



Darwin Initiative Main Project Annual Report

Important note: *To be completed with reference to the Reporting Guidance Notes for Project Leaders: it is expected that this report will be about 10 pages in length, excluding annexes* **Submission**

Deadline: 30 April

Darwin Project Information

Project Reference	19-021
Project Title	Values and Valuation: New Approaches to Conservation in Mongolia
Host Country/ies	Mongolia
Contract Holder Institution	University of Leicester (UOL)
Partner institutions	Mongolian Society for Range Management (MSRM) Mongolian Academy of Agricultural Sciences (MAAS) (incorporating Mongolian State University of Agriculture and Centre for Ecosystem Studies (CES)) Mongolian Nature Protection Civil Movement Coalition (MNPCM) Zoological Society of London (ZSL) (Years 2 & 3) Values for Development (VFD) (Year 3) Ministry of Environment and Green Development (MNEGD) (formerly Ministry of Nature, Environment and Tourism (MNET))
Darwin Grant Value	Total for 3 years = £234,828. For Year 3 only = £74929
Funder (DFID/Defra)	DFID/Defra
Start/end dates of project	1.4.2012- 30.9.2015 (6 month no cost extension agreed with E. Young).
Reporting period (e.g., Apr 2015 – Mar 2016) and number (e.g., Annual Report 1, 2, 3)	April 2014-March 2015. Annual Report 3
Project Leader name	Dr Caroline Upton
Project website/blog/Twitter	www2.le.ac.uk/departments/geography/research/projects/darwin-values-and-valuation-mongolia
Report author(s) and date	Dr Caroline Upton; Professor D. Dorligsuren; Dr D. Dorjgotov; Dr N. Nyamaa; Dr T. Shaviraachin. 30 April 2015.

1. Project Rationale

As a signatory to the major global biodiversity conventions (CBD, CITES, CMS), Mongolia is officially committed to the protection of an important biodiversity heritage, but is still struggling to meet these commitments. As reported in the Year 2 Annual Report and set out in the original project application, the fourth CDB country report (2009) highlighted growing threats to and loss of biodiversity. These were linked to factors such as desertification and pasture degradation, a major mining boom, climate change and poorly regulated hunting and logging. In the 2009 report the effective participation and inclusion of communities, their local knowledges, values and practices in conservation practice and planning were highlighted as interlinked and critical areas where CBD commitments had yet to be realised. Mongolia's 5th National CBD Report,

issued in March 2014, continued to highlight desertification, degradation of over 95% of pastureland (widely attributed to overgrazing), climate change and mining-related pollution as key threats to biodiversity. It also specifically highlighted concerns over the impact of negative changes in biodiversity on ecosystem services, including carbon storage and associated socio-economic and cultural issues, where these contribute to the overall well-being of local communities. Mongolia is currently developing its new National Biodiversity Strategic Action Plan (NBSAP) to supersede its current National Biodiversity Action Plan (1996), in accordance with Aichi 2011-2020 targets and linked to Mongolia's commitment to development of a 'Green Economy'. Critical gaps persist, however, in relation to specific strategies and tools for the assessment of biodiversity and wider ES values, and ways in which they may be incorporated effectively into national accounting (Aichi Target 2). In particular, and as reported in the Year 2 Annual Report, the importance of non-economic valuation, especially of cultural services continues to be largely omitted from current policymaking and planning, despite some developments in this regard. The provision of economic incentives for conservation has been integrated into national law (in accordance with Aichi Target 3), albeit with limited enactment of these provisions to date. Aichi Target 14, related directly to the restoration and protection of key ES and their contributions to livelihoods and well-being, is highlighted as a key consideration in Mongolia's 5th National Report. However, detailed strategies for developing and implementing a comprehensive ES framing and evaluation are still in their very early stages. The carbon sequestration potential of pastureland is recognised, in relation to Aichi Target 15 and wider climate governance mechanisms, as part of future national conservation planning.

The Darwin project 'Values and Valuation: New Approaches to Conservation in Mongolia' (2012-2015) provides a novel, integrated approach to a number of these critical issues, with particular reference to pastureland degradation and associated biodiversity loss, the valuation and protection of key ES, herders' livelihoods and well-being, carbon sequestration mechanisms, participation, traditional knowledge/ values and incentives for conservation. Project partners from the Mongolian Society for Rangeland Management (MSRM), the Mongolian Academy of Agricultural Sciences (MAAS), including the Centre for Ecosystem Studies (CES), and the Mongolian Nature Protection Civil Movement Coalition (MNPCM) are working with Dr Caroline Upton and colleagues at the University of Leicester (UOL) to develop and implement these approaches. Through MSRM's well-established network of herder groups (*heseg*) and drawing on contemporary concerns with ecosystem services and their links to biodiversity and well-being, the team have been working with herders in four contrasting ecological zones to explore, map and value ecosystem services and to develop and trial pilot Payment for Ecosystem Services (PES) schemes. Of particular importance to the approach is the participatory development of locally appropriate approaches to non-economic valuation and to evaluation of cultural services, thus facilitating recognition of customary knowledge, values and practices in conservation planning. The team is pilot testing the socio-economic and ecological viability of PES schemes, particularly in relation to the Plan Vivo (PV) standard and the voluntary carbon market, at selected case study sites in Mongolian rangelands. This is the first application of such an approach in Mongolia, whereby local communities' activities to protect local environments are encouraged through livelihood/ well-being improvement and explicitly linked to a PES scheme. Through these activities the project team aim to provide government policymakers with important decision making tools, including tradeoffs with mining and possibilities for future state funded PES schemes, based on data which incorporates traditional knowledge and values. They further aim to provide local communities with tangible incentives and capacity for conservation and sustainable resource use through the pilot PES schemes and to provide appropriate training and capacity building in PES/ ES to policy makers academic and herders.

The four main project sites are shown in Figure 1, below. Within each of the four main project sites (1: Ikh Tamir *soum*, Arkhangai *aimag*; 2: Undurshireet *soum*, Tov *aimag*; 3: Bogd *soum*, Bayankhongor *aimag*; 4: Ulziit *soum*, Dundgov *aimag*), three subsidiary *heseg* (herders' groups) have been identified, thus encompassing 12 herder groups in total.

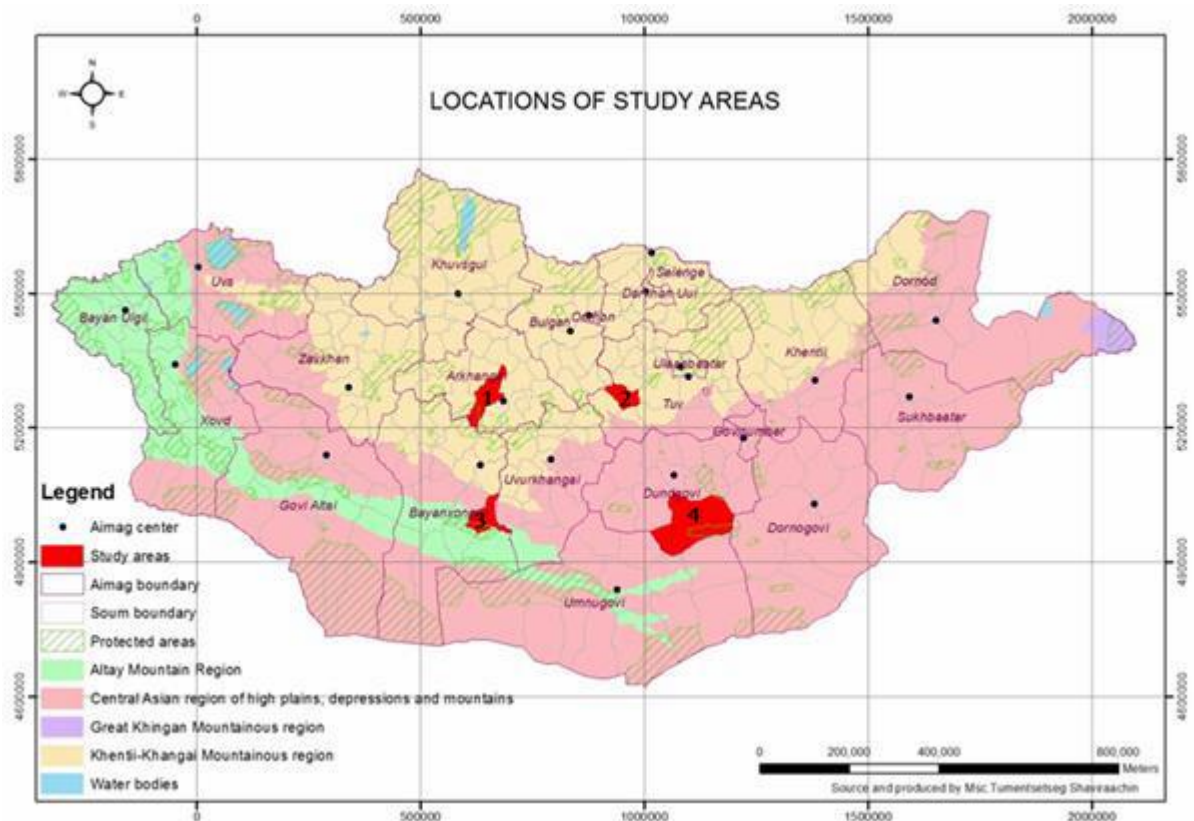


Figure 1: Mongolia, showing location of the four main project sites

2. Project Partnerships

As stated in previous Annual Reports, the Mongolian Society for Range Management (MSRM) are the main in-country project partners, managers and coordinators. They have continued to work closely with University of Leicester (UOL) as the UK lead institution, through the third year of the project, and with other in-country partners. The relationship between UOL and MSRM has continued to develop and function effectively in Year 3, through regular visits by Dr Upton, skype meetings, e mail and exchange of data via the project dropbox site. In Year 3, Dr Nyamaa Nyamsuren of the Mongolian Academy of Agricultural Sciences (MAAS) in particular has continued to play a key role as the in-country environmental economist, and has taken on extra work due to the illness of the UK environmental economist, Dr Roy Bradshaw. This is as agreed with Darwin Initiative, and previously reported in the October 2014 Half Year Report. Again, direct contact has been managed by meetings between all partners with Dr Upton during her regular visits; plus regular e mail exchanges and discussions between Dr Upton/ Dr Bradshaw and Dr Nyamsuren. In Year 2 a new collaborator, the Zoological Society of London (ZSL), who have a team based at the National University of Mongolia (NUM), Ulaanbaatar, were brought into the project, in direct response to reviewers' recommendations from Year 1, and as discussed and agreed with Darwin Initiative. The partnership between ZSL, UOL and MSRM has continued to develop in Year 3, most notably through a series of discussions and meetings between ZSL staff in Mongolia, MSRM and UOL to plan and explore fieldwork requirements, with particular attention to the Plan Vivo process, followed by joint MSRM/ ZSL fieldwork in summer 2014. ZSL have also provided substantial contribution to the Project Design Document (PDD), an integral part of the Plan Vivo process (see full PDD document at Annex 4, Document 1), through face to face, skype and e mail discussions with Dr Upton.

A further new partner, Dr Andreas Wilkes of Values for Development (VFD) provided input into the project in Year 3, in relation to the Plan Vivo Technical Specification. As reported in the October 2014 Half Year Report, he has previously worked with MSRM and on carbon modelling in the region. He was able to draw on this previous work to validate and run C models for the Darwin Project sites, adjusted for local parameters, as the final stage of the Technical Specification process. He also prepared a new methodology for analysis of C sequestration in rangelands as part of the PV process, and designed to constitute a robust, low cost approach (included in full as Annex 8 of the PDD; see Annex 4, Document 1). This has been reviewed and approved by PV and thus represents an important development in enabling the extension

of community-based PES schemes beyond forested environments, with important implications in the future and beyond this single project. VFD have thus taken on much of the Year 3 work originally allocated to Professor Undarmaa Jamsran at the Centre for Ecosystem Studies (CES), due to the personal circumstances reported in October 2014, and to the specific expertise of VFD in the carbon modelling field. This is as agreed with Darwin. VFD worked primarily with UOL and Plan Vivo/ Bioclimate. MOUs were agreed between UOL and VFD and ZSL respectively to cover all commissioned works.

Other in-country project partners are as listed under 1) above. These key partners continue to work and collaborate in accordance with the MOU developed and signed by all parties in Year 1, as part of project inception activities, with the variations noted above, in relation to MAAS and CES. MNPCM were able to complete their assigned work in Year 2.

Formal partnerships with other UK based institutions are with Plan Vivo/ Bioclimate, as set out in the original project proposal. This partnership has been formalised through an MOU and payments dispersed for work done on development of the Technical Specification, review of the Project Information Note or PIN and development of the PDD.

IWC and MNEGD were not included in MOU agreements as they are not undertaking paid work as part of the project. UOL are, however, in consultation with them to ensure discharge of mutual obligations, as set out in the original project proposal and confirmed under letters of support therein.

As PI, Dr Caroline Upton (UOL) continues to have overall responsibility for the project and component activities, shared and devolved as appropriate to colleagues depending on their specialist skills.

Detailed step by step breakdowns and timelines for particular activities were agreed and formed the basis for work in Year 3, replicating the successful approach in previous years. The Year 3 summer/autumn fieldwork period (August- September 2014) was planned collaboratively between UOL, MSRM and ZSL – the key parties involved. In August 2014, MSRM and ZSL staff travelled together to three of the four fieldwork areas (excluding Ulziit *soum*), where they undertook data collection to fulfil requirements for the finalisation of the PDD.

Thus, overall relationships between project team members have continued to be managed through a) meetings with all partners during Dr Upton's regular visits to Mongolia; b) regular email exchanges; c) shared information through project drop box site, accessible to all partners, wherein key documents; breakdowns, timelines and progress reports on particular Activities etc are shared, d) skype calls, e) ongoing local liaison with the (small) project team through MSRM.

In summary, as set out above:

- Project partnerships with key in-country partners were based on demand stemming from the host country in terms of national biodiversity commitments and issues. MSRM, the key in-country partner, has also previously specifically stated the need for research to enhance the sustainability of community-based pasture use models and to incorporate values and PES type approaches.
- In terms of achievements, the partnerships at the core of this project have continued to function successfully, in the discharge of a range of approaches which are still relatively new and untested in the Mongolian context e.g. around assessment and valuation of ES.
- Successful functioning of project partnerships can be evidenced from project progress indicators (see Section 3). Additional evidence in terms of meeting minutes/ agendas and email exchanges can be supplied on request.

3. Project Progress

3.1 Progress in carrying out project activities

Output 1: Key Ecosystem Services (ES) at selected sites in contrasting ecological zones valued, with participation of local herding communities

Of the five activities related to this output (Activities 1.1-1.5), two were completed in Year 1 (Activities 1.1. and 1.2), and the remainder (Activities 1.3-1.5) were completed in Year 2, in

accordance with the project timetable. Follow up activities were conducted in relation to Activity 1.5 in Year 3, as follows:

Activity 1.5: Completion of SOLVES database for spatial exploration and quantification of social values for ecosystem services – the first application of this approach in Mongolia. A further modelling exercise in Year 3 has used an innovative application of the IDRISI model to examine different future land use change scenarios associated with herders' planned activities under PV. Final integration of all modelling with analysis of the nature, trends and rankings of ES, conjoint analysis/ choice modelling exercises, market values of key provisioning services and visual methods, to provide a holistic assessment of ES and ES valuations, is currently being completed. As reported in the October 2014 Half Year Report and separately to Darwin (CU email to Eilidh Young, 20/1/15), Dr Bradshaw's recurrent illness has continued to cause delays here. As a result, the final validation and ground truthing of these outputs with participating herder households has also been delayed and will now take place in spring/ summer 2015.

Output 2: Pilot PES schemes developed and implemented at selected study sites, with participation of local herding communities

Activities 2.1 and 2.2 were completed in Years 1 and 2.

Activity 2.3: Following review and discussions of earlier iterations of the Technical Specification with Bioclimate/ Plan Vivo and more recently with Values for Development (VFD), the Technical Specification was finalised in Year 3, as part of the Project Design Document (PDD) (full copy attached here at Annex 4, Document 1. See Part G for the Technical Specification). This also draws on the new methodology for analysis of C sequestration in rangelands, as prepared by VFD ('*Plan Vivo Climate Benefit Quantification Methodology: Carbon sequestration through improved grassland and natural resources management in extensively managed grasslands*' – included in full as Annex 8 to the PDD).

Activity 2.4: To commence on formal approval of the final, revised PDD by PV review committee. This approval is expected within the next week/10 days, on receipt of final comments from the second reviewer (see letter attached at Annex 4, Document 2). The first reviewer has given very positive feedback. MSRM are ready to commence these activities with herder groups as soon as this approval is received. The no cost extension allows for the full discharge of this process within the Darwin project, after which income from the PES scheme and the low cost, participatory monitoring activities, should ensure that this is self -sustaining (see Section 11: Sustainability, for further details).

Activity 2.5: As above. A validation reviewer (Dr B. Batbuyan) has been appointed to undertake this work in summer 2015.

Activities 2.6/2.7: as Activities 2.4/ 2.5. As set out in the PDD, Section I6, p. 54, marketing of certificates is ongoing, with purchaser agreements to be finalised by end May 2015.

Activity 2.8: Ongoing throughout Year 3; see summary data at Annex 4, Document 3). Capacity building, training and sharing of experiences will also continue through the 6 month extension period, including through the June 2015 workshop in Ulaanbaatar (see Section 3.2, Output 4, below).

Output 3: Assessment of contributions of PES to livelihoods and conservation in different ecological contexts

Activities 3.1-3.3: completed. Activity 3.2 completed in Year 3, for fauna by ZSL, and as summarised in the appended PDD document for participating herder groups (e.g. in Management Plans at annex 5 of PDD; also see Section F3).

Activity 3.4: previously completed for vegetation by CES, as reported in Year 2 Annual report. For ZSL, completed and planned activities summarised in PDD (e.g. in Management Plans at annex 5 of PDD; see above).

Activities 3.5-3.6: Due in late summer/ autumn 2015, in accordance with indicators in Annex 5, PDD, plus repeat socio economic surveys against established baseline for indicator values in Table F2.2, to provide early indications of progress towards 2018 targets (e.g. end of first PV commitment period).

Activity 3.7: ongoing. (see comments on Section 4.5, below).

Output 4: Education and capacity building of key stakeholders (government officials, local herders) in ES values, development, management and efficacy of PES schemes in Mongolian context.

Activity 4.1: Ongoing from Year 1 (see Activities 2.1, 2.8), and through to end September 2015.

Activity 4.2: Formal training is now scheduled for June 2015, while consultation and liaison is established and ongoing, as evidenced by original letters of support for the project and subsequent letters in Year 2 (appended to Year 2 Annual Report).

Activity 4.3: Discharged through MSRM training activities, as summarised in Annex 4, Document 3, with further evidence in the form of reports, photographs and attendance lists in the Annex 7 of the PDD). PES ambassador herders will also be invited to the June 2015 workshop in Ulaanbaatar, to include herder group (*heseg*) leaders plus at least one female and/or young herder per each participating herder group. This second person is being selected by herder groups themselves, within these constraints.

Activity 4.4: Agreement concluded through Mongolian Academy of Agricultural Sciences (MAAS), specifically with School of Economics and Business (see letter at Annex 4, Document 6). Training materials are now being finalised, for use in 2015. Final completion of these materials has been delayed by Dr Bradshaw's illness.

Activity 4.5: dissemination activities are summarised under Section 3.2, Output 4, below.

3.2 Progress towards project outputs

Output 1: Key Ecosystem Services (ES) at selected sites in contrasting ecological zones valued, with participation of local herding communities

Indicators: Economic/ non economic values for key ES at study sites produced; ranking and mapping of key ES completed; analysis of contributions re biodiversity, well-being reported.

As highlighted in 3.1 above, data collection and analysis of individual datasets for this Output has been completed, including modelling and associated participatory mapping by herders' groups (which forms the basis for the SOLVES analysis). Final integration of multiple datasets is being completed, which will generate a specific report on these issues for the final project report and will also form the basis for forthcoming presentations at the European Society for Ecological Economics international conference (invited paper for panel on cultural ES) in June 2015 and at the 'Building Resilience of Mongolia's Rangelands' Trans-disciplinary Research Conference, in Ulaanbaatar (also in June 2015). Further details of these conferences, and the accepted abstracts are included at Annex 4, Document 4. There are no changes in assumptions or measurement of output indicators. Evidence in relation to this output is as set out under Section 3.1 above. The PDD (appended at Annex 4, Document 1) also provides further evidence in relation to the successful discharge of these activities, through the distillation of agreed activities and indicators by the participating herder groups, based on their ES use and values.

Output 2: Pilot PES schemes developed and implemented at selected study sites, with participation of local herding communities

Indicators: Appropriate technical specifications for evaluation of scheme benefits agreed; schemes validated and agreed with herders' communities; appropriate PES management and monitoring practices implemented; certificates issued on voluntary carbon market, mechanisms for profit sharing implemented.

As highlighted in Section 3.1, above, the Technical Specification has been finalised, in accordance with Plan Vivo requirements. The full PDD is awaiting final written approval from the PV committee. This approval will trigger the final set of activities (Activities 2.4-2.7) associated with this output (see Section 3.1, above). There are no changes in assumptions or measurement of output indicators. The second main assumption against this output, namely 'Continued support from local government officials for implementation of scheme, including continued support for tenure agreements with herders' groups', continues to hold true. Evidence of their continued support for the pilot PES strand of this project is given through letters of support (national government) (appended to Year 2 AR, plus PDD Annex 6) and

agreement templates with local government (PDD, Annex 6) . Further evidence and details of consultations/ community meetings are included in the PDD (Sections I2 and I3 and Annex 7 in particular).

Output 3: Assessment of contributions of PES to livelihoods and conservation in different ecological contexts

Indicators: Monitoring programmes completed using agreed technical specifications for evaluation of carbon benefits, and established and participatory biodiversity and well-being indicators.

Final technical specifications, monitoring indicators and protocols for biodiversity and well-being have been agreed and are set out within the PDD (see Management Plans at Annex 5 of PDD). These site specific monitoring plans, protocols and indicators, as set out in these Management Plans, are linked specifically to the Plan Vivo standard and are designed to trigger disbursement of funds from sale of certificates to participating herder groups over the initial 3 year commitment period. They comprise both established and participatory indicators, as derived from community consultations, secondary sources and baseline surveys under Activities 3.1-3.4.

Within the timescale of the extended Darwin project, e.g. until end September 2015, one round of post PES scheme implementation monitoring is expected at each of three sites (in Ikh Tamir *soum*, Arkhangai *aimag*; Undurshireet *soum*, Tov *aimag*; and Bogd *soum*, Bayankhongor *aimag*), as specified in the PDD, Annex 5. These indicators and timescales have been developed in close consultation with participating herding communities, and form the basis of the site specific Producer/ Group Agreement Templates (PDD, Annex 3) to be signed off between MSRM and herder groups in May 2015, immediately following formal written approval of the PDD by Plan Vivo. As explained in the PDD (p.24/25), the fourth site in Ulziit *soum* could not be included in the first round of the PV project, as local herder groups members were away from the *soum* on extended migration, due to adverse climatic conditions, during the final critical planning period. They were thus unable to participate fully in final planning and to ensure Free Prior and Informed Consent of all members in relation to the Plan Vivo PES scheme, so could not be included. They have participated fully in the earlier stages of the work and thus are in a position join the PV process at a later date, should all members still wish to do so. In addition, further detailed monitoring against established baselines will be conducted by MSRM for key well-being indicators in late summer/ autumn 2015, as specified in Table F2.2 of the PDD (p.29), with end of PV commitment period monitoring in 2018 also reported to Darwin, despite the fact that this is outside the Darwin project period. This also applies for biodiversity indicators, with 2015 monitoring data (see Annex 5 PDD; also Table F3.2, P. 35) to be reported to Darwin in September 2015, with subsequent years' data until the end of the initial commitment period in 2018 also made available to Darwin.

Output 4: Education and capacity building of key stakeholders (government officials, local herders) in ES values, development, management and efficacy of PES schemes in Mongolian context.

Indicators: Workshops/ training events at study sites and in Ulaanbaatar, including information exchange/ training by PES ambassadors from selected PUGs. Implementation of PES schemes. Valuation of ES at study sites, including development of methodology for non-economic valuation.

A comprehensive series of training events/ workshops with herder groups have been completed in Year 3, as in previous years. Some of these are identified in Annex 4, Document 3, with further evidence also included in Annex 7 of the PDD. A workshop with PES ambassador herders, government officials and local NGO staff (e.g. for WCS, GIZ etc.) and academics is in preparation for June 2015. This will be supported by training materials on PES/ ES and valuation in Mongolian and English languages, and derived from project datasets. Copies of these will be appended to the final Darwin report in September 2015, in addition to a full report on the workshop. Final local workshops for feedback and mutual learning will also be held with herder groups and local officials in each of the project areas in September 2015, with outputs highlighted in the final project report to Darwin Initiative. Education and capacity building of key stakeholders will also proceed through the project team's presentation at the *Building Resilience of Mongolia's Rangelands* conference in June 2015, which will be attended

by a number of key government and academic stakeholders (further information on the conference available at <http://www.mongolianrangelands.org/>; on the Darwin project team's presentation at Annex 4, Document 4). Education and capacity building has already proceeded in Year 3 through a series of presentations. Specifically, since March 2014, the PI has presented the Darwin work at the conference 'Science and Policy Futures in the Gobi Rangelands' (Ulaanbaatar, September 2014), to an invited audience of academics and policy makers. The PI was also interviewed for local TV on the basis of this presentation. A policy brief for government, NGOs and donors was produced and circulated on the basis of this conference (attached at Annex 4, Document 5). The conference was also reported on local TV, through the Mongolian Eco TV Channel (Mongolian language only. Link available at https://www.youtube.com/watch?v=ls_aSRhc8NI). An invited keynote presentation was also given by the PI at the Centre for Landscape and Climate Research, University of Leicester annual conference (October 2014). MSRM staff presented the work at the 5th Japan-Korea-China Grassland conference, Changchun China 22-24 August 2014. Education and capacity building has also been further advanced through preparation of materials for undergraduate and Master's students at the Mongolian State University of Agriculture (see letter attached, Annex 4, Document 6). Due to Dr Bradshaw's illness, these materials are now being finalised for use with classes in the 2015/16 academic year. The final versions of these materials and evidence of their usage in classes will be provided in the September 2015 final report.

There are no changes in assumptions or measurement of output indicators.

3.3 Progress towards the project Outcome

Project purpose: To generate policy and practice relevant knowledge of values of ecosystem services (ES) in Mongolia and pastoral contributions therein and to test efficacy of Payment for Ecosystem Services (PES schemes), in order to enhance biodiversity and livelihoods.

The measurable indicators for the project purpose/ outcome are clearly linked to Outputs, Activities and Indicators, progress in relation to which is assessed in Sections 3.1 and 3.2 above. For example, the first measurable indicator for the project purpose, i.e. 'ES mapping and valuations in diverse ecological contexts, incorporating traditional knowledge and values, and linked to associated resource management/ conservation planning', is clearly linked to Activities 1.1-1.5, now completed, with evidence as specified above. The means of verification for this measurable project purpose/ outcome indicator are project reports, papers, management plans, and government policy documents. These therefore include the SOLVES model and report; reports on training workshops (Annex 4, Document 3); maps and resource management planning for the PV herders groups, as detailed in the PDD (Annex 4, Document 1); government policy briefing related to Gobi rangelands conference (Annex 4, Document 5. This focuses on mobility in Mongolian rangelands); published paper in Inner Asia (Annex 4, Document 7); and accepted abstracts/short papers for two forthcoming conferences (Annex 4, Document 4).

The second measurable indicator for the project purpose, 'PES schemes developed and implemented...' relates to Activities 2.1-2.8 in particular, and also to aspects of 3.1-3.6. Means of verification for this specific project purpose/ outcome indicator include project reports on and management plans for PES schemes. These are encapsulated in the PDD (Annex 4, Document 1). Evidence of certified credits and income accrued will follow from the formal written approval of the PDD by PV, as explained above and will be included in the final project report in September 2015. The final measurable indicator for the project purpose, 'project methods, reports and datasets used/ cited in policy documents, resource management plans at diverse scales' has also been verified, as least in part, by the above sources. Further evidence of influence on government policy will be available in the final report, following on from the project workshop and presentations in June 2015 in Ulaanbaatar and associated preparation and dissemination of training documents, plus local workshops in September 2015. The incorporation of ZSL into the project team in Years 2 and 3 will also facilitate policy influence, in relation to the project's methods and datasets. ZSL have been working closely with the current Mongolian government on biodiversity conservation planning, for example in relation to the 5th National CBD Report and feeding into the new National Biodiversity Strategic Action Plan. These highlight the need for new approaches in relation to ES, their conservation and valuation. The Darwin project will offer a valuable case study therein.

Means of verification are appropriate.

The project is likely to achieve its purpose/ outcome by the end of Darwin funding, taking account of the no cost extension agreed until the end of September 2015. This extension was requested when the following became clear in autumn/winter 2014:

- Dr Bradshaw's recurrent illness, most recently from October 2014, was going to delay final integration of the ES valuation datasets under Activity 1.5 and also the finalisation of teaching materials for MAAS.
- The novelty and innovation of the project work, and in relation to the new Plan Vivo Standard, meant that a) a whole new climate benefit quantification methodology was needed for grasslands, to underpin the application of this Standard in Mongolia. This was prepared by VFD (see above, and PDD, Annex 8), in relation to PV's requests, but necessarily occasioned some delays in the overall process; b) PV themselves were still undergoing internal discussions about how to apply their new Standard, in particular in relation to the emphasis on well-being and biodiversity in addition to a solely carbon (C) based metric. Our project is a pioneer in this regard, but advice on the finalisation of the PDD under this new Standard and review/ final approval of the PDD has taken PV an extended period of time. Again this has occasioned some delays to our overall programme, which could not reasonably have been foreseen at the outset.

These issues were highlighted in the October 2014 HY report and/or in subsequent correspondence with Darwin Initiative, in relation to the request for a no cost extension. Thus appropriate action has been taken to manage these challenges and to enable full realisation of project purpose/ outcomes by end September 2015. It should also be noted that the PV commitment period will in any case extend beyond the period of Darwin funding. This was always going to be the case. Measures have been taken to ensure the long term sustainability of this PV component (see Section 11 below). The PV activities will continue to identify Darwin as initial funders and supporters of the project.

3.4 Monitoring of assumptions

The main assumptions still hold true, despite ongoing concerns with/price collapses in carbon markets. For the voluntary carbon market, Plan Vivo continues to report good sales of certificates from comparable schemes. Herder groups have remained very enthusiastic and willing to participate throughout.

Marketing for this project officially commenced in Year 2 through PIN approval and registration on the Plan Vivo website. In Year 3 we have had discussions with Zeromission on marketing PV project certificates, to be developed in further detail now that the PDD is finalised. The project team has also identified a number of other potential purchasers of the certificates. Detailed negotiations will be pursued on final PDD approval by PV, as at this point we have a clear product to sell. These include i) companies/ stores who purchase and stock cashmere goods sourced from Mongolia (e.g. Edinburgh Woollen Mills); and ii) (eco) tourism/ travel companies, both within Mongolia, where there are rapidly growing numbers of domestic travel agencies (e.g. Nomad Tours) and international companies and hotel chains with business interests in Mongolia (Kempinski Hotels; Exodus Travel; Cox and Kings; Responsible Travel; British Horse Society, who run horse-riding tours in Mongolia. Dr Upton is leading the development of the marketing plan, in conjunction with MSRM, with planned agreements with purchasers of initial certificates to be finalized by end May 2015. We are also exploring opportunities for additional/ matching funding through donor funds (e.g. linking to GIZ funding for development of Local Protected Areas) and through state sources. Nonetheless, uptake of certificates and any income generated cannot therefore be guaranteed, as repeatedly stated throughout the project.

The project is thus likely to achieve the Purpose/Outcome by the end of the funding, although a number of key unknowns remain, which have the potential to affect full delivery of these. Again, these are not new issues/ constraints, but are worth restating at this stage. These are 1) extent of uptake of tripartite PV certificates in the market, as highlighted above; 2) speed of implementation of agreed PV measures and success in meeting agreed targets by participating *heseg*/ herder groups, thus triggering release of funds and distribution of benefits. As far as possible, preparatory action has been taken to reduce the risk of such delays, through MSRM's

facilitation of detailed planning by *heseg* (see PDD for further details and evidence, plus records of training events at Annex 4, Document 3). Nonetheless, there is always the possibility that a range of issues, for example adverse climatic conditions (e.g. repeats of natural disasters, locally known as *dzud*, as experienced periodically in Mongolia over the last 2 decades) could adversely affect progress. Table H1 in the PDD (p. 46 of PDD) details risks and contingency measures associated with the PV activities. Contingency measures are already built into the project in that PV agreements with community groups will be for 3 years duration initially, whilst many selected indicators in Management Plans (PDD Annex 5) are designed to be *dzud* proof – i.e. not to be unduly affected by variations in climatic conditions. Actual further measurement of soil C, as modelled in the technical specification, will only take place at the end of the initial 3 year commitment period in 2018, thus reducing the influence of single seasonal variations. The proxy indicators set out in Annex 5 of the PDD will be used in the interim. Agreements with herder groups will thus continue beyond the Darwin project, with MSRM as the in-country coordinator. Thus mechanisms will still be in place for PV agreements to be administered and financial benefits dispersed over the longer term, even if the first financial disbursement falls outside this Darwin Initiative funded project period. 3) radical changes in government support or policy. As detailed in sections above, the project has taken all possible steps to avoid such an outcome. The planned training workshop in June 2015 will further embed this approach in government policy and thinking.

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

The Goal as stated in the original application form, was ‘effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity, but constrained in resources’.

The project is contributing especially to the implementation of the CBD in relation to this higher goal, as specified in Section 2 and Section 4 (below). The CBD in turn informs national targets and strategies, as articulated through the National Biodiversity Conservation Action Plan, national strategies for implementation of Aichi targets, and the associated, ongoing development of the new National Biodiversity Strategic Action Plan. The project thus contributes to realisation of these related domestic targets, for example as specified in the very recently issued 5th National Report of Mongolia, and discussed further in Sections 2 and 4. Key species in Mongolia’s grasslands, including in project sites, also include migratory species listed under CMS; thus project activities and outcomes, especially where particular herder groups have specified actions related to conservation of migratory species, are valuable as potentially providing important new mechanisms and incentives for the conservation of such species (see PDD, Annex 5 and Section F3). The pertinent indicators from the logframe include the analysis of economic/ non economic values for key ES at study sites; development of the pilot PES scheme through PV; post implementation monitoring against baselines. Workshops, reports and training events are also key indicators in relation to education/ capacity building and hence to embedding this approach in policy thinking. The evidence in relation to all of these indicators is discussed in Sections 3.1-3.3 above.

The project is contributing to poverty alleviation and well-being through seeking to provide new income sources through pilot PES schemes and sale of associated tripartite certificates; through supporting livelihood diversification and alternatives (again through PV funds, e.g. where herder groups specify non herding activities as goals). Details are provided in the PDD, Section F2 and in the site specific management plans in Annex 5 of the PDD. The project is also contributing towards well-being through enabling recognition, valuation and incorporation of a full range of values around ES into conservation policy and planning, including non economic valuations of cultural services. Pertinent indicators are specified for Outputs in Section 3.2 above and for Project Purpose in Section 3.3. Further evidence is provided in Annexes, as previously specified.

4. Project support to the Conventions (CBD, CMS and/or CITES)

As specified under Sections 1 and 3.5, Mongolia’s fourth CDB country report (2009) highlighted growing threats to and loss of biodiversity, linked to desertification and pasture degradation,

mining and climate change. Mongolia's 5th National CBD Report (March 2014) reiterated these issues and concerns, with reported degradation of over 95% of pastureland widely attributed to overgrazing, and linked to biodiversity loss. At the same time herders' traditional knowledge and practices and community participation in conservation and resource management continue to be presented as key resources for realisation of national conservation goals and international commitments through CBD. The 2014 5th National Report also specifically highlighted concerns over the impact of negative changes in biodiversity on ecosystem services, including carbon storage and associated socio-economic and cultural issues, where these contribute to the overall well-being of local communities. Mongolia is continuing to develop its new National Biodiversity Strategic Action Plan (NBSAP), in accordance with Aichi 2011-2020 targets. What continues to be missing, however, are strategies for the assessment of biodiversity and wider ES values, and ways in which they may be incorporated effectively into national accounting (Aichi Target 2). In particular, and as noted in Aichi indicators for Target 2, although the required 'integration of biodiversity values into national and local development and poverty reduction strategies...(and) national accounting' should include social and spiritual as well as economic values, in practice non-monetary values and methods are not well developed. This is certainly true of Mongolia, where it is still the case that there is a paucity of published work on non economic valuation of ES to date. Furthermore, although the provision of economic incentives for conservation has been integrated into national law (in accordance with Aichi Target 3), there continues to be limited enactment of these provisions. Aichi Target 14, related directly to the restoration and protection of key ES and their contributions to livelihoods and well-being, are highlighted as key considerations in Mongolia's 5th National Report, with the emphasis primarily on water and pasture resources and on ES conservation through protected areas (PAs). Again, detailed National strategies for developing and implementing a comprehensive ES framing and evaluation are yet to emerge. The carbon sequestration potential of pastureland is recognised, in relation to Aichi Target 15 and wider climate governance mechanisms, as part of future conservation planning. Aichi Target 18, which requires the respect, recognition and incorporation of traditional knowledges and practices into national conservation planning, in accordance with CBD Article 8j, is highlighted in Mongolia's 5th National CBD report as an area where little progress has been made, thus meriting enhanced attention in the future. Overall, the project 'Values and Valuation: New Approaches to Conservation in Mongolia' addresses and integrates a number of these key contemporary issues and problems, as previously reported and through:

- i) Providing a much needed case study, including methodological testing and development, of the spatial and social distribution and values of key ES at study sites in Mongolia. This is of particular relevance to Aichi Targets 2, 14 and 18, and associated National planning
- ii) Providing the first trial of pilot PES schemes in rangelands in Mongolia, through Plan Vivo, thus addressing issues of participation, economic incentives, ES/ livelihoods nexus (e.g. Aichi Targets 2, 3, 4, 14, 15).
- iii) Proving evidence of the socio-economic and biodiversity/ ES impacts of such schemes, and prospects for sustainable use of ES/ biodiversity (CBD Article 10)
- iv) Providing and facilitating exchange of knowledge; capacity building and training to embed and enhance delivery of ES based approaches at National level, plus tools for their delivery (e.g. through PES schemes).

In relation to CMS and CITES, the protection of migratory species falls within the remit of some study areas and Plan Vivo proposals (see PDD); hence contributions to realisation of this convention are also made through the above mechanisms. Dr Upton's desk based review of the IWC artificial nest scheme for Saker Falcon conservation, linked to trade under CITES and now suspended in Mongolia, will provide additional context in analysis of economic incentives for conservation, as part of the final project report.

5. Project support to poverty alleviation

The project is working to support poverty alleviation directly through PES schemes (Plan Vivo), as an additional income source for herder groups, and linked directly to conservation/ sustainable use of ES/ biodiversity. Local dimensions of poverty/ well-being and indicators to capture these are specified in the PDD. This also maps out the interlinkages between

biodiversity, ES and well-being, in association with planned activities under this pilot PES scheme (e.g. see PDD Sections F2, F3, and Management Plans at Annex 5 of the PDD). Expected beneficiaries of the work are participating project herder groups and their constituent households. Through training and dissemination mechanisms, notably 'PES Ambassador Herders' and training of government officials/ policy makers, mechanisms have been put in place for knowledge transfer and the further replication of this approach, with due regard to any lessons learnt during the pilot phase. In addition, the identification and valuation of ES under Activities 1.1-1.5 is expected to contribute to the recognition and policy integration of wider notions of well-being amongst local/ indigenous populations, whilst innovative methodologies will help to make visible non economic values of ES. Thus both direct and indirect impacts are expected from this project. Noticeable achievements this year are the participatory development and finalisation of herders' planned activities under PV, which link livelihoods, biodiversity, pasture management and C sequestration, and based on exploration of diverse, cultural values. The finalisation and pending approval of the PV PDD is a notable achievement as it represents the extension of this approach to rangelands and the explicit recognition and integration of diverse, non economic aspects of poverty/ well-being.

6. Project support to Gender equity issues

The project is working to address gender equality in the following specific ways:

- 1) Herder groups (*heseg*) participating in the Plan Vivo process have specific internal norms and standards to ensure gender equality and to avoid exclusion on the basis of age, gender, income etc. (see PDD, p. 24). They operate a democratic leadership election process, by which women may, and have in the past been, elected as leaders.
- 2) The project is building on this through requiring clearly stated, transparent benefit sharing procedures in relation to any income from the sale of PV certificates, and admission of additional households to established herder groups (see PDD Sections I5 and J1, J2, p. 53 and 56). As a minimum, female headed households will be treated equally in distribution of benefits. Individual herder groups are also able to agree a higher proportion of benefits to be allocated to poor or female headed households.
- 3) Both men and women have participated in MSRM initiated training sessions throughout the project (see Annex 7 of PDD for photographic evidence).
- 4) The selection of PES ambassador herders and attendance at the workshop in Ulaanbaatar in June 2015 will ensure both female and male representation (see Section 3.1, Activity 4.3 above). This is designed to ensure direct gender equality impacts from the project and to entrench gender equity within emergent PES PV schemes – and any future follow on projects.

7. Monitoring and evaluation

Project progress continues to be monitored and evaluated against specific Activities, as set out in the original project implementation timetable, and in accordance with assigned responsibilities and detailed work packages and timelines. These are in turn linked to the specific measurable indicators and means of verification for each Activity, all of which are tied to the overall project purpose, as explained above. As set out in the original project proposal, and included within these Activities, a variety of specific, technical monitoring activities are proposed for different aspects and at different stages of the project. These include i) monitoring against technical specifications for carbon sequestration; ii) monitoring against agreed suites of biodiversity and livelihood/ well-being indicators and participatory indicators (the latter developed with herders' groups) pre and post implementation of PES schemes. These enable clear tracking of progress towards project goals in terms of livelihoods, biodiversity conservation and PES efficacy/ implementation, and as specified in the PDD. Host country partners have been closely involved in all aspects of this monitoring. MSRM staff, in conjunction with UOL and MAAS, will undertake further monitoring and evaluation of training, as delivered to policy makers, student trainees and PES ambassador herders in the June 2015 workshop. There have not been any changes to the basic M and E plan over the reporting period.

8. Lessons learnt

As noted in the Year 2 Annual Report, insisting that all partners disseminate regular progress updates against detailed work packages and timelines emerged as very important. This was emphasised in Year 3, but not always followed by all partners. Emphasising this as a key requirement in the MOU at the outset of the project may be a useful strategy for future projects. It may also have been helpful to clearly assign responsibility for chasing up any overdue progress updates/ reports to MSRM as the lead in-country partners, and hence best placed to follow this up through face to face meetings, phone calls etc. Other than this, lessons learnt are primarily in relation to difficulties encountered in Year 3, and are therefore discussed under Section 10 below.

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

Reviewer's responses to the Year 2 Annual Report related mainly to concerns over the issue of fencing and its possible impacts on biodiversity and to integration of ZSL's recommendations in this respect and in relation to wildlife conservation more broadly. A 1 page statement on ZSLs recommendations was supplied with the October 2014 HY Report, as required (included again here at Annex 4, Document 8). This was based on their detailed review of proposed activities by herder groups under the PV process. They were asked to pay particular attention to any possible negative impacts, especially in relation to fencing, as well as to biodiversity benefits. As a result of this review, a subsequent desk study prepared by ZSL, further discussions with MSRM and UOL, and ZSL's participation in site visits and initial surveys in 2014, a revised list of activities pertaining to biodiversity conservation was agreed and drawn up with herder groups. These are now set out in the Management Plans in Annex 5 of the PDD. The ZSL desk study report and outputs from site visits are also incorporated in the PDD, for example in Sections B2, F3 and G. Care has been taken in the finalisation of planned activities to a) focus on traditional, non barrier based systems of pasture management, as requested by the reviewer. This is evident in the pasture management related activities in the Management Plans at PDD Annex 5. These are all about restoration of mobility and better seasonal pasture use, thus realising both biodiversity and also C benefits, as modelled in the Technical Specification. Under the activities specifically linked to biodiversity conservation in these Management Plans, only Ikh Am *heseg*, Undurshireet *soum* (Table A5, 2a) are proposing fencing, in this case linked to protection of a 3ha area of willow saplings. At this stage ZSL have not expressed concern over this proposal. However, as stated in the Management Plan and to ensure there are no negative impacts on grazing and biodiversity, this activity will only be allowed to proceed following further field surveys and reporting by ZSL in summer 2015.

10. Other comments on progress not covered elsewhere

The design of the project has been enhanced through the incorporation of additional carbon modelling expertise through VFD, as set out above. Difficulties encountered during the year include the illness/adverse personal circumstances of Professor Undarmaa in spring/ summer 2014 and the recurrent health problems of Dr Bradshaw as detailed above, in HY Report for October 2014 and in subsequent correspondence with Darwin. These caused some delays to aspects of the work. These issues and delays have been dealt with as specified in Section 3.3 above, and could not reasonably have been foreseen or avoided. Therefore, in terms of lessons learnt the only one is perhaps to have brought in other partners such as VFD earlier in the project, although this might have been rather unfair to Professor Undarmaa and Dr Bradshaw in the circumstances.

11. Sustainability and legacy

The affirmation of key priorities and needs for biodiversity conservation in the recently published 5th National Report emphasises the timeliness and importance of the project's contributions. These will be further emphasised in meetings, trainings and discussions with government ministers and policy makers in Year 3, as part of Output 4, and especially in relation to the June 2015 workshop. Associated indicators and means of verification will provide evidence of increasing interest in and capacity for biodiversity conservation associated with the project. As previously reported, the exit strategy for the project, designed to ensure its sustainability, is also closely linked to these training, capacity building and dissemination activities, through their focus on the key groups of i) government officials/ policy makers; ii)

'PES Ambassador Herders' and herder group members; iii) students at key host country academic institutions. The PES work through Plan Vivo (Activities 2.1-2.8) and evidence of its impact (Activities 3.1-3.7) is also designed to enhance sustainability, through herders' groups themselves and also through government policy makers, in conjunction with the evidence presented from Activities 1.1-1.5. As part of the exit strategy, the June workshop, briefings and consultations with policymakers will seek to agree specific mechanisms and strategies for government support in the future, based on the evidence obtained through the project for values and trade-offs around ES, efficacy of PES schemes and contributions to key biodiversity commitments through conventions such as CBD. As reported in the October 2014 HY Report we are also exploring options for further embedding the Plan Vivo approach into longer term government conservation planning and funding, through linking to evolving consultations and funding streams for the expansion of the Local Protected Areas (LPAs) network. We are looking to determine whether our Plan Vivo sites may be eligible for and benefit from such a designation, and, where feasible, to further advance such an agenda within the remaining duration of the project, thus linking directly to Mongolia's national conservation agenda and priorities, including under CBD. These approaches will also serve to mitigate risks in relation to carbon markets. The current status of uptake of PV certificates and associated financial flows to participating herder groups will be reported on in the final report in September 2015. The pilot PES/ PV schemes being instituted during the current project are designed to continue beyond the Darwin project, with MSRM as the in-country coordinator, as specified in the PDD. They have established commitments to and working relationships with participating herder groups, and will also have some financial support during the PV process to enable them to continue to discharged their functions as in country project coordinator (see PDD Section J2 and Annex 3). Through this, and the continuing engagement of Dr Upton, measures have been put in place to support a sustained legacy for this project. The initial PV commitment period will end in 2018, at which point existing herder groups will have the option to recommit for another period, and new herder groups to come into the process.

12. Darwin Identity

Darwin identity is promoted through the project website, the Plan Vivo PDD and through outputs/publications specified above, including forthcoming conference presentations and existing publications. It will feature prominently in the June 2015 workshop and training materials prepared in relation to this. It has already been highlighted in all training events and meetings (e.g. with local herder groups, policy makers etc.). This project has a clear Darwin identity and does not form part of a larger project. There is already some familiarity with and understanding of the Darwin Initiative in Mongolia, for example through the Steppe Forward Programme, which involved NUM and ZSL, both now collaborating as part of the current project.

13. Project Expenditure

Table 1 Project expenditure during the reporting period (1 April 2014 – 31 March 2015)

Project spend (indicative) since last annual report	2014/15 Grant (£)	2014/15 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below) C. Upton (UOL) R. Bradshaw (UOL) GIS (UOL): C. Jarvis T. Shaviraachin (Researcher) N. Nyamaa (MSUA) D. Dorligsuren/ MSRM J. Undarmaa (CES)				Reallocation of £2083 from Year 3 funds to N. Nyamaa, within staff budget, due to illness as explained in text. Remaining £917 to VFD. Reallocation from R. Bradshaw (as agreed) Reallocation within staff budget to VFD,

B. Bayarmaa (MNPCM) VFD				as agreed with Darwin. (as above) Additional salary item for VFD as agreed with Darwin, covered mainly by staff to staff costs transfer, but also some input from consumables and T and S to make up full amount.
Total Staff Costs (Year 3)	£29842	£37855.21		
Consultancy costs				Includes year 3 staff costs for ZSL, plus Plan Vivo costs. Some internal reallocation from PV to cover ZSL for Year 3.
Overhead Costs				
Travel and subsistence (Year 3) (Travel and subsistence -all project)	69600	64450.15	7%	Transfer to VFD
Operating Costs				
Capital items (see below)				
Others (see below) Consumables/ datasets				Transferred to VFD under staff – actually for computer modelling, so elements of consumables included.
TOTAL	74929	74129.67		

Total spend recorded above also needs to include overspend of £697.81 in Year 2, as reported, and now carried forward. **Therefore final Year 3 total = £74827.48**

Larger variations in budget lines above relate primarily to inclusion of VFD, as agreed with Darwin. A significant proportion of their costs have been covered from reallocation within staff budgets, as discussed and agreed with Darwin Initiative in email exchange with E. Young 20-23rd January, 2015. Where transfers from the T and S budget line have also been necessary, the amounts are <10% of T and S over the duration of the project, again as agreed.

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

I agree for the Darwin Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here)- [it may be best to link this to the approved version of the PDD when posted on the PV website and delay publicising this achievement until then.](#)

Noticeable achievements this year are the participatory development and finalisation of herders' planned activities under Plan Vivo, which link livelihoods, biodiversity, pasture management and C sequestration, and based on exploration of diverse, cultural values. The finalisation and pending approval of the PV Project Design Document is a notable achievement as it represents the extension of this approach to rangelands and the explicit recognition and integration of diverse, non economic aspects of poverty/ well-being.

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2014-2015

Project summary	Measurable Indicators	Progress and Achievements April 2014 - March 2015	Actions required/planned for next period
<p>Goal/Impact</p> <p>Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</p>		<p>Contributions to positive impact on biodiversity:</p> <p>Specific, incentive-based mechanisms for direct positive impact on biodiversity developed through pilot PES schemes across three study sites in diverse ecological contexts. To be evaluated against agreed indicators as set out in PDD and Activities 3.6 & 3.7 by September 2015.</p> <p>Exploration and analysis of diverse values around biodiversity and ES, which inform PES mechanisms but also feed into national strategies and policies for ES-based management approaches, for example under new NBSAP and 5th National CBD Report (2014).</p> <p>Contributions to positive changes in conditions of human communities associated with biodiversity:</p> <p>Incentive based PES mechanisms being established through the project provide an avenue to link herder communities with C funding, through the new PV standard, which specifically links well-being, C and biodiversity/ ES. For all participating herder groups, benefits will accrue through interlinked activities across these issues.</p> <p>The incorporation of local cultural values denotes wider dimensions of</p>	

		well-being, linked to biodiversity and ES and to sustainable use. Equitable sharing of benefits is entrenched in the PES agreements under the PV standard.	
<p>Purpose/Outcome</p> <p>To generate policy and practice relevant knowledge of values of ES in Mongolia and pastoral contributions therein and to test efficacy of PES schemes, in order to enhance biodiversity and livelihoods.</p>	<p>ES mapping and valuations in diverse ecological contexts, incorporating traditional knowledge and values, and linked to associated resource management/ conservation planning.</p> <p>PES schemes developed and implemented, including validation, issuance of certified carbon credits for voluntary market, distribution of benefits.</p> <p>Project methods, reports and datasets used/ cited in policy documents, resource management plans at diverse scales.</p>	<p>Linked to Activities 1.1-1.5. Completed, with final integration of all datasets ongoing.</p> <p>Technical Specification and Project Design Document (PDD) for Plan Vivo PES scheme finalised and submitted. PV approval due in next week. This will trigger the final set of Activities (2.4-2.7) associated with this output, to be completed by September 2015.</p> <p>Linked primarily to Output 4 and reporting Activities under other Outputs (see below). Ongoing, through liaison with CBD/ CITES/ CMS focal points; national and local policymakers; plans for June 2015 training workshop/ conference; Mongolian language training materials.</p>	<p>Final ground truthing of models, datasets, through spring/ summer 2015 fieldwork. Feed into series of planned articles, training workshops and materials and conference presentations linked to Activity 4.5.</p> <p>On formal approval of PDD, herder groups to sign PES contracts and commence agreed activities. Agreements finalised with purchasers of certificates. Validation visits and monitoring summer/ autumn 2015.</p> <p>Training workshop/ conference for government officials, policymakers and key in- country academics, PES ambassador herders (June 2015); policy reports and final meetings with national policy makers (Activity 4.5)</p>
<p>Output 1.</p> <p>Key ES at selected sites in contrasting ecological zones valued, with participation of local herding communities.</p>	<p>Economic/ non economic values for key ES at study sites produced; ranking and mapping of key ES completed; analysis of contributions re biodiversity, well-being reported.</p>	<p>Completed, albeit with final integration of multiple datasets ongoing. This will enable final reporting in relation to this output in September 2015. Indicators are appropriate.</p>	

Activity 1.1 Development and trialling of methodologies for non-economic valuation of ES		Completed Year 1
Activity 1.2 Agree timetable, strategy and methodologies for valuation and mapping of ES with local communities		Completed Year 1
Activity 1.3 Conduct spatial and social mapping of key ES with local communities and through collation and analysis of existing satellite/land use data (e.g. through GIS)		Completed Years 1 and 2.
Activity 1.4 Conduct ranking and valuation of key ES with local communities and through collation and analysis of existing economic data, including through GIS mapping		Completed Years 2/3.
Activity 1.5 Analysis and reporting on dimensions and spatial distribution of values of key ES		Analysis of individual datasets completed (e.g. socio economic survey; ES mapping and ranking). Integration of spatial analysis of ES and ES values with parallel analysis of the nature, trends and rankings of ES, conjoint analysis/ choice modelling exercises, market values and visual methods now being completed. Final ground truthing of these outputs will be undertaken during spring/ summer 2015 fieldwork. Reporting on integrated datasets through conference presentations/ associated papers June 2015, and in final project report (September 2015).
Output 2. Pilot PES schemes developed and implemented at selected study sites, with participation of local herding communities.	Appropriate technical specifications for evaluation of scheme benefits agreed; schemes validated and agreed with herders' communities; appropriate PES management and monitoring practices implemented; certificates issued on voluntary carbon market, mechanisms for profit sharing implemented.	Technical specification and Project Design Document (PDD) finalised, with formal Plan Vivo (PV) approval due early May. This will trigger the final set of Activities (2.4-2.7) associated with this output, to be completed by September 2015. There are no changes in assumptions or measurement of output indicators.
Activity 2.1 Development and trialling of methodologies for non-economic valuation of ES		Completed Year 1
Activity 2.2. Agree management, monitoring and land use/management rights and protocols for PES schemes, including record keeping, roles and responsibilities, distribution of benefits etc. with herder groups (e.g. PUGs), government stakeholders and amongst project team		Completed Years 1-3

Activity 2.3. Develop technical specifications for validation of carbon sequestration and other community benefits		Completed, including through development of new methodology for analysis of C sequestration in rangelands: 'Plan Vivo Climate Benefit Quantification Methodology: Carbon sequestration through improved grassland and natural resources management in extensively managed grasslands' (VFD)
Activity 2.4. Monitor activities and compliance, and report on basis of agreed technical specification (ongoing following scheme establishment)		Due May-September 2015, following Plan Vivo approval of PDD.
Activity 2.5. Obtain Plan Vivo approval of validation report and project registration for carbon-based PES schemes		Due May-September 2015, following Plan Vivo approval of PDD
Activity 2.6. Issuance of first carbon certificates on voluntary carbon market		Due May-September 2015, following Plan Vivo approval of PDD, and ongoing marketing strategy.
Activity 2.7. Analysis and reporting for all PES schemes (project reports, community PES group reports and analysis)		Final Darwin report, September 2015.
Activity 2.8. Further training and capacity building for PES groups as necessary		Ongoing throughout Year 3. To continue through until September 2015, including through June 2015 workshop. After end of Darwin project in September 2015, MSRM will continue to provide support through the PV process.
Output 3. Assessment of contributions of PES to livelihoods & conservation in different ecological contexts.	Monitoring programmes completed using agreed technical specifications for evaluation of carbon benefits, and established and participatory biodiversity and well-being indicators.	Final technical specifications, monitoring indicators and protocols for biodiversity and well-being agreed and set out within the PDD, linked specifically to the Plan Vivo standard and designed to trigger disbursement of funds from sale of certificates to participating herder groups over the initial 3 year (2015-2018) commitment period. Baseline monitoring completed. Post PES monitoring to be completed summer 2015, linked to agreed indicators. There are no changes in assumptions or measurement of output indicators.
Activity 3.1. Develop participatory indicators for livelihoods/ well-being and key aspects of local biodiversity/ ES with local communities		Completed Year 2

Activity 3.2. Agree suite of appropriate, established livelihood and biodiversity indicators for study sites with project team		Completed Years 2 & 3
Activity 3.3. Conduct analysis of livelihoods/ well-being and contributions of key ES therein pre PES interventions, using established and participatory indicators		Completed Years 1 and 2
Activity 3.4. Conduct analysis of biodiversity/ ES status using established and participatory indicators pre PES interventions		Completed Years 1,2, 3. Further planned activities by ZSL to trigger initial payments to herder groups as set out in PDD.
Activity 3.5. Conduct analyses of livelihoods/ well-being and contributions of PES scheme and key ES (post PES implementation) therein, using established and participatory indicators and against pre PES baseline		Post PES monitoring to be completed summer/autumn 2015, linked to agreed indicators
Activity 3.6 Conduct analyses of contributions of PES scheme to biodiversity/ ES status using established and participatory indicators post PES interventions and against pre PES baseline.		Post PES monitoring to be completed summer/ autumn 2015, linked to agreed indicators
Activity 3.7. Analysis and reporting (articles, project and community reports; government briefings)		Ongoing. See Activity 4.5, below.
Output 4. Education and capacity building of key stakeholders (government officials, local herders) in ES values, development, management and efficacy of PES schemes in Mongolian context.	Workshops/ training events at study sites and in Ulaanbaatar, including information exchange/ training by PES ambassadors from selected herder groups. Implementation of PES schemes Valuation of ES at study sites, including development of methodology for non-economic valuation.	Workshops/ training events conducted by MSRM with herder groups throughout Year 3. Training event/ workshop planned with government officials/ policy makers, NGOs, academic and PES Ambassador Herders, June 2015, linked to provision of Mongolian language training materials. Conference presentations in Year 3 and planned for June 2015, plus policy briefing. Local end of project workshops with participating herder groups. Progress towards implementations of PES schemes and valuation of ES is covered in reports on Outputs 1-3 and their component activities. See Output 1, above.

<p>Activity 4.1 (PES training with herder groups)</p>	<p>See Activities 2.2, 2.8 above.</p>
<p>Activity 4.2 Liaison with and training of government officials (ongoing throughout project, policy briefing and end of project workshop)</p>	<p>Initial consultations undertaken in Year 1 and ongoing throughout the project, including with key CBD contact in country. Training workshop scheduled for June 2015, with provision of Mongolian language training materials.</p>
<p>Activity 4.3 Training of PES ambassador herders (ongoing during final 12 months of project)</p>	<p>Discharged through MSRM training activities in Year 3. PES Ambassador Herders will also be invited to the June 2015 workshop in Ulaanbaatar, to include herder group leaders plus at least one female and/or young herder per each participating herder group. Local end of project workshops.</p>
<p>Activity 4.4 Training of students/ future conservation managers through key academic institutions (development of lectures/training material & initial delivery during final year of project)</p>	<p>Agreement concluded with MAAS. Training materials being finalised, for use in 2015. Final completion of these materials in Year 3 was been delayed by Dr Bradshaw's illness.</p>
<p>Activity 4.5 Wider dissemination and communication of project results (articles, newspaper reports, conference presentations, local workshops/ seminars etc.) including through PES ambassador herders. (Ongoing, 6 monthly, annual and final project reports – 6M, AR and FR respectively).</p>	<p>Articles, presentations and briefings completed in Year 3. Further presentations and articles planned associated with two major conferences in June 2015, following final integration of datasets; training workshop/ conference for government officials, policymakers, key in- country academics and PES ambassador herders planned for June 2015; policy reports and final meetings with national policy makers also planned for summer 2015.</p>

Annex 2 Project's full current logframe

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal: Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</p>			
<p>Sub-Goal: Mongolia's ability to meet CBD commitments (especially under articles 8, 10, 11) and as highlighted in CBD 2011-2020 Strategic Plan for Biodiversity enhanced; also CITES/ CMS where study sites include habitats of key migratory species.</p>	<p>Development of incentive measures for sustainable use & biodiversity conservation (through ES valuation and PES schemes in study areas). Livelihood and conservation benefits realised in study areas, (assessed through appropriate established and participatory biodiversity indicators and human well-being).</p>	<p>Project reports and academic papers. Government policy documents, reports e.g. end of project NRCBD. Plan Vivo reports and certification. (as above)</p>	
<p>Purpose To generate policy and practice relevant knowledge of values of ES in Mongolia and pastoral contributions therein and to test efficacy of PES schemes, in order to enhance biodiversity and livelihoods.</p>	<p>ES mapping and valuations in diverse ecological contexts, incorporating traditional knowledge and values, and linked to associated resource management/ conservation planning. PES schemes developed and implemented, including validation, issuance of certified carbon credits for voluntary market, distribution of benefits.</p>	<p>Project reports, academic papers, local resource management plans (e.g. for herders' Pasture User Groups), Government policy documents (re conservation, livelihoods), reports e.g. end of project NRCBD. Project reports on and management plans for PES schemes. Certified carbon credits and evidence of marketing, income accrued e.g. through Plan Vivo. Government policy documents, reports e.g. end of project NRCBD.</p>	<p>Government of Mongolia (e.g. through Ministry of Nature, Environment and Tourism [MNET]) continue to prioritise ES valuation and PES schemes in seeking to fulfil biodiversity (e.g. through CBD) obligations and livelihood goals. Buyers willing to purchase carbon credits in voluntary market. Herding communities (e.g. through Pasture User Groups) are willing to participate in ES valuation and PES schemes, and these are supported by local government</p>

	Project methods, reports and datasets used/ cited in policy documents, resource management plans at diverse scales.	Project reports and academic papers. Government policy documents e.g. end of project NRCBD, PUG plans.	administration at study sites.
Outputs (add or delete rows as necessary) 1. Key ES at selected sites in contrasting ecological zones valued, with participation of local herding communities.	Economic/ non economic values for key ES at study sites produced; ranking and mapping of key ES completed; analysis of contributions re biodiversity, well-being reported.	Project reports and articles (including participatory/ GIS maps)	Participation of local herding communities. Access to available resource maps, surveys, socio-economic and ecological datasets provided by government officials.
2. Pilot PES schemes developed and implemented at selected study sites, with participation of local herding communities.	Appropriate technical specifications for evaluation of scheme benefits agreed; schemes validated and agreed with herders' communities; appropriate PES management and monitoring practices implemented; certificates issued on voluntary carbon market, mechanisms for profit sharing implemented.	Project reports. Plan Vivo reports, lists of validated schemes and marketing of carbon certificates on website. Community management reports from PUG groups.	Local herding communities willing to participate and cooperate with each other and thus able to secure Plan Vivo validation. Continued support from local government officials for implementation of scheme, including continued support for tenure agreements with herders' groups.
3. Assessment of contributions of PES to livelihoods & conservation in different ecological contexts.	Monitoring programmes completed using agreed technical specifications for evaluation of carbon benefits, and established and participatory biodiversity and well-being indicators.	Project reports. Plan Vivo reports, Community management reports.	Appropriate and sufficient data available from external sources, in conjunction with project surveys and technical specification, to enable baseline, interim and end of project evaluations.
4. Education and capacity building of key stakeholders (government officials, local herders) in ES values, development, management and efficacy of PES schemes in Mongolian context.	Workshops/ training events at study sites and in Ulaanbaatar, including information exchange/ training by PES ambassadors from selected PUGs. Implementation of PES schemes Valuation of ES at study sites, including development of methodology for non-economic valuation.	Government policy documents, reports e.g. end of project NRCBD; government websites and media outlets; lectures at academic institutions; project reports; training event reports.	Continued engagement and support of government, herders and other stakeholders.

Activities (details in workplan)

- 0.1 Project inception and start up meeting, Ulaanbaatar
- 0.2 Preliminary field visits for liaison and consultation with rural stakeholders and finalisation of case study sites
- 1.1 Development and trialling of methodologies for non-economic valuation of ES
- 1.2 Agree timetable, strategy and methodologies for valuation and mapping of ES with local communities
- 1.3 Conduct spatial and social mapping of key ES with local communities and through collation and analysis of existing satellite/land use data (e.g. through GIS)
- 1.4 Conduct ranking and valuation of key ES with local communities and through collation and analysis of existing economic data, including through GIS mapping
- 1.5 Analysis and reporting on dimensions and spatial distribution of values of key ES (articles, reports)
- 2.1 Undertake training needs analysis with prospective PES groups and institute necessary training
- 2.2 Agree management, monitoring and land use/management rights and protocols for PES schemes, including record keeping, roles and responsibilities, distribution of benefits etc. with herder groups (e.g. PUGs), government stakeholders and amongst project team
- 2.3 Develop technical specifications for validation of carbon sequestration and other community benefits
- 2.4 Monitor activities and compliance
- 2.5 Obtain Plan Vivo approval of validation report and project registration for carbon-based PES schemes
- 2.6 Issuance of first carbon certificates on voluntary carbon market
- 2.7 Analysis and reporting for all PES schemes (project reports, community PES group reports and analysis)
- 2.8 Further training and capacity building for PES groups as necessary
- 3.1 Develop participatory indicators for livelihoods/ well-being and key aspects of local biodiversity/ ES with local communities
- 3.2 Agree suite of appropriate, established livelihood and biodiversity indicators for study sites with project team
- 3.3 Conduct analysis of livelihoods/ well-being and contributions of key ES therein pre PES interventions, using established and participatory indicators
- 3.4 Conduct analysis of biodiversity/ ES status using established and participatory indicators pre PES interventions
- 3.5 Conduct analysis of livelihoods/ well-being and contributions of PES scheme and key ES (post PES implementation) therein, using established and participatory indicators and against pre PES baseline
- 3.6 Conduct analysis of contributions of PES scheme to biodiversity/ ES status using established and participatory indicators post PES interventions and against pre PES baseline.
- 3.7 Analysis and reporting (articles, project and community reports; government briefings)
- 4.1 PES training with herder groups (see 2.1, 2.8 above)
- 4.2 Liaison with and training of government officials (ongoing throughout project, policy briefing and end of project workshop)
- 4.3 Training of PES ambassador herders
- 4.4 Training of students/ future conservation managers through key academic institutions
- 4.5 Wider dissemination and communication of project results (articles, newspaper reports, conference presentations etc.) including through PES ambassador herders

Annex 3 Standard Measures

Table 1 Project Output Standard Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Yr 1 Total	Yr 2 Total	Yr 3 Total	Total to date	Total planned during the project
4a	No. of undergraduate students to receive training (through MAAS and partner institutions)	Mixed. (Depends on composition of pre-existing classes at University)	Mongolian	0	0	0 (100 planned; provisions in place to complete 100+ by September 2015 through agreement at Annex 4, Document 6)	0	100
4B	Number of training weeks to be provided			0	0	0 (2-4 planned by September 2015, through agreement at Annex 4, Document 6)	0	1
4C	Number of postgraduate students to receive training (through MAAS and partner institutions, see above)	(as above)	Mongolian	0	0	0 (provisions in place to complete 100+ by September 2015 through agreement at Annex 4, Document 6)	0	50
4D	Number of training weeks to be provided			0	0	0 (2-4, through agreement at Annex 4, Document 7)	0	1
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above) (Further follow-up training of MSRM Plan Vivo herder groups)	Mixed. (Depends on composition of pre-existing herder groups)	Mongolian	106	50	50 (plus repeated training with previous 156)	206	200
6B	Number of training weeks to be provided (across various types and over duration of project, see above)			2	2	3	7	5
7	Number of (i.e. different types - not volume - of material produced) training materials to be produced for use by host country (video resources, maps, summary reports, posters/leaflets)			0	0	3	3	4

8	Number of weeks to be spent by UK project staff on project work in the host country			7	6	4 + 4 (latter in 6 month extension to September 2015)	21	22
11A	Number of papers to be published in peer reviewed journals			0	0	1 (plus chapter under final review)	1	6
11B	Number of papers to be submitted to peer reviewed journals			0	2	1	3 (+ 2 in draft; 2 in preparation for June 2015 conferences; 3 planned)	10
12A	Number of computer based databases to be established and handed over to host country (baseline socio-economic livelihood surveys; to be updated throughout the project and handed over completion;)			1	1	2 (IDRISI; ES valuation database)	4	2
14A	Number of conferences/seminars/ workshops to be organised to present/disseminate findings			0	0	5 (for June 2015) + 4 at study sites	0 (5 in preparation for summer 2015)	4
14B	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated			4	1	3 (plus 2 accepted presentations for June 2015)	8 (+ 2 planned)	10
15A	Number of national press releases in host country(ies)			0	0	0 (2 imminent in conjunction with PPD approval and June 2015 workshop)	0	2
15B	Number of local press releases in host country(ies)			0	0	0 (4 imminent in conjunction with PPD approval and June 2015 workshop)	0	3
15C	Number of national press releases in UK			0	0	0 (1 planned on initial sale of certificates – ideally to include UK companies)	0	1
16A	Number of newsletters to be produced			2	1	1 (+2 linked to PDD, summer 2015 workshop)	4 (+2)	6

17A	Number of dissemination networks to be established (project partners, PES herder groups, key policy makers, government institutions, academic bodies)	(mixed)		2	1	1	4	2
18C	Number of local TV programmes/features in host country(ies)			0	0	1 (linked to September 2014 Gobi Futures conference)	1	1
19A	Number of national radio interviews/features in host county(ies)			0	0	0 (press interviews planned in conjunction with June 2015 workshop)	0	2
19C	Number of local radio interviews/features in host country(ies)			0	0	0 (as above)	0	2
23	Value of resources raised from other sources (i.e. in addition to Darwin funding) for project work							

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. website link or publisher)
Communities, Culture and Commodification Mongolia's New Resource Politics*	Journal article	C. Upton, 2014.	F	British	Brill, Leiden	http://booksandjournals.brillonline.com/content/journals/22105018/16/2
Beyond Carbon? Biodiversity, Ecosystem Services and Well Being in Mongolia	Darwin Newsletter	MSRM/ C. Upton, January 2015	F	Joint Mongolian/ British	Darwin Initiative	http://www.darwininitiative.org.uk/assets/uploads/2014/05/January-Darwin-Newsletter-Final-Web.pdf

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

Document 1: Project Design Document (PDD) for Plan Vivo

Document 2: Letter from Plan Vivo on review status for PDD

Document 3: Sample training reports/ activities from MSRM

Document 4: Conference abstracts/ papers for:

- i) European Society for Ecological Economics biennial conference; panel on 'Cultural ecosystem services: Frontiers in theory and practice'. *'Trials, Tribulations and Transformations: Cultural Ecosystem Services and Pastoral Futures in Mongolia'*. Leeds, 30 June- 3rd July, 2015.
- ii) Building Resilience of Mongolia's Rangelands, transdisciplinary conference, Ulaanbaatar. *'Resilience, Values and Ecosystem Services: Innovations in Rangeland Governance'*. Ulaanbaatar, 9-10 June 2015.

Document 5: Policy Brief 'Mobility', (arising from 'Science and Policy Futures in the Gobi Rangelands' conference, Ulaanbaatar, September 2014).

Document 6: Letter from School of Economics and Business (MAAS), re project based teaching.

Document 7: Copy of Inner Asia paper, by Dr Upton.

Document 8: ZSL statement, as included with October 2014 HY Report.

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	x
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	x
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	
Have you involved your partners in preparation of the report and named the main contributors	x
Have you completed the Project Expenditure table fully?	x
Do not include claim forms or other communications with this report.	