



Biodiversity Conservation at the Landscape Scale

A Program of the Wildlife Conservation Society
Supported by the USAID/Global Conservation Program

The Eastern Steppe Living Landscape: Sustaining Wildlife and Traditional Livelihoods in the Arid Grasslands of Mongolia

Implementation Plan FY 2009
October 2008 – September 2009

Living Landscapes Program- Mongolia/Eastern Steppe
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WCS Eastern Steppe LLP response to USAID comments and review of Implementation Plan FY 2009

Thank you for providing the careful review of this document. Specific comments and questions have been answered in the text of the document in “track changes” so that the additions are clear and edits visible. Below brief answers to the main two questions are provided.

Question 1: ‘Emphasis on wildlife trade is good but please provide more detail on enforcement training, what it entails, etc.’

The poaching and over-hunting which takes place in Mongolia to fuel both domestic and international illegal wildlife trade is arguably the most immediate and critical threat to wildlife in the Eastern Steppe and across Mongolia, as it is in many regions of the world. WCS has successfully pursued additional funding (primarily from the World Bank’s Netherlands-Mongolia Trust Fund for Environment Reform) to address this threat nationally. We discuss these initiatives in our USAID LLP annual reports and implementation plans because of the direct links to our conservation work and priority actions identified for the Eastern Steppe. In the text of this document we have made an effort to provide more details on the exact nature of the enforcement training including the previous permission received from USAID for carrying out these activities as requested. We have also more clearly articulated the components of this work that are funded by donors other than USAID. The “Collaborative Wildlife Law Enforcement Training” series conducted with staff of the Nomrog Strictly Protected Area which included both participants from the State Border Defense Agency and the Protected Area Administration, received prior approval from our former CTO, Doreen Robinson. The focus of the training has been primarily field craft, navigation, patrolling techniques, wildlife observation/recording and a review of the laws protecting wildlife in and around Nomrog SPA. There is no use of weapons of any kind during the sessions and no arms training is provided.

Questions 2: “As with all GCP programs in this final year, sustainability of the program, especially activities being initiated in fy 2009, should be addressed. Instead of responding to each sustainability-related comment in the text, one summary paragraph addressing financial sustainability of continued partner presence, local organization capacity for maintaining information tools and continuing activities will suffice.”

The long-term sustainability of efforts and conservation initiatives begun as part of the WCS/USAID Eastern Steppe (ES) LLP have been a concern of the project managers and directors since the early stages of our engagement in the Eastern Steppe. Efforts have been made to support and strengthen the effectiveness and efficiency of existing institutions through training and capacity building, much of it focused on conservation planning on the landscape scale, the use and implementation of the landscape species approach. Some of

these institutions like the Protected Area Administration and the Environmental Protection Agencies of each of the three provinces (aimags) on the Eastern Steppe were in place well before our project began and will be in place beyond the USAID funding cycle for this specific project. Efforts have been made to engage key individuals within these institutions and provide them with both encouragement and the tools to work more effectively as wildlife managers and protectors of biodiversity on the Eastern Steppe. To improve the efficiency of these institutions the WCS/USAID ESLLP has made a large effort to encourage inter-agency coordination and information sharing among the many agencies (some of them not the traditional conservation/environment agencies like veterinary health and land use planning) to promote better use of scarce resources in the implementation of joint actions and interventions identified.

The WCS/USAID ESLLP has also made a large effort over the course of this project to support and help develop the fledgling “Eastern Mongolian Community Conservation Association” a community-supported and community-organized association with a focus on working with livestock herders on the Eastern Steppe to create community protected and community managed areas with the goal of “environmental protection”, sustainable wildlife and natural resource management. WCS is committed to continuing to support this particular NGO as it is the driver of all of the community-based wildlife and natural resource management efforts in the region. WCS has been successful to date in raising funds from WCS donors to provide additional support for these community-based protected areas and will continue this effort.

Throughout the course of the WCS/USAID ESLLP project a core staff of Mongolian nationals (3 technical staff) and multiple students have been trained in landscape level planning and the implementation of landscape level conservation initiatives. WCS is committed to continuing to build on the experience and capacity of this core team so that they are positioned to provide the kind of outreach services to communities and stakeholders on the Eastern Steppe that they have provided throughout the course of this project. Any opportunity to incorporate training material into standard training programs has been pursued and relationships built with key government institutions and the academic sector in Mongolia will be expanded and supported through core WCS Mongolian program activities in the years to come.

The Eastern Steppe has been identified as a priority site for WCS. This means that every effort possible will be made to continue our engagement in the region at an effective level. We have directed other WCS resources and USAID-funded initiatives, including the TransLinks program, toward Mongolia whenever possible, building on links created and our considerable experience in the region to date. In FY2008 we also signed an MoU with The Nature Conservancy (TNC Mongolia Program) and the World Wide Fund for Nature (WWF-Mongolia) in an effort to coordinate our efforts to conserve the Eastern Steppe and raise levels of local and national recognition of the biodiversity importance of the region. This effort should sustain the effort to keep conservation of the Eastern Steppe at the forefront of both donor driven and governmental environmental policy initiatives in Mongolia.

Program Goal

To ensure conservation of biological diversity in regions of global biodiversity importance, using a species-based landscape approach.

The Wildlife Conservation Society believes that protected areas must remain at the core of all nations’ biodiversity conservation plans. These areas typically contain a higher diversity and abundance of plants and animals than landscapes managed primarily for economic use. Yet, parks and reserves are always embedded in larger, human-

dominated landscapes and are seldom sacrosanct. Regardless of how large or small a protected area may be, the plants and animals it contains are often threatened either directly or indirectly by human resource use activities.

Management of parks and reserves cannot, therefore, occur in isolation from the surrounding human-dominated landscape, but must take into account where and how human activities conflict with biodiversity conservation, and where conservation adversely impacts human welfare. As human populations continue to expand over the next 50 years, the incentive for over-exploiting natural resources within and outside of protected areas will likely increase and the need for biodiversity conservation tools that address human-wildlife conflict will become even more important.

WCS's Living Landscape Program (LLP) promotes conservation of landscapes by focusing efforts on key animal species that require large areas for their conservation, that are particularly at risk because they cross land use and jurisdictional borders, and that, when protected, will have the greatest positive impact on biodiversity as a whole. These Landscape Species are highly mobile, vulnerable animal species, and their conservation fosters a focused and cost-effective way to retain a full complement of biodiversity and overall ecological integrity. To conserve these species, parks and reserves must be integrated into the broader landscape, a landscape in which people exploit natural areas and wild species to meet their socio-economic needs.

The Biodiversity Conservation at Landscape Scale (BCLS) program is designed to ensure biodiversity conservation in five core sites by identifying actions to conserve landscape species, and by increasing the capacity of local and national organizations to implement such actions. The five areas of global biodiversity importance for WCS involvement and USAID activity are currently:

- Greater Madidi Landscape Conservation Area (Bolivia)
- Glover's Reef Living Seascape (Belize)
- Maya Biosphere Reserve Living Landscape (Guatemala)
- The Eastern Steppe Living Landscape (Mongolia)
- Southern Sudan Transboundary Living Landscape (Southern Sudan)

The Mongolia Eastern Steppe Living Landscape Project

The Eastern Steppe of Mongolia is perhaps the world's largest intact grassland ecosystem. At 250,000 sq km, the area is roughly the size of the state of Oregon. This vast wilderness is home to one of the world's last great spectacles of migrating ungulates, the Mongolian gazelle. Numerous other mammals live on the steppe, and there are many rare or critically threatened birds, including six species of cranes (almost half the world's species). The steppe is of international importance; it is a Global 200 Ecoregion, a Last Wild Place, and the location of Mongolia's first Ramsar site. Human populations on the steppe have historically been sparsely distributed and engaged in traditional nomadic livestock production, which had a minimal impact on the ecosystem. This historical pattern of sustainable use of the steppe's resources has been disrupted by major socio-economic changes that have occurred in Mongolia during the past fourteen years. Rising urban unemployment has increased reliance on hunting of wildlife for subsistence and income, while declining markets for meat and other livestock products have increased poverty among herders. The country's economic needs are also driving oil, coal, gas and mineral exploitation of the Eastern Steppe. The WCS/USAID Living Landscapes Program (LLP) strives to address these threats to biodiversity and wild places through the implementation of a participatory, wildlife-based strategy for landscape conservation. The program in Mongolia, "The Eastern Steppe Living Landscape: Sustaining Wildlife and Traditional Livelihoods in the Arid Grasslands of Mongolia," is funded by USAID's GCPII program.

The WCS/USAID Eastern Steppe Living Landscape Project (ES-LLP) has played an expanding role in shaping wildlife management strategies and conservation policy in the Eastern Steppe since the project began in October of 2003. In FY08, the program made significant progress in developing Conservation Landscapes for key Eastern Steppe Landscape Species through a participatory process with community, local, provincial and national-level stakeholders. These Conservation Landscapes are critical conservation planning tools and effective illustrations of both the challenges and opportunities that exist when striving to conserve a landscape as large and diverse (especially in terms of management zones and jurisdiction) as the Eastern Steppe.

To ensure conservation of the Eastern Steppe's biological diversity, the WCS program focuses on three interrelated objectives, and a fourth objective which is the mandate of the New York Coordination Unit:

1. Develop and adopt participatory strategies to reduce threats to wildlife in the Mongolia Eastern Steppe landscape.
2. Develop and implement sustainable and adaptive mechanisms to strategically address threats across the landscape.
3. Learn and teach best practices in the Mongolian Eastern Steppe landscape and beyond.
4. Guide the design and testing of wildlife-focused planning

In FY09, the ES-LLP will work to ensure that the project's accomplishments lay the foundation for the future conservation on the Eastern Steppe. The lessons learned throughout the implementation of the program will be shared and the tools that we have found essential when working to conserve wildlife at the landscape level will be provided to project partners across the Eastern Steppe. Relationships developed with communities on the Eastern Steppe, local governments and fellow NGOs will be essential in ensuring that the conservation plans developed under the USAID GCP-funded Eastern Steppe Living Landscape Project are incorporated into the long-term sustainable development plans for the entire region, and implemented by key actors on the Eastern Steppe.

Total Anticipated Level of Effort in FY 09

Eastern Steppe Living Landscape: \$322,781 (USAID/EGAT: \$149,607; WCS: \$86,344; USAID/TransLinks \$31,830; World Bank \$40,000; USAID/GAINS: \$15,000)

IMPLEMENTATION PLAN: FY09

OBJECTIVE 1: Develop and adopt participatory strategies to reduce threats to wildlife in the Mongolia Eastern Steppe landscape

Level of Effort (Total Objective 1): \$ 51,000 (USAID/EGAT: \$36,000; WCS: \$15,000)

Activity 1.1 Use the conceptual model for the Eastern Steppe as means to articulate and schematically represent the causal relationships among conservation targets and threats across the Eastern Steppe Landscape

The overall conceptual model for the Eastern Steppe has been an effective tool for planning conservation and managing interventions and threats at a landscape scale. Over the course of the Eastern Steppe LLP, the project has provided multiple opportunities for Eastern Steppe stakeholders to review, comment on and contribute to the overall conceptual model. It has been an important internal project document for managing and prioritizing our own activities and it has also been an effective way to communicate our conservation goals for the Eastern Steppe to partners across the region.

Over the past few years, we have completed the conceptual model and adapted it as the conservation situation, and our understanding of it, has evolved. Although we will continue adapting the model, our focus now is sharing it and our conservation vision with partners and stakeholders. To this end, in FY09 we will encourage the adoption of the conceptual model approach by national, provincial and local-level land-use planners and policy makers on the Eastern Steppe as a tool for managing conservation at a landscape scale. The ES-LLP will also continue to use the conceptual model as a central document as we engage fellow members of the conservation community, primarily The Nature Conservancy and the WWF Mongolia Program (through the Eastern Steppe or “Zuun Bus” Partnership), to develop a joint strategy for promoting wildlife conservation and sustainable natural resource management on the Eastern Steppe. For livestock herder “community partnerships” and members of the Eastern Mongolian Community Conservation Association (EMCCA) the overall conceptual model will be used to demonstrate how their efforts within their community-managed areas contribute to addressing threats and achieving the goals and objectives established for the entire Eastern Steppe landscape. Livestock herder “community partnerships” are also using the conceptual model approach to identify their own livelihood and conservation objectives for their communities.

Results/Outputs:

- An “overall” conceptual model, accepted by national, provincial and local-level policy makers across the Eastern Steppe, describing objectives, goals, direct and indirect threats, interventions and the interplay between these conservation strategies for the Eastern Steppe landscape.
- Incorporation of the Eastern Steppe conceptual models into the “Sustainable Development” plans for the Eastern Steppe region. Every province in Mongolia has been charged with drafting a provincial-level sustainable development plan as part of a national “Sustainable Development Plan” drafting initiative,
- A Zuun Bus (a partnership of WCS, WWF and TNC) strategy for jointly addressing threats and promoting wildlife conservation and sustainable natural resource management on the Eastern Steppe that incorporates the Eastern Steppe conceptual model.
- Interventions of local wildlife officials and members of the EMCCA livestock herder “community partnerships” explicitly linked to the overall conceptual model for the Eastern Steppe.

Threats Addressed:

The vastness of the Eastern Steppe is one of its greatest assets, but the size and distance also pose significant challenges when it comes to management and coordinating conservation across the landscape. The conceptual model is a tool that can be used to address on the Eastern Steppe’s principle indirect threat which is the lack of a coordinated

effort among the institutions, organizations and communities with an interest in biodiversity conservation in this landscape. The conceptual model can be used as a “road map” for conservation across the large Eastern Steppe landscape. It is a tool for improving management decisions and communication across agencies, institutions and communities on the Eastern Steppe. Improved coordination and a single “road map” will improve the ability of Eastern Steppe stakeholders to address the direct threats to biodiversity and livelihoods on the Eastern Steppe.

Level of Effort (Total Activity 1.1): \$15,000 (USAID/EGAT: \$10,000; WCS: \$5,000)

USAID support will cover program operating costs, travel, data collection, conferences/workshops and local staff salaries. WCS funds cover the salaries and benefits of WCS U.S.-hired staff.

Activity 1.2 Identify principal actors to address threats, evaluate their capacity to do so and engage them in specific interventions

In this, the final year of the project, the focus of this particular activity is to make sure that lessons learned about managing and addressing threats at the landscape scale are shared with the principle actors on the Eastern Steppe, and that the culture of information sharing, and the mechanisms necessary to share this information and coordinate across projects, remains in place beyond the close of the USAID-funded Eastern Steppe LLP. A major component of the ES-LLP program has been the effort made to identify actors and establish relationships with stakeholders across the Eastern Steppe. One of the most important actors identified has been the Eastern Mongolia Community Conservation Association (EMCCA), and the members of livestock herder community partnerships for conservation that this association represents. Developing partnerships with the local herder communities, helping them attain official rights to manage land and natural resources, and building their capacity to do so is possibly the most powerful tool we have for maintaining the integrity of the Eastern Steppe. In FY09, WCS ES-LLP staff will work to build the capacity of, and strengthen, the EMCCA so that they can take on responsibility for many of the community-based wildlife conservation interventions begun under the ES-LLP (see Activity 2.2.2); thereby continuing this important work beyond the end of GCP funding.

The ES-LLP will continue to work with the more “traditional” wildlife conservation partners on the Eastern Steppe, including academic and research institutions and the Protected Area Administration, Environmental Protection Agency, the State Specialized Inspection Agency, and State Border Defense Agency at the national, provincial (aimag) and local (soum) level. The ES-LLP will work with these agencies, institutions and organizations to pass on the tools and lessons learned over the course of the project, providing the valuable skills needed to address threats to wildlife on a landscape scale.

In FY09, the ES-LLP will also work through the “Zuun Bus” partnership of WCS, TNC and WWF, to influence national policy on grassland conservation and sustainable natural resource use on the Eastern Steppe. The ES-LLP will continue to identify and develop relationships with other actors in the NGO community with an interest in wildlife conservation and sustainable natural resource management. One mechanism for information sharing and actor identification will be the recently established *Community Based Natural Resource Conservation Blog*¹.

Specific activities designed to identify principal actors, evaluate their capacity and engage them in specific interventions include the following:

- Monthly planning meetings with the leadership of the EMCCA will continue in FY09. Responsibility for specific training and outreach activities will be transferred to the EMCCA over the course of the year (see Activity 2.2.2).
- Quarterly informational meetings with the Ministry of Nature and Environment will continue in FY09. A change of government is anticipated in the fall of 2008 and meetings will be scheduled with the new Minister and his or her staff soon after the changeover.

¹ <http://monconservation.blogspot.com/>

- Formal meetings with provincial and local government leaders will be scheduled to discuss the incorporation of the conceptual model and other ES-LLP outputs and products into regional sustainable development plans (see Activity 1.3.3).
- Our invitation to the semi-annual Government of Mongolia Partners Meetings co-organized by the World Bank will be used to raise awareness about threats to the conservation of the grasslands and wildlife of the Eastern Steppe as the Mongolian Government and its partners continue to refine national and regional development strategies.
- We will continue to contribute to the efforts to formalize the “Zuun Bus” (meaning Eastern Steppe in Mongolian) partnership among WCS, TNC and WWF and develop a single strategy for facilitating and encouraging national and regional policy that reflects the need to conserve and sustainably manage the natural resources of the Eastern Steppe. WCS is currently contributing to the TNC-led efforts to complete a GAP Analysis of the Eastern Steppe region.
- The ES-LLP will continue to collaborate with academic and research institutions in Mongolia, including the National University of Mongolia and the Mongolian Academy of Sciences through the development of conservation biology curriculum at the National University and by offering internship opportunities for students and young scientists as part of our field-based and community-based projects (see Activity 2.2.4).
- Work with partners in the wildlife conservation sector, such as WWF-Mongolia, the Zoological Society of London-funded Steppe Forward Programme, the Ministry of Nature and Environment’s CITES department, etc., will continue in FY09; we will attend and participate in workshops and conferences with a focus on the environment and natural resource management.
- The WCS-sponsored “Monthly Conservation Networking Event”, which has become one of the main forums for interaction and informal information sharing among conservationists, ecologists, and decision-makers in Mongolia will continue.

Results/Outputs:

- Entrusting a local Eastern Steppe NGO, the EMCCA, with the responsibility to take over specific training and outreach activities with community partnerships for conservation that were begun as part of the Eastern Steppe LLP.
- Improved coordination with, and support from, the Ministry of Nature and Environment on issues of biodiversity conservation and threat mitigation on the Eastern Steppe. Formal relationship established with the incoming Minister of Environment and his/her staff.
- Improved coordination and conservation planning on the Eastern Steppe through the participation of aimag- and soum-level government officials in the planning, implementation and follow-up phases of specific wildlife conservation initiatives.
- Evaluation and capacity development of local scientists through collaborative research, conservation biology curriculum development and information gathering (see Activity 2.2.4).
- Improved donor and project coordination on the Eastern Steppe through the formalization of the WCS, TNC, WWF “Zuun Bus” partnership for grassland conservation and sustainable natural resource management on the Eastern Steppe.
- Increased collaboration and information sharing throughout the environmental and wildlife conservation sectors in Mongolia.

Threats Addressed:

During the course of the Eastern Steppe LLP, significant efforts have been made to improve collaboration and information sharing on the Eastern Steppe, improving our collective ability to effectively mobilize against existing and new threats to the system. In order to act most effectively at a landscape scale, we have developed collaborative strategies to address threats to wildlife on the Eastern Steppe, identify conservation targets and ensure that interventions to mitigate threats to wildlife and local livelihoods are coordinated and carried out effectively. These strategies include: fostering the capacity of the Eastern Mongolian Community Conservation Association, establishing the “Zuun Bus” WCS/TNC/WWF Eastern Steppe partnership and working with national, provincial and local-level officials to facilitate collaboration within this landscape.

Level of Effort (Total Activity 1.2): \$16,000 (USAID/EGAT: \$11,000; WCS: \$5,000)

USAID support will cover program operating costs, travel, data collection, conferences/workshops and local staff salaries. WCS funds cover the salaries and benefits of WCS U.S.-hired staff.

Activity 1.3 Develop an adaptive, participatory and spatially explicit strategy for threat abatement and landscape conservation

Activity 1.3.1 Promote the Suite of Eastern Steppe Landscape Species as important conservation targets, and LSS as a valid strategy for identifying conservation targets on the Eastern Steppe

The Landscape Species Approach (LSA) has proven a very useful tool for identifying conservation targets and actions on the Eastern Steppe. Although the full process of mapping Biological Landscapes was only fully completed for three of the eight Eastern Steppe Landscape Species, we completed spatial assessment of 5 threats, and used this information to identify ecologically meaningful conservation areas and actions. In FY09, the ES-LLP will promote the suite of eight Eastern Steppe Landscape Species as an important set of conservation targets for the region that government officials, partner conservation NGOs (including TNC and WWF) and local communities should work to conserve. The project will also promote the Landscape Species Selection (LSS) process as a valid method for identifying conservation targets across a landscape as vast as the Eastern Steppe. In FY09, the LSA, including the suite of Landscape Species, will be reviewed by aimag- and soum-level stakeholders, including representatives of the Eastern Mongolian Community Conservation Association. Efforts will be made to demonstrate how local efforts and conservation plans fit into larger scale wildlife-based conservation strategies for the Eastern Steppe landscape.

Specific activities planned include:

- Introducing the Suite of Eastern Steppe Landscape species for formal adoption as conservation targets by the “Zuun Bus” WCS/TNC/WWF Eastern Steppe partnership.
- Providing necessary training to the technical staff from national, provincial and local wildlife agencies to enable them to understand and eventually use the LSS software and the Landscape Species Approach as they work to identify conservation targets, plan and implement interventions across the landscape. Although limited in number the core technical staff in government agencies on the Eastern Steppe have remained in their positions or within their departments for the last 4-5 years. Training provided has a good chance of remaining part of the institutional capacity of these agencies given low rates of turnover.
- Further adapting the LSA for use in the management of a smaller area within the full landscape, as has been initiated in partnership with the Eastern Mongolian Community Conservation Association. (Livestock herder community groups on the Eastern Steppe have previously used an LSA-like method for identifying conservation targets and planning interventions in community-managed areas on the Eastern Steppe.)

Results/Outputs:

- Establishment of the suite of Eastern Steppe Landscape Species as the foundation for coordination of threat abatement and species conservation initiatives across the Eastern Steppe landscape; a diverse group of Eastern Steppe stakeholders encouraged to adopt this approach. In addition to providing technical training to staff within the agencies a considerable effort has been made to expose the broader group of stakeholders to the general LSA approach and need for landscape-level planning and coordination to reach conservation goals. Those stakeholder groups will remain. WCS has also pushed for WWF and TNC to adopt similar approaches and language so that stakeholders are not confused or discouraged. Additionally WCS technical staff---now experienced in providing instruction and facilitating decision making will continue to work with ES stakeholders with WCS support.

Threats Addressed:

It is often difficult to assess the relative impact of human activities threatening ecologically functioning populations of wildlife across a landscape as vast as the Eastern Steppe, making it difficult for policy makers, local wildlife managers and community members to make informed decisions about conservation investments. The LSA provides Eastern Steppe stakeholders, and the greater conservation community, with a tool that is specifically designed to focus

conservation investments on the environmental needs of, and threats to, a suite of Landscape Species. By doing so, not only will Landscape Species and the habitats they require survive over the long-term, so too will the assemblage of other plant and animal species - and important ecological functions – sheltered under their ecological umbrellas.

The Activities and Results/Outputs listed above will consolidate support behind the suite of Eastern Steppe Landscape Species, providing a needed focus for community, local and national-scale wildlife conservation initiatives on the Eastern Steppe. Broader adoption of the LSA will provide a mechanism for institutionalizing the transparent and participatory components of the LSA and lead to the development of the kind of land management policies and practices that resolve conflicts between people and wildlife.

Activity 1.3.2 Develop a spatially explicit representation for threat abatement and landscape conservation

The Geographic Information System (GIS) of the Eastern Steppe, which the ES-LLP has invested heavily in creating since the start of the program, has proven to be an essential tool for understanding and managing threat abatement and conservation initiatives at the landscape scale. During the course of the project the program’s Mongolian GIS and Remote Sensing (RS) specialist has identified the various sources of information necessary to build and/or update the Biological, Human and Conservation Landscapes for the Eastern Steppe Landscape Species. These data have been collected with assistance from the New York LLP Coordination Unit and Mongolian partners in various agencies and research institutions that use and collect GIS and RS data. The kind of information collected and updated regularly includes vegetation and topographical information that defines habitat, well location and status data to further define the pattern of livestock and human distribution across the steppe, and any information on the location of current and future oil extraction operations and associated infrastructure.

In the final year of the ES-LLP, we will focus on transferring the lessons learned and some of the skills necessary to use GIS to spatially represent threat abatement and landscape conservation in the Eastern Steppe. One mechanism for this information transfer will be a series of workshops and training sessions with Eastern Steppe GIS specialists from the Protected Area Authority and Land Use Planning Departments. These sessions will be conducted by the Eastern Steppe LLP GIS/RS specialist, Mr. Ochirkhuyag, who has had the opportunity to develop his own skills and knowledge of the conservation applications for GIS during the course of FY08. The second mechanism will be through continued engagement with stakeholders on the Eastern Steppe, specifically specialists from “Zuun Bus” partner organizations WWF and TNC, as outlined in Activity 1.3.3. The WCS Eastern Steppe Landscape Species, Biological and Threat Landscapes have and will continue to be used to inform the current TNC-led GAP Analysis of the region through the “Zuun Bus” partnership.

Results/Outputs:

- A group of Eastern Steppe protected area and land use managers with an understanding of the way in which the Biological, Human and Conservation Landscapes for the Eastern Steppe were constructed and some basic skills necessary to use GIS data to understand and manage threat abatement and conservation initiatives at the landscape scale. WCS is committed to keeping our core technical staff employed so that they can continue to provide the kind of outreach developed during the USAID-funded ESLLP. We do see a need for long-term and consistent engagement so that relationships with institutions remain strong and the motivation levels of individuals remains high
- An updated GIS database for the Eastern Steppe with information necessary to update the Biological, Human and Conservation Landscapes for the Eastern Steppe.
- Reaction from Eastern Steppe stakeholders (local communities, local, provincial and national government) to the Biological, Human and Conservation Landscapes for the Eastern Steppe as a means of refining these models and the overall conservation plan for the region.

Threats Addressed:

The use of GIS and spatially explicit representations of threats and threat abatement on the Eastern Steppe have proven to be an essential tool for planning and coordinating conservation across an area as enormous as the Eastern Steppe. By passing on lessons learned from the approach and the skills necessary to refine and adapt it using GIS, local

protected area and land use managers will be better able to plan, coordinate, and implement local conservation initiatives.

Activity 1.3.3 Identification of points for critical action to conserve Eastern Steppe Landscape Species

The ES- LLP has also identified and engaged a significant number of critical actors across the landscape (community groups, local governments and NGOs) with an interest in conservation. Additionally, the establishment of the WCS/TNC/WWF “Zuun Bus” partnership brings together international NGOs with a commitment to the conservation of the grasslands and watersheds of the Eastern Steppe region.

Through application of the Landscape Species Approach (LSA), the Eastern Steppe LLP has identified points for critical action and has encouraged others to adopt a systematic approach to conservation planning. The LSA and the participatory process we have used for building Conservation Landscapes are effective tools for identifying points for critical action and coordinating conservation efforts among partners across the landscape. The growing number of actors in the region increases the need to coordinate efforts and build consensus around points for critical action, so that the resources for conservation can be distributed as efficiently and effectively as possible. In FY09, the ES-LLP will continue to share the lessons that we have learned from our application of the LSA on the Eastern Steppe and to act as a resource for other organizations engaged in landscape-level conservation planning. Furthermore, the LSA will form the foundation for the work that will continue under the WCS/TNC/WWF “Zuun Bus” partnership.

Points for critical conservation action and specific activities planned for FY09 are listed below:

1. **The Nomrog Bridge:** The construction of the Nomrog Bridge began in FY08, based on an agreement between the Governments of Mongolia and China. The Nomrog Bridge itself crosses the international border just outside the northern boundary of the Nomrog Strictly Protected Area on the Eastern Steppe, and is predicted to negatively impact both the park and the steppe. The primary concern is that the presence of the bridge, and the increased access it will provide to a very remote region of the steppe, will facilitate wildlife poaching, habitat destruction and significant disturbance in the region. The potential of extending the planned “Millennium Road” to this far eastern region of the steppe is also a conservation concern for the same reasons.

ES-LLP staff had the opportunity to visit the construction site in September 2007, and revisited the site in September 2008. The construction of the bridge has been completed on the Chinese side of the border and ends abruptly on the Mongolian side of the border in the middle of the river with no signs of a connecting road. Local authorities, however, reported that the construction of the bridge and the adjoining road will begin again in April 2009.

In FY09, the Eastern Steppe LLP will continue discussions with TRAFFIC East Asia, begun in FY08, about the possibility of monitoring wildlife trade from the Chinese side of the Nomrog Bridge. In addition, the project will continue to work with Nomrog border guards (Activity 2.2.1) to enhance wildlife law enforcement in the region, to engage local stakeholders, through the “Zuun Bus” partnership, and, where possible, to provide guidance on the mitigation of the negative impacts of this development decision.

2. **Daqing Oil Company (Petro China) and Associated Development:** In FY09, the ES-LLP will partner with The Nature Conservancy on continued dialogue with Daqing (Petro China) oil company. The company, headquartered in Harbin, China, represents the largest industry on the Eastern Steppe and its drilling operations in the heart of the grassland raise significant conservation concerns. Daqing management has been receptive to dialogue and continued engagement to date. In FY09, we plan to present a series of concrete actions for gazelle conservation and habitat preservation for Daqing to consider. Some of this dialogue may be facilitated by the WCS China program and TNC staff in China.
3. **The Mongolian Gazelle:** The Mongolian gazelle is arguably one of the most important Landscape Species on the Eastern Steppe and there is broad stakeholder support for the conservation of this species and its habitat. Although delayed in FY08, the final draft of the Mongolian Gazelle Management and Action Plan will be

presented to the Mongolian Ministry of Nature and Environment in FY09, along with a request for its official adoption by the Government of Mongolia. The government's adoption of a management and action plan for one of the Eastern Steppe Landscape Species within the time frame of this project will be a significant accomplishment. The WCS/TNC/WWF "Zuun Bus" partnership has made this action plan one of its priority policy initiatives. On-going research on the migration of the Mongolian gazelle will be supported through a grant from the National Science Foundation implemented by the University of Maryland and University of Massachusetts with logistical support from WCS.

4. **The Siberian Marmot:** The Siberian marmot is another important member of the suite of Eastern Steppe Landscape Species. Like the gazelle, the Siberian marmot interacts strongly with people in the landscape; it plays an important functional role in the steppe ecosystem and has the potential to provide a sustained source of revenue for local people through the hunting of marmot for meat and fur. A government ban on the hunting and commercial trade of marmot has been in place since 2006, but, unfortunately, evidence suggests that populations of marmots on the Eastern Steppe have not yet recovered from the over-hunting and exploitation that they experienced in the 1990's. The ES-LLP will continue to work with livestock herder communities on the steppe to develop community-led marmot population monitoring as a mechanism for evaluating the recovery of the species and to develop sound strategies for their management and conservation with local and provincial policy makers.
5. **Remaining Eastern Steppe Landscape Species:** The ES-LLP will continue to collect data on the remaining Landscape Species as resources for this research are identified. Local wildlife officials and members of the livestock herder communities on the Eastern Steppe are contributing their knowledge of the distribution of, and threats to, these species during the course of Eastern Steppe workshops and community trainings (see Activity 2.2.2). Furthermore, the suite of Landscape Species will be incorporated into the group of conservation targets for the WCS/TNC/WWF "Zuun Bus" partnership's joint conservation efforts and plans for the region.
6. **Wildlife Trade and Hunting Management:** Over-hunting and illegal wildlife trade continues to be the primary threat to the majority of wildlife species on the Eastern Steppe. Through funding from the World Bank's Netherlands-Mongolia Trust Fund for Environmental Reform, Phase II, WCS will continue to focus on improving both the legal environment for hunting management and the enforcement of current wildlife trade laws in Mongolia (Activity 2.1).

Results/Outputs:

- List of needed actions to mitigate the impacts of the Millenium Road, developed with TRAFFIC Asia, including a decision about whether to monitor wildlife trade at the Nomrog Bridge crossing in China.
- Official adoption of the gazelle management plan by the Mongolian government.
- A Conservation Landscape for the Eastern Steppe guided by the Landscape Species Approach and developed with broad support from local stakeholders (Activity 1.1) and the international conservation community (WCS/TNC/WWF "Zuun Bus" Partnership) that outlines specific priority actions for conservation initiatives on the ground and at the policy level.
- Coordinated, efficient and effective response to critical points for conservation action on the Eastern Steppe.

Threats Addressed:

The Landscape Species Approach to conservation planning at the landscape scale incorporates information about the biology, distribution, and threats facing wildlife on the Eastern Steppe. This kind of spatial information is critical to the development of coordinated and sound wildlife management and land-use policies. By encouraging local stakeholders and other conservation organizations to continue to use this species-based approach to conservation, the long-term and successful conservation of the wildlife species of the Eastern Steppe landscape is more secure. This approach, that addresses the threats facing the suite of Eastern Steppe Landscape Species, focuses efforts around a specific set of conservation targets, whose conservation will act as an "umbrella" of protection for wildlife across the landscape. Careful application of this approach will hopefully help to ensure that poorly designed development

schemes will be avoided and the effects of changing land-use practices on migratory species like the Mongolian gazelle will be mitigated.

Level of Effort (Total Activity 1.3): \$20,000 (USAID/EGAT \$15,000; WCS \$5,000)

USAID resources will be used to cover program operating costs, travel, data collection, conferences/workshops and local staff salaries. WCS funds support this activity by covering the salaries and benefits of WCS U.S.-hired staff. Additional funds to support some of the activities in this section have been received since the drafting of the FY2009 IP. Additional funding from the World Bank (Netherlands-Mongolia) has been confirmed at a level of approximately \$80k/year for addressing wildlife trade issues in particular. Other efforts will be more limited in scope due to the limited resources available.

OBJECTIVE 2: Develop and implement sustainable and adaptive mechanisms to strategically address threats across the landscape

Level of Effort (Total Objective 2): \$190,844 (USAID/EGAT: \$80,500; WCS: \$55,344; World Bank: \$40,000 (applications for additional funding pending); USAID/GAINS: \$15,000)

Activity 2.1 Establish necessary management mechanisms

The national-level Mongolian government agencies with jurisdiction over wildlife protection, conservation and management often lack the information and resources necessary to effectively address priority conservation issues. Multiple agencies are responsible for various components of wildlife conservation in Mongolia, and this often leads to breakdowns in communication and limited cooperation among the actors with an interest in wildlife conservation and natural resource management. Coordination and information sharing across the Eastern Steppe has definitely increased during the course of the ES-LLP. The efforts made by the project to highlight specific conservation concerns and introduce a species-focused approach to conservation planning and management across the Eastern Steppe landscape have been recognized by local, provincial and national stakeholders as a way to coordinate efforts and improve their efficiency and effectiveness. Obviously, it is impossible for a project with the scope of the ES-LLP to restructure the government agencies with jurisdiction over wildlife. However, the project has been successful at facilitating the development of improved mechanisms for management, for three specific management issues which the program has identified, as outlined below:

1. **Illegal Hunting and Wildlife Trade in Mongolia:** The Mongolia Program has secured funding from the World Bank's Netherlands-Mongolia Trust for Environmental Reform, Phase II (NEMO II), to continue program activities under the project entitled "Improving Hunting Management and Wildlife Trade Enforcement in Mongolia". The goal of this project is to create effective inter-agency wildlife management and wildlife trade law enforcement by focusing on the development of specific legislative amendments. These amendments will hopefully enable both national and local entities to establish science-based hunting management and engage in effective trade enforcement. In addition to the legislative work, the project includes training and capacity building for wildlife trade law enforcement staff and the establishment of multi-agency patrol teams. The focus of enforcement activities in FY09 will be Ulaanbaatar markets and collection points where wildlife and wildlife products are traded. In FY09, a plan will be put in place to expand the multi-agency patrol team approach to regional markets. Choibalsan, the main market city on the Eastern Steppe, will be one of the first regional markets targeted as the project expands. As indicated above this activity will be funded by the World Bank's NEMO II project. Funds for the calendar year 2009 have now been confirmed. No USAID funds will be used for this activity but the information is provided since there are clear links to the ESLLP threats-based initiatives.
2. **Species' Management Plans:** The government of Mongolia does not currently have any wildlife species management plans in place. A number of management and/or action plans for specific endangered species have been developed by individuals and organizations in the conservation community, often with the

participation of government officials; however, a standard procedure or mechanism for the review and adoption of these plans by the government does not exist. The ES-LLP has a strong interest in moving forward the draft Mongolian Gazelle Management Plan (Activity 1.3.3), which has broad support from the international conservation community (e.g., the “Zuun Bus” partnership), Mongolian scientists and Eastern Steppe stakeholders. In FY09, the ES-LLP will work with government and NGO partners to build a mechanism for official review and adoption of wildlife management plans, using the Mongolian Gazelle Management and Action plan as a test case. Similar plans and documents for the Siberian marmot have been drawn up by the ES-LLP, and other organizations (Zoological Society of London/Steppe Forward Programme, International Snow Leopard Trust, International Takhi Group, etc.) have contributed similar management and action plans for other Mongolian wildlife species. These organizations have pledged to work together in FY09 to assist the Ministry of Nature and Environment with the development of these necessary management mechanisms.

3. **Pasture Management/Toxin Use:** The previously widespread use of Bromadiolone, an anti-coagulant toxin, to poison Brandt’s voles led to secondary poisoning of non-target wildlife species. The use of Bromadiolone for vole control purposes in Mongolia has been discontinued as a result of a collaborative effort led by WCS, WWF-Mongolia and the UNDP-GEF Sustainable Grasslands Management Program. The WCS Mongolia Program continues to monitor toxin use and policy, especially on the Eastern Steppe. A new potential pasture management-related threat that will be addressed in FY09 is the impact of the conversion of steppe grassland pasture to more intensive forms of crop and livestock agriculture. The effects of this potential conversion will be explored as a component of activity 3.1.

Results/Outputs:

- Legislation which supports improved wildlife hunting management and wildlife trade enforcement in Mongolia.
- Multi-agency patrol teams trained to detect wildlife in markets and to use existing legislation to enforce laws governing wildlife trade.
- An identified procedure for submission, review and eventual adoption of wildlife species management plans by the Mongolian Ministry of Nature and Environment.
- Continued monitoring of pasture management policy to prevent the use of toxins as a tool for Brandt’s vole control and to evaluate future impacts of potential steppe conversion to agriculture.

Threats Addressed:

Over-hunting to meet the demands of commercial trade in wildlife remains one of the greatest threats to wildlife on the Eastern Steppe and across Mongolia. Each of the species management and action plans developed to date include the need to address the unsustainable hunting and uncontrolled trade in wildlife that is ongoing in Mongolia today. Pasture management, and competition and conflict between livestock and wildlife, is also highlighted in most wildlife species management and action plan documents. Government adoption of species management and action plans, and the eventual implementation of those plans, is critical to the long-term conservation of wildlife on the Eastern Steppe. The ES-LLP is committed to work with the government, NGO partners (e.g., through the “Zuun Bus” partnership), Mongolian scientists and Eastern Steppe stakeholders to build a mechanism for the official review, adoption, and implementation of wildlife management plans. Although this process will use the Mongolian Gazelle Management and Action Plan as a test case, similar management plans for other Mongolian wildlife species have been developed, and therefore the organizations which developed these plans have a vested interest in working together in FY09 to encourage the Ministry of Nature and Environment to implement these necessary management mechanisms.

Level of Effort (Total Activity 2.1): \$54,844 (USAID/EGAT: \$20,500; WCS \$14,344; World Bank: \$20,000)

USAID resources and World Bank funds will be used to cover program operating costs, travel, data collection, conferences/workshops and local staff salaries. WCS funds support this activity by covering the salaries and benefits of WCS U.S.-hired staff.

Activity 2.2 Enhance local capacity to implement the strategy

Activity 2.2.1 Enhance Local Institutional Capacity

There is no single agency or institution dedicated to wildlife and/or natural resource management on the Eastern Steppe. To enhance local institutional capacity to address threats to wildlife in the region, the ES-LLP works across a series of institutions that play a significant role in developing policy and implementing programs that directly and indirectly impact wildlife and grassland conservation. The different institutions with responsibility for some aspect of wildlife protection and management in the Eastern Steppe include the aimag (province) Environmental Department, the “environmental inspectors” of the provincial branches of the State Specialized Inspection Agency (SSIA), the Protected Area Administration (PAA) of the Ministry of Nature and Environment, and the State Border Defense Agency (SBDA) which has jurisdiction for wildlife protection and conservation within the international border regions (approximately 80% of the Mongolia’s protected areas overlap at least partially with border zones). Representatives from each of these institutions are always present during ES-LLP conservation planning initiatives as described in Activities 1.1 – 1.3. In addition, during the course of the project, the ES-LLP has piloted a “Collaborative Wildlife Protection Program” in the Nomrog Strictly Protected Area to promote and assess the effectiveness of interagency collaboration on issues of wildlife law enforcement and protection.

Collaborative Wildlife Protection Program in Nomrog Strictly Protected Area (SPA)

Nomrog SPA is one of several protected areas on the Eastern Steppe that overlap with international borders and regions patrolled by the State Border Defense Agency (SBDA) border guards. The ES-LLP has conducted a series of wildlife law enforcement trainings to increase the wildlife monitoring and protection skills of the individuals working within these protected areas. A standard curriculum (training manual) has been developed for the wildlife law enforcement training program. The joint trainings have promoted a collaborative approach to wildlife protection which is essential in these regions where protected areas and international borders overlap. The project in Nomrog SPA has been implemented in collaboration with the three agencies that have jurisdiction over wildlife protection within the protected area, including the SBDA, Protected Area Administration (PAA) and the “environmental inspectors” of the State Specialized Inspection Agency (SSIA). The ultimate goal is to establish a “Collaborative Wildlife Protection Program” in Nomrog SPA as a model for a collaborative approach to wildlife protection on the Eastern Steppe. The program also aims to build the capacity of individuals within each of the agencies, increasing their ability to address threats to wildlife in the protected area and beyond.

In FY09, the ES-LLP will complete an evaluation of the Collaborative Wildlife Protection Program by analyzing data collected during a training review and site visit to Nomrog SPA September 1-12, 2008. The assessment will specifically measure: a) the frequency of wildlife patrol activities; b) the quality of information contained in patrol records; and c) the degree of collaboration and information sharing among agencies with jurisdiction in and around the park (PAA, SBDA and SSIA). The results of this assessment will determine the extent to which the program can and should be expanded to include other border region protected areas. The feasibility of establishing a PAA and SBDA staff-conducted long-term wildlife monitoring program to track the impact of the collaborative wildlife protection program in Nomrog SPA will also be assessed.

Results/Outputs:

- An assessment of the effectiveness of our joint wildlife law enforcement training and capacity building in Nomrog SPA, including a discussion of the feasibility and practicality of expanding the scope of the pilot Collaborative Wildlife Protection Program to other protected areas in border regions of the Eastern Steppe..
- A plan for completing a baseline wildlife survey in Nomrog SPA and establishing a long-term wildlife monitoring plan for Nomrog SPA in collaboration with the Nomrog SPA PAA, SSIA and SBDA.
- Completion of the first stages of incorporating the training material developed for the wildlife law enforcement training program at Nomrog SPA into the official training manual for SBDA personnel. As a component of a standard SBDA curriculum, the “Wildlife Law Enforcement” training manual could be distributed to all protected areas on the Eastern Steppe where the Protected Area Administration and the State Border Protection Agency share responsibility for wildlife protection. We have a strong indication that at the local level (Eastern Steppe) that there is strong support for incorporating the training material (15 written modules) originally created for the “wildlife law enforcement training program” into the formal curriculum of State Border Defense Agency guards. In FY09 we plan to determine the

process and potential of getting the material formally incorporated into the SBDA training curriculum at the national level.

Threats Addressed:

The Eastern Steppe landscape faces multiple threats including illegal hunting, fishing, grazing, hay-cutting, infrastructure development and other activities that conflict with wildlife conservation plans and strategy. Local institutions with responsibility for wildlife management and protection are faced with the challenge of addressing these threats in the face of multiple demands on Eastern Steppe resources. The ES-LLP has engaged with SBDA, SSIA and PAA, through a joint training program, to promote collaboration in wildlife monitoring and protection as a strategy for efficient use of resources and more effective patrolling and action to address the priority conservation issues of illegal hunting and wildlife trade.

Activity 2.2.2 Enhance Local Community Capacity

The Eastern Steppe LLP has developed a strong partnership with the Eastern Mongolia Community Conservation Association (EMCCA) to work directly with communities of livestock herders on the Eastern Steppe to address threats to wildlife and livelihoods. Community-based natural resource management continues to be emphasized by the Mongolian government, civil society, and representatives of national and international conservation organizations as a solution to the limitations of governmental enforcement of communal grazing rules, pasture management plans and wildlife hunting regulations. Strong community-led initiatives are essential to the long-term conservation of the Eastern Steppe landscape. Communities of livestock herders are potentially a powerful constituency for grassland conservation and wildlife protection, as their livelihoods depend directly on the health and long-term sustainability of these resources.

The ES-LLP has worked through the EMCCA to build the capacity of livestock herders, and the “community partnerships” for conservation into which they are often organized, to monitor, manage and protect their natural resources. The ES-LLP provides direct technical assistance to livestock herder community groups, and works to build the capacity of the EMCCA, who remains the local NGO best positioned to continue the work initiated by the ES-LLP due to their commitment to advancing community-based natural resource management on the Eastern Steppe.

The ES-LLP activities planned with local communities in FY09 are focused on the three areas described below:

Capacity Building—Wildlife Protection, Monitoring and Management

Wildlife Surveys in Community-managed Areas: During FY09, baseline surveys of wildlife populations will be conducted in community-managed areas, and the current level of threats/impacts to those populations will be ascertained. Although a number of the baseline surveys of community managed areas have been done the level of effort and techniques used across community-managed areas has not been standardized to date. This work will be conducted by community partnership members, supervised by ES-LLP staff; this arrangement provides another opportunity to increase the capacity of these important local actors. These baseline data, coupled with sound management plans, will form a solid foundation for successful herder community-based natural resource management and wildlife conservation in the community-managed areas on Mongolia’s Eastern Steppe.

Management/Action Plan Development: Community partnerships have been asked to submit draft management plans to the EMCCA and the ES-LLP by fall 2008. WCS Eastern Steppe LLP staff will continue working with the EMCCA and local communities to refine these management plans. The management plans are an important part of the proposals for official community partnership approval, which involves reviews by local government and the acceptance of the community’s management plan.

Database Development for Wildlife and Natural Resource Use Monitoring, and Wildlife Use Violations Reporting: During FY09, ES-LLP staff will assist the EMCCA with the development of a database for monitoring wildlife and natural resource use, and use violations. Community rangers will periodically submit data to the EMCCA; the EMCCA will maintain the database, summarize the information, and send summaries back to livestock herder communities for use in their wildlife and natural resource management activities. By training a local Mongolian NGO

(EMCCA) to maintain the database, a sustainable mechanism for sound wildlife and natural resource management will be established. The EMCCA has an incredibly committed and capable core staff. They have specifically requested this particular kind of assistance with database set up and maintenance. This is an area that WCS plans to commit its own resources through donor support and where it will continue to look for additional resources to support this community-based organization.

Governance & Community-Based Conservation

Engaging Local Government in Community-based Wildlife Conservation: During FY09, the ES-LLP and EMCCA will co-host at least one workshop bringing together herder community leaders and district, county and provincial governors to review the current law allowing for formation of “community partnerships” for wildlife and natural resource ownership in community-managed areas. Challenges surrounding this legislation’s interpretation and implementation will be addressed and a framework for finding solutions to current obstacles will be developed.

Support Network Development—Linking Conservation Communities

Community Conservation Exchange Program: WCS will also facilitate the formation of a community exchange program to encourage horizontal exchange and learning between community partnerships. To date WCS has identified 14 “active” community partnerships across the Eastern Steppe which would be strong candidates for an exchange program. This program will strengthen civil society through the establishment of a support network for community partnerships.

Results/Outputs:

- Communities of livestock herders on the Eastern Steppe with improved skills in wildlife monitoring and wildlife management.
- Governance structures on the Eastern Steppe which strengthen community-based natural resource management.
- An expanded network of Mongolian livestock herder groups engaged in wildlife conservation and natural resource management initiatives with opportunities to share experiences and provide support to fellow community conservation groups.
- A local NGO, the EMCCA, with the capacity to advance community-based conservation on the Eastern Steppe
- A database that tracks natural resource use on the Eastern Steppe, with data accessible to local herder communities.

Threats Addressed:

While the Mongolian Eastern Steppe has an extremely low human population, the nomadic pastoralism of the livestock herders in the region means that little of the landscape, including the existing protected area networks, remains unaffected by human activities. While there is still the potential to save large stretches of the landscape from environmental degradation, such protection can only occur if local communities are behind conservation initiatives and maintain some “ownership” of natural resources. It is critically important to build the capacity of local communities to better manage their natural resources in a sustainable manner while simultaneously supporting initiatives that will improve the legal framework and local political support for community based natural resource management on the Eastern Steppe.

Activity 2.2.3 Enhance Local Disease Management

Outbreaks of diseases such as foot-and-mouth threaten wildlife on the Eastern Steppe as well as local livelihoods, the national economy and international trade. There is a critical need for science-based livestock and wildlife health policies and programs to minimize outbreaks, to establish plans to reduce disease impacts on all sectors, and to pinpoint the underlying factors contributing to health problems. Improved capacity for health monitoring in both domestic and wild populations of animals can prevent widespread wildlife and livestock death, and epidemiological monitoring of sentinel species like gazelles can help determine the factors contributing to disease outbreaks or other ecological disturbances- including those with potential ramifications for people. Representatives from the veterinary sector have been involved in all ES-LLP participatory conservation planning activities as described in Activity 1.1 - 1.3. Two wildlife health projects described below have been supported with non-GCP funding. A component of the

avian influenza project and all of the Mongolian gazelle work has and will be implemented on the Eastern Steppe. These WCS Mongolia Program wildlife health initiatives provide information and training, through direct involvement in field-based wildlife health activities, to enhance local disease management on the Eastern Steppe and beyond.

Global Avian Influenza Network for Surveillance-GAINS

The Global Avian Influenza Network for Surveillance (GAINS) project on wild and migratory birds of Mongolia was funded by USAID through May 2009 and has been used to leverage additional funding from the National Institutes of Health and National Institute of Allergy and Infectious Diseases (NIH-NIAID) from 2008 through 2012. The following work is planned to continue over the NIH-NIAID funded project implementation timeframe:

- Annual surveys will take place during summer seasons (May through September). These will include counts of live birds on lakes, surveys for dead and sick birds, measurement of water quality (pH, temperature, salinity, conductivity) and observations on human and livestock water use.
- Samples will be collected from all captured live birds, all sick birds and all dead birds. These samples will be exported to the University of California Davis for influenza testing.
- Live bird sampling will focus on key groups including Anseriformes (ducks, geese and swans) and Charadriiformes (terns, gulls and shorebirds).
- Live birds will be marked to provide information on dispersal and migratory movements using either color marks (such as neck collars or shorebird leg flags), and/or individually numbered metal leg bands.
- WCS survey teams will coordinate closely with Mongolian national avian influenza surveillance and response teams in identifying and responding to suspected outbreaks of Highly Pathogenic Avian Influenza (HPAI).
- Surveillance data and laboratory findings will be made available through the openly accessible web-based GAINS database.
- Students (biology, ecology and veterinary) enrolled for the 2009 field season will be trained on the following techniques: health and safety, proper and safe bird capture, handling and sampling techniques, infectious disease sample handling, bird observation and identification.
- WCS will continue to invest in promoting bird marking and assisting young Mongolians in acquiring skills in the safe capture and marking of wild birds. As one example of this, WCS, in collaboration with two expatriate ornithologists (Brian Watmough and Tom Jenner) and the National University of Mongolia Mongolian Bird Watching Club, have submitted a proposal to the Ministry of Nature and Environment to train local students in techniques of bird capture, handling and marking in the vicinity of Ulaanbaatar.

Mongolian Gazelle Health Evaluation

Disease at the interface of wildlife, livestock and human health continues to be a concern on the Eastern Steppe. The principle goal of our study is to establish the relationship between the presence of Foot and Mouth Disease (FMD) virus in Mongolian gazelles and domestic livestock; specifically, we want to determine whether gazelles could form a reservoir for the virus on the Eastern Steppe of Mongolia. Our objective is to determine the presence and prevalence of FMD virus among gazelles over multiple years, including years when outbreaks of FMD virus among domestic livestock do and do not occur. WCS is looking for funds to devote to data collection and to further investigate the livestock-wildlife interface diseases. The following related activities are planned for FY09:

- A research paper is currently being drafted, for submission to the Journal of Wildlife Diseases which outlines evidence suggesting that Mongolian gazelle are not reservoirs of FMD virus. It is expected to be published in 2009. In addition, the paper and its contents will be presented by WCS animal health staff in Mongolia at national-level meetings in coordination with the team of Mongolian scientists working to address this particular livestock disease issue.
- There will be the possibility to conduct sero-surveillance on 30-40 adult gazelles captured for placement of satellite transmitters in Dornod province in the fall of 2008.

- Possibilities for a wider scope sero-surveillance study of Mongolian Saiga and Mongolian Gazelles in comparison with local livestock are being discussed and, if funding allows, will be planned in 2009.

Results/Outputs:

- An improved understanding of the role of wild migratory birds in the transmission of Highly Pathogenic Avian Influenza and the H5N1 strain in Asia.
- Information on wild bird migratory patterns and habitat use which is essential for conservation of species across their ranges.
- A national bird banding program in Mongolia with trained and motivated banding practitioners.
- Publication of a series of reports describing the disease interaction between Mongolian gazelle and livestock populations on the Eastern Steppe.
- Wildlife/livestock health management decisions based on a greater understanding of the epidemiology (transmission patterns) of diseases which affect both wildlife and livestock or domestic animal populations.
- An increasing awareness, across the wildlife, domestic livestock and human health sectors, of the importance of interface disease in conservation and the positive impact sound domestic animal health policies can have on wildlife conservation.
- Improved capacity of Mongolian biologists and veterinary specialists to address and understand disease dynamics in wildlife populations.

Threats Addressed:

Livestock serve as persistent reservoirs for highly contagious and virulent diseases such as brucellosis, tuberculosis and foot-and-mouth which pose a considerable risk to wildlife. There are concerns that diseases like the every changing highly pathogenic avian influenza virus could have catastrophic impacts on population numbers and viability of many populations of endangered or threatened wildlife species. Standard training of Mongolian veterinarians and agricultural specialists does not include the study of wildlife disease. Similarly, standard training of Mongolian biologists does not include wildlife disease diagnosis or management. There is an ongoing need for conservation planning initiatives to incorporate the understanding and prevention of disease transmission among wildlife species and between populations of domestic animals and wildlife. Improving the understanding of disease transmission among and between wildlife and domestic animals populations will prepare Mongolia and the region to address many serious and potentially deadly diseases known to be carried and spread by small mammal, bird, ungulate and insect vectors. WCS wildlife health initiatives provide both information on wildlife disease dynamics and training opportunities for young biologists and veterinarians. Specific wildlife health training activities include seminars and workshops on disease transmission and surveillance, field-based internship positions for students and the practical, one-on-one training opportunities extensive field-based wildlife disease programs provide for all partners and participants.

Activity 2.2.4 Enhance Local Scientific Capacity

Long-term management of biodiversity on the steppe will depend on the emergence of a skilled and dedicated cadre of Mongolian scientists who can apply themselves to the problems of biodiversity conservation. WCS has worked to develop the skills of its own local Mongolian staff and to collaborate closely with students and scientists at the National University of Mongolia (NUM) and the Mongolian Academy of Sciences (MAS), and will continue to do so in order to build the capacity of Mongolian professional scientists, graduates, and students and to assist them in developing and implementing research and conservation projects. In FY09, WCS will work closely with NUM faculty to identify funding and opportunities to improve the university’s “conservation biology” curriculum in partnership with the Network of Conservation Educators and Practitioners (NCEP²). At an introductory workshop in FY08, participants for the academic and conservation communities identified two key requirements for building current and future

² NCEP is an international project of the CBC and its collaborators, currently active in the United States, Latin America, Asia, Africa, and the Pacific. NCEP staff and project participants produce and disseminate a series of multi-component educational modules and case studies, each containing both technical and theoretical background and examples of practical application of a specific conservation topic. The NCEP modules, which mirror the richly interconnected, multidisciplinary nature of the field, are designed to serve as resources for professors and trainers in biodiversity conservation, and, importantly, to equip future conservation professionals with the necessary skills to become effective practitioners. In addition, the project collaborates with local institutions to develop and offer training based on the modules and customized to meet local needs.

conservation capacity within and beyond protected areas in Mongolia: (1) the need to build knowledge and skills of in-service conservation practitioners and (2) the need to enhance existing curricula in conservation science at the National University of Mongolia.

Providing opportunities for students and conservation practitioners to develop and practice their field-based skills is a very important part of building local scientific capacity to address threats to wildlife on the Eastern Steppe. Specific capacity building opportunities for local scientists in FY09 include:

1. **Mongolian gazelle project:** A young female WCS Mongolia staff member, a graduate student from NUM and a junior biologist from MAS will participate in all field-based components of the Mongolian gazelle project (3 trainees expected).
2. **Wildlife Trade:** A graduate student from the NUM will complete an internship with WCS as the “Wildlife Trade Fellow” responsible for overseeing market surveys, data collection, and data analysis. Six to eight undergraduate students will be involved in this project, conducting surveys as market observers (7-9 trainees expected).
3. **Community-based conservation on the Eastern Steppe:** The training and capacity building components of the community-based work on the Eastern Steppe are directed at volunteer rangers from the livestock herder community conservation group. The trainings provided in FY09 will focus on wildlife monitoring and projection. The trainings are designed to improve the scientific capacity of these livestock herder community members (60 trainees expected).
4. **Nomrog wildlife protection program:** Training participants in FY08/FY09 will include new Nomrog protected area staff and young officials from both the State Border Defense Agency and State Specialized Inspection Agency (15 trainees expected). The focus of this training will continue to be field craft, wildlife identification and monitoring, conservation policy and the laws of Mongolia protecting wildlife and biodiversity as previously approved by the USAID Living Landscapes Program CTO, Doreen Robinson. No fire arms training will be provided in any form.
5. **Avian Influenza:** Mongolian veterinarians and ornithologists are, and will continue to be, integral members of this specialist team. This project, although not within the scope of the GCP-funded ES-LLP, will increase capacity in the area of wild bird handling, survey skills and basic ecology (8 trainees expected).

Results/Outputs:

- Availability of training opportunities for Mongolian scientists through improved curricula in the area of conservation biology and participation in field-based research and conservation projects.
- Information collected and reports produced will improve our overall understanding of steppe ecology and threats to wildlife in the region, informing government policies on wildlife and sustainable development of the Eastern Steppe.
- Improved capacity of Mongolian scientists and conservation practitioners to understand and study the complex steppe ecosystem.
- Well-trained future national advocates for sound research-based natural resource and wildlife management policy.

Threats Addressed:

The Eastern Steppe region is slated for significant development. While short grass steppe systems appear simplistic and robust, extensive research in North American prairies and African savannas has shown that this is not the case, and mismanagement of vast steppe areas has occurred in China. To recognize potential deleterious impacts of human activity on the Eastern Steppe ecosystem, it is necessary to collect data on a wide range of conservation targets, and to understand heterogeneity in the system. At the same time, long-term management of biodiversity on the steppe will depend on the emergence of a skilled and dedicated cadre of Mongolian scientists working within the Mongolian PAA, at aimag-level Environmental Departments, as environmental inspectors in the State Specialized Inspection Agency

and with community-based natural resource management groups, who can apply themselves to the problems of biodiversity conservation.

Level of Effort (Total Activity 2.2): \$100,000 (USAID/EGAT: \$40,000; WCS: \$25,000; World Bank; \$20,000; USAID/GAINS: \$15,000)

USAID resources, World Bank and USAID/GAINS funds will be used to cover program operating costs, travel, data collection, conferences/workshops and local staff salaries. 30% of USAID funds will be spent on Activity 2.2.1; 50% on activity 2.2.2; the remaining 20% will be divided to cover activities 2.2.3 and 2.2.4 WCS funds support this activity by covering the salaries and benefits of WCS U.S.-hired staff.

Activity 2.3 Implement mechanisms for measuring success and adapting the landscape strategy

Monitoring key wildlife populations on the Eastern Steppe is a critical component of assessing the success of long-term biodiversity conservation in the region. During the course of the Eastern Steppe LLP, the program has been able to contribute to the monitoring of Mongolian gazelle (collecting information on the size of the population and its migratory patterns) and Siberian marmot (determining the spatial distribution and local population density of species on the steppe). Additional monitoring of Mongolian gazelle migration and tracking of resources was made possible when, in FY08, a grant proposal was funded by the National Science Foundation, through a partnership with the University of Maryland, University of Massachusetts and the Smithsonian Institute for three years of research support. Unfortunately, the ES-LLP lacked the necessary resources for field-based surveys or monitoring of the remaining Eastern Steppe Landscape Species. However, the WCS Mongolia program will continue to pursue funding to support long-term wildlife population monitoring on the Eastern Steppe through partnerships with universities and research institutions.

Specific interventions like the Collaborative Wildlife Protection Program in Nomrog Strictly Protected Area (SPA) will also be monitored in FY09 through the review of patrol forms and monthly reports submitted by SPA staff and border guards.

The ES-LLP has focused on developing monitoring plans for wildlife in herder community managed areas (see Activity 2.2.2). Ideally a monitoring framework should be completed for each of the Eastern Steppe Landscape Species and important sites on the Eastern Steppe, including the Nomrog Strictly Protected Area. Since the resources needed to implement these monitoring plans were lacking, time was not dedicated to their development. In FY09, the ES-LLP will identify the steps necessary to create monitoring frameworks for the Eastern Steppe Landscape Species to guide future work, in collaboration with the “Zuun Bus” WCS/TNC/WWF partnership.

Results/Outputs:

- A Mongolian gazelle research program funded by the National Science Foundation which will produce important information on gazelle migration and habitat needs.
- A formal assessment (successes, challenges, and “lessons learned”) of the pilot “Collaborative Wildlife Protection Program” within Nomrog SPA.
- An emphasis on the importance of developing monitoring frameworks for the Eastern Steppe Landscape Species and other conservation targets identified by the “Zuun Bus” WCS/TNC/WWF partnership.
- Integration of livestock herder community groups’ wildlife monitoring plans with monitoring frameworks for the Eastern Steppe Landscape Species.

Threats Addressed:

The Eastern Steppe faces a significant threat from poorly designed development and resource management plans, as well as over-harvesting of gazelle, marmots and other furbearing species. For example, previous government policies were based on incorrect assumptions about gazelle populations and trends, which led to poor enforcement efforts and a dwindling gazelle population. Monitoring can lead to better management decisions and improved management actions. Conservation organizations, local governments and community members must have monitoring information in order to make sensible wildlife management decisions, design appropriate conservation actions, and measure success.

Monitoring programs that assess multiple species, like the full suite of Eastern Steppe Landscape Species, are a more efficient use of resources and are beneficial because they allow the study of interactions between species and the identification of habitat overlap and multi-use areas.

Level of Effort (Total Activity 2.3): \$18,000 (USAID/EGAT \$10,000; WCS \$8,000)

USAID resources will be used to cover program operating costs, travel, data collection, conferences/workshops and local staff salaries. WCS funds support this activity by covering the salaries and benefits of WCS U.S.-hired staff.

Activity 2.4 Identify and strengthen constituencies for conservation at local, national and international levels to help ensure effective strategy implementation

WCS will continue to utilize our network of conservationists around the globe to foster collaboration with international scientists on issues facing Mongolia and provide necessary links between Mongolian scientists, wildlife managers, conservation policy makers and the international community. In FY07, in collaboration with an NGO called Conservation Ink, WCS began an effort to create educational and outreach materials packaged in a traveling “conservation trunk”. The conservation trunks for the Eastern Steppe were completed in FY08. In FY09, the trunks will travel from community to community across the Eastern Steppe through the system of rural schools. The materials in the traveling trunks are designed to educate community members and schoolchildren alike about the biodiversity on the Eastern Steppe. Exercises and activities encourage community monitoring of natural resources and promote wildlife conservation. Well-suited to the lifestyle of a nomadic population, the traveling Eastern Steppe conservation trunks significantly expand the reach of the ES-LLP to communities and children across the Eastern Steppe and serve as a means for building a strong local constituency for conservation among the people living, working and learning across the steppe. In the lifespan of the ES LLP the success of this achievement will only be measured by assessing whether or not the conservation trunk was delivered as planned and how many people (schools and communities) it reached. Conservation Ink is working to raise funds to keep the conservation trunks traveling for years to come at which point it will be more feasible to assess to degree to which these trunks have inspired people to lead conservation efforts and be good stewards of their environment. Efforts will be made in FY09 to identify a long-term “home” for the Eastern Steppe Traveling Trunk program. Interest has been expressed by the Dornod provincial Educational Department, the Protected Area Authority (PAA) and the Eastern Mongolian Community Conservation Association.

Results/Outputs:

- A strong network of conservationists and scientists with an interest in conserving the grasslands and wildlife of the Eastern Steppe.
- Delivery of conservation education and community outreach materials geared towards the steppe ecosystem to communities and school children through the Eastern Steppe traveling conservation trunk program.
- Increased involvement of the Eastern Steppe PAA and the EMCCA in the on-going development and long-term delivery of the Eastern Steppe Conservation Trunk program.

Threats Addressed:

Habitat degradation and wildlife loss from unsustainable practices such as overhunting and overgrazing is, in part, due to lack of awareness on the part of herders and local government institutions about the unsustainable nature and the long-term detrimental effects of these practices. Mongolians and international observers alike stress the need to make livestock herders and Mongolia’s rural community more aware of conservation issues and priorities. Addressing information gaps and stimulating dialog on these issues at the ground level in the Eastern Steppe will address the threat of a lack of local information about conservation issues; and, in time, motivate local communities to put more pressure on the central government to implement programs that protect the environment and preserve Mongolia’s wildlife. Through conservation education efforts directed at the herder communities with whom we work, as well as local government and park officials, we expect to begin a process of building awareness and, eventually, a grass-roots constituency for sound management and conservation.

Level of Effort (Total Activity 2.4): \$18,000 (USAID/EGAT: \$10,000; WCS: \$8,000)

USAID resources will be used to cover program operating costs, travel, data collection, conferences/workshops and local staff salaries. WCS funds support this activity by covering the salaries and benefits of WCS U.S.-hired staff.

OBJECTIVE 3: Learning and teaching best practices in the Mongolian Eastern Steppe landscape and beyond

Level of Effort (Total Objective 3): \$33,830 (USAID/EGAT: \$1,000; WCS: \$1,000; USAID/TransLinks \$31,830)

Activity 3.1 Using economic valuation of rangeland resources as a tool for site-based conservation: lessons learned across grassland sites

The Eastern Steppe is one of a suite of WCS Living Landscapes that focus on grassland ecosystems, including Ruaha (Tanzania), Patagonia (Argentina), and portions of Madidi (Bolivia) and the Madison Valley (USA). In both the Mongolian and Tanzanian Living Landscapes, nomadic pastoralism is an important feature of the landscape, and both projects are interested in assessing the value of the natural resources that exist in their landscapes. Such assessments of the value of natural resources that are of critical importance to both pastoralists and the wildlife that share their landscape, such as water and rangeland, highlight the critical need to protect these resources for both people and wildlife. Communication was established between the Eastern Steppe (Mongolia) and Ruaha (Tanzania) landscapes to encourage discussion of techniques for natural resource valuation and their application in the two sites; however, a decision was made to pursue specific projects at each site separately. In Mongolia the work has been carried forward with input and assistance from the TransLinks project. The specific case studies which will be developed are described in more detail below:

Economic and Ecological Valuation of the Siberian Marmot: This is a “desk study” which will rely on published research and supplementary data to review the ecological function of marmots in the Eastern Steppe and their economic value to the people of the region. The study will determine the ecological and economic importance of marmots on the Eastern Steppe and, based on the analysis of available information, will explore how changes in marmot populations might affect ecosystem services and local livelihoods. These functions and values will be considered in the context of three scenarios: their present populations, their pre-1940 populations and populations that continue to decrease below present levels. To date, all of the relevant literature and documents produced by the ES-LLP and other projects have been compiled. The analysis is due to be completed during the first half of FY09 as part of a course requirement for a student at Columbia University’s Center for Environmental Research and Conservation.

Mobile pastoralists & sedentary resources (Siberian marmot): The second case study will examine the governance structures available to manage and protect natural resources on the Eastern Steppe. Broadly, this case study is designed to build core knowledge and an understanding of how natural resource governance systems influence security, benefit sharing and sustainability on the Eastern Steppe. The study will focus on community-based natural resource management, for the Siberian marmot in particular. The central question is whether pastoralists (mobile livestock herders organized as community-based wildlife conservation groups, community partnerships or “nokhorlols”) on the Eastern Steppe can effectively manage and protect what is essentially a sedentary resource, the Siberian marmot. This case study will build on the work already completed by the ES-LLP through its partnership with EMCCA. Additional data collection is currently underway as part of the activities undertaken during ES-LLP staff visits to livestock herder community partnerships or “nokhorlols” in July and August 2008, as described under Activity 2.2.2. The major question to be addressed is whether the legal and practical mechanisms that are in place will provide for protection of natural resources, whether by government officials or an alternative body, when the community group members are absent (e.g., when grazing their livestock on summer, winter or spring pastures). Further research and the write-up of this case study will be completed in FY09.

The Potential for Intensive Crop Production in the Eastern Steppe of Mongolia: Cause for Concern?: The goal of this case study is to understand the potential for intensive crop production in the Eastern Steppe and its possible impacts on local biodiversity, particularly the Mongolian gazelle. There is concern that people (e.g., government, development

agencies) want to encourage intensive crop production in the Eastern Steppe, that such production may not be sustainable, and that it would have negative impacts on biodiversity. This case study will be developed as part of the TransLinks project and is expected to take 2-3 years to complete. In FY08, an initial set of objectives for the project have been developed and efforts to form a “project advisory committee” have begun. The project advisory committee will advise ES-LLP RS/GIS specialist Mr. Ochirkhuyag and WCS landscape ecologist Dr. Karl Didier on the agricultural and grassland management components of the study. The study will proceed in FY09 with assistance from representatives from the Nature Conservancy’s grasslands-based projects.

Results/Outputs:

- Documentation of the economic and ecological value of the Siberian marmot to the steppe ecosystem and the nomadic livestock herders who rely on the resource for supplemental family income.
- An understanding of how the present governance system on the Eastern Steppe, with its focus on community-based natural resource management and protection, will handle the issue of a mobile people “managing and protecting” a sedentary resource.
- An assessment of the potential threat of grassland conversion to intensive crop-based agriculture and a model of how the land-use change will affect the availability of habitat for Eastern Steppe Landscape Species, like the Mongolian gazelle, and other local biodiversity.

Threats Addressed:

A lack of recognition of the value of wild systems frequently leads to their conversion, over-exploitation, or degradation. Taking a close look at governance systems on the Eastern Steppe and identifying practices that do and do not promote the sustainable use of natural resources is an essential first step in identifying changes that need to be made to prevent the conversion or further degradation of the steppe. These detailed case studies, which investigate particular steppe resources, will provide the kind of information necessary to make a strong case for conservation. Dissemination of the information collected in these case studies is expected to change local and national perceptions and actions regarding conservation. In addition, the establishment of a global learning framework composed of international WCS scientists will assist the project in critical self-evaluation as well as allowing ES-LLP staff to benefit from the expertise and experience of conservation practitioners dealing with similar issues worldwide. At the same time, environmental threats are often global in extent, so lessons learned across the globe need to be synthesized and shared if adequate conservation abatement methods are to be designed and implemented here in Mongolia and throughout the world.

Level of Effort (Total Activity 3.1): \$33,830 (USAID/EGAT: \$1,000; WCS: \$1,000; USAID/TransLinks \$31,830)

USAID/TransLinks will be used to cover program operating costs, travel, data collection, conferences/workshops and local staff salaries. WCS and USAID/EGAT funds will minimally support this activity but supplementing local staff salaries.

OBJECTIVE 4: New York Coordination Unit Strategy: Guide the design and testing of wildlife-focused planning, implementation, and evaluation tools for effective conservation at a landscape scale, and promote learning across sites and beyond

The NY-based Coordination Unit (CU) of the Living Landscapes Program (LLP) is designed to develop and test wildlife-focused, landscape-scale approaches to biological conservation across multiple sites. To ensure the widespread utility of these new conservation approaches, the program is testing them within landscapes that encompass a diverse array of ecological features, land-uses, resource-use issues, and jurisdictional arrangements. The CU is charged with designing and managing the program to develop new approaches, to facilitate and harmonize testing and implementation among these core sites, and to capture the synergistic benefits of diverse experiences. This unit guides the development of landscape-scale conservation strategies, tools and techniques; assists in the design and development of cost-effective intervention and monitoring programs at these sites; promotes cross-site learning; and ensures communication among the sites, WCS staff (central and field), USAID (DC and missions), and the larger conservation community.

During FY09, the priority for the Coordination Unit will remain working with field sites to promote adoption of best practice tools for effective conservation at a landscape scale, consolidating lessons learned and focusing to an even greater extent on sustainability of key activities. As this is the last year of GCP, we will work closely with our field sites to develop close-out reports that effectively capture key approaches, core activities and lessons learned in a concise and engaging format.

FY09 Level of Effort: (Total Objective 4): \$ 47,107 (USAID/EGAT: \$32,107; WCS: \$15,000)

Activity 4.1 Provide technical assistance to site-based conservation

Members of the NY Coordination Unit will provide technical input to all field site operations detailed in the previous sections of this implementation plan, some of which will involve consultation at sites, analysis in NY, and ongoing communication, advice and support, as needed. This year we will roll out the use of Miradi at all GCP sites as a way to integrate many of the strategic planning and adaptive management tools that LLP has developed over the life of the GCP and to provide vital field feedback to the Miradi development team at the Conservation Measures Partnership and Benetech. Dr. Wilkie will also work closely with The Nature Conservancy to explore options for WCS gaining access to the ConPro web database developed by TNC to upload Miradi project files and conduct cross project synthesis and analysis.

With the addition of the South Sudan Transboundary Landscape to our portfolio of sites the NY Coordination Unit will provide targeted assistance to the new landscape team (and their Ugandan transboundary colleagues) to make use of LLP strategic planning and adaptive management tools – most specifically threats assessments, conservation target selection (landscape species), conceptual modeling, and monitoring frameworks. We will also explore the conservation value of and opportunities for modeling biological and human landscapes across the Transboundary area.

Results/Outputs:

Focused and timely technical assistance and collaboration provided to field sites based on needs, leading to conservation landscape strategies; targeted monitoring of effectiveness; and implementation of processes to increase participation of stakeholders; pilot testing of Miradi and user feedback for improvement of present modules and development of future modules.

Level of Effort: \$15,000 (USAID/EGAT: \$15,000, WCS: 0)

Activity 4.2 Design, implementation, and testing of decision support tools

Activity 4.2.1 Living Landscapes Program technical manuals

The Living Landscapes Program will continue to produce brief how-to guides, called Technical Manuals, after field testing and fine-tuning the methods at several WCS field sites. In FY09, Dr. Didier will complete one technical manual describing the procedures and steps for setting spatially explicit conservation priorities using LSA products. The manuals are designed to provide clear and practical instructions to field practitioners on using a number of conservation tools. The manuals will be translated into Spanish and French and disseminated to WCS projects, partners (government, NGO and local), and other conservation colleagues.

Activity 4.2.2 Landscape Species Approach progress

In FY09, LLP-NY staff will conduct a second 2-week course on the Landscape Species Approach for interested staff from WCS projects around the world. The course will be designed to give a conceptual overview of all the LSA tools and to provide field staff with an opportunity to learn the details of the tools and apply them to their individual sites. As in FY08, we will provide an overview of Miradi and mentor staff to begin to develop a Miradi database for their project.

Activity 4.2.3 Integrating strategic planning and project management

LLP-NY staff will continue to work with our field sites and WCS NY operations (i.e., regional program and accounting staff) to roll out a process for integrating strategic planning with operations planning and reporting. With

the release of Miradi 2.0 and the incremental roll out of this desktop solution to landscape scale planning and reporting, we will work with WCS NY operations staff and field staff to provide feedback to the Miradi development team as to how best to improve modules for integrating strategic planning, work planning and activity costing (budgeting) modules.

Results/Outputs:

Technical manuals designed, tested in the field and distributed in hard copy and electronically (on CDs and on-line) for wider distribution. Technical feedback, based on field experience, to the Miradi development team for fine tuning or developing new modules in Miradi that integrate project strategic planning with annual financial management.

Level of Effort: \$10,000 (USAID/EGAT: \$5,000, WCS: \$5,000)

Activity 4.3 Catalyze cross-site and cross-organizational learning, and communication

Activity 4.3.1 Annual meeting of WCS/LLP Staff

In this last year of the GCP the Living Landscapes Program plans to bring together the project leaders of many of our landscapes (USAID supported and some not) in NY to conduct a forward looking exercise with senior WCS/NY regional staff that will help build on the success of the GCP and guide our conservation investments and tools development into the future.

Activity 4.3.2 CMP: leadership, design, writing and audits

LLP-NY staff will continue to play a leadership role in the identification, design and implementation of Conservation Measures Partnership activities. We will work closely with all CMP members to identify best-practice tools to use as models for development of Miradi modules. We will provide CMP with ongoing lessons from our efforts to integrate project strategic planning and annual financial management, and offer recommendations as to how this experience can help guide the development of Miradi.

Activity 4.3.3 Development and dissemination of final reports for each site: showcasing and sharing lessons learned

LLP-NY staff will work closely with our field sites to generate close-out reports based on the format proposed by WCS and fine-tuned by USAID.

Results/Outputs:

Close-out reports for each site will be generated and widely disseminated.

Level of Effort: \$15,000 (USAID/EGAT: \$10,000, WCS: \$5,000)

Activity 4.4 Application of Living Landscapes Program tools beyond core sites

Activity 4.4.1 Training workshops and technical assistance in the use of LLP tools

LLP-NY staff will work with the WCS Latin America program to integrate LLP tools developed with GCP support into their Amazon Andes Conservation Program landscapes. Dr. Didier and Strindberg will conduct a workshop in November to train staff to develop Miradi projects for their landscapes and to harmonize landscape species monitoring methods.

In FY08 WCS developed a collaborative project with TNC and WWF to convert LLPs 2-week introduction to GIS course for distance learning. LLP-NY staff will continue to work with TNC and WWF to finalize and launch this innovative approach to GIS training for the conservation community.

Activity 4.4.2 Technical Manuals

We will continue to make our series of Technical Manuals available to conservation practitioners and decision makers on our website, as hard-copy booklets and on CD. Manuals are available in English, French and Spanish.

Results/Outputs:

Principles, practices, and tools distilled from implementation of the USAID/EGAT-funded sites to other site-based conservation projects around the world. New manuals will be translated into French and Spanish and distributed. An introductory conservation GIS course will be available for free on the web.

Level of Effort: \$5,000 (USAID/EGAT: \$0; WCS: \$ 5000)

Activity 4.5 Ensure coordination and communication services for the program

The LLP program director and/or assistant director and LLP program staff will continue to communicate with staff from the core sites and WCS regional programs to discuss the development and sustainability of the program, on-the-ground implementation of the Landscape Species Approach, and further development of tools relevant to the approach. Program staff will also meet with collaborators, NGOs, governmental officers, and representatives of other stakeholder groups to promote the use of LLP strategies and tools.

In this last year of GCP, LLP-NY will focus support to field staff in capturing lessons learned, as well as continued support in reporting on Performance Monitoring forms, and submitting the last Annual Report/Closeout Report. The program director and/or assistant director and other WCS staff members (as necessary) will attend quarterly USAID/EGAT meetings in Washington DC and will ensure regular reporting and updates to USAID.

Results/Outputs:

The Coordination Unit will continue to serve as a hub for management and communication regarding the Living Landscapes Program among LLP field site staff, USAID, WCS/Regional staff, current and potential conservation partners, and interested members of the general public. The CU will ensure timely preparation and submission of USAID reports.

Level of Effort: \$ 2, 107 (USAID/EGAT: \$2,107; WCS: \$ 0)

FY09 TRAVEL ESTIMATES:

Yes: One round trip from Mongolia to the US and two round trips from the US to Mongolia.

Name	Destination	Reason
Amanda Fine	New York, USA	Coordination with LLP and Asia Program Staff in New York; Final Living Landscapes Meeting with USAID-funded site Project Directors and key staff in NY
Project Director or Assistant Direct	Ulaanbaatar & Eastern Steppe, Mongolia	Program oversight and management support
Karl Didier	Ulaanbaatar & Eastern Steppe, Mongolia	Work with GIS/RS Specialist, Mr. Ochirkhuyag and Mongolia Field Staff