meetings CBO members made decisions on the LPA structure (Board represented by each CBO, Monitoring council consisting of seven members, and executive body including the Executive director, CBO leaders and VRs), electing the Board director and approving the competitively selected executive director, discussing and approving the management plan.

Besides the establishment of the umbrella association managing the LPA, 272 community herders also participated in the process of agreeing on collective action agreements among the members, discussing and approving the CBO constitution, electing CBO's leader, and volunteer rangers and attending the regular CBO meetings to discuss activities. Also, activities of nine VSLAs involved CBO internal meetings for approving VSLA protocol and appointing 8 leaders, 8 secretaries, 8 box savers and 16 money counters. (Indicator 5.2). 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.

ZSL experience for setting the LPA management model and piloting SMART patrols employing VRs passions for conservation has been acknowledged at the national level through the ZSL inclusion to the SMART Working group at the MET as well as ZSL-supported CBO products receiving awards at the Eco-Friendly product exhibition, the national event for CBO experience sharing, and expressed interests to visit ZSL's LPA site . (Indicator 5.3).

ZSL-supported 20 herders from nine CBOs participated in the exhibition on "Eco-Friendly Product-2019" where the MET introduced legal provisions for community-based natural resource management and committed for further support to local communities, business entities and organizations engaged in environmental protection, natural resource conservation and restoration activities. (Indicator 5.4).

Baseline 5.1, 5.2, 5.3, 5.4: no representative LPA management authority exists; no LPA management KPIs exist and no LPA management monitoring occurs; LPA management have not organised national and/or local government meetings in LPA; no surround community leaders have visited the LPA and met with the LPA management authority. **Change 5.1, 5.2, 5.3, 5.4:** Established and operating the LPA management umbrella organization with ten CBO members; UCC member forums and CBO meetings becoming main tools for collective and democratic decision-making; agreed natural resource management and business plans become the instruments for collective actions, and empowered by demonstrating their results through participation in the national level Eco-Friendly product -2019 exhibition.

3.3 Progress towards the project Outcome

The project Outcome statement is '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. In year two, project has progressing under the proposal with mainly on the LPA establishment and management, could achieve key species recovery with safeguarding of communities culture and livelihoods. In year two further progress towards this has been:

Indicator 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%.

Baseline: Survey counts of: Siberian marmot – 220 individuals; Musk deer - six individuals; Saker falcon: 12 individuals; Steppe eagle: eight individuals. **Change:** Year two surveys: Marmot 251 individuals (14% change); Musk deer 25 individuals (200% change); Saker falcon: 18 individuals (50% change); Steppe eagle: 16 individuals (200% change).

Indicator 0.2: 1370 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.

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 decided by the Court. **Change:** In year two, zero poaching was recorded in the LPA and no illegal logging reports have been recorded by SMART patrols, or local police department reports.

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

Baseline: The baseline is not currently known, but it is estimated that two-three women are represented in the LPA management board out of 11 (year one). **Change:** In project year two, two women (of 11) are represented in the LPA management board; all seven Monitoring council members of LPA management authority are women; 35% of all training participants are women.

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 currently estimated to live below national poverty line. **Change:** Estimated in project-end survey.

Indicator 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.

Baseline: The baseline survey defined 497km2 forest land of which, burnt (15km2), pest affected (0.4km2), 481,6 km2 (tree covered) (Annex 4.4). **Change:** There are currently No major changes on this indicator and change is to be estimated at the project-end.

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 project end.

Baseline: No current framework exists for LPA-level management that is applicable for Central Mongolia expansion. **Change:** The project has now establsihed 11 CBOs encompassed within the LPA management authority NGO. The project has had discussions with the Arkhangai aimag government and MET about expansion of the LPA model. This model is still being formalised.

3.4 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. **Comments:** During project year two it was revealed that in addition to the vulnerable, reintroduced marmot population in the Mogoinkhon and Tekhkharaikh community area, there are several populations of marmot existing within the LPA. Musk deer surveys have been difficult for monitoring because of their habitat in high-mountain, and dense forest, with harsh weather conditions.

Outcome Assumption 0.1: 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:** There has been no reported disease outbreaks for wild population so far, so this is assumed to still 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 project year one and two has reiterated the uniformly strong community support to reduce poaching and logging in the LPA. The new partnership with the Eco Police Agency has 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 marginalized people to equally benefit and participate in the proposed programmes and share in the decision-making process. **Comments:** Mongolia's socio-economic climate is relatively stable, and the IRIM baseline survey revealed that gender equity in the LPA is relatively progressive for Mongolia. Project has supported 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 two year, the spring season 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.

Outcome Assumption 0.6: Government support for community-based conservation remains strong. **Comments:** The project has had strong support from the local government and national government (MET) for its community led management approach, this has continued in year two.

Output Assumption 1.1 – 1.2: No natural disasters, such as forest fires, or particularly harsh winters (dzuds) significantly negatively impact wildlife populations. **Comments:** In project year one and two there have been no natural disasters.

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 have been 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.

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 had strong participation with 75 and 70 attendees in March and August 2019, respectively. A representative managed structure was agreed upon, which is vital in reducing corruption. In the second year, the project has been supporting livelihood improvement activities with equal participation from the nine CBOs.

Output Assumption 3.1 – 3.2: Pasture management model developed in Arkhangai is appropriate to other forest-steppe ecosystems in Mongolia with similar socioeconomic and climatic features. **Comments:** The rangeland issues facing the LPA communities is representative of those facing similar communities across Mongolia so the model is still expected to be applicable elsewhere. The project has developed a Pasture Use Plan for each CBO, including pasture management and Responsible Rangeland Regulation.

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 have been no droughts in year one and two of the project. The last summer in 2019 was comfortable for community livestock.

Output Assumption 3.4: 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:** The IRIM survey revealed that 98% of households were involved in some kind of livestock management. Therefore, an 80% participation rate, will not cover all of the LPA households. However, given the increase in total number of households in the LPA from c. 100 to c. 400, an 80% participation rate will still cover a significant number of households.

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 have been no changes in local and global markets, and no extreme weather impacts on cashmere production in year one or year two.

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:** The LPA livelihood support activities benefitted 118 women from nine CBOs (44% of total), and overall female participation in project capacity-building activities c.35%.

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. In eight VSLAs established in year one and two, the women were appointed as 8 bookkeepers of all VSLA, and 7 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 aim to be not only sustainable, but voluntary participation of CBO members requires the collective commitment to reduce unsustainable, exploitative practices of natural resources.

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 (wool, dairy etc.) the livelihood model is expected to be applicable to similar forest-steppe communities.

Output Assumption 5.1: Traditional customs and equitable and democratic principles are reconcilable within an effective institution. **Comments:** CBOs have already been demonstrated to be an effective community institution that has encompassed traditional customs.

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 have both been actively engaged in the project in year one and two and it is still anticipated the interest in post-project principles uptake to be strong.

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:** Interest in the project at a national and local level has been significant, and has involved a variety of a government agencies and community stakeholders.

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:** The selection of leaders of CBOs and officials from partner organisations to participate in exchange visits will be done jointly with the Union of CBOs. The exchange visit was planned for January 2020 and has had to be delayed until project year two, however it is still planned to go ahead.

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:** Given current interest at the local and national level of government, post project scaling of the LPA-model is promising.

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

Higher impact on biodiversity conservation and poverty alleviation: The project's contribution to high-level biodiversity conservation and poverty alleviation will be delivered through the development of a community led model of sustainable natural resource management of a local protected area that will have the national and local support of Mongolian government to be applied to other LPAs in central Mongolia (potentially other similar bio-geographic regions too) (Indicator 0.6). Beyond the high-level contribution of scalable model of LPA management, the conservation of the LPA is in itself a high-level contribution given its important forest ecosystem in the context of Mongolia's small remaining forested area. In year two the project met with the MET to discuss the project and schedule key official visit to the LPA in year three.

In addition to the project-end outcome, the project in year one has already organised several high-level state (aimag) conferences on sustainable forest and pasture management, that will contribute to improved biodiversity conservation beyond the project site through responsible management of forest and pastureland.

The project's direct impact on poverty alleviation in central Mongolia and the project site has been discussed extensively in the proposal and in Section 6 and 7 of this report but is highlighted in our activities to support a model which is providing direct income for communities through sustainable forestry, trade-fairs, business development for eco-tourism, dairy production, vegetable and forage crop farming and sustainable VSLA financing.

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

By the end of the project we expect it will have contributed to Mongolian and UK Government Commitments by contributing to the following SDG's:

SDG1: no poverty, and SDG8: decent work and economic growth through sustainable pasture management integrating marmot-friendly attitudes and traditional practices, and the development of additional income streams, targeted at marginalised groups such as women, all contributing to improved wellbeing; **SDG2:** zero hunger through sustainable forest and pasture management, and alternative livelihood sources providing greater food security;

Project year two has contributed to SDGs' 1, 8 and 2 through the notable implementation of sustainable forest management activities, including forest thinning by 55 community members

from five CBOs (Activity 2.4) generating approximately 750 GBP. Eight community VSLAs with 224 members have been established with 10,100 GBP saved (Activity 4.5). Communities have earnt 8,500 GBP income from two trade fairs.

SDG5: gender equality through embedding GESI in the design, management and benefit-sharing of all components of the project, with interventions targeted at removing systemic barriers and empowering disadvantaged groups in the community;

Project year two has contributed to SDG 5 by monitoring and pursuing gender equity during during all relevant project activities, particularly during development of small business models (Activity 4.1) and an effective LPA management authority (Activity 5.1).

SDG13: climate action through sustainable forest management to ensure the carbon storage potential of forests is not lost and is enhanced where possible;

Project year two has contributed to SDG 13 through the implementation of sustainable forest management activities, piloting of SMART patrols to monitor illegal logging (Activity 2.2–2.6).

SDG15: life on land through wildlife and ecosystem conservation and restoration, enhancement of biodiversity achieved via sustainable pasture and forest management, and positive attitudes to conservation cultivated through the LPA model.

Project year two has contributed to SDG 15 by undertaking biodiversity monitoring development, surveys and training to inform communities of wildlife conservation (Activity 1.2 – 1.4). Communities have been consistently informed of the importance of sustainable pasture and forest management in promoting ecosystem conservation and the provision of ecosystem services in the long-term, and this theory will be included in the LPA management model (Activity 5.1). Examples of this include, riparian tree regeneration activities in March, and fencing of burnt and logged forest to monitor and support natural regeneration.

5. Project support to the Conventions, Treaties or Agreements

In support of Mongolia's Ministry of Environment and Tourism, the CBD and Mongolia's National Biodiversity Strategy and Action Plan (NBSAP) (2015-2025), this project will contribute to Mongolia's overall biodiversity conservation goals through developing a scalable model of community-led ecosystem management, which enables sustainable resource use to conserve and enhance biodiversity and ecosystem resilience.

Deploying the CBD's 'ecosystem approach' the project will empower key Mongolian stakeholders to achieve the CBD objectives of sustainable use and equitable benefits-sharing, through the establishment of LPA governance structures that adhere to the principles of gender equality and social inclusion (GESI). The framework for LPA expansion will ensure that lessons learnt are replicable to other key biodiversity sites across the Forest-steppe.

Additionally, the project's forest-steppe specialist Mr Gombobaatar Sundev, who is also the CBD National Focal Point for the Global Taxonomy Initiative, ensures the project contributes efficiently and appropriately towards the CBD provisions and Mongolia's NBSAP maintaining communication with the Ministry of Environment & Tourism. 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** in year two 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 has been increased through series of training events in project year one and two, the local community has been empowered to protect local biodiversity creating the Union of CBOs, and LPA management will focus on biodiversity conservation.
- **2: Biodiversity values integrated into local development and poverty reduction strategies.** The LPA model integrates 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 Union of CBOs aims to reduce their over-exploitation, which is driving habitat loss and degradation within MGV.

- **7: Sustainable management of areas under agriculture and forestry.** The LPA management by the Union plans to test locally appropriate sustainable forest and pasture management models. Both management models will be adaptively managed utilising data from biodiversity, above-ground biomass and soil monitoring.
- **11: 17% of terrestrial areas are conserved through effectively and equitably managed protected areas (PAs).** Although Mongolia currently has 18% PA coverage, 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 targets to increase the local populations of Saker Falcon (*Falco cherrug*) EN, Steppe Eagle (*Aquila nipalensis*) EN, and Musk deer (*Moschus moschiferus*) VU; and stabilise the population of recently reintroduced Siberian Marmot (*Marmota sibirica*) EN.
- **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 conducted under the LPA model will feed 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 will have full ownership of all outputs.

6. Project support to poverty alleviation

What evidence is there that the project is working to alleviate poverty?: The project is working to develop a model of LPA management that sustainably manages its natural resources, including its pasture and forest that provide subsistence and income to its communities. By empowering communities to sustainably manage these natural resources, key environmental drivers of poverty can be alleviated in the short and long-term through improved income security, and food security through greater climate change resilience.

Who are the expected beneficiaries of this work?: Each community in the LPA has established a CBO (11 established, with 9 actively participating) and elect a representative for the LPA management authority to ensure each community has the opportunity to participate in project activities. The principal beneficiaries of this project's contribution towards poverty alleviation are therefore the herder households living within the LPA.

Other beneficiaries of this work that include residents of the nearby Aimag centre, Tsetserleg which will indirectly benefit from the sustainable management of the LPA and its provision of ecosystem services. A directly example of this was the forest cleaning activity which provided firewood cheaper than logged timber which has a higher tax.

Are there expected to be any direct impacts from this project?: As discussed in Section 3.4, and above, there are expected to be direct impacts of poverty alleviation from this project in the forms of improved economic wellbeing from increased income from sustainable natural resource management and diversified livelihoods, and greater income security from VSLAs.

If indirect only, what evidence is there that the project will contribute to poverty alleviation in the long-term?: In the long-term, LPA communities could expect improved livestock product output and resilience to climate change from sustainable, improved management of their natural resources (pasture and forest) providing greater livelihood subsistence, income generation and the preservation of their nomadic lifestyle.

Are there any notable achievements this year?: In year two, the project directly facilitated improved financial security for ten CBOs through the establishment of VSLAs which have already provided loans of 4,200 GBP to 19 members at interest rates of 3% (average bank interest rates are 20%). Project activities implemented to develop alternative sustainable incomes sources

have been outlined extensively in this report and include direct incomes earnt for communities on forest thinning, eco-tourism, and trade fairs to sell LPA products (e.g. dairy).

7. Consideration of gender equality issues

Utilising an improved understanding of gender issues following IRIM's sociological survey, in year two the project continued to embed GESI principles and promote gender equality within LPA management and within activities. To provide equitable training opportunities for training and skill development, in year two of the 84 trainings to 1988 community members, 35% of attendees were female. Less overall engagement by women in project activities can be primarily attributed to the types of activities conducted in year two, for example 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.

In terms of gender equity within UCC leadership approximately 20% 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. In year three the project will continue to enshrine GESI principles in both the LPA and CBO management levels.

8. Monitoring and evaluation

Monitoring and Evaluation Systems: After voting on the LPA management structure, the communities have elected their representatives for the LPA management authority (UCC) in May 2019, which marked the commencement of ongoing monthly meetings. A Monitoring Council has also been established to support monitor UCC decisions on behalf of the CBOs. UCC meetings discussed not only issues around LPA management, but also how to monitor and evaluate LPA performance against KPIs and project indicators, and how to adapt work plans addressing the challenges emerged.

Throughout the project period, the ZSL project officer (based in aimag centre Tsetserleg) has maintained regular communications with LPA communities and bi-weekly calls with ZSL HQ. Completion of milestones have been monitored through the project under work plan, and monthly reports submitted using ZSL's web-based systems, including activity, indicator, and finance tracking. Specific monitoring and evaluation processes include:

- Year two baseline surveys were conducted to monitor the impact of project activities on: biodiversity through proxy target species (Output 1, Annex XX); forest plots (Output 2, Annex XX); and pasture plots (Output 3, Annex XX)). Furthermore, ongoing monitoring (Output 1, 2, and 3) conducting community SMART patrols (Annex X).
- Results from these activities will feed into the LPA management M&E plan through consultation with project experts: NUM/ZSL (biodiversity monitoring); forest and pasture consultants (forest and pasture management); Union of CBOs (small business development and VSLAs); and ZSL Mongolia Country Director (LPA community management). No changes have been made to the M&E plan, so for further detailed information on the project's monitoring and evaluation plan please refer to the project proposal.

How can you demonstrate that the Outputs and Activities of the project actually contribute to the project Outcome?: Each output focuses upon the completion an important environmental (wildlife, forest habitat, pasture habitat) and human development issue (forest and pasture management, alternative livelihood development and financial support, robust governance) that are complementary in the support of a sustainable LPA management model.

9. Lessons learnt

What worked well, and what didn't work well, this past year? One of key threats to the forests in the LPA is an extensive deterioration of the forest in the riparian area mainly due to a high concentration of the livestock which cause serious damage to trees especially saplings. To address this, ZSL delivered on-site training on forest rehabilitation in the riparian area on March 19th 2020. Fifteen VRs from eight CBOs were trained in the 'farmer-managed natural regeneration' technique known for its low-cost and applicability in the regeneration and management of trees and shrubs from tree stumps, roots and seeds. Beyond the training, the

secondary purpose of this activity was to demonstrate to community members how degraded the LPA forest is, especially in the riparian areas and if they continue similar herding practices, degradation will increase. While demonstrating this forest degradation, rangers were able to prepare approximately 650 willow and aspen ssaplings from around three hectares, in contrast in a healthy forest, the number of saplings would be 5-6-fold more.

A major success in year two, was the extinguishing of a potentially serious forest fire nearby the Temeenchuluu and Jarantai communities. This demonstrated the importance of project training delivered on fire prevention, CBO level leadership, management, and coordination.

Another example of the project's successful training strategy, was the teaching of herders on the low-cost technique of building fences around 8 ha of degraded forest using deadwoods. This is one of the most practical and accessible approaches to support natural regeneration of logged sites and needs to be replicated within the LPA and beyond.

One of the aims of this project is to mobilise local communities to lead research and patrolling of habitat and species in the LPA. In year two, VRs have been highly successful in reporting illegal activities to local police with 67% of 54 environmental crimes coming directly from VR patrols.

If you had to do it again, what would you do differently? In year two, stakeholders, including project officers, local partners, and community members, have gained substantial experiences in organizing community meetings and collective action with consideration of the seasonality of herder workload. Nevertheless, 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 labor, time, and transport means to the collaborative activities. Another budget consideration includes responding to the requests from soum and aimag government authorities to provide financial support in environmental measures like cleaning wastes along the Tamir river valley or dealing with forest fires, mostly for covering fuel costs during the fieldwork.

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.

How are you going to build this learning into the project and future plans? The project will continue maintaining strong partnerships with stakeholders through supporting the new Union of CBOs and biannual stakeholder forum. The project will plan more frequent capacity building activities during summer and autumn months rather than winter time. To ensure sustainability of LPA management, the project will increase the work for capacity building of soum government to cooperate with the Union and other LPA stakeholders.

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

Comments from the first annual report (bolded) to be address in the second report are outlined:

Annexes refer to many reports of interest and high quality and products that are not provided in full. Please provide brief summaries (narrative descriptions, as in for example Annex 4.4) of the reports/Annexes 4.4, 4.10, 4.12 (that now consist of only pictures of the report cover page or photos from events). Unfortunately, the size of these reports and their contents makes their inclusion in the report annex very challenging. Brief summaries of reports are now included in the Annex (4.5; 4.6; 4.34)

Output 1: please provide a brief summary of the biodiversity monitoring plan, and brief summaries of the training curricula/ programme/material, if available. Both the biodiversity monitoring plan and training curricula are attached (Annex 4.2; 4.3 And 4.35).

Output 2: please provide more detail in the form of brief summaries of the plan and training material on forest management methods, as well as brief summaries the SMART workshop report or related training material, if available in English. The SMART implementation plan and summary report are attached (Annex 4.13 and 4.15).

Output 4: Annex 4.9 refers to reports and products developed by Arig Bank, not summaries of these reports. Please provide a brief summary of an example business model; an example agreement contract between LPA producers and buyers; the VSLA template; as well as a training report outlining the process for selecting alternative livelihoods . As a general request, the next annual report should include more detailed information on the type and level of support for alternative livelihood activities provided to communities whose livelihoods have/will be adversely affected by the PA (see discussion under review of Outputs). The training activities seem to have been geared towards general business management knowledge and village savings and loan schemes, rather than having provided technical skills development for alternative livelihoods: please specify if the project has provided concrete training and/or new tangible livelihood opportunities that have an actual potential to generate new income that is proportional to. In project year two significant work was undertaken to delivery livelihood activities from year one and have been documented extensively within. Annexes have been attached of key reports and templates evidencing activities towards the completion of livelihood objectives (Annex 4.23, 4.26, 4.28, 4.29, 4.30). Key activities in project year two are included in section 3.1 under Output 4.

The household survey conducted by IRIM is reported to have been designed based on incorrect information about the number of households surrounding the LPA. Please specify how the LPA came to be substantially increased, what information the project has on procedures to obtain FPIC of affected adjacent citizens, and if the socio-economic baseline survey is planned to be adjusted to represent the total population. The LPA lays across three bags (smallest administrative units) of Bulgan soum with 562 households as of 2018 (National Statistical Office). Of these, IRIM sampled 150 households. The report also informed about people affiliated to the nearest town reside within the LPA and graze their livestock. The statistics provided by bag governors, show that out of 562 households of three bags, 422 live within the LPA boundaries shown on the map at page 2. As project makes routine round trips visiting the LPA households for training and meetings, the number of present households seems to be less than 422, which may include out-migrants or mobile people not present in the area but still registered in Bulgan. Therefore, ZSL initiated a community database to establish the true population (residing throughout the year) in the LPA. Currently, the project is working with 162 households from 11 CBOs. Regarding FPIC, all ZSL community engagement processes are participatory by nature, and members are explicitly informed of this during engagement. The UCC and CBOs are community led structures, and this applies downstream to individual LPA management activities. The UCC forms a system whereby households may raise any concerns through their CBO representative. In 2018, IRIM did not have a formal FPIC protocol but as this is not a mandatory requirement by the Mongolian academic regulations, however interviewees were informed that participation was voluntary, and non-involvement was possible at any time during interviews. The project will require a formal FPIC protocol for the final study in 2021.

Please specify the project's approach to enhancing gender equality and how the project's impact on gender equality will be monitored and reported. The project is seeking to maintain equitable gender ratios in community training activities (currently 35% female attendance on average) and in the UCC (two of 11 female representatives) which oversee LPA management. The Monitoring Council is all female (7 members total). 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, which require meticulousness and attention to details. While all outdoor activities such as forest thinning, fencing, and wildlife patrolling involve more outdoor skilled roles. Data on activities can be disaggregated to monitor gender ratios for equitable participation opportunities.

11. Other comments on progress not covered elsewhere

No other comments to include in this section.

12. Sustainability and legacy

Project profile: In year two, the project has strengthened its prominence by laying out the bottom-up LPA management model in Mongolia by uniting local herders into a federal-structured institution to coordinate collective actions for environmental conservation while balancing livelihood needs. The LPA ecosystem information, including wildlife, forests, and rangelands, has been collected, and regular monitoring and conservation mechanisms (camera-traps, VR

SMART patrolling, CBO plans, UCC reports) are in place demonstrating indicator progress. Towards reducing livelihood dependence on natural resources, income diversification, and value addition to the livestock products were supported based on the specific business potentials and entrepreneurial skills of CBO members. Functional VSLAs gain a positive reputation among members as they open access to financial services much needed in remote rural areas, while teaching principals of accountability and rule-obedience to free-roaming nomads.

Evidence for increasing interest and capacity from project:

- Eleven CBOs established and united in UCC with 272 community members participating in conservation and income generation activities and LPA management decisions.
- Introduction and operation of SMART patrolling approach supported the work of Eco Police Agency (focal organisation to stop illegal environmental activities) in intercepting violations and attracted its interest to cooperate with the project
- Received “best environmental organization” of Arkhangai aimag award in 2019.

Project exit strategy: ZSL has a permanent presence in Mongolia. This provides a platform to implement the project and ensure its lasting legacy, providing ongoing technical advice and support when needed.

The pilot of the LPA “Mogoin gol-Teel” will have the self-sustaining basis by the project end. Outputs 2) Sustainable forest management; 3) Sustainable pasture management; 4) CBOs managing sustainable business models and VSLAs; and 5) the LPA management model have all been fully owned by, and co-produced with, local communities from the start of the project. As the project progresses the management and operations will be steadily handed over to the community-run institutions and by project end they will be self-sustaining and no longer require project inputs. Output 1) biological monitoring will continue to require technical and resource inputs, and ZSL is committed to providing these and supporting the government in effective biological monitoring across central Mongolia.

Secondly, the framework for LPA expansion will be in place by project end, with buy in from key stakeholders, both government and communities, from potential expansion sites. The process of producing official LPA guidelines will be underway and this will enable this progressive work to continue post-project, with ZSL’s ongoing commitment and technical support.

Project sustained legacy: The project has a suitable exit strategy in place which builds on active involvement of beneficiaries and government authorities throughout the project and gradual handing over of responsibilities to local beneficiaries and authorities. In second year, several mechanisms to sustain the project legacy have been established:

- The UCC responsible for the LPA management was created in line with GESI principles.
- Fifteen VRs trained by police department and equipped for operation. This will be expanded in year three under the Community Patrol Unit (CPU). The CPU will be the key institution for enforcement and biodiversity monitoring jointly with aimag, soum and AFU.
- Baseline surveys for forest, rangelands, biodiversity monitoring and human wellbeing were defined to be used for further progress monitoring.
- Collabrating and capacity building for local environmental agency and soum officers.
- Nine CBOs have business plans and begun small business with equipment provision.

13. Darwin identity

Publicising DI and UK Government support: ZSL Mongolia has recognised the UK Government and DI grant as the funder of our project during all project communications. Our strong relationship with the British Embassy of Mongolia has allowed our work and DI to be promoted with not only senior government, but also industry. Some notable examples include:

- As a result of this project ZSL was recognized as the best environmental organisation of 2019 in Arkhangai aimag (state). The award was presented by the Aimag governor and provided a high-level opportunity to demonstrate this successful funding (Annex 4.33).

- During the Eco-Friendly Product Exhibition in Ulaanbaatar in 2019, Project Officer Erdenetsolmon delivered a presentation to the MET and exhibition participants highlighting ZSL's project and funding). (Annex 4.25)
- Three videos commissioned by ZSL in December to raise awareness of the LPA and project were broadcast by Arkhangai TV twice weekly.(Annex 4.10)
- The project officer presented about the LPA management structure and best practice of pasture management to the Denver Zoo 'Ikh Nart' National Reserve Park, 22-23rd August.
- All information signs within the LPA include the logo (Annex 4.14); and distributed equipment has the DI and ZSL logo (Annex 4.28).

14. Safeguarding

ZSL has invested heavily in its safeguarding policies and procedures both in the UK and globally. The Council of Trustees and Executive Management Committee have formally recognised safeguarding as a key area of responsibility and are fully committed to strengthening and rolling out ZSL safeguarding approach. Where necessary these efforts are applicable to staff, partners and other stakeholders ZSL works with. Relevant policies have been updated and new policies and procedures implemented and policies to align to this commitment including; Global safeguarding policy; Safeguarding policy for UK staff; Global whistleblowing policy and procedures; Global code of conduct; DBS and criminal record check policy; Employing younger worker policy; Disciplinary Policy and procedures; Reference request policy; Violence and aggressive behaviour policy; The 4 R's safeguarding policy; Staff handbook. These policies easily accessible and have been translated into a number of key languages in the countries we are operating in. Existing and newly joined staff, consultants and partners are made aware of these and participate in an induction into the policies, related procedures irrespective of the length of time they will be working/collaborating with ZSL.

ZSL project staff aim to enshrine safeguarding principles within project activities, including training of project beneficiaries. To support safeguarding with UCC decisions which oversee LPA management, the proejct supported the establishment of the Monitoring Council to monitor UCC decisions on behalf of the CBOs. This method can combat not only corruption, but other risks associated with poor safeguarding throughout LPA management activities.

15. Project expenditure

Table 1: Project expenditure <u>during the reporting period</u> (1 April 2019 – 31 March 2020)

Project spend (indicative) since last annual report	2019/20 Grant (£)	2019/20 Total Darwin Costs (£)	Variance %	Comments
Staff costs				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Monitoring & Evaluation				
Others				
TOTAL				

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2019-2020

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
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.**		In year two the project has made progress towards achieving the project outcome.	[redacted]
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	0.1 The project conducted the second year biodiversity monitoring surveys within the LPA. Research results recorded increased numbers: a) the Siberian marmot population - 251 individuals; b) the Musk deer population - 25 individuals; and c) the populations of Saker falcon - 18 individuals, and Steppe eagle - 16 individuals (annex X) (Note:these surveys are conducted by ecologists with fifteen community VRs). 0.2 The project facilitated the creation of three new Community Based Organisations (CBOs); a total of 11 CBOs are now established covering 85% of the LPA. Fifteen VRs have been certified from nine CBOs and have conducted 91 SMART patrols with zero-poaching recorded in their territory. The LPA patrols have recorded zero poaching and no illegal logging for soum police reports. 0.3 Two women have been elected in the LPA management board out of 11 members; seven Monitoring	0.1 The project has planned to conduct the third year biodiversity monitoring surveys in June-August 2020. Camera trap surveys will be ongoing until project end. 0.2 Year three monitoring surveys will be conducted in November 2020. Twice a month patrols using SMART cybertacker will be conducted by fifteen VRs. The last forest management conference will be conducted by November 2020. 0.3 The project will continue to increase gender balance whilst ensuring GESI principles are embedded in training and field work in 2020. 0.4 The project-end baseline survey for project beneficiaries is planned to be conducted in February 2021 in the LPA (note economic wellbeing index may include additional sources to be reviewed for baseline and project-end calculation). 0.5 The project will conduct last year biomass survey on forest pilot plots

	wellbeing index scores, with women and men benefiting equally within 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.	council members of LPA management authority are women; on average 35% of training participants have been women. 0.4 The project has supported increased livelihood financing through forest deadwood removal, VSLA establishment, and trade fair exhibition participation, and supporting contract development between LPA producers and buyers. So far a total of 19,350 GBP MNT earnt for communities across these activities. 0.5 The project conducted year two surveys on forest biomass in the pilot plots in November 2019. No major changes in survey results of woody biomass have yet been reported. 0.6 The project has establsihed ten CBOs within the LPA management authority NGO and currently progressing towards its objective of a sustainable LPA model. Project staff have had discussions with the Ministry of Environment and Tourism about the project and the model of LPA management under development.	in November 2020 to measure biomass change. 0.6 The project will seek to facilitate regular meetings for overall LPA management with UCC Board members and individual CBO internal meetings in 2020.
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	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. Biodiversity monitoring plans for all four key species have been developed in year one and adapted during consultation with VRs during refresher training in June-July 2019 and January 2020. 1.2. Biodiversity monitoring surveys were completed for year two in June 2019 (marmot point-count surveys, four camera-trap grid surveys (23 cameras) for musk deer) and January 2020 (line transect musk deer, steppe eagle and saker falcon surveys). 15 VRs also conducted regular wildlife surveys during SMART patrols (total of 91 patrols)(Annex 4.1-3).	

deer (Moschusmoschiferus) VU; and forest and grassland species richness.			
Activity 1.1 Conduct expert workshop (including Local ecological knowledge experts) on biodiversity monitoring techniques appropriate to site and target species		This activity has been completed in year one.	This activity has been completed.
Activity 1.2 Produce Biodiversity Monitoring Plan for LPAs in Central Mongolia's Forest-Steppe Ecosystems		The initial biodiversity monitoring plan was completed in year one. The biodiversity monitoring plan was discussed among VRs during refresher training in 2020. It was subsequently updated with new surveys (camera-traps for musk deer, marmot point-counts) and new patrol routes (Annex 4.1).	This activity has been completed.
Activity 1.3 Train local community members in required biodiversity monitoring techniques, also provide refresher training as needed		In year two, refresher training for biodiversity monitoring was conducted for 109 local community members to support camera-trap, line-transect and point-count surveys for focal species (Annex 4.2).	Refresher-training for community members will be organised prior to year three annual biodiversity monitoring surveys in June-August 2020.
Activity 1.4 Conduct annual biodiversity monitoring, covering target species and species richness of birds and invertebrates		In June 2020, 23 cameras were installed in four survey sites identified by communities as important/threatened musk deer habitat and point-count suveys were conducted for three marmot populations (Annex 4.3). 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. (Annex 4.15).	Year three annual biodiversity monitoring surveys are preliminarily planned for June 2020.
Output 2. Model of community-led sustainable forest management in	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	2.1 Year two forest surveys were conducted for four survey sites to pilot different forest management strategies, including a plot of: i) illegally burnt logged forest; ii) forest undergoing regeneration through replanting; iii) forest undergoing active	

place in LPA safeguarding 275 km^2 of vulnerable forest in Arkhangai	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.	community forest cleaning (e.g. deadwood removal); and iv) natural forest undergoing no intervention (the control plot) (Annex 4.5-4.6). 2.2 In October 2019, a forestry management plan was developed for ten CBOs with the Arkhangai Forestry Unit (AFU) . The forestry management plan is being implemented in align with piloting of different forestry management strategies identified in 2.1. (Annex 4.7-4.9). 2.3 The project delivered SMART training for 109 community rangers (this includes repeat training). Twelve VRs have now obtained a certificate of participation, and necessary equipment (i.e. Blackview smartphone (compatible with SMART Cybertracker), GPS and headtorch). Following training, 85 SMART patrols have been conducted in year two (Annex 4.10-4.13).	
Activity 2.1 Conduct above-ground biomass surveys in LPA and control site		The technical forest expert conducted second year forest biomass surveys at three monitoring sites and one control plot in November 2019 (Annex 4.5). 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.	Baseline survey have been conducted for year one and year two. Year three monitoring surveys will be conducted in November 2020.
Activity 2.2 Define and map 3-4 suitable test plots within the LPA forest area.		This activity has been completed in year one.	This activity has now been completed.
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		To support the management of each forest plot, the forest specialist developed forestry management plans for ten CBOs with the assistance of the AFU in October 2019. The management plan include detailed activity plans for forestry management in each community, the forest intervention plots, and the creation of an LPA forest map for planning (Annex 4.6).	Forestry management plans will be updated to reflect forest surveys and community work in year three.
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 began forest	The project plans to facilitate CBOs income generation by using non-timber forest products with forest sustainable management in 2020.

	management activities in year two including the following. 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 2,355,600 MNT (£750) from two hectares preparing 99 cubic meters of firewood. Also, CBOs conducted thinning in over 20 ha areas in collaboration with the AFU. (Annex 4.7). To support management of the forest undergoing regeneration through replanting (plot ii), the project 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 (Annex 4.8). The 63 CBO members fenced 8 ha of forest area at plot ii to support natural regeneration using burnt logs and deadwoods. (Annex 4.9). Environmental inspectors and rangers from AED and Bulgan soum government oversaw the CBO work, which was documented by the Aimag TV. The video has been broadcasted five times (Annex 4.10) 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. The fire would have caused significant damage to the forest and surrounding communities if it continued unabated.	
Activity 2.5 Run a SMART recruitment workshop with LPA members to inform community of SMART and establish CPU members.	Principal SMART recruitment workshops were conducted in year one during the recruitment of community VRs, however, SMART refresher training in year two served an opportunity to recruit additional CBO VRs. In addition, fifteen VRs have obtained a certificate of rangers and necessary equipment to conduct patrols. (Annex 4.11)	This activity has been completed.
Activity 2.6 Co-produce SMART protocol for the LPA, and provide relevant training, based on CPU member capacity	The SMART protocol was developed in year one, however it was updated in year two during the 15th November 2019 refresher training to include support by local Arkhangai police department. (Annex 4.12) Total attendees to SMART training is now at 109 (repeat attendees included).	This activity has been completed, although some refresher training will be given in year three.
Activity 2.7 Produce annual logging reports from analysis of collected SMART data	Community SMART patrols have reported 56 environmental infringements to local Arkhangai police (67% of total). The project has also produced a pilot SMART report of all observations of timber collection in the LPA in year two (Annex 4.13).	Logging reports will be updated in year three by regular SMART patrols.
Activity 2.8 Improve signs and information boards along the LPA border and main roads	Four information boards outlining the LPA boundaries at key entry points were setup in June 2019.). Community information boards were also setup within ten CBOs (Annex 4.14.	Additional information boards are planned to be setup in other critical areas of the LPA by July 2020.
Activity 2.9 Conduct twice weekly SMART patrols	In year two, fifteen VRs from nine CBOs conducted SMART patrols approximately twice a month	Fortnightly patrols will continue in project year three.

		(dependent on personal responsibilities) for a total 91 patrols (Annex 4.15).	
Activity 2.10 Conduct annual community workshop in improved adaptive forest management techniques in an iterative process as results from the trials become available		In year two, the project conducted a series of meetings on forest management for 88 community member from nine CBOs, and relevant stakeholders (e.g. AFU, and forestry specialist) in November 2019.	The third forest management conference will be conducted by November 2020.
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		Forest survey was undertaken in year two by the project forest specialist jointly with communities. These data will be used to revise management actions in year three on the basis of results and data collected throughout the project.	The forest expert will conduct third biomass survey in October 2020 which will be contribute towards the final forest management pla of LPA.
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 grassland management system in place, utilising sustainable traditional knowledge and practices, with 80% of households (total = ca.400) participating (baseline = no grassland management system) by project end.	3.1 On the 19-23rd August 2019 the project's rangeland expert (from the National Agricultural University) conducted soil and vegetation surveys across 30 plots in the LPA (Annex 4.16). 3.2 CBOs are started the implementation of the RRR plan by fencing of winter grazing sections in four CBO territories to produce extra feed (Annex 4.20); and planted forage species in 10 ha in Bayanbulag CBO; and prepared hay for winter. 3.3 The pasture management plans of CBOs and Responsible Rangeland Regulation (RRR) have been approved by nine CBO (with 261 members) in project year two (Annex 4.21; 4.22) contributing to the final plan in year three.	
Activity 3.1 Conduct soil nutrient and compaction surveys in LPA and control site		On the 19-23rd August 2019 the project's rangeland expert (from the National Agricultural University) conducted soil and vegetation surveys across 30 plots (and five pastureland classes) in the LPA (Annex 4.16).	The soil and vegetation surveys across the five pastureland classes will be commenced in August 2020.

Activity 3.2 Define and map 3-4 suitable test plots within the LPA pasture area.	During the 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. (Annex 4.17).	This activity has been completed.
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	In year two, the rangeland vegetation map of the LPA was used for pasture planning and M&E in January 2020. (Annex 4.18). The project facilitated formalizing process for customary pasture use and grazing boundaries among the 11 CBOs for the approval and implementation of Responsible Rangeland Regulation (RRR) as well as overall natural resource management. 102 community members participated in discussion to agree and confirm pasture use, forest and riparian areas (Annex 4.19). Nine CBOs have developed pasture management plans on the basis of these discussions and mapping exercises.	This activity has been completed.
Activity 3.4 Support community members to implement pasture management activities defined for each test plot.	In August 2019 during surveys, 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 include: a survey among 127 CBO members on their climate change observations and adaptation practices using Local	Support under the pasture management implementation plan under Rresponsible Rangeland Regulation will continue in project year three.

		Indicators of Climate Change Impacts (LICCI) method; and participation in the Sustainable Fibre Alliance workshop in Ulaanbaatar on the 20-24th 2019, with two CBO members attending the cashmere certification sessions for two standards – Grassland Stewardship Code of Practice and Animal Welfare Code of Practice. CBOs started the implementation of the RRR plan by fencing of winter grazing sections in four CBO territories to produce extra feed (Annex 4.20); and planted forage species in 10 ha in Bayanbulag CBO; and prepared hay for winter.	
Activity 3.5 Conduct annual community workshop in improved adaptive pasture management techniques in an iterative process as results from the trials become available		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 each CBO. (Annex 21)	This activity has been completed.
Activity 3.6 Co-produce final scalable pasturemanagement plan based on optimum biodiversity and grassland carrying capacity, using annual biodiversity data and above-ground biomass data from pasture management trial plots		**Activity 3.6** Nine CBOs discussed and approved their pasture management plans contributing to RRR implementation and aiming to reduce rangeland ecosystem degradation within the LPA in year two (Annex 4.22).	This activity will be completed by January 2021 based on the prior years' results.
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	4.1. Project has established ten CBO with 272 herders including 154 male and 118 female. ZSL has supported target CBOs around 18075 GBP for small business development on dairy products, meal and vegetation farming in March 2020. The project completed SWOT analysis on possible products of CBO with the participation of 256 members from nine CBOs. Project developed with CBO members about business plan of each CBO. (Annex 4.23; 4.26; 4.28) 4.2.In total nine CBOs containing a total of 224 members have discussed and approved their VSLA protocol with associated rules (Annex 4.29;4.30). 4.3 The project in year two has organised sustainable forest management income generation techniques, community based eco-tourism, local and national trade	

	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.	fair participation, development of business plans, and the establishment of VSLA groups. These activities are expected to support livelihood diversification and will be measured in the socio-economic survey measurement of community livelihood/income streams in year three.	
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.		Following up to the work of Arig Bank in year one, in December 2019, the project conducted SWOT analyses for nine CBOs potential business involving 122 members, in January-February 2020, identified 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 (Annex 4.23).	Refreshment training will be conducted during implementation of different business model, revenue streams in 2020.
Activity 4.2 Secure access to market for ecotourism and pasture related products from the LPA through working with international and in country buyers		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. (Annex 4.24; 4.25)	Further discussions and training on this topic are required, and it will be continued in 2020.
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 Pasture User Association of Arkhangai to supply with dairy products and cashmere. (Annex 4.26). Following certification of Tekh-kharaikh and Bayanbulag CBOs, they established a business contract with “Sor” cashmere	This activity has been completed.

	company to supply cashmere prepared according to the standards.	
Activity 4.4 Provide small business training and support to LPA cooperative members	In year two, the project conducted training to support income opportunities from LPA products. These included forest thinning (Activity 2.4), and eco-tourism for 47 CBO members. In January 2020, the project identified tourism potential (i.e. historical sites, natural features, infrastructure access) for 11 CBOs and created a map with tour destinations and horse trekking trails (Annex 4.27). 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 (Annex 4.28).	This activity has been completed.
Activity 4.5 Co-produce, with local communities, a locally appropriate VSLA protocol, and enrol initial participants	In total eight CBOs containing a total of 224 members have discussed and approved their VSLA protocol with associated rules (Annex 4.29). To support governance, each VSLA voted and assigned a leader, secretary, banker, and accountant under the VSLA protocol.	This activity will be ongoing during 2020.
Activity 4.6 Deliver ongoing training and support to VSLA members, and members of the LPA community wishing to participate	VSLA training has been delivered to 479 community members (multiple attendance by some members) from ten CBOs. VSLA uptake has been very positive and in total the funds have collected £10,100 from eight CBOs, with a social fund of £750, and a saving fund of £9350. Currently, £5200 has been granted in loans to its members (Annex 4.30).	This activity will be ongoing during 2020.
Activity 4.7 Design socio-economic survey protocol for LPAs, using established wellbeing indices, including livelihood diversity and income	This activity has been completed.	The first-year baseline survey has been completed. Design for the final survey protocol will be discussed and approved in project year three.
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	This activity has been partly completed (year one baseline surveys).	Project-end surveys and the final report will be completed in year three.

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: The project conducted 84 capacity building training and workshops with a total of 1988 people (1302 male and 686 female) (with multiple attendance by some community members) meeting to deliver project activities. 5.2: The UCC conducted their second annual workshop on 19th of August 2019 with 80 members of seven CBOs in attendance to monitor progress towards implementing the UCC's annual management plan, and CBO-level management plans (Annex 4.31-4.32). 5.3: ZSL joined the group for community based conservation organizations and SMART working group in April and July 2019. Participation in these working groups will support long-term high level government engagement with the LPA. At the Eco-Friendly product exhibition in Ulaanbaatar the project was introduced to garner support from MET hosts. (Annex 4.25). Project staff have had a meeting with the MET in November 2019 to brief them on the LPA's community-based conservation, and they expressed an interest to visit ZSL's target LPA by year three. 5.4: Future exchange visits to the LPA will be organised in year three and nine communities have expressed interest to attend so far.	
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.		In project year one, the UCC was formed, however some notable developments were made in year two. The ZSL Mongolia Country director and the project officer made a round trip visiting seven CBOs between 12-18th May and delivered training to support the development of 2019 Action Plan. On the 19th August during the second annual 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	ZSL will seek to facilitate meeting for LPA management coordination with NGO Board members in 2020.

	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 (Annex 4.31). In year two, regular VSLA meetings provided an important vehicle for maintaining CBO activities for environment protection, including forest, pasture management, household income generation, and caring group members. . Overall, the project capacity building activities involved 1988 members (including multiple attendance) as part of the UCC activities. These covered a wide range of topics from rangeland and forest management, small business development, VSLA operation to biodiversity monitoring.	
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 UCC held the second annual workshop on 19th of August 2019 with 70members of seven CBOs. During the conference each CBO reported on their activities towards NBSAP. (Annex 4.32).	The next workshop will be conducted in March 2021,
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 has supported community members' participation in knowledge sharing events (CBO Fair in UB in November 2019 demonstrating eco-friendly product). These events provided a good opportunity to meet other stakeholders involved in community conservation sell their products for income generation.	This is planned to be organised in July 2020 ensuring GESI principle.

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	Compilation of LPA project management results and documentation is ongoing. In April 2019, ZSL held a meeting with the MET to discuss community-based conservation efforts of ZSL, and shared the experiences with other stakeholders during Ikh Nart conference and CBO Fair in Ulaanbaatar.	Project will be planned to organize trip into LPA from Ministry of Environment and Tourism (MET) in September 2020.

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
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	Socioeconomic survey (baseline & project end): scores on overall economic wellbeing index, compiled from range of metrics identified in year 1	

	within 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.	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 grassland 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 grassland health monitoring feeding into reporting against Mongolia's National Biodiversity Program (2015-2025) and LPA management plan	Pasture 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 grassland management system in place, utilising sustainable traditional knowledge and practices, with 80% of households (total = ca.400) participating (baseline = no grassland management system) by project end.	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. 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	KPIs, LPA management plan, NBSAP reporting, meeting minutes	Government support for, interest in, and desire to take lessons from this project remains strong.

	NBSAP (2015-25) to enable lesson-learning from the LPA pilot.		
	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

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
1A	Pasture data will contribute to a PhD project on pastureland in Arkhangai	M	Mongolian			1	1	1 (potentially but could be post-project)
2	MSc project using GIS mapping to investigate climate change and land use changes in LPA	F	British	1			1	1
6A	Training of community members and local government officers across Outputs 1 – 5.	M & F	Mongolian	50 (minimum, difficult to calculate as many community members attend multiple trainings)	272		50	TBC
7	Training materials on forest management (focus on forest fire prevention)			800	1000		1800	TBC
7	VSLA protocols			50			50	
9	Management plans for four species and two habitats			6			6	6
10	Wildlife field guides				20		0	TBC
14A	State conferences on forest and pasture			2	2	2	2	6

Table 2 Publications

Title	**Type** (e.g. journals, manual, CDs)	**Detail** (authors, year)	**Gender of Lead Author**	**Nationality of Lead Author**	**Publishers** (name, city)	**Available from** (e.g. weblink or publisher if not available online)