



# **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  
October 2007 – September 2008**

Living Landscapes Program- Mongolia/Eastern Steppe  
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### 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 GCP/LLP Program is designed to ensure biodiversity conservation in four core sites by identifying actions to conserve landscape species, and by increasing the capacity of local and national organizations to implement such actions. The four areas of global biodiversity importance for WCS involvement with USAID support are:

- Northwestern Bolivian Andes Landscape Conservation Area (Bolivia)
- Glover's Reef Living Seascape (Belize)
- Maya Biosphere Reserve Living Landscape (Guatemala)
- The Eastern Steppe Living Landscape (Mongolia)

## **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 minimal impact on the ecosystem. This historical pattern of sustainable use of the steppe's resources has been disrupted by major socio-economic changes 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 FY07, the program made significant progress in applying the Landscape Species Approach (LSA) on the Eastern Steppe, producing the Biological, Human and Conservation Landscapes that 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 FY07 the ES-LLP implemented a series of separate but interrelated initiatives aimed at engaging national, local and community-level stakeholders in advancing wildlife and landscape-level conservation on the Eastern Steppe. In FY08 the project will demonstrate how these separate initiatives fit together in forming long-term wildlife-based conservation strategies for the Eastern Steppe region. The Living Landscape conservation planning tools---Conceptual Models, Biological, Human and Conservation Landscapes----will be further developed by national-level policy makers, local "natural resource management" officials and communities of livestock herders on the Eastern Steppe. The further development of the Eastern Steppe-specific LLP products and tools will be facilitated by participatory workshops and trainings with local officials and communities of livestock herders, demonstrating the role for community and local-level decision making in the regional development and conservation of the Eastern Steppe. To support the incorporation of the Landscape Species Approach into long-term community, local and national-level wildlife conservation planning activities and on-going natural resource management in the region, the ES-LLP will complete a series of educational/training materials which explain the steps taken in developing the LLP products for the Eastern Steppe and that can be used as reference materials for community groups, local wildlife management officials, and national-level policy makers well beyond the conclusion of the WCS/USAID Eastern Steppe project in Mongolia.

**Total Anticipated Level of Effort in FY 08**

**Eastern Steppe Living Landscape: \$224,427** (USAID/EGAT: \$136,504; WCS: \$63,923; USAID/TransLinks \$7,000; USAID/GAINS: \$7,000; World Bank \$10,000)

**IMPLEMENTATION PLAN: FY08**

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

**Level of Effort (Total Objective 1): \$ 40,000** (USAID/EGAT: \$25,000; WCS: \$15,000)

**Activity 1.1 Refine the conceptual model for the Eastern Steppe and create conceptual models for each of the suite of Eastern Steppe Landscape species to articulate the causal relationships among conservation targets and threats**

The overall conceptual model for the Eastern Steppe was presented for review and comment at a national-level workshop in Ulaanbaatar in FY07 as planned. Although progress was made in Activity 1.1 in FY07, expected outputs were not completed. In FY08 it will be important to add a local review and local comments to those provided at the national-level stakeholder workshop in FY07, before finalizing the Conceptual Model for the Eastern Steppe Living Landscape. The overall Conceptual Model will be reviewed and updated by local-level officials and livestock herder community members in a series of participatory workshops which will take place in early 2008 in Dornod, Hentii and Sukhbaatar aimags.

Finalization of the Suite of Landscape Species for the Eastern Steppe in FY07 will allow us to develop individual Conceptual Models for key Landscape Species in the suite during FY08. During FY07, a draft Conceptual Model for the Mongolian gazelle was completed with the participation of Mongolian and international species experts, Mongolian government officials and members of the NGO conservation community. In FY08, the further development of this and other Conceptual Models for specific Eastern Steppe Landscape Species, including the Siberian marmot, white-naped crane and saker falcon, will be completed with the participation of local wildlife managers, government officials and members of livestock herder communities on the Eastern Steppe.

**Results/Outputs:**

- A revised “overall” Conceptual Model for the Eastern Steppe accepted by species experts, national-level policy makers, the NGO conservation community, local wildlife officials and members of livestock herder communities on the Eastern Steppe.
- Individual Conceptual Models for key Eastern Steppe Landscape Species, describing direct and indirect threats, interventions, objectives, goals, and the interplay between these conservation strategies.
- Development of overall Conceptual Models and species-specific Conceptual Models for the community protected areas on the Eastern Steppe as a component of their community-led wildlife management plans (See Activity 2.2.2).
- Presentation of the overall Conceptual Model and individual Landscape Species Conceptual Models as part of a long-term conservation plan for the Eastern Steppe region.

**Threats Addressed:**

Some of the principle indirect threats facing the Eastern Steppe are poor management decisions, minimal communication among the Eastern Steppe stakeholders and the lack of a coordinated effort among the institutions, organizations and communities interested in conservation. Soliciting comments from multiple agencies, institutions and communities on the Conceptual Models for the Eastern Steppe and facilitating their input in the development of Conceptual Models for the Landscape Species of the Eastern Steppe will strengthen communication, improve the quality of information in the models and broaden the understanding of the integrity of the landscape, conservation targets, their threats, and the relationships among these elements. Broad participation in development of the Conceptual Model will ensure that future decisions, both in this project and within the Mongolian environmental sector, are made with a more complete understanding of how these decisions will impact the biodiversity and

livelihoods of people in the steppe. As a result, we expect that direct threats to conservation will be addressed collaboratively by all parties in a far more effective fashion.

**Level of Effort (Total Activity 1.1): \$6,000** (USAID/EGAT: \$4,000; WCS: \$2,000)

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

In the fourth year of the project, the WCS/USAID Eastern Steppe program expanded its relationships with stakeholders on the Eastern Steppe to include the aimag (provincial) and soum (county)-level State Specialized Inspection Agencies, Environmental Departments, Protected Area Administrations, State Border Defense Agency local personnel, and communities of livestock herders (members of the Eastern Mongolia Community Conservation Association) who live and work on the Eastern Steppe. In FY08, the ES-LLP will continue to build these “local” relationships and continue on-going partnerships with Ulaanbaatar-based agencies and organizations in an effort to address threats to wildlife.

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

- Continue quarterly informational meetings with the Ministry of Nature and Environment. In FY07, the Vice Minister of Nature and Environment, Mr. Enkhmandakh, expressed an interest in meeting with WCS on a regular basis. Meetings in FY08 will include the Vice Minister and representatives from the Department of Strategic Planning and Sustainable Development. These meetings have been an effective way to solicit Ministry support for WCS/USAID programs in the Eastern Steppe and identify government-based conservation initiatives that the WCS/USAID program can support.
- In association with the aimag-level conservation planning stakeholder meetings to be held in early 2008, convene planning and follow-up meetings with the Eastern Steppe Environmental Departments, Environmental Inspectors (State Specialized Inspection Agencies), Land/Property Departments and Protected Areas Administrations. See Activity 1.3.3.
- Organize a national conference focused on “lessons learned” from the promotion of community-based natural resource management in Mongolia over the past 10-15 years. Many conservation projects implemented in Mongolia have focused on a “community-based” approach to natural resource management; however, the effectiveness of these approaches and the difficulties encountered or the successes achieved have never been formally recorded or presented in an open forum. The goal of the conference will be the identification of successful and effective approaches to community-based natural resource management in Mongolia. Efforts will be made to engage all stakeholders involved in these community-based approaches to natural resource management including the Government of Mongolia, bi-lateral donor organizations, conservation and local NGOs, the Eastern Mongolia Community Conservation Association (EMCCA), and representatives from companies and organizations promoting community-based tourism in Mongolia.
- Continue monthly planning meetings with the leadership of the Eastern Mongolia Community Conservation Association to chart progress and develop the capacity of livestock herder group members to monitor wildlife and manage their natural resources through training and outreach activities (See Activity 2.2.2).
- Contribute to the development of Mongolia’s national and regional development strategies through participation in semi-annual Government of Mongolia Partners Meetings co-organized by the World Bank. WCS will continue to participate as an observer on the “Environment and Rural Development” working group.
- Continue to work with academic and research institutions in Mongolia, including the National University of Mongolia and the Mongolian Academy of Sciences.
- Continue to 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., by attending and participating in workshops and conferences with a focus on the environment and natural resource management.
- Continue the WCS-sponsored “Monthly Conservation Networking Event” which has become one of the main forums for interaction and information sharing among conservationists, ecologists, and decision-makers.

**Results/Outputs:**

- Improved coordination with, and support from, the Ministry of Nature and Environment on biodiversity conservation and threat mitigation on the Eastern Steppe.
- 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.
- Lessons learned from a national review of community-based natural resource management initiatives in Mongolia over the past 10-15 years with the potential to establish benchmarks or official standards for community-based natural resource management, and with the goal of adopting best practices in the Eastern Steppe and beyond.
- Evaluation and capacity development of local scientists through collaborative research and information gathering.
- Improved donor and project coordination and cooperation throughout the environmental and “wildlife conservation” sectors.

**Threats Addressed:**

A continuing problem in Mongolia, and particularly in the Eastern Steppe, is poor collaboration and information sharing and thus an inability to effectively mobilize against existing and new threats to the system. This is at least partly due to a lack of awareness and understanding of what other parties are doing, and the interactions and effects between these activities as a whole. While WCS’ efforts over the past few years have improved the situation dramatically within the capital, the activities and outputs listed above focus improving coordination and communication among communities of livestock herders working and living on the Eastern Steppe, local soum and aimag-level officials and Ulaanbaatar-based agencies and institutions that directly interact with stakeholders in the Eastern Steppe. These periodic information sessions are specifically designed to facilitate the development of collaborative strategies to address threats to wildlife on the Eastern Steppe, to insure that conservation targets are accepted by stakeholders across the landscape and that interventions are coordinated and carried out effectively.

**Level of Effort (Total Activity 1.2): \$7,500** (USAID/EGAT: \$6,000; WCS: \$1,500)

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 The Suite of Eastern Steppe Landscape Species will be presented to partners and Eastern Steppe stakeholders for formal adoption**

The Landscape Species Approach (LSA) is a wildlife-based strategy used to define ecologically meaningful conservation areas, identify where and why human-wildlife conflicts occur, design and undertake conservation efforts to curb or halt such conflicts, monitor program effectiveness, and adapt conservation efforts in light of these results. The final suite of Landscape Species for the Eastern Steppe, which provides the backbone of the approach, was selected in FY07. There was a multi-stage process for selecting the final suite of Landscape Species with opportunities for input and participation from species experts, national-level environmental sector officials and wildlife managers, and representatives from local and national conservation organizations. In FY08, 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 (EMCCA) in a series of workshops planed for early 2008. Livestock herder community groups on the Eastern Steppe will use a similar process of identifying conservation targets for their community protected areas on the Eastern Steppe. Generally the community-selected targets represent elements that are particularly important to them (i.e. open water sources, pasture, marmots, gazelle, etc.). Efforts will be made to demonstrate how the local efforts and conservation plans fit into the larger scale wildlife-based conservation strategies for the Eastern Steppe landscape.

Specific activities planned include:

- Three participatory workshops on the Eastern Steppe are planned for early 2008, in Hentii, Sukhbaatar and Dornod aimags. The participation of local government officials, representatives of the aimag-level agency officials (State Specialized Inspection Agencies (SSIA), Protected Areas (PAA), State Border Defense Agency (SBDA), and aimag environmental departments), representatives of private enterprises (i.e. Daqing Oil Field Company and/or tour companies operating in the Eastern Steppe) and members of EMCCA is expected.
- A focused review of the LSA to selecting conservation targets with members of EMCCA. This process has already begun and it is expected that livestock herder community groups will select “local” targets that represent local issues and their specific conservation objectives. A review the suite of Landscape Species selected for the Eastern Steppe will be incorporated into these sessions and it is expected that Landscape Species that are present in the local areas will be incorporated into their community conservation plans and goals. The participation of all the livestock herder communities will be facilitated through ongoing monitoring and wildlife protection training programs organized by WCS local staff for livestock herder members of the EMCCA throughout FY08. (See Activity 2.2.2).

#### **Results/Outputs:**

- A suite of Landscape Species, that will serve as the backbone of threat abatement and species conservation initiatives across the Eastern Steppe landscape, adopted by:
  - aimag-level stakeholders including local government, the SSIA, the PAA, the SBDA and local environmental NGOs; and
  - members of livestock herder community groups formed as part of the EMCCA.

#### **Threats Addressed:**

A wide range of human activities threatens ecologically functioning populations of most species found on the Eastern Steppe. Little information is available on many of these species or on the explicit threats that they face, which increases the likelihood that these threats will continue to negatively impact wildlife and ecosystem processes. The Landscape Species Approach is focused on ensuring that conservation investments are made to address 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.

By encouraging local participation in the selection of targets and indicators which represent parts of the ecosystem that are important to local communities (pasture, woodlands, wildlife hunted as game and/or for fur, etc.), we are assisting local communities in monitoring the health of the resources which support their way of life and emphasizing the link between biodiversity and their livelihoods.

The Activities and Results/Outputs listed above will serve to coordinate community, local and national-scale wildlife conservation efforts around the suite of Eastern Steppe landscape species. By addressing the needs of these species, WCS and partners in conservation (governmental, NGOs, communities and private enterprise) can coordinate efforts to explicitly assess threats to their long-term persistence, and set priorities for conservation actions to avoid or mitigate key conflicts with people. The approach can serve as the basis for developing transparent and participatory relations through consultations with numerous stakeholders essential to development of land management policies and practices that may resolve conflicts between people and wildlife.

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

The Eastern Steppe covers an enormous area (250,000 km<sup>2</sup> of grassland and 285,000 km<sup>2</sup> within the three aimags of Hentii, Dornod and Sukhbaatar). Knowing and/or predicting the distribution of wildlife and human activities across this landscape is often a challenge. Since the start of the program, the ES-LLP has invested heavily in creating a Geographic Information System (GIS) of the Eastern Steppe to help identify and monitor the natural resources and human activities across the steppe. In FY07, the program’s Mongolian GIS and Remote Sensing specialist worked closely with other Mongolian entities and the New York Coordination Unit to organize, update and further clarify existing GIS data for the Eastern Steppe. This work will continue in FY08 with a focus of effort on collecting and

updating the information necessary to build and/or update the Biological, Human and Conservation Landscapes for the Eastern Steppe Landscape Species. These data consist primarily of 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 an effort to update the location of current and future oil extraction operations and associated infrastructure.

During FY07, draft Biological Landscapes were completed for all Landscape Species, with one exception (Asiatic grass frog). Threat (Human) and Conservation Landscapes were completed for three of the suite of Eastern Steppe Landscape Species: the Mongolian gazelle, white-naped crane and saker falcon. In FY08, a Biological Landscape will be completed for the Asiatic grass frog, and the models for other species and threats will be refined and updated as improved spatial data (e.g., well information) are compiled. Also in FY08, model building efforts will be focused on improving the Biological Landscape and completing the Conservation Landscape for the Siberian marmot using field observation data collected over the last 2 years. The complete model building process will not be performed for the remaining Landscape Species on the Eastern Steppe due to primarily to constraints in time and resources. We will encourage our conservation partners (The Nature Conservancy, WWF, collaborating scientists, and students) who have expertise and resources to take the process forward for the other species (including saker falcon, moose, taimen, and wolf).

The full set of landscapes for the Mongolian gazelle, white-naped crane and saker falcon will be presented at the three Eastern Steppe-based stakeholder workshops planned for early 2008 (Activity 1.3.1). The complete set of models will be used to describe the LSA from species selection to the final Conservation Landscape. Even in the absence of spatially explicit Biological Landscapes and species-specific Human Landscapes for the remaining Landscape Species, the general approach can still be used to build Conservation Landscapes- overlapping the potential distribution of wildlife and human activities to define points of intervention with the highest probability of conservation success.

**Results/Outputs:**

- A refined/updated set of Biological and Conservation Landscapes for the Mongolian gazelle, white-naped crane and saker falcon, and a draft Biological Landscape for the Asiatic grass frog.
- A refined/updated set of Human Landscapes representing the influence of human activity in the Eastern Steppe including hunting/poaching, livestock disease, overgrazing and the potential threat of expanded oil/extractive industry infrastructure.
- A refined Biological Landscape and completed Conservation Landscape for the Siberian marmot.
- A local stakeholder (aimag/soum officials and community members) participatory analysis of the Eastern Steppe Conservation Landscapes, detailing the ecological systems and socio-economic structures and indicating key threats, conservation conflicts, and opportunities.
- A Conservation Landscape for the Eastern Steppe reflecting the priorities for implementing conservation as identified by local communities, local and national government, the WCS/USAID Eastern Steppe project (ES-LLP) and partner NGOs.

**Threats Addressed:**

The enormous area of the Eastern Steppe makes sensible conservation planning difficult, which in turn allows new and existing threats to continue to expand ‘under the radar’ of present institutions. A landscape model overlay of the Eastern Steppe will help to identify specific threats to conservation targets, their locations, key partners to involve, and will provide the groundwork for more effectively addressing these threats. Spatially explicit details of the model will allow stakeholders and planners to examine impacts that potential activities might have on the steppe ecosystem, and to mitigate these threats to avoid negative results.

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

Understanding the patterns of distribution and basic biology of our conservation targets (i.e., Landscape Species) is critical to the effective and appropriate placement of threat-reducing interventions. In FY07, the information generated through WCS projects on the Eastern Steppe and/or gathered through review of previous work done by others was used to construct Biological Landscapes for the Mongolian gazelle, white-naped crane and saker falcon. A similar process of gathering the information necessary to map human activities across the steppe (some of it generated by a

series of Threats Assessment Workshops) was used to develop the Human/Threat Landscapes that affect these particular species. These two sets of landscapes were then overlaid to construct Conservation Landscapes or points for critical action needed to conserve these three Eastern Steppe Landscape Species. This process will continue in FY08. The identification of points for critical action will be further informed by input from local stakeholders- aimag and soum level officials, wildlife managers and livestock herder community members on the Eastern Steppe solicited through the series of aimag-level workshops in early 2008 and on-going activities with the Eastern Mongolia Community Conservation Association members.

A number of key points for critical action have been apparent since the beginning of the ES-LLP. Some of these focal points for conservation action and activities planned for FY08 are listed below:

1. **The Nomrog Bridge:** An agreement was signed in FY07 between the Governments of Mongolia and China on the construction of the Nomrog Bridge outside the borders of the Nomrog Strictly Protected Area on the Eastern Steppe. The exact position of the new bridge site is still unclear. The construction of this bridge and the extension of the “Millennium Road” to this far eastern region of the steppe remains a conservation concern. In FY08, the ES-LLP will continue to gather accurate information on the plans for the road and bridge development to inform stakeholders and where possible provide guidance on the mitigation of the negative impacts of this development decision.
2. **Daqing Oil Company (Petro China) and Associated Development:** In FY07, WCS staff continued to meet with the Daqing (Petro China) oil company management to raise their awareness of and concern for gazelle conservation within their drilling areas on the Eastern Steppe. In FY08, the WCS Mongolia Program will work with the WCS China program to draft and submit a letter to Daqing Oil Company headquarters in Harbin, China, with a request for dialogue on the long-term development plans for the Eastern Steppe region, the possible installation of an oil pipeline and the potential impact on the Mongolian gazelle.
3. **The Mongolian Gazelle:** The final draft of the Mongolian Gazelle Management and Action Plan was delivered to the review committee in FY07. Major efforts will be made to finalize this plan in FY08, deliver it to the Mongolian Ministry of Nature and Environment and push for its official adoption by the Government of Mongolia. The gazelle ranges widely and interacts strongly with people across the Eastern Steppe landscape. The official adoption of a management and action plan for one of the suite of Eastern Steppe Landscape Species within the time frame of this project will be a significant accomplishment.
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. In FY07, ES-LLP field data that suggested significant declines in the marmot populations on the Eastern Steppe was used to support the extension of the 2-year ban on marmot hunting first instituted in 2005 by the Mongolian government. In FY08, the ES-LLP will continue to work with livestock herder communities on the Eastern Steppe to develop community-led marmot population monitoring as a mechanism for evaluating the recovering of Eastern Steppe marmot populations and developing sound strategies for their management and conservation.
5. **Remaining Eastern Steppe Landscape Species:** The ES-LLP will continue to collect data on the remaining Landscape Species to the extent possible. Local wildlife officials and members of the livestock herder communities on the Eastern Steppe will be asked to provide their knowledge of the distribution and threats to these species during Eastern Steppe workshops and community trainings held in FY08. We will also encourage our conservation partners to take responsibility for these species and the planning efforts associated with them (e.g., building Biological and Threat Landscapes).

6. **Wildlife Trade and Hunting Management:** Work will continue in FY08 on improving both the legal environment for hunting management and the enforcement of wildlife trade laws in Mongolia. In FY07, additions and amendments to the Mongolian Law on Hunting were suggested at the conclusion of a thorough review of the current laws and regulations in place for wildlife management and control over wildlife trade. In FY08, the process of reviewing the recommendations will continue in collaboration with the Ministry of Nature and Environment. The draft amendments will be finalized in FY08 for presentation to the Mongolian parliament for their approval. The ES-LLP has received supplemental funding through the World Bank's Netherlands-Mongolia Trust Fund for Environmental Reform to pursue this conservation initiative in FY07 and hopes to secure additional funding in FY08.

**Results/Outputs:**

- Conservation Landscapes for gazelle, saker falcon, white-naped crane, and Siberian marmot, reflecting the priorities for implementing conservation as identified by local communities, local and national government, the ES-LLP and partner NGOs.
- Updated information on “human activities” on the Eastern Steppe including the Nomrog Bridge and Millennium Road projects and the further development of oil fields and extractive industry.
- A Mongolian Gazelle Management Plan formally reviewed and accepted by the Government of Mongolia for implementation.
- Conceptual Models and refined Biological Landscapes for each of the remaining Eastern Steppe Landscape Species; partners identified for completing Conservation Landscapes.
- Progress in the process of updating and making amendments to the Mongolian Law on Hunting—currently under review by the Ministry of Nature and Environment with plans to present the proposed amendments to the Mongolian parliament in FY08.

**Threats Addressed:**

Wildlife management, development and land-use policies made in the absence of information about the biology, distribution, and threats facing wildlife on the Eastern Steppe Landscape remains one of the greatest challenges to long-term successful conservation of the wildlife species and the Eastern Steppe landscape. ES-LLP-led initiatives to improve our understanding of the habitat needs and threats facing the suite of Landscape Species for the Eastern Steppe focuses on addressing threats to these species, whose conservation will act as an “umbrella” of protection for wildlife across the Eastern Steppe landscape. For example, poorly designed development schemes and changing land-use practices are likely to negatively affect gazelles by curtailing their migrations. The ES-LLP is actively addressing these potential future threats by engaging with Mongolian agencies involved in land use policy and with oil extraction companies interested in road and other oil industry infrastructure-related development in the Eastern Steppe, and providing them with recommendations based on our current understanding of Mongolian gazelle movement and distribution in the Eastern Steppe.

Immediate threats to both Mongolian gazelle and Siberian marmot include poaching for meat and skins. The Siberian marmot population decline and, to a lesser degree, trends in the Mongolian gazelle population indicate that these populations cannot be managed as renewable resources unless poaching is curtailed and a sustainable harvesting program is established and accepted. Management programs for these populations must be based on solid scientific data collected in the field to ensure accurate stock assessments for a sustainable harvest. The data collected by this research will lay the foundation for a sound management plan that will help to ensure not only the survival of the species but the steppe ecosystem as a whole.

It has become clear that a legal environment that supports sound wildlife management and enforces wildlife protection and trade law is also an essential component of the long-term conservation of the Eastern Steppe. A review of the laws currently in place in Mongolia to manage and protect wildlife has revealed some critical gaps. Investment in the development of an improved legal environment for wildlife management and control of trade will support the implementation and success of critical conservation initiatives for the Eastern Steppe.

**Level of Effort (Total Activity 1.3): \$26,500** (USAID/EGAT \$15,000; WCS \$11,500)

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

**Level of Effort (Total Objective 2): \$125,423** (USAID/EGAT: \$80,000; WCS: \$28,423; World Bank: \$10,000 (applications for additional funding pending); USAID/GAINS: \$7,000)

**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. In FY08, the ES-LLP will continue to encourage information sharing and collaboration among the agencies involved in wildlife conservation in Mongolia, and to encourage improvements in the management mechanisms necessary to address specific priority conservation issues that threaten the sustainability of steppe biodiversity, ecological processes, and traditional culture. Policy reviews and activities designed to improve policy implementation and agency coordination in FY08 will be focused primarily on illegal hunting and wildlife trade and implementing species management plans, with a focus on the Mongolian gazelle and Siberian marmot.

**Illegal Hunting and Wildlife Trade in Mongolia:** In FY07, the WCS Mongolia Program implemented a project entitled “Improving Hunting Management and Wildlife Trade Enforcement in Mongolia,” with funding from the World Bank’s Netherlands-Mongolia Trust for Environmental Reform. The goal of the project was to create effective inter-agency wildlife management by focusing on the development of specific legislative amendments that will enable both national and local entities to establish modern, science-based hunting management and engage in effective trade enforcement. In FY07, legislation governing wildlife management and wildlife trade was reviewed. Gaps in Mongolia’s current legislative and regulatory mechanisms were identified and a proposal for amendments and additions to the “Mongolian Law on Hunting” was created by a multi-disciplinary task force. The proposal is currently under review by a working group chaired by the Ministry of Nature and Environment with plans to submit an official proposal of law amendment to the Mongolian parliament during the fall 2007 session.

In FY08, the ES-LLP will follow-up on the process of amending the Mongolian Law on Hunting. If amended, the changed law will improve the legal environment for science-based hunting management in Mongolia. The legislative amendments necessary to improve and enable wildlife trade enforcement will be explored more fully in FY08. The work in FY08 will focus on markets and the trade chain for illegal wildlife. It will pick up on two of the action items identified during the 2005 International Wildlife Trade Conference in Ulaanbaatar, mainly: 1) expanding and improving the use of wildlife certificates of origin to improve inspection efforts; and 2) certification of, and reporting by, wildlife traders. Funding to cover all of these activities is yet to be secured. A grant of \$10,000 from the Work Bank will be used to perform preliminary baseline surveys of Ulaanbaatar-based markets, collection points and 1-2 surveys in rural markets, in preparation for implementation of a larger and longer-term program to address illegal international trade in wildlife in Mongolia.

**Species’ Management Plans:** The draft Mongolian Gazelle Management Plan (Activity 1.3.3) was finalized in FY07. During the final phases of developing the Mongolian Gazelle Management Plan, the management plan review team discovered that there is no standard procedure within the Mongolian Ministry of Nature and Environment for the adoption of species’ management plans, let alone an obligation to implement the plans once they are adopted. The Mongolian Gazelle Management and Action Plan and similar, if less extensive, work done on developing a management plan for Siberian marmots contribute significantly to the information base available to the Ministry of

Nature and Environment and provincial-level agencies and institutions charged with wildlife management and land use planning on the Eastern Steppe, but the mechanism to implement these managements plans are still not in place.

In FY08, the ES-LLP will work with national-level decision makers to identify the process for accepting species management plans and to identify how these management plans can and will be implemented and used for conservation. The responsibility for species' management plans would fall under the proposed "Wildlife Management Agency" as outlined in the proposal for amendments to the Mongolian Law on Hunting. The ES-LLP plans to pursue the issue of species' management plan adoption and implementation alongside the follow-up work on hunting management and enforcing wildlife trade in Mongolia. The legislative framework for the adoption and implementation of these species management plans is as essential as the content of the specific management plans. Other conservation organizations, including WWF-Mongolia and the Zoological of Society of London-funded Steppe Forward Programme, are also very interested in understanding the procedure for species management plan submission, adoption and implementation in Mongolia. The ES-LLP will work in collaboration with these organizations and the Mongolian Academy of Sciences to clarify this process.

**Pasture Management/Toxin Use:** The widespread use of Bromadiolone, an anti-coagulant toxin, to poison Brandt's voles in Mongolia has been discontinued as a result of a collaborative effort to discourage its use led by WCS, WWF-Mongolia and the UNDP-GEF Sustainable Grasslands Management Program. Specific activities designed to address the use of toxins in pasture management in Mongolia are not planned for FY08, however, WCS will continue to monitor these practices by reviewing the policies and actions of the Plant Protection Institute and the Ministry of Food and Agriculture in collaboration with WWF-Mongolia.

**Results/Outputs:**

- An amended Mongolian Law on Hunting covering the establishment of a "Wildlife Management Agency" within the Ministry of Nature and Environment.
- Identified strategies for using existing legislation to enforce laws governing wildlife trade in Mongolia including certificates of origin and trader registration and reporting.
- An identified procedure for submission and adoption of species management plans by the Mongolian Ministry of Nature and Environment. This will impact the following:
  - The adoption and implementation of the Mongolian Gazelle Management and Action Plan.
  - A future Siberian marmot management and action plan—specific legislative initiatives designed to ensure the sustainable management and conservation of the Mongolian marmot.
  - The primary responsibility of the proposed "Wildlife Management Agency".
- Continued pressure on the Mongolian government to adopt and implement sound Brandt's vole management plans and reduce the environmental impacts of toxin use by the adoption of alternative (non-toxic) methods of Brandt's vole control.

**Threats Addressed:**

The threats addressed by the activities outlined above are twofold. One threat is the lack of information necessary to implement sound management plans for wildlife on the Eastern Steppe, and the second threat is the lack of mechanisms in place to review and implement the management plans once they are created. In FY08, the ES-LLP will address both these threats by: 1) consolidating, organizing and presenting the data collected by the project to date that contributes to the information base necessary to create sound species management plans on the Eastern Steppe; and 2) identify and/or assist with the establishment of the procedures within the Mongolian government for species management plan review, adoption and implementation.

**Level of Effort (Total Activity 2.1): \$22,500** (USAID/EGAT: \$10,000; WCS \$2,500; World Bank: \$10,000)

## **Activity 2.2 Enhance local capacity to implement the strategy**

### **Activity 2.2.1 Enhance Local Institutional Capacity**

Although protected areas, land management/development plans and international border zones in the Eastern Steppe fall under the jurisdiction of national agencies, the local or provincial-level branches of the agencies play an important role in policy development and management plan implementation. The primary local institutions charged with wildlife management are the aimag (province) Environmental Department, the “environmental inspectors” of the aimag 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) with 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). In addition to the Aimag-level institutions, there are soum- (or county-) level institutions that play a role in conservation strategy and wildlife management plan implementation. These include the soum governor and staff, the soum-level “environmental inspectors” of the SSIA (1 per soum), the rangers of the PAA (at least 2/protected area) and the border guards stationed at the SBDA posts. Two specific activities designed to improve the capacity of local institutions to implement sound wildlife conservation strategy on the Eastern Steppe are outlined below:

#### **Collaborative Wildlife Protection Program in Nomrog Strictly Protect Area (SPA)**

In FY08, the ES-LLP will evaluate the success of the “Collaborative Wildlife Protection Program” that the project has developed over the past three years in Nomrog SPA in collaboration with the State Border Defense Agency (SBDA) and the Protected Area Administration (PAA). The location of Nomrog SPA - on the Mongolian border with China - exposes it to significant cross-border poaching, as well as threats linked to the planned development of major infrastructure in the region. The SBDA and PAA have jurisdiction over wildlife and environmental protection within the boundaries of the protected area and the local soum environmental inspectors from the State Specialized Inspection Agency (SSIA) are responsible for wildlife law enforcement and wildlife protection outside the park boundaries. Project initiatives to develop a collaborative wildlife protection program within Nomrog SPA have focused on convincing key stakeholders that collaboration in and across park boundaries is needed and on conducting extensive field training programs with border guards, protected area rangers, and environmental inspectors. In FY08, the ES-LLP will evaluate the success of the program by assessing the following:

- a. Frequency of wildlife patrol activities
- b. Quality of information contained in patrol records
- c. Degree of collaboration and information sharing among agencies with jurisdiction in and around the park (PAA, SBDA and SSIA)

A wildlife survey within Nomrog SPA is also planned for FY08 in collaboration with biologists from the new Nomrog Protected Area Administration and with permission from the SBDA. Planning for this wildlife survey will begin in the 1<sup>st</sup> quarter of FY08, and the survey will be as extensive as time and resources allow. Data collected will be compared to baseline data from a survey of large ungulates in Nomrog SPA performed during FY04/FY05 by ES-LLP staff. The overall goal of the wildlife survey is to set up a long-term monitoring program that can be carried out by both PAA and SBDA staff for Nomrog SPA to track the impact of the collaborative wildlife protection program.

The updated training manual on “Wildlife Law Enforcement” was used in the second phase of training in Nomrog SPA in FY07. In FY08, the manual and supporting materials will be provided to all other protected areas on the Eastern Steppe where the Protected Area Administration and the State Border Protection Agency share responsibility for wildlife protection.

#### **Wildlife Trade Monitoring and Poaching Prevention**

Illegal hunting and wildlife trade are continually identified as two of the greatest current threats to wildlife on the Eastern Steppe. The agency with responsibility for monitoring hunting and wildlife trade, outside protected areas and border regions, is the State Specialized Inspection Agency (SSIA). The ES-LLP began to work with the SSIA at both the national and local level to improve their monitoring and law enforcement capacity in FY06/FY07. During FY07,

preliminary data on the current strategies used to collect information on illegal wildlife trade and hunting by the SSIA was collected and the current state of their database was assessed. It became clear that the resources and commitment necessary to improve the SSIA's wildlife trade monitoring and poaching prevention strategies was beyond the scope of the Eastern Steppe project. At the end of FY07, the Eastern Steppe identified a possible source of funding and support for this project through the World Bank. During FY08, the WCS/USAID Mongolia program GIS and Remote Sensing specialist will assist the SSIA in their preparation to pursue this opportunity for funding and support for tracking and preventing wildlife trade in Mongolia.

### **Results/Outputs:**

- An assessment of the success of the “Collaborative Wildlife Protection Program” in Nomrog SPA as a program designed to encourage collaboration among wildlife law enforcement agencies to reduce poaching, habitat encroachment and cross-border incursions.
- A wildlife survey of Nomrog SPA completed in collaboration with the Nomrog SPA and SBDA.
- A long-term wildlife monitoring plan for Nomrog SPA.
- A training manual on “Wildlife Law Enforcement” distributed to protected areas where the Protected Area Administration and the State Border Protection Agency share responsibility for wildlife protection.
- Progress towards the creation of an accessible database of wildlife trade and poaching activity on the Eastern Steppe that could be used as the foundation for building a spatial model (map) of illegal trade activity that will allow the SSIA and wildlife managers to direct resources for interventions and control and at the most critical points.

### **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 to conservation in the face of multiple demands on Eastern Steppe resources. The ES-LLP promotes strengthening of the capacity of local institutions to implement wildlife conservation initiatives and sound natural resource management by focusing efforts on priority conservation issues (illegal hunting and wildlife trade) and supporting and promoting collaborative wildlife protection programs (Nomrog SPA).

### **Activity 2.2.2 Enhance Local Community Capacity**

In FY08, the ES-LLP will continue to work with communities of livestock herders in the Eastern Steppe through our partner organization, the Eastern Mongolia Community Conservation Association (EMCCA). The Mongolian government, civil society, and representatives of national and international conservation organizations are promoting community-based natural resource management in Mongolia as a solution to the limitations of government-led enforcement of communal grazing rules, pasture management plans and wildlife hunting regulations over large areas of Mongolia. The ES-LLP will focus on three key elements of community conservation on the Eastern Steppe:

#### **Capacity Building—Wildlife Protection, Monitoring and Management**

In FY08, ES-LLP staff will continue to provide training to members of livestock herder community-based wildlife conservation groups on the Eastern Steppe. The focus of the trainings will be general wildlife monitoring, specifically scan sampling and running monitoring transects on horseback. The ES-LLP staff will also provide technical assistance to the herder wildlife conservation groups' efforts to develop wildlife management plans. Both trainings and technical assistance will be delivered via a combination of community site visits, group participatory workshops and facilitating herder to herder training opportunities. Basic wildlife monitoring equipment and reference materials will be provided to the volunteer community rangers in each of the community wildlife conservation groups in FY08, in partnership with the EMCCA.

### **Legal Process Assessment—Implementation of Community-Based Conservation**

The legal process for establishing a community “owned” protected area for wildlife natural resource conservation is complicated and involves a considerable amount of paperwork. The EMCCA leadership has and will continue to coach communities of livestock herders through the process, but to date only a handful (3-5) of the 23 community groups that applied to their local government to establish their community protected areas have had their applications approved and permission granted. One of the concerns is the degree to which local governments, who review and approve the applications, are themselves unaware of the change in the environmental law and the details associated with the regulation which allows communities of livestock herders to apply for their rights to manage and protect their natural resources. In FY08, ES-LLP staff will review the legal process for establishment of community managed protected areas on the Eastern Steppe, and the progress to date, as a case study of the implementation of this new law governing community natural resource management in Mongolia. The ES-LLP team will identify livestock herder community groups and local government concerned with the process and will work to identify ways in which to improve implementation. The team will consult with the Forestry Division of the Ministry of Nature and Environment which has reportedly been tasked with the dissemination of information about the implementation of community natural resource management areas in Mongolia, and help find ways to improve the awareness of local governments.

### **Support Network Development—Linking Conservation Communities**

The long-term sustainability of community-based wildlife conservation and natural resource management groups on the Eastern Steppe will depend, at least in part, on their ability to communicate, learn from and be supported by other groups on the Eastern Steppe. The ES-LLP is well positioned to facilitate information-sharing and opportunities for the cross-fertilization of ideas and strategies among the various donor-funded and Mongolian NGO-led initiatives. The activities to support community conservation group network development planned by the ES-LLP in FY08 include: 1) Organizing a conference in Ulaanbaatar with the multiple projects addressing environmental issues in Mongolia that have a community-based natural resource management component to their programs (this activity was originally scheduled for FY07 but was postponed due to the need to work more directly with communities of livestock herders on the Eastern Steppe); 2) arranging for members of the Eastern Steppe EMCCA community groups to visit more established and successful community-led wildlife conservation initiatives in the southern Gobi desert region of Mongolia; and 3) researching and identifying projects and services that the Eastern Mongolian community groups may be eligible to take advantage of in the areas of livelihood and agricultural development, education and health.

### **Economic Valuation of Natural Resources**

This component of the project was delayed in FY07 and will be addressed in FY08. The initial concept, using the process of placing an economic value on natural resources to inform decision-making and policy formulation within the context of community management and access to natural resources, will be addressed in the context of land tenure rights and ecosystem services as described more fully in Objective 3, Activity 3.1.

### **Results/Outputs:**

- Communities of livestock herders on the Eastern Steppe with improved skills in wildlife monitoring and wildlife management.
- A clearer understanding of the current status of the implementation of the new community-based natural resource management regulations in Mongolia and identified areas for improvement.
- Sharing of “lessons learned” among projects and communities implementing and working to form community-based natural resource management groups in Mongolia.
- 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 valuation of natural resources within community management zones in the Eastern Steppe used to inform decision-making processes directed at sustainable natural resource use.

### **Threats Addressed:**

While the Mongolian Eastern Steppe has an extremely low human population, the nomadic transhumant pastoralism of the livestock herders in the region means that little of the landscape, including the existing protected area networks, has remained 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 maintain some “ownership” of natural resources and are directly involved in the conservation process. 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 standards 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 put in place plans to reduce disease impacts on all sectors, and to pinpoint 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.

#### **Gazelle-Livestock Disease Interaction**

In FY08, the ES-LLP will compile the findings from the series of wildlife/livestock health studies conducted during the course of the WCS/USAID Eastern Steppe project. The information will be distributed to local partners and, when possible, published in the local and international journals. An understanding of the relationship between livestock and wildlife disease is essential to the design of effective disease prevention and mitigation strategies that benefit both wildlife and livestock production. Efforts will continue to identify funding and opportunities to pursue more disease interface (wildlife/livestock/human health) work in the Eastern Steppe region. Specific studies completed in FY07, which will be analyzed and published in FY08, include: 1) an examination of fecal parasites among Mongolian gazelle and livestock in areas of overlapping grazing range; and 2) an examination of foot-and-mouth disease exposure in livestock and Mongolian gazelle on the Eastern Steppe. The project will continue to work with Mongolian veterinary specialists and focus attention on the importance of livestock/wildlife health.

#### **Highly Pathogenic Avian Influenza**

In FY08, the WCS-Mongolia program and the WCS Field Veterinary Program (FVP) will continue to be engaged in surveying wild migratory birds in Mongolia for highly pathogenic (H5N1) avian influenza. These efforts are supported by USAID through the Global Avian Influenza Surveillance Network (GAINS) and an additional grant from the U.S. National Institutes of Health. This work is being carried out in collaboration with the Mongolian State Central Veterinary Laboratory and the Mongolian Academy of Sciences. The capacity of both veterinarians and ornithologists in Mongolia to address disease issues in wild migratory birds, and to gather the information necessary to evaluate the conservation impact of disease on these populations, will continue to be enhanced by on-going collaborative work in this area.

#### **Results/Outputs:**

- 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.
- An improved understanding of the role of wild migratory birds in the transmission of Highly Pathogenic Avian Influenza and the H5N1 strain in Asia.
- Improved capacity of Mongolian 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. These diseases constitute a considerable risk to wildlife, and, if transmitted to Mongolian gazelle or other wildlife species, could have catastrophic impacts on population numbers and viability. Standard training of Mongolian veterinarians and agricultural specialists does not include the study of wildlife disease. There is an ongoing need to incorporate the understanding and prevention of disease transmission among wildlife species and between populations of domestic animals and wildlife in conservation planning initiatives. 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.

**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 and will continue to develop the skills of its own local Mongolian staff and work closely with students and scientists at the National University of Mongolia (NUM) and the Mongolian Academy of Sciences (MAS) to build the capacity of Mongolian professional scientists, graduates, and students and to assist them in developing research and conservation projects. In FY07, the Eastern Steppe project involved young biologists from the PAA and young environmental inspectors from the State Specialized Inspection Agency in a number of training and capacity building activities, and this will continue. In FY08, the ES-LLP will involve Mongolian students and young conservation officers and professionals in ongoing field-based work, capacity building/training as well as conservation policy review projects and the compilation and publication of project reports. Specific capacity building opportunities for local scientists include:

1. **Mongolian gazelle project:** A female graduate student from NUM is and will continue to be employed full-time on this project as the field assistant, database manager and wildlife health project coordinator.
2. **Siberian marmot study on the Eastern Steppe:** Two additional students from NUM were trained as field assistants on this project in FY07 and they will continue to be involved in data analysis and report publication through FY08 (4 trainees expected).
3. **Protected Area Administration---Joint Surveys:** Young conservation officers (2) and protected area staff (2) received field based training on wildlife survey techniques as part of a joint WCS Eastern Steppe project and protected area administration survey of Ugtum Nature Reserve in FY07. All four individuals will be involved in the data analysis and report writing phase of this study in FY08 (4 trainees expected).
4. **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 FY08 will focus on wildlife monitoring and will improve the scientific capacity of these livestock herder community members (60 trainees expected).
5. **Nomrog wildlife protection program:** Training participants in FY07/FY08 will include new Nomrog protected area staff and young officials from both the State Border Defense Agency and State Specialized Inspection Agency (25 trainees expected).
6. **Avian Influenza:** Mongolian veterinarians and ornithologists are, and will continue to be, integral members of this specialist team. This project, although not a WCS/USAID Eastern Steppe program, will increase capacity in the area of wild bird handling, survey skills and basic ecology (5 trainees expected).

**Results/Outputs:**

- Participation of Mongolian scientists, from undergraduate students to full professors, will raise the profile and acceptance of scientific work conducted by the ES-LLP.
- Information collected and reports written by young Mongolian scientists will provide input to and help determine government policies on wildlife and development of the Eastern Steppe, based on a fundamental understanding of steppe ecology and threats.
- Improved capacity of Mongolian scientists to understand and study the complex steppe ecosystem.
- The training of 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 shortgrass 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, and as environmental inspectors in the State Specialized Inspection Agency who can apply themselves to the problems of biodiversity conservation.

**Level of Effort (Total Activity 2.2): \$77,000** (USAID/EGAT: \$60,000; WCS: \$10,000; USAID/GAINS: \$7,000)

**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 WCS/USAID Eastern Steppe LLP project, 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 the Siberian marmot (determining the spatial distribution and local population density of species on the steppe). Gaps in these population surveys still exist and there is a need to continue population monitoring over time. For example, surveys of the Mongolian gazelle population to date have taken place in the spring, summer and fall. There is still a critical need to understand gazelle habitat use during the winter season and whether or not these winter habitat areas are under threat. The WCS Mongolia program will continue to pursue funding to continue wildlife population monitoring on the Eastern Steppe through partnerships with universities and applications to funding agencies (the third version of a grant proposal to the National Science Foundation, through a partnership with the University of Maryland, University of Massachusetts and the Smithsonian Institute, is currently under review).

In this final year of the ES-LLP, the project will focus on completing monitoring frameworks for key Eastern Steppe Landscape Species. Emphasis will be placed on completing this process for Mongolian gazelle and Siberian marmot. Completing a monitoring plan for Nomrog Strictly Protected Area (SPA) and the Ugtum Nature Reserve will also be initiated. All present Landscape Species in these two sites will be included in the monitoring plan. These will be essential in guiding future work on the Eastern Steppe and can be incorporated into the long-term protected area management and species monitoring plans for the region.

**Results/Outputs:**

- The development of monitoring frameworks for the Mongolian gazelle and Siberian marmot.
- The initiation of the development of a monitoring plan for Ugtum nature reserve and Nomrog SPA.
- An understanding of the feasibility of incorporating the monitoring frameworks into protected area and species management plans.
- Identification of the role of community conservation groups in implementing species monitoring as a component of the 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. WCS and Mongolian managers alike must have monitoring information if we are to make sensible wildlife management decisions, design appropriate conservation actions, and measure our success. Monitoring programs that assess multiple species are also a more efficient use of resources and 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): \$10,000** (USAID/EGAT \$5,000; WCS \$5,000)

**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 institutional 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 will travel from community to community across the Eastern Steppe through the system of rural schools. The materials in the traveling trunks are designed educate community members and schoolchildren alike about the biodiversity on the Eastern Steppe. Exercises and activities will be developed which will encourage community monitoring of natural resources and promote wildlife conservation. This collaboration expands the reach of the ES-LLP. Many materials developed for specific trainings and capacity building exercises by the program will be adapted and incorporated into the Eastern Steppe conservation trunk. Links will be made with education-related project activities such as developing and teaching best practices in conservation in collaboration with herder communities (Activity 2.2.2) and protected area staff (Activity 2.2.1).

**Results/Outputs:**

- Completion of conservation education and community outreach materials geared towards the steppe ecosystem and local herder communities to be included in a “traveling trunk” program (an education and outreach tool which will travel from community to community across the Eastern Steppe through the system of rural schools).
- The piloting of the “traveling conservation trunk” program in the Eastern Steppe.
- Exploration of the potential of incorporating “wildlife conservation” into the official Mongolian primary and secondary school curriculum through the “traveling trunk” program.
- Identification of new funding sources and partners to support the development of this educational 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 on 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 direct conservation education efforts directed at herder communities with whom we work and 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): \$15,923** (USAID/EGAT: \$5,000; WCS: \$10,923)

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

**Level of Effort (Total Objective 3): \$14,500** (USAID/EGAT: \$5,000; WCS: \$2,500; USAID/TransLinks \$7,000)

**Activity 3.1 Using economic valuation of rangeland and water resources as a tool for site-based conservation: a comparison of the Eastern Steppe of Mongolia and Rungwa-Ruaha Landscape, Tanzania (Property Rights and Pastoralism---Payments for Ecosystem Services)**

The Eastern Steppe is one of a suite of WCS Living Landscapes that focus on grassland ecosystems, including Rungwa/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. Assessing the value of the natural resources, mainly water and rangeland that are of critical importance to pastoralists and the wildlife that share their landscape, is a challenge facing both sites (along with several other conservation projects, both inside and outside of WCS). In FY06 and FY07 the ES-LLP has developed and strengthened our working relationships with livestock herder communities in the Eastern Steppe through our ongoing work with the Eastern Mongolian Community Conservation Association (EMCCA). The plans to establish a network for communication between the Eastern Steppe (Mongolia) and Ruaha (Tanzania) landscapes around techniques for natural resource valuation has evolved during FY07 into identifying ways to carry this focus forward under the new TRANSLINKS project in FY08. The Eastern Steppe would be a case study site for the two cross-site initiatives described below under “property rights and pastoralism” and “payments for ecological services”.

**Property rights and resource tenure for income security and resource conservation: Governance systems for pastoralist livelihoods in Tanzania, Mali and Mongolia**

Much work has been undertaken to understand and define the most appropriate systems for governing farming and foraging livelihood systems where natural resources are predictably localized and can be privatized by individuals, groups or firms. Less work is available to guide governance of fugitive (transient and/or seasonally variant) resources (e.g., grass and water for pastoralists) and the livelihoods which depend upon them. This comparative set of action research activities is designed to explore, given the highly mobile nature of pastoralist land use practices, what property and resource rights systems and resource management obligations would be most appropriate for securing livelihoods and maintaining the ecological integrity of grazing systems. The authors of the pastoralism case studies will seek to document the present systems of resource access and use and explore governance options for enhancing income security and resource conservation. Dr. Matt Turner of the Land Tenure Center will advise on core research questions and related conceptual frameworks and methods.

The work will be directed by Dr. Pete Coppelillo in Ruaha, Tanzania, Dr. Amanda Fine, the Eastern Steppe, Mongolia, and Dr. Matt Turner, in the Niger River Delta, Mali. Additional pastoralism case studies in Boma-Jonglei, South Sudan and Simanjiro Plains, Tanzania will likely be added in the future. These case studies build on USAID Mission and GCP/EGAT support to Tanzania and Mongolia respectively. These case studies will commence in FY08, and will, as a first step, document present governance systems at the three sites, highlighting policies and practices that: a) promote and militate against sustainable management of natural resources, and b) help secure local livelihoods or ensnare rural families in a poverty trap.

**Private sector payments for ecological services: protocols for assessing the ecological services and economic value of the Eastern Steppe, Mongolia**

The Eastern Steppe study will explore approaches for assessing the present and potential economic value of steppe ecosystem goods and services. Dr. Shahid Naeem and Dr. Karl Didier will help Dr. Amanda Fine and her Mongolian partners to identify and test approaches (e.g., market prices, production cost, damage cost avoidances, replacement cost, contingent cost, etc.) to the economic valuation of steppe ecological services.

**Results/Outputs:**

- Documentation of the present governance system on the Eastern Steppe with a particular focus on pasture and natural resource management and resource allocation
- Identification of approaches for assessing the economic value of steppe ecosystem goods and services on the Eastern Steppe

**Threats Addressed:**

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. Providing quantitative estimates of economic value of steppe ecosystem goods and services is essential in exploring the potential of direct payments for these services as an option for the long-term conservation of the steppe. Dissemination of the information collected in these case studies is expected to change local and national perceptions and actions regarding conservation. In addition, a learning framework will assist the project in critical self-evaluation as well as in benefiting from the expertise and experience of conservation practitioners dealing with similar issues. 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): \$14,500** (USAID/EGAT: \$5,000; WCS: \$2,500; USAID/TransLinks \$7,000)

**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 FY08, the priority for the Coordination Unit will continue to be 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. We will also be working with our field staff to explore how best to integrate project strategic planning elements within annual financial management.

**FY07 Level of Effort: (Total Objective 4): \$ 44,504** (USAID/EGAT: \$26,504; WCS: \$18,000)

**Activity 4.1 Provide technical assistance to site-based conservation**

Members of the NY Coordination Unit will provide technical input to field site operations detailed in the previous sections of this implementation plan, some of which will involve consultation at sites, as previously noted. Drs. Karl Didier and Samantha Strindberg will assist the Mongolia team (especially Dr. Susan Townsend) in developing a spatial model of the distribution of Siberian marmots, a Landscape Species, in the Eastern Steppe. Observational data collected in the steppe over the last two years will be analyzed with statistical spatial modeling techniques to map the current distribution of marmots and examine the potential environmental and anthropogenic drivers of this distribution. The information will be used to refine our Biological and Human/Threat Landscapes and to produce a Conservation Landscape for marmots.

The results can be contrasted to marmot landscapes based on expert opinion and will be used to inform conservation action. Dr. Didier will also provide general technical support to the Mongolian team as they refine Biological, Human/Threat, and Conservation Landscapes for their other Landscape Species, and develop species-specific Conceptual Models and Monitoring Frameworks.

Dr. Samantha Strindberg will travel to Belize City to assist the Belize field team in finalizing their Conservation Strategy. She will also provide technical assistance for the evaluation of the effectiveness of conservation actions within the Glover's Reef Living Seascape (GRLS) by assisting with the analysis of fisheries catch data and other monitoring data. This evaluation process, by means of monitoring the seascape species, threats and interventions, is clearly defined in the GRLS monitoring framework. As the first coral reef marine site to apply the Seascape Species Approach, it is important to document the lessons learned and variations that have developed in applying the approach. In part, these lessons will be captured as part of a series of case studies that will be published together. Similarly, Dr. Didier will assist the Mongolia team in writing a case-study description of the Landscape Species Approach as it has been applied in the Eastern Steppe. The case study will either be published in a scientific journal or in a book. (See Activity 4.3.3).

Dr. Strindberg will also be assisting WCS-Guatemala team with the design and analysis of their monitoring programs. Specialized methods will be applied to meet the challenges of monitoring elusive wildlife over vast areas.

**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.

**Level of Effort (Total Activity 4.1): \$8,000** (USAID/EGAT: \$6,000; WCS: \$2,000)

**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 FY08, Dr. Didier will complete two technical manuals on Landscape Species Approach (LSA) tools, one on creating Conservation Landscapes and one on using Conservation Landscapes to evaluate the spatial extent of conservation actions necessary to meet goals and to prioritize areas and interventions. 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 FY08, LLP-NY staff will design and lead a 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.

**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. In October or November 2007, a final decision will be made on the approach to integration so that it can be used by field projects for the WCS/FY09 budget cycle (i.e., December 2008). WCS will be the first international conservation NGO to integrate site-based strategic planning into annual operations planning. This fills a major gap in the adaptive management infrastructure that we need in order to truly measure our conservation effectiveness.

**Results/Outputs:**

Technical manuals designed, tested in the field and distributed in hard copy and electronically (on CDs and on-line) for wider distribution. A process for integrating project strategic planning with annual financial management will be developed and this draft approach piloted at several sites.

**Level of Effort (Total Activity 4.2): \$4,400** (USAID/EGAT: \$2,400; WCS: \$2,000)

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

**Activity 4.3.1 Annual meeting of WCS/LLP Staff: Follow Up**

In FY08, LLP-NY staff will finish writing and producing a series of “Guidance Briefs” based on information gathered at the LLP Annual Meeting in May 2007 that brought together the 14 LLP sites, including the 4 currently funded by USAID. The Briefs are intended to be an accessible, user-friendly way to introduce new sites to the Landscape Species Approach and to guide users in when and how the LSA works best.

**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 develop a format for and the content of a final report for each site. These reports will likely comprise a series of brief and engaging “stand alone” documents that will showcase the WCS approach to threats-based conservation at a landscape scale while highlighting examples of the innovative ways that WCS field staff effect conservation in populated places outside of protected areas. Wide dissemination of these final reports will allow us to share lessons learned with the conservation and development communities. LLP-NY staff will share early drafts of the format and content with USAID and our GCP partners.

The CU will also lead an effort to produce case studies of how the LSA has been implemented in our various sites. We plan to produce case studies for 4-6 sites (likely Mongolia, Adirondacks, Glover’s Reef, Lao PDR). By the end of FY08, the case studies will be submitted for publication in a peer reviewed journal or compiled into a book or WCS working paper.

**Activity 4.3.4 Preliminary assessment of the human welfare impacts of establishing national parks**

With funding provided by the John D. and Catherine T. MacArthur Foundation and the National Science Foundation, LLP staff, in collaboration with the WCS Gabon program, the Gabon National Parks Authority and Boston College, conducted a baseline household welfare survey of 1000 households with traditional claims to natural resources within 4 national parks in Gabon, and an additional 1000 control households living outside the influence of these parks. This survey is the first of three surveys planned over the next 5 years to assess the income, health, consumption, natural resource use, and family function impacts of establishing protected areas on local families. Data entry has now been completed, and results of the baseline survey will be analyzed during FY08. This analysis will allow us to assess the role that wild resources and market access play in the welfare status of families proximal to and distant from the parks.

**Results/Outputs:**

Draft final reports for each site will be generated. The format for these reports and an outline of the content will be made available to GCP partners and USAID. Initial findings from the Gabon Parks and People will be published in a peer-review journal.

**Level of Effort (Total Activity 4.3): \$12,000** (USAID/EGAT: \$10,000; WCS: \$2,000)

**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**

Karl Didier will continue to give general technical support to the WCS sites pursuing the Landscape Species Approach, including especially the Eastern Steppe in Mongolia, the Adirondacks in New York State and the San Guillermo Biosphere Reserve in Argentina.

Samantha Strindberg will ensure that LLP monitoring tools (methods and frameworks) will be leveraged at our other design and demonstration sites, such as within the Nam Kading Landscape, Lao P.D.R., and the Western Forest Complex, Thailand.

Last year, the Living Landscapes Program tools were applied in central Lao, PDR to guide the conservation planning initiative for the Nam Kading National Protected Area in the Bolikhamxai province. This year, LLP-NY will assist WCS-Lao PDR program in writing up a technical manual to provide a detailed description of the development of Biological, Human and Conservation Landscapes for the Landscape Species. In addition, LLP-NY is planning on assisting the WCS-Lao PDR team with the publication of a peer reviewed article to share the lessons learned from applying the LLP tools in the development of a protected area management plan in Lao, PDR.

Last year, LLP-NY provided guidance to the WCS-Portland office on selection of candidate species for the newly defined Arctic-Alaska landscape, assistance with our Species Selection Software and review of a draft suite of Landscapes Species. This year, LLP-NY is planning on finalizing the suite of Landscape Species for the Arctic-Alaska landscape and providing technical support in the development of Biological, Human and Conservation Landscapes for the selected species.

LLP staff member Samantha Strindberg, together with WCS Brazil staff member Fernanda Marques, will conduct a WCS workshop on “Statistical Design and Analysis of Biological Monitoring Programs for Conservation Management” in Manaus, Brazil, for WCS and reserve staff of the Amazon Andes Conservation Program in Brazil, Peru, Ecuador, and Bolivia.

LLP staff will provide technical support to Madhu Rao, a part-time WCS staff member and part-time American Museum of Natural History (AMNH) staff member, in her work on the “Network of Conservation Educators and Practitioners” at the Centre for Biodiversity and Conservation, AMNH. One focus is the development of training materials for trainers of conservation professionals/practitioners and another is the collaboration with TNC staff on developing protected area tools. In both instances, tools developed within the framework of the LSA will be adapted for these wider applications.

LLP staff member David Wilkie will work with WCS-Cambodia staff Tom Clements and Tom Evans, and with the new regional monitoring specialist, Emma Stokes, to formulate a simple community-based monitoring system to track the conservation and livelihoods impacts of community ecotourism enterprises in the Northern Plains.

David Wilkie will also assist the WCS-Rwanda program with the development of a simple human welfare assessment tool that could be used to track household livelihoods in communities bordering protected areas. The tool will be developed following a national survey of social science data collection efforts, and will be designed to mesh easily with these past and ongoing initiatives.

Finally, LLP staff member David Wilkie will assist WCS and national staff in DRC in the use of LLP tools to further develop a national strategy for wildlife conservation.

#### **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. Recent manuals translated into French and Spanish and distributed.

**Level of Effort (Total Activity 4.4): \$8,000** (USAID/EGAT: \$0; WCS: \$8,000)

#### **Activity 4.5 Ensure coordination and communication services for the program**

The program director and assistant director will meet with staff from the core sites and other WCS large-scale conservation sites to discuss the development 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.

Throughout the year, LLP-NY will assist field staff in completing annual Implementation Plans, reporting on Performance Monitoring forms, and submitting Annual Reports. The program director and/or assistant director and other 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 serve as a hub for communication regarding the Program among WCS field staff, core sites, 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 (Total Activity 4.5): \$8,104** (USAID/EGAT: \$4,104; WCS: \$4,000)

#### **Activity 4.6 Coordinate participation in the design and implementation of the USAID GCP evaluation**

The program director and assistant director will continue working with USAID, the ARD evaluation team and our field staff to ensure that the design and implementation of the end-of-program evaluation is consistent with the TOR, and minimizes the personnel and financial burden on field programs. The program director will discuss the evaluation with appropriate NY-based staff and will keep them apprised as design and implementation move ahead. The assistant director will liaise with site staff to make them aware of the purpose of the evaluation and to ensure they are able to participate fully in web surveys and any follow-up interviews. The director and assistant director will work closely with sites targeted by the evaluation team for a field visit, and will ensure that project staff and collaborators are ready to participate fully and that logistic requirements for the visits are not overly burdensome. The director will set aside time to participate in all visits to WCS sites planned by the evaluation team. The assistant director will ensure that the results of the evaluation are made available to all field site directors and to appropriate WCS staff in NY.

**Level of Effort (Total Activity 4.6): \$4,000** (USAID/EGAT: \$4,000; WCS: 0)

**FY08 TRAVEL DETAILS:**

<b>Name</b>	<b>Destination</b>	<b>Reason</b>
Amanda Fine	New York	Meet with LLP and Asia Program Staff
Peter Zahler	Ulaanbaatar, Mongolia	Work with Mongolia Field Staff