



**Biodiversity Conservation in Afghanistan,
A Program of the Wildlife Conservation
Society supported by USAID**

Annual Work Plan FY07
January 2007 – January 2008

OVERVIEW

WCS Biodiversity Conservation Program in Afghanistan, funded through a cooperative agreement with USAID, seeks to preserve biological diversity, and through that preservation achieve USAID's Strategic Objective SO 5: A Thriving *Licit* Economy Led by the Private Sector, Intermediate Result 5.1. Accelerated Growth in the Rural Economy, Sub IR 5.1.3. Natural Resources Management Improved.

This project contributes to current efforts for reconstruction and development in Afghanistan, and maintaining security. With over 80% of Afghans dependent on the country's natural resource base, long-term stability will be directly dependent on sustainable management of natural resources and provision of economic opportunities to rural sector. The continuing degradation of environmental conditions, in contrast, will lead to the spread of poverty, the dissolution of communities, and cultural practices, increased rural migrations, and further instability. This will negatively affect stability and security in Afghanistan and its neighbors.

MAJOR PROGRAM COMPONENTS

WCS, through its mandate to conserve biodiversity in Afghanistan, seeks to alleviate these problems through four interrelated strategies.

- (1) **Baseline Surveys and Data Analyses of Wildlife and Wildlands.** Data should form the foundation for management of natural resources. Much of the data that the international community is relying upon is over 30 years old, so many management activities may actually have little impact to conserve biodiversity. WCS is continuing an extensive program of data collection from the local scale to the regional scale, and covering different disciplines from socioeconomics and ecosystem valuation, prevalence of zoonotic diseases, rangeland health, forest cover change, and ecology. Much of this data is being used for creating protected areas, developing management plans, and for ecological forecasting models.
- (2) **Community-Based Initiatives.** WCS is contributing to USAID's goals and to the Government of Afghanistan policy in the Agriculture Master Plan of poverty reduction and economic development through promoting community conservation and ecotourism. For 2007, WCS will continue socioeconomic conditions in local Wakhi communities in the Little Pamir and Waghjir Valley, will work with local communities to continue the development of community conservation committees in Wakhan, as well as expand such activities to Kyrgyz communities, Nuristan, and Hazarajat Plateau, expand conservation education activities on the local level, and develop the foundation for ecotourism.
- (3) **Strengthening Laws, Policies, and Institutions.** Economic development through natural resource management and biodiversity conservation depends on the creation of effective institutions and policies that will mitigate existing threats and increase opportunities for conservation through better governance, enforcement, and support for the rule of law. WCS is working in 2007 with the Afghan government to draft effective

laws and implementing regulations on rangelands management, protected area regulations, laws governing the conservation, hunting, and trade of wildlife, to develop effective natural resource management policies, to support Afghanistan's fledgling governance institutions regulating the environment, to create protected areas, and to coordinate activities for biodiversity conservation. A key component for 2007 will be development of enforcement capacity at NEPA, and on the local level.

- (4) **Building Capacity within Afghanistan's Environmental Sector.** Any solution to biodiversity conservation in Afghanistan must begin with increasing Afghanistan's capacity to manage its biological resources. In 2007, WCS will continue an intensive program of capacity building and training of both government counterparts and scientists in research and academic institutions. This capacity building is woven into all other project activities, and includes short course training, field-based practical training and mentoring, and study/travel tours to relevant international sites. WCS will continue its close relationship with the Afghan government, including increasing mentorship on CITES and the Convention on Biological Diversity. WCS will bring a delegation of Afghan government officials to the CBD meeting this spring in India. Throughout this project, activities are designed to raise Afghanistan's capacity for self-management of its natural resource base through education, workshops, and training.

SITE DESCRIPTION

To achieve these four objectives, WCS is implementing its strategy in three areas in Afghanistan: the Wakhan District, the Hazarajat Plateau, and the Eastern Forest complex.

Wakhan

Wakhan has some of the last relatively pristine wildlife habitats and populations left in Afghanistan. It is strategically located. Wakhan borders Tajikistan to the north, Pakistan to the south, and China to the east. The Wakhan can be divided into three important regions for biodiversity conservation. These are the Big and Little Pamir Mountain ranges, and the Waghjir Valley. The Big Pamir Range extends over about 5,500 km² and is named after a mountain range containing peaks rising up to 6,900 meters. The Wakhi occupy the western Big Pamir, a considerable part of which was once included in the so-called Big Pamir Wildlife Reserve encompassing about 679 km², while the Kyrgyz occupy the eastern region of the Big Pamir Range. The Big Pamir Reserve, although designated as a reserve, was never been legally established. Between 1968 and 1977, the Big Pamir Wildlife Reserve has functioned as a hunting reserve for foreigners, managed by the Afghan Tourist Organization, and before that, part of it served as a royal hunting reserve.

The eastern end of the Little Pamir is the eastern-most region of the Wakhan District and of Afghanistan. At present, this area may not be used by the Kyrgyz, and thus the habitat is purportedly in excellent condition and does not conflict with human use patterns. There is also no geographical barrier between it and the proposed Shaymak Reserve in Tajikistan, enabling Marco Polo sheep to move freely back and forth. Finally, the eastern tip of the Waghjir Valley (about 300 km²), east of 74°20'E, is uninhabited and used only for yak grazing in winter. Marco

Polo sheep cross the Yuli Pass between China and Afghanistan at this point in winter. WCS is seeking to preserve all three areas as part of its biodiversity conservation project, as well as to provide benefits from this conservation to the entire Wakhan region.

Hazarajat Plateau

The Hazarajat Plateau holds some of the most important existing natural and cultural protected areas in Afghanistan. It is home to the destroyed Buddha statues, and two important proposed protected areas: The Ajar Valley Wildlife Reserve and Band-e-Amir National Park. Band-e-Amir is often described, and appropriately so, as one of the great wonders of the world. Consisting of six crystal blue lakes separated by a series of natural white travertine dams in a unique step-like lock system, Band-e-Amir deserves protection as a major source of future revenue from international ecotourism for the country of Afghanistan. Even today Band-e-Amir is regularly visited by groups of Afghans on holiday. Alongside the natural beauty of the lakes of Band-e-Amir there is also a shrine dedicated to the Caliph Ali, son-in-law to the prophet Mohammad. Band-e-Amir has been identified as containing appropriate components to qualify as a UNESCO World Heritage Site (UNEP 2003), and WCS will be working with the Ministry of Culture and Tourism to submit an application in February 2008. While Band-e-Amir was identified as a National Park in 1973 it still has no formal legal status for protection.

Ajar Valley is a spectacular long gorge created by the Ajar River and the sheer-sided Jawzari Canyon. The surrounding area was once home to robust populations of ibex, urial, Bactrian deer and other wildlife, and for many years it was a royal hunting reserve. Unfortunately, recent conflict-related events have resulted in a lack of protection for the area, with the result that wildlife populations have suffered dramatically – Bactrian deer are now locally extinct, while ibex and urial numbers have most likely declined dramatically. Although Ajar was gazetted as a wildlife reserve in 1977, there is only a preliminary management plan that has never been implemented. In FY06, WCS started the process of delineating borders, conducting wildlife surveys, and drafting a new management plan.

Eastern Forest Complex

The Eastern Forests Complex in Afghanistan contains some of the last remaining arid conifer forest in the Greater Himalayan mountain chain. The Complex runs from the border of Badakhshan in the north to Paktika in the Southeast of Afghanistan, and contains mixed oak and coniferous forests. Tree cover tends naturally to be more continuous in this region where precipitation is far higher and less erratic than elsewhere. This habitat, a Global 2000 Ecoregion (Western Himalayan Temperate Forest), is rich in biodiversity, including historical populations of snow leopards, leopards, jungle cats, Himalayan lynx, leopard cats, wild cats, Pallas' cats, jackals, striped hyenas, martens, Asiatic black bears, Siberian ibex, markhor, urial sheep, and wild boar. It is under tremendous deforestation pressure (discussed below). Further, its location in the sensitive and conflict-prone border regions between Afghanistan and Pakistan makes monitoring of deforestation difficult, if not impossible. WCS surveys in FY06 indicate that the forests still contain important key species, including potentially Persian leopard, snow leopard, ibex, and markhor. These surveys are the start of a larger initiative in this region.

THREATS ANALYSIS AND PROGRAM RESPONSE

Research conducted in FY06 by WCS scientists suggests that Afghanistan's fragile environment is under threat. These threats directly affect the wildlife as well as degrade the wildlands on which they depend. Such degradation in turn impoverishes human communities that depend on natural resources for their survival.

Despite a presidential decree banning hunting and provisions in the environmental act against the illegal taking or possession of wildlife, there are few enforcement provisions in the law that may put these laws into practice. The hunting of major species of wildlife continues throughout much of the country, and in part, has resulted in dramatic declines in wildlife populations. WCS FY06 surveys in Ajar Valley document a decline from 5,000 ibex to less than 100 today. Ibex and urial have most likely disappeared completely from Band-e-Amir, and the transboundary populations of Marco Polo sheep appear to be declining sharply, although further research is needed. In part, hunting is both opportunistic and a determinative source of pressure on species. Wildlife is coming into contact with humans more often as their habitats continue to degrade or even disappear.

Wildlife trade may also be a second source of direct pressure on wildlife populations. Birds of prey are a continued source of illegal trade from Afghanistan to other parts of the Middle East. Animal components – such as snow leopard and wolf skins – are sold in large numbers to westerners in Kabul. The bird market facilitates trade in certain avian species for ornamentation or fighting. For FY07, WCS will investigate animal markets in other parts of Afghanistan as well, including in the Eastern Forests (as there are reports of transboundary trade in wildlife) and Northern Afghanistan in Mazar-e-Sharif.

Afghanistan also has some of the highest rates of deforestation in the world. In the Eastern Forests Complex, extensive logging is quickly reducing the forest cover wherever deodar cedar, pine, spruce, or juniper still exists. A UNEP (2003) Landsat analysis found that forest cover in Nuristan has decreased by 53 per cent and in Kunar by 29 per cent. WCS is updating these studies at higher resolution to better gauge deforestation patterns. Residents predict similar losses for the forested regions in the provinces of Paktia, Khost and Paktika. If this rate of deforestation continues, estimates suggest that most of the remaining forested valleys could be completely stripped of trees within five to ten years. This has already occurred in the western dry forests of Afghanistan, which have disappeared from 95% of their former range.

Finally, changing economic dynamics and potential cultural dissolution in the Wakhan may be leading to decreased incentives to protect community rangelands. Overgrazed rangelands put some wildlife in competition with domestic livestock for food sources, while other wildlife may actually prefer to avoid domestic animals and human contact, and therefore are forced onto marginal habitat. This may affect populations of ungulates and other mammals that are dependent on the grasslands, which in turn would lead to the collapse of carnivore populations that depend on them for their survival. Initial research by WCS suggests that this may be occurring. Overuse of rangelands also places wildlife and domestic wildlife in close proximity, leading to the potential of shared diseases between both populations. As some of these diseases are zoonotic, they impose significant economic and human health concerns for the Afghan

population.

WCS has created a multi-pronged program response to address these issues. First, resolving these issues requires having the data necessary to understand them. Most policymakers and donors are relying on scientific data that is now three decades old and not reflective of the current context on the ground.

EXPECTED ACCOMPLISHMENTS FOR FY07

Baseline Science and Analysis

In 2007, WCS will conduct rapid biological inventories of avifauna and mammals in the Little Pamir and Waghjir Valley sections of Wakhan, the Hazarajat Plateau, and in Nuristan and Northern Kunar. Coupled with the rapid assessments, WCS will also start more intensive scientific approaches to estimate population sizes and extinction proclivity by conducting genetic analysis of carnivore scat samples, through use of remote sensing and gap analysis, occupancy surveys, and extensive camera trapping in remote sights. WCS will also conduct the first survey of small mammals ever conducted in the Wakhan. As rangelands are important for the human and wildlife that depend on them, WCS will expand its rangeland surveys to encompass the Little Pamir, Waghjir Valley, and Hazarajat Plateau. WCS will also ground-truth forest imagery in Nuristan to be able to use satellite analysis to identify forest composition and deforestation trends. As the dynamics between wildlife and domestic livestock affects the spread of emerging infectious diseases, and may have important ramifications for humans, their livestock, and wildlife, WCS will continue extensive serological screening of livestock and wildlife to understand disease prevalence and transmission in both communities.

The WCS GIS and remote sensing program will conduct detection studies of the Eastern Forests, analyze rangeland quality and forecasting based on ground-truthing conducted in 2006, and continued integration of field data and historical data with maps and remote sensing imagery for all three areas of interest. WCS has already put together a substantial imagery, DEM, and topographic database that we will continue to augment through 2007. We will also work to integrate data from scientific surveys into GIS databases – data from both the past and the present distributions of animals. This analysis will provide us with a way of determining processes based on multiple patterns stemming from mammals, birds, rangelands, political structures, socioecological studies, and the physical geography of the landscape. Finally, WCS will embed its GIS officer at the Ministry of Agriculture one day a week in 2007, and provide data products that WCS has developed, to help the Ministry develop its new GIS laboratory into an effective institution in support of biodiversity conservation.

Community Conservation and Economics

In 2006, WCS worked to build broad-based constituencies for conservation to ensure the conservation of Afghanistan's magnificent biodiversity in the Wakhan as well as to survey local communities to better understand their dependence on natural resources in the Pamirs. WCS used these meetings to define and establish conservation committees, and to make sure they are representative of community interests. These committees provided WCS and the communities with a formal structure with which to interact and discuss conservation and ecotourism issues, and will help increase local control over natural resources. In 2007, WCS will extend its socioeconomic studies to the Little Pamir to survey Wakhi and Kyrgyz communities. A WCS social anthropologist will also be living with nomadic Kyrgyz communities for half of 2007. WCS will also expand its conservation education program, and adapt materials from Wakhi communities in Northern Pakistan for WCS. WCS will also be working to increase the devolution of power to local communities in the management of their natural resources by strengthening the community conservation committees (under the Environment Act, protected area committees). WCS will work on the national level to ensure that national legislation mirrors our work on the local level.

Laws, Institutions, and Policies

As the development of laws and institutions to enforce the rule of law is necessary to preserve conservation benefits for the future, WCS will continue the development and revision of laws relating to biological conservation, rangelands, and wildlife hunting and trade; publish a national biodiversity related legislation compendium; and continue to review and identify priority legislative needs. WCS will continue negotiations on a transboundary peace park between the governments of Afghanistan, Pakistan, China, and Tajikistan in Dushanbe, Tajikistan in October, 2007, and will work to create National Parks and Wildlife Reserves in Band-e-Amir, the Wakhan, Ajar Valley, and Nuristan, including seeking World Heritage Protected Area status for Band-e-Amir.

Coordination with NGOs and Government

WCS will continue developing its close working relationships with the government to carry out the biodiversity conservation project, and to build capacity in the government to continue this work in the future. Specifically, WCS will continue its close working relationships with the National Environmental Protection Agency (NEPA), the Forests and Rangeland Department of the Ministry of Agriculture, the Ministry of Foreign Affairs, and the Afghan Tourist Organization at the national level. At the provincial level, WCS built strong working relationships in Badakhshan and Nuristan and in Bamiyan Province, and for 2007, hopes to build on those working relationships. Finally, WCS continues its active policy of collaboration with other NGOs and donors. WCS will closely coordinate its work with ICIMOD, the Aga Khan Foundation, the Asian Development Bank, the United Nations Environment Programme, the International Crane Foundation, and Save the Environment Afghanistan.

Training and Capacity Building

For 2007, WCS is continuing its active complement of short courses, practical field training, mentorship, international training opportunities, graduate education and study, and broad-scale public diplomacy and public education activities. We will engage participants from academia,

including universities outside of Kabul, government ministries and institutions, and local community leaders. Specifically, WCS expects to engage participants from the Department of Forest and Rangelands of the Ministry of Agriculture, the National Environmental Protection Agency, the Environmental Conservation Center for Afghanistan and the Veterinary School at Kabul University, Nahgrahar University, University of Bamiyan, Mazar-e-Sharif University, and the Kabul Zoo. WCS will continue building capacity in natural history, natural resources management, protected area management, rapid assessment survey methodologies, ecological data analysis, community based conservation, and conservation education in 2007.

IMPLEMENTATION PLAN: FY07

Total Anticipated Level of Effort in FY07: \$2,164,220

OBJECTIVE 1: SURVEY AND MONITOR WILDLIFE SPECIES AND THE LANDSCAPE CONTEXT

FY07 Level of Effort (Total Objective 1): \$545,300.

Activity 1.1. Conservation Science and Wildlife Surveys

In 2007, WCS will expand its mammal and avifauna surveys of Wakhan, the Hazarajat Plateau and the Eastern Forest Complex. These surveys provide estimates of the incidence and population size of these species, and additional work is increasing the reliability of population estimates. WCS has already identified nearly 30 new species of birds for the Wakhan District in its surveys of the Big Pamir, and 11 new species of birds for the Hazarajat Plateau, and given the limited geographic scope of the surveys, these numbers will surely increase in 2007. WCS will also survey small mammals in Wakhan, the first surveys of small mammals ever conducted in the region. WCS will continue to apply cutting edge science to better understand the status of Afghanistan's biodiversity. In conjunction with the genetics laboratory of the American Museum of Natural History, WCS will use modern genetics tools to analyze carnivore scat samples for DNA to get a better understanding of population size, threats to species, migratory behavior, and inbreeding. As animal movements are frequently at night, when it is difficult to monitor them, WCS will also set up remote camera traps in its study regions to better assess the incidence of animal species.

WCS Kabul Staff will integrate the field data with GIS and remote sensing data, and analyze the data in light of historical distribution patterns through the end of the year, with the assistance of WCS New York Program Staff. WCS will also continue collection of historical data on wildlife population abundance and incidence from natural history museums and academic institutes around the world. Obtaining a translated record of these historical articles, documents, and texts is necessary for understanding how wildlife and wildlands have changed. Wildlife survey teams will include members of government agencies responsible for wildlife and/or park management, as well as university personnel and local community members. WCS will train these counterparts in international best-practice scientific techniques, as well as take Afghan scientists to international scientific conferences, so that these surveys can be replicated in future years to allow the Afghan government to monitor the status of biodiversity in future years.

WCS will use survey teams from WCS headquarters in New York, including the potential use of sniffer dogs for identifying and locating scat samples for genetic analysis, the International Snow Leopard Trust, and other wildlife experts. Surveys will be conducted both in the summer and winter. Experts from the Wildlife Institute in India will also assist in the analysis of data.

Level of Effort (FY07): \$153,660.

Expected Accomplishments:

- Conducting assessments of mammal species incidence, population size, migratory patterns for species in the Little Pamir, Waghjir Valley, Nuristan, and Hazarajat Plateau for the development of management plans for the proposed protected areas.
- Survey of avifauna biodiversity in Band-e-Amir, Little Pamir, and Waghjir Valley.
- Application of advanced genetic techniques to identify species, estimate current population size, and assess whether populations of large endangered carnivore species, which serve as indicators for the overall ecosystem health, are declining.
- Camera trapping in Nuristan, Wakhan, and Hazarajat Plateau to provide estimates of species that are mainly nocturnal or are located in remote and logistically challenging habitats.
- Extensive program of field-based training in modern best-practice scientific techniques and approaches to the monitoring of biodiversity in Afghanistan.
- Mentorship of the Ministry of Agriculture in its own monitoring and survey programs.

Activity 1.2. Marco Polo Sheep Research and Monitoring

In FY07, WCS scientists will initiate work to satellite collar up to 20 adult and young Marco Polo sheep in the Big Pamir to determine distribution, trends, habitat use, feeding ecology, migratory movements, survivorship, and causes of mortality. FY06 focused on designing and ordering satellite collars that will be trackable from space to monitor the movements, health, and biology of Marco Polo sheep throughout the year. Further, WCS scientists will record behavioral data, collect fecal samples to study diet and parasite loads, take tissue samples for genetic analysis, and blood samples to assess disease ecology and health status of wild sheep. Graduate students from Afghanistan will be identified, trained, and mentored, to take lead roles for advanced degrees on as many of these studies as possible.

This study will involve substantial WCS staff time to dart animals over two months, to collect and analyze the behavioral data (spring-winter 2007), assess health of animals through assessments in the field and laboratory (summer-fall 2007), train government counterparts and veterinary faculty post-graduates, integration of data into a GIS and remote sensing database, and substantial logistical support for the field teams.

Surveys will be conducted in both the winter and summer months. Marco Polo Sheep Team will include both immobilization and handling experts, and behavioral experts. Due to the behavior of Marco Polo sheep, darting and collaring activities will occur at two periods during the year: (1) one during the spring/early summer calving period, and the second during the winter rut, when males and females are more amenable to capture.

Level of Effort (FY07): \$150,450.

Expected Accomplishments:

- Collaring of Marco Polo Sheep, and monitoring transboundary movements.
- Ability to analyze behavioral, demographic, and health data on a key indicator species for biodiversity within Wakhan and assessing the state of the populations.

Activity 1.3 Assessment of Rangelands in Wakhan

Rangelands support both livestock and wildlife in the Pamirs. Therefore, having a good understanding of the health of the rangelands is essential element for looking at causality between human activities and wildlife declines, as well as for managing natural resources. In FY07, WCS will extend its range inventory and analysis of rangelands critical for biodiversity conservation to the Little Pamir, Waghjir Valley, and Hazarajat Plateau. WCS will assess rangeland type (vegetation types and values including information on species composition and productivity levels); uses of these rangelands by pastoralists (season of use, importance for different livestock use); conditions/concerns regarding rangeland health (where applicable); current rangeland management practices and user rights (tied into Activity 2.6: Legislation and Policy); the sustainability of current rangeland practices relative to rangeland productivity levels; and identification of the key rangeland management issues and possible options for their resolution. As in FY06, collection of data will be standardized on the basis of a statistically valid sampling scheme to enable the data to be combined on a national level and to allow for periodic and consistent repetition of sampling to detect trends in the measures used to evaluate rangeland health. Data will be incorporated into the spatially explicit GIS database developed in FY06.

Level of Effort (FY07): \$78,500.

Expected Accomplishments:

- Range inventory and assessment of selected areas of the Little Pamir and Waghjir Valley important for biodiversity conservation.
- Rapid rangeland assessment of the Hazarajat Plateau (Band-e-Amir, and Ajar Valley).
- An established vegetation and monitoring plan for important biodiversity areas in the Wakhan Corridor. Included will be a description of indicators of rangeland degradation.
- Description of major plant communities in Wakhan.
- A guide of important plants in the Wakhan Corridor. This will include photographs, a description of the plants, where they occur, and their economic and biodiversity value.
- As WCS will be working separately on a rangelands law for Afghanistan, we will input science into the legal drafting process, and encourage collaboration between groups.

Activity 1.4. Promote the Development of Ecosystem Health Across the Human/Livestock/Wildlife Interface

Internationally, there is growing recognition of the importance of integrating the traditionally separate fields of livestock, wildlife, and human health. Monitoring and understanding disease prevalence in domestic livestock will allow us to better understand and evaluate a potential impact on biodiversity in Afghanistan. As humans attempt to survive on an increasingly fragile

landscape, they bring domestic livestock into contact with domestic wildlife. Competition for limited and depleted rangelands between domestic animals and wildlife, means that wildlife species may be exposed to disease agents carried by domestic species, but also serve as a reservoir to transmit these diseases back to livestock populations, or to new populations that have yet to be exposed. The theory of metapopulation dynamics suggests that to be able to fully combat the spread of diseases prevalent in different subpopulations, there must be uniform pressure applied to all the subpopulations of the system, or that dispersal between populations must cease. Disease agents in domestic livestock that directly or indirectly come into contact with wildlife (particularly through rangelands) can only be managed by understanding the prevalence of disease in wildlife, and eliminating the opportunities for transmissions between these two populations.

In Afghanistan, where a large percentage of the populace is directly dependent on livestock health for their livelihood, and little is known about transmission of disease between livestock and wildlife, the potential impacts of zoonotic disease go beyond affecting biodiversity conservation, but potentially affects underlying security of the population. There needs to be a better understanding of the nature of the interface between wildlife and domestic animals: where animals may share pasture land, issues behind the increasing predation of domestic animals, and the impact of migratory animals on management of diseases, including zoonotic emerging infectious diseases. Early warning of predisposing conditions for disease outbreaks in both domestic and/or wild species would allow for more strategic use of tools such as livestock vaccination by practitioners, with consequent benefits for both livestock production and wildlife conservation.

Activity 1.4.1. Direct Surveys, Clinical Examinations, and Blood Sampling

For FY07, WCS will identify Kyrgyz livestock abundance, distribution and range use, and herd composition, clinically examine livestock, and take blood samples for serological screening of major diseases shared with wild ungulate species in the Big Pamir. WCS will similarly survey and sample livestock and herding patterns among Wakhi and Kyrgyz livestock in the Little Pamir and Waghjir Valley. WCS will also collect data on past (oral reports) and present (direct observation) occurrence of enzootic and epizootic diseases in livestock and wildlife and understand and learn local and traditional veterinary practices through surveys and questionnaires. At present, there are no programs that are surveying wildlife or domestic livestock health or diseases in the Wakhan, and no work has been done to reach out to nomadic Kyrgyz populations.

WCS will continue to conduct serological testing of blood samples collected from livestock in the Wakhan collected last year, and samples that will be collected this year. WCS analyze the samples for Foot and Mouth Disease (FMD), Pests-des-Petitis Ruminants Disease (PPR), Mycoplasma conjunctivae, Brucellosis, Tuberculosis, Blue Tongue disease, Q-Fever, Toxoplasmosis, and Chlamydiophilosis. As previously agreed with FAO, FMD, PPR, and RP will be done for free by Kabul Vet Lab with FAO supervision. WCS will plan to run 5 additional tests on about 500 samples collected in Wakhan, and additional samples collected this year. The tests will include tuberculosis, q-fever, blue tongue, EHDV, and chlamydiophilosis. WCS has selected these agents because 1-they are known to occur and affect mountain ungulates at large, 2-they are directly of concern to livestock as a direct cause of mortality and abortion, 3- three of

them are of zoonotic concern, 4- ELISA tests with reasonably good specificity and sensitivity exist to detect exposure to these agents. The kits to run the tests will be purchased by WCS, and WCS will hire a technician to run the test at Kabul Vet Lab using their existing equipment ELISA photometer and disposables. WCS staff will travel to New York to work on the analysis of data with staff from the Field Vet Program in New York.

Activity 1.4.2. Remote Surveys of Range Patterns

Observations of livestock husbandry practices, range use and disease prevalence in Big Pamir (described in the Ecosystem Health 2006 Annual Report) suggest that the risk of disease spillover by direct transmission from sheep and goats to Marco Polo sheep is presumably low at least in this area, however there is still a risk of disease spillover from sheep and goats via indirect transmission since Marco Polo sheep appear to use summer pastures of domestic livestock. These cohabitation zones are obviously the areas of highest epidemiological risks but also those where conflicts between land users and conservation managers are most likely to crystallize. It is therefore a priority for us to delineate as accurately as possible the range used by sheep and goats in the three main pastures of Big Pamir. As our knowledge on range use is largely based on what the herders have told us in interviews; to verify this information, WCS will provide sheep/goat herders with hand-held GPS to precisely document range scale use.

Disease spillover from cattle/yaks/camels is different since these domestic species are left unattended during summer. At that time most of them stay within 10 km of the main settlement and would therefore pose little risk of disease spillover by direct contact, however a small number of them, often young adults, stay unattended in altitude pastures for weeks to months before receiving the visit of herders. To test whether this semi free-ranging practice may pose a risk of disease transmission to wildlife (and vice versa to livestock), WCS will equip multiple individuals in each of these herds with a GPS collar.

Activity 1.4.3. Band-e-Amir Preliminary Assessment

WCS will also start working to assess livestock numbers, locations, herd composition, herding systems and seasonal movements (through available documents, surveys, and extrapolation), evaluate overall mortality rates, including the major and minor causes, and typology and phenology of deaths through surveys and questionnaires. This assessment will also include data on past and present occurrences of enzootic and epizootic diseases in livestock and wildlife, as well as an attempt to understand and learn local and traditional veterinary practices in Bamiyan.

Information collected from both direct and indirect surveys, and interviews, will be added to the spatially explicit disease-specific GIS database to identify risk factors for disease emergence and help predict future disease outbreaks, as well as for protected area planning. This database will then enable both local stakeholders and government agencies to make informed management decisions to limit or control disease interactions within livestock populations and between livestock and wildlife.

Level of Effort (FY07): \$93,000.

Expected Accomplishments:

- Report with appended database identifying and understanding disease components and associate risk factors for disease emergence in Afghan protected areas.
- Evaluate overall livestock mortality rate, understand and learn local and traditional veterinary practices among Kyrgyz in Big and Little Pamir, Wakhi populations in Little Pamir, and Hazara populations in Band-e-Amir.
- Development of regulations or guidelines on reducing disease transmission between wildlife, people, and livestock in proposed protected areas.
- Survey the Kabul Zoo, local wildlife product merchants, the Kabul Bird Market and the Mazar e-Sharif Falcon market to understand wildlife trade patterns.

Activity 1.5. Community-Based Livestock Health Training

Recent work by the USAID/DCA Nationwide Livestock Health Project (NLHP) to train veterinarians and para-veterinarians has improved access to veterinary care for domestic animals in many parts of Afghanistan. However, the remoteness of the Wakhan limits access to veterinary care. This has dramatic consequences for the health of livestock and consequently the livelihoods of herders, and increases the likelihood of disease transmission between livestock and wildlife such as Marco Polo sheep.

In FY07, WCS will continue training Afghan scientists in surveying wild and domestic population for disease outbreaks, how diseases move between these populations, and strategies to reduce the incidence of disease. In the Wakhan District, WCS will train local people in identifying broad categories of disease conditions, provide them with tools for description of symptoms to veterinarians, basic wound and lesion care, and animal husbandry to candidates identified in FY06. This training would be designed to complement and facilitate traditional veterinary care, and will be tailored for local communities based on the results of the FY06 serological screenings. WCS will also engage local communities about health issues, including understanding expectations. WCS will also continue collaborations with other institutions surveying emerging infectious diseases, such as FAO and the Ministry of Water and Agriculture.

Level of Effort (FY07): \$10,000.

Expected Accomplishments:

- Develop monitoring skills for disease outbreaks and response among local communities;
- Provide continued training for veterinary professions and paravets on wildlife disease and handling;
- Create technical leaflets in Dari/Pashto/Kyrgyz on improving understanding and practice of livestock health issues in Tajik, Kyrgyz, Hazara, and Pashto communities living in the protected areas.

Activity 1.6. Landscape Assessments and GIS Program

For FY07, the GIS program will continue serving as an integrative service unit for the different components of the Afghanistan Biodiversity Conservation Project, primarily collection, storing, spatially manipulating and analyzing data on wildlife (both historic and current distributions), rangelands, livestock, forest cover, ecosystem health, key indicator species, socioeconomics, and community dependence on shared natural resources, with the ultimate goal of contributing to effective biodiversity conservation in Afghanistan.

Activity 1.6.1. Conservation GIS in Wakhan, Eastern Forests, and Hazarajat Plateau

For FY07, WCS will continue the ongoing development of a comprehensive spatial database for the Wakhan, Eastern Forests, and Hazarajat Plateau and management of collected, geo-referenced field data on wildlife species incidence, population abundance, home range, transboundary migration, and habitat for the key indicator species of mammals and birds. These data will be compared to historical data on species occurrences. In parallel, WCS will integrate wildlife data with data collected on rangeland health, forest cover, seasonal movements of livestock, herd composition, and disease transmission and disease prevalence, among wildlife and livestock, upon a platform of high resolution imagery overlaid on digital elevation models.

In FY07, WCS will complete the Nuristan forest cover change assessment that was not completed in 2006 due to the dearth of available and recent high resolution archived imagery. This project will be important to update previous estimates of forest loss. WCS Nuristan teams will permit some ground-truthing of satellite imagery, allowing for a more accurate forest cover change assessment than has been previously completed. Further, this assessment will use hyperspectral imagery to distinguish between different forest classes (deciduous forests [not oak], oak forests, coniferous forests [not juniper], juniper forests, and alpine scrub and range), and to benchmark not only overall forest cover, but the type of forest.

WCS will continue to acquire and program imagery as necessary for collection over the Eastern Forests, Bamiyan and Wakhan, especially where high quality archived imagery is not currently available. WCS will continue its relationship with USGS to access USG imagery and digital elevation models where available. WCS will use a GIS framework to analyze and integrate data on the landscape scale, create maps that reflect current state of knowledge, and for presentation and reporting requirements. Finally, WCS will also start working with the Ministry of Agriculture GIS laboratory to increase technical skills and available data necessary for its effective operation.

Activity 1.6.2. Landscape Assessment of Marco Polo Sheep Migratory Patterns

Marco Polo sheep are highly migratory. Herds of these animals move back and forth within Afghanistan and across the borders of all four countries in the Pamirs – Afghanistan, Pakistan, China, and Tajikistan – where they face different levels of protection. WCS staff will continue work with counterparts in these neighboring countries, as well as collect our own data to be able to monitor seasonal movements of Marco Polo sheep across the borders. The Transboundary Peace Park workshop in Urumchi has facilitated developing linkages with scientists from China, Afghanistan, Pakistan, and Tajikistan. Once WCS collars the Marco Polo sheep, which was not possible due to technical problems with the collars in 2006, we hope to identify seasonal timing and migratory corridor routes and map them in a spatial GIS database. This information can then

be combined with rangeland data and human-livestock migratory patterns to help in determining areas of potential or existing human/wildlife conflict as well as areas of critical conservation importance, including areas that may be appropriate for gazetting as protected areas, in some cases at an appropriate multiple-use level.

Activity 1.6.3. Assessments for Landscape Management

The WCS Living Landscapes Program provides a mechanism for developing, testing, and disseminating wildlife focused tools for effective site-based conservation of wildlife and wild places at a landscape scale. Biological and human land-use information collected through Activity 1.6.1 will continue to be incorporated into GIS data layers within the framework provided by the WCS Living Landscapes Approach. The ultimate aim of this approach is to conduct a broader assessment at the landscape scale, to integrate and analyze the complex ethnic, socioeconomic, and ecological fabric and dynamics of the landscape in order to identify and prioritize conservation needs as part of a comprehensive management plan for protected areas and surrounding communities.

The Afghanistan program has applied to be a model for the Living Landscape approach in 2007. WCS staff from Afghanistan will be attending programmatic meetings with the Living Landscape Program in New York, the Smithsonian Institution in Washington DC, and the Society for Conservation GIS in California, to develop methodologies for conservation GIS in Afghanistan and analyzing existing data collected through project activities. WCS Living Landscape program staff will be coming to Kabul to start conceptual modeling with WCS Afghanistan Project Scientists to be able to start the integration of data, and development of analytical solutions. This will set the stage for a Living Landscape Analysis in the late fall in Kabul, with staff from the Living Landscape program.

Level of Effort (FY07): \$59,420.

Expected Accomplishments:

- Collection and integration of remote sensing data with data on wildlife, forestry, ecosystem health, rangeland, livestock movement patterns, and socioeconomic data to better understand threats to biodiversity conservation and the human communities that depend on these natural resources.
- Completion of Nuristan forest cover change assessment, and forest classification.

OBJECTIVE 2: STRENGTHENING LAWS, POLICIES, AND INSTITUTIONS

FY07 Level of Effort (Total Objective 2): \$364,900

Threats Addressed in Objective 2:

Protected areas are critical to the conservation of biological diversity in Afghanistan, yet protected areas still need to be appropriately identified through stakeholder input and biological analyses. At the same time, such designations will become 'paper parks' unless proper

stakeholder involvement is encouraged and appropriate enforcement mechanisms are put into place. These enforcement mechanisms depend also on a clear set of non-conflicting legal norms that are integrated with community level mechanisms of ownership and management of natural resources.

Activity 2.1 Update Wakhan Protected Areas

Efforts in FY07 will continue the integration and analysis of data from other activities within a remote sensing framework to update protected area boundaries. The large quantity of data collected in 2006, and additional data collected this year, requires further analysis and integration before we may start gazetting reserves in the Wakhan. Further, data collected in FY07 on free ranging animals through satellite collars, genetic analysis of carnivore scat samples, and studies of transboundary migratory behavior of Marco Polo sheep will provide additional data necessary for the development of these protected areas.

The nomadic Kyrgyz communities are also an essential component to the creation and management of these protected areas. In May 2007, WCS will start engaging these communities through an anthropologist who will be studying domestic livestock husbandry and economic systems and will be living with these communities. WCS will also be working with the Kyrgyz communities through its rangelands, ecosystem health and community conservation programs.

To facilitate the development of protected areas in the Wakhan, and promote scientific research, training, and community conservation activities, WCS has hired a Wakhan logistics manager and will set up a small office in Ishkashim to facilitate operations and community liason in the region.

Level of Effort (FY07): \$52,300.

Expected Accomplishments:

- Analysis of collected biological and socioecological data to define protected area boundaries in the Big Pamir, Little Pamir, and Waghjir Valley.
- Initiate discussions on protected area designation with the Afghan government, including potential World Heritage Natural Status.
- Continued collection and analysis of GIS and remote sensing data for these protected areas for landcover classification and the creation of a digital elevation model.

Activity 2.2 Assessment and Development of a Transboundary Protected Area

The Pamirs, flanked by the Hindu Kush, Himalayan, Karakoram, and Kunlun ranges, are one of the most spectacular mountain regions on earth. The borders of four countries—Afghanistan, Pakistan, China, and Tajikistan—meet at this knot of mountains. The spectacular and endangered Marco Polo sheep and snow leopard wander across the borders from one country to another. Marco Polo sheep therefore can only be effectively protected and managed through trans-frontier cooperation and “the creation of one large reserve” that encompasses the four countries. This workshop is the first step to create a four-country International Protected Area

that, in the words of the IUCN, is “formally dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources, and to the promotion of peace and cooperation.”

The purpose of formally establishing a four-country International Protected Area is to manage joint resources better on a solid scientific foundation, facilitate cooperation for mutual benefit, and encourage good neighborly relations. It is of note that much of the area under consideration for a transboundary protected area is already or may soon be in reserves and needs only minor additions and adjustments to become a formal and functional entity. The trans-frontier program began in 1975 when Pakistan established the Khunjerab National Park (6,150 km²) and in 1984 when China set up the contiguous Taxkorgan Nature Reserve (about 15,863 km²). Other reserves with Marco Polo sheep in this border region are the Zorkul Strictly Protected Area (870 km²) in Tajikistan and the proposed Big Pamir Wildlife Reserve (679 km²) in Afghanistan. In addition, there are two trophy hunting areas for Marco Polo sheep, one in Tajikistan and one in China, with a measure of protection, and recent surveys in Tajikistan and Afghanistan suggested further additions to the system. The establishment of this International Protected Area would also, as has been shown elsewhere, increase assistance from the international donor community for long-term management of the associated protected areas.

To promote trans-boundary cooperation on conservation in the Pamirs, the *International Workshop on Wildlife and Habitat Conservation in the Pamirs* was held on September 28th-29th, 2006 in Urumqi, Xinjiang, in China. The workshop was jointly hosted by the Department of Wildlife Conservation and Management of the State Forestry Administration of China and the Wildlife Conservation Society (WCS), and co-funded by USAID and SFA. Government representatives from each country, conservationists, and representatives of IUCN and WWF joined the workshop to exchange their experience and information regarding the Pamirs and to discuss the issues of conservation and trans-boundary cooperation in this region.

For FY07, WCS will actively engage the four countries to move them towards signing a framework agreement, with different strategies for each country. Three countries were willing to move ahead on the framework agreement at the Urumqi conference: Afghanistan, Pakistan, and Tajikistan, and WCS will focus on the development of closer scientific ties between these countries. WCS will also work with the Bureau of Oceans, Environment, and Scientific Affairs, the Bureau of South and Central Asian Affairs, and the Bureau of Asian and Pacific Affairs to engage the countries, including China, on this issue and promote the development of a transboundary park.

The Second Transboundary Workshop, to be held in Dushanbe, Tajikistan in mid-October 2007, and will involve government delegations from each country, as well as NGOs and observers from the international conservation community. The meeting is being held in Dushanbe to provide neutral ground for Afghanistan and Pakistan to meet. To ensure that the workshop achieves its goals, WCS will fund transport for officials from Pakistan, China, Afghanistan, and Tajikistan, as well as other international institutions, like WWF and IUCN, that will work with WCS to create this peace park. Dr. George Schaller, the Director of the initiative, WCS country staff from China and Pakistan, and WCS staff facilitating this meeting from New York will also attend. WCS is planning a media strategy in parallel to the workshop and transboundary park

initiative to support our efforts.

Level of Effort (FY07): \$47,350.

Expected Accomplishments:

- Implement the Second Transboundary Protected Area Workshop with representatives from the governments of Tajikistan, Pakistan, China and Afghanistan in October 2007.
- Develop draft agreement for establishment of the transboundary peace park signed by three governments: Pakistan, Tajikistan, and Afghanistan.
- Commencement of a transboundary spatial database to bring together remote sensing imagery coupled with human and livestock use patterns, wildlife migration patterns, and existing protected area boundaries among the four countries.

Activity 2.3 Central Hazarajat Plateau Conservation Initiatives

Band-e-Amir and Ajar represent two of the greatest opportunities for Afghanistan to leverage ecotourism potential in support of biological conservation. The uniqueness, beauty, and accessibility of both sites make them attractive tourism destinations. Human populations in both areas are exceedingly poor. Proper development of ecotourism with economic benefits flowing back to the local communities will provide tangible incentives for conservation. However, both sites suffer from a variety of problems that threaten their integrity and suitability for tourism. Threats to Band-e-Amir include inappropriate development and undirected tourist activity, uncontrolled harvest of fish and wildlife, inappropriate grazing practices, and conversion of rangelands to dryland farming. Threats to Ajar include uncontrolled poaching, overgrazing, cooption of limited water sources, and uncontrolled juniper harvest. These threats can be alleviated through raising the awareness of local people, involving them in land use planning, channeling tourism monies back to the community, and achieving legal protected area status.

In FY2007, WCS scientist Dr. Chris Shank will continue to catalog the mammals, birds, fish, and plants of Band-e-Amir. Shank will draft a preliminary management plan that will provide concrete recommendations for management of the area over the next three years. Completion of the management plan will allow designation of Band-e-Amir as a Provisional Protected Area under the provisions of the Environment Act. Legal aspects of the management plan will be developed in concert with WCS Legislation and Policy Manager Jim Wingard. Through facilitating the *ad hoc* Band-e-Amir Coordinating Committee, work will continue with Government and NGO partners towards the legal recognition of Band-e-Amir as a protected area. WCS will assist the Ministry of Culture and Tourism to prepare an initial application to UNESCO to list Band-e-Amir as a World Heritage Natural Site.

In the Ajar Valley during FY2007, WCS scientist Dr. Chris Shank will continue to catalog the mammals, birds, fish and plants of the Ajar Valley. Shank will develop a long-term monitoring program designed to document recovery of ibex and urial populations. Community consultation will be undertaken on the outlines of an Ajar Valley management plan. Attempts will be made to engage the communities surrounding the Ajar Valley in managing Ajar as a protected area. Finally, WCS ecosystem health teams will conduct initial surveys into disease prevalence and

local livestock movement patterns and WCS rangeland teams will conduct a rapid survey of the rangelands of Band-e-Amir and Ajar Valley.

Both formal and opportunistic on-the-job training on aspects of biology and conservation will be provided to government counterparts, students, NGO partners and others, as appropriate.

Level of Effort (FY07): \$77,550.

Expected Accomplishments (FY07):

- Develop an updated preliminary management plan for Band-e-Amir.
- Continue facilitation of the Band-e-Amir Coordinating Committee and harmonize efforts towards effective management of Band-e-Amir Proposed National Park.
- Achieve formal designation of Band-e-Amir as a Provisional Protected Area by the National Environmental Protection Agency.
- Assist the Government of Afghanistan in nominating Band-e-Amir to UNESCO as a World Heritage Natural Area.
- Outline the components of a preliminary management plan for Ajar Valley and present to local communities for comment and discussion.
- Assess attitudes regarding protected area status for Ajar Valley amongst communities to the south and west of Ajar.
- Develop or supplement catalogs of fixed point photographs for Band-e-Amir and initiated for the Ajar Valley.
- Add to the catalog of bird, mammal, and fish species known to occur at Band-e-Amir and in the Ajar Valley.
- Develop preliminary recommendations on grazing management for Band-e-Amir and the Ajar Valley.
- Complete mapping and development of remote sensing products in support of planning efforts at Band-e-Amir and Ajar Valley.

Activity 2.4 Eastern Forests Initiative

WCS activities in 2006 exceeded our predictions of what we would be able to do in these regions, given the extreme sensitivity of working in the eastern border regions. These regions, however, remain one of the most important centers of biodiversity in Afghanistan, and perhaps the one facing the greatest threat. WCS initiatives in 2007 expand on wildlife surveys to engage local communities and better understand the economics that are driving deforestation.

Activity 2.4.1. Wildlife and Forest Surveys

For FY07, WCS will continue occupancy surveys of mammal species in forests in central Nuristan and northern Kunar through the winter, spring, and into summer through its three Nuristan survey teams. WCS will systematically collect scat samples as species incidence and population size may also be estimated through genetic analysis of scats. WCS field teams are also helping groundtruth satellite imagery collected for forest classification and studies of changes in forest cover. The Eastern Forest program will also attempt to carry out forest surveys through plots and tree transects along elevational gradients to improve characterization of the

available habitats.

Activity 2.4.2. Timber & Hunting Surveys

WCS surveys of the timber and firewood market in Kabul have suggest three preliminary findings: (1) the illegal timber trade in the Eastern Forests is highly lucrative, with strong vested interests; (2) preliminary analysis of the timber products coming out of the Eastern Forests obtain higher prices in Pakistan than prices obtained in the Kabul market, and (3) most timber from the East flows directly to Pakistan as a result. Additional work is necessary to reinforce or clarify these findings.

The WCS Nuristan teams – made up of academics from Nahgrahar University, provincial staff of the Ministry of Agriculture and NEPA, and local community members – have provided WCS with initial access to the local communities in Nuristan. WCS plans on using these teams to indirectly assess the timber trade and hunting through livelihood surveys in conjunction with the ecosystem services project. These will complement current WCS surveys of timber use in Kabul markets for heating, cooking, and as construction materials, and monitoring of the amount of timber arriving into Kabul from the north, south, eastern and western gates into the city. They will also add to studies of wildlife trade in Kabul’s markets. If successful, the results of these field studies will help refine our understanding of the primary drivers, market chains, and pressures on forest resources and form the basis for developing and implementing community-based approaches. Together with selected local communities, WCS will draft a concept for community-based forest management consistent with the draft Forestry Law, including potential assistance with the formation of Community Forestry Associations (CFAs). All efforts to conduct activities on-the-ground will continue to be weighed against security concerns in the area. Since the drafting of the original proposal, security throughout the country has continued to deteriorate will need to be monitored closely as activities develop.

Level of Effort (FY07): \$44,200.

Expected Accomplishments:

- Completion of updated estimates of forest cover change in Nuristan and forest classification.
- Compilation and analysis of wildlife survey and wildlife trade data to inform legislative drafting of endangered species, hunting, trophy hunting, and wildlife trade legislation.
- Initial estimates of timber trade and hunting.
- Initial engagement of local communities.

Activity 2.5 Ranger Training and Enforcement

WCS will train potential rangers to (a) survey and monitor wildlife populations; (b) build proficiency with navigation tools and maps; (c) to serve as community conservation agents to work with local communities; and (d) to learn skills as ecotourism guides for parks in the three areas of interest. First, surveying and monitoring wildlife requires making accurate identification of wildlife species and sign, implementing proper survey methodologies, and effectively recording and analyzing the data. WCS will train rangers on natural history of Afghanistan’s

wildlife, methods for surveying these species, and basic indicators for monitoring their status. At selected times, these wildlife rangers will go into the field with WCS scientists and survey wildlife species, focusing on species of concern such as Marco Polo sheep, but also collecting ancillary data on any other wildlife seen during the surveys. In the future, the parks may use this data to assess wildlife patterns and trends and develop recommendations for local and government-led management initiatives.

In 2007, WCS will continue working with the government to strengthen the enforcement of laws for protected areas and wildlife conservation. WCS will examine opportunities to provide training for government officials involved with regulating trade and customs, as well as border police, once the existing legal framework has been clarified. At the end of FY07, WCS will start with preliminary training in ecotourism and natural history, for community members identified and proposed in meetings with community conservation committees in the Wakhan in FY06. The majority of ranger training will primarily occur through a series of workshops in 2007-2008 after the demarcation of protected areas and initiation of community conservation activities. WCS intends to draw most of the ranger-trainees from local communities where the Parks will be established; WCS will solicit individuals from the Wakhan, Hazarajat, and the Eastern Forest Complex. To build capacity in management of protected areas and enforcement of wildlife laws, WCS will also provide training to national Department of Natural Resources Staff in the Ministry of Agriculture in protected area management through study tour opportunities in Nepal and Cambodia.

Level of Effort (FY07): \$61,500.

Expected Accomplishments:

- Offer initial training in ecotourism, natural history, and current Afghan regulations on the protection of biodiversity for identified community members.
- Protected Area Management Study Tours for members of the Afghan government
- Develop ranger training program tailored for Afghanistan

Activity 2.6. Review of Wildlife and Protected Areas Legislation and Policies

There is still a strong need for focused review and international best-practice recommendations for improvement of environmental policies and legislation, especially in relation to the legal framework affecting biodiversity. This includes laws and regulations affecting wildlife, critical habitats, practices directly affecting biodiversity, and protected areas. A continuing review of existing legislation and policy, and development of new laws, regulations, and policies, is critical given the challenges this project faces in the areas of endangered species, protected areas, forestry, conservation education, and community based conservation initiatives.

2.6.1. Legislative Review

In FY07, WCS will, together with members of the legislative drafting group(s) formed in FY06, engage in intensive dialogue with government agencies, local communities, and members of NGOs to improve legislation proposed and presented in FY06, including the Forest Law, Protected Areas Regulation, and Rangeland Law through a national stakeholder consultation

process. This process will involve two distinct phases. The first phase will consist of field-level consultation with communities and other stakeholders in forested provinces conducted by Forestry Department officials who have received training on the law and NGOs working at the community level in the forestry sector. The second phase is a national stakeholder consultation workshop in which Afghan stakeholders countrywide will be invited to participate.

In addition, drafting efforts will focus on three regulations or types of laws - endangered species protection, hunting (including trophy hunting), and wildlife trade. WCS proposes to continue its work with the Ministry and NEPA to formulate these as regulations intended to implement the newly enacted Environment Act.

Virtually all laws in the environment sector are or will be new to the country. Therefore, continued monitoring and assessment of their application will be required. Results of these assessments will be incorporated into the compendium of environmental law and practice and an update provided as feasible.

Activity 2.6.2. Trophy Hunting Program

For trophy hunting to have any chance of success in Afghanistan, a number of elements outside the control of WCS will need to come together. These include, at a minimum, 1) strong commitment from government agencies to support the initiative, especially from the Ministry of Finance to allow local communities a monetary stake in a potentially lucrative resource use, 2) survey results that show sufficient populations of trophy species (in particular, Marco Polo Sheep, but also markhor, urial sheep, and wild boar), and 3) a security environment that does not deter foreign hunters from coming to Afghanistan, or areas of Afghanistan with trophy hunting potential.

In FY07, WCS will seek to clarify these points before moving forward with the development of a specific program. The government has clearly voiced its commitment to the concept of local community management of natural resources; all legislation so far drafted or approved explicitly recognizes this approach. However, revenue sharing is a component part for which some concern remains that the national government will not allow sharing at a level that has meaning for the local communities. A revenue sharing proposal has been drafted by WCS in the context of the Protected Areas Regulation that may serve as a basis for a similar revenue concept for wildlife. Surveys of both the Big and Little Pamirs, and the Hazarajat Plateau have been conducted and are ongoing. Results will not be available until later in FY2007. The last concern, security, does not appear to be a significant problem for the Wakhan corridor where the Marco Polo sheep occur. It may, however, present an obstacle in other areas.

Activity 2.6.3 Snow Leopard Kill Reimbursement Scheme Study

Snow leopard and wolves continue to attack and destroy local livestock during the winter. Preliminary data suggests this may be due, in part, to the decline in their traditional source of winter prey, and over-reliance on marmots which go into hibernation during the winter. Local communities have been willing to stop hunting but have requested a reimbursement program for the loss of livestock caused by predators such as Snow Leopards and wolves

. As the Community Conservation program in Wakhan develops, and our efforts at community engagement in Nuristan and Hazarajat begins, WCS will start the process of reimbursement

design. We will also consider how to link trophy hunting with predator protection in an ecosystem approach, and with community funds to allow communities to determine level and need for reimbursement from predation losses. This program could also be extended to other carnivores, and will be considered for all three project areas as appropriate.

Level of Effort (FY07): \$43,000.

Expected Accomplishments:

- Continued monitoring and assessment of newly enacted environmental laws
- Update Compendium of Environmental Law and Practice Guide as necessary and feasible
- Participate in lobbying efforts to secure passage of proposed legislation including Forestry Law, Protected Areas Regulation, and Rangeland Law.
- Assist with development of wildlife related legislation, including endangered species, hunting and trophy hunting, and wildlife trade
- Draft analysis of potential for establishing trophy hunting and reimbursement programs

Activity 2.7 Environmental Services Valuation

Nuristan and the Eastern Forests will be the focus of the Ecosystem Services Evaluation. The Ecosystem Services Team has been developing survey methodologies based on a data gathering visit to Afghanistan in Quarters 2 and 3 of 2006. Survey pretests will be conducted in April 2007. Training in data collection by Afghan counterparts will start in May 2007. The environmental valuation team will survey between 250-350 households in June-July 2007, and repeat the surveys to capture seasonal effects and assess reliability as necessary. Data compilation will occur in August-December 2007.

Level of Effort (FY07): \$39,000.

Expected Accomplishments:

- Development and testing of survey methodologies to assist the Government of Afghanistan to begin the process of estimating the contribution of ecosystem services to the national economy that could serve as a model for other nations in the region to incorporate ecosystem values into their national system of accounting.
- Survey of 250-350 households focused on economic behavior coupled with a biodiversity assessment as a basis to allow biodiversity value to serve as a market-based instrument for conservation.

OBJECTIVE 3: FACILITATE COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT IN THE WAKHAN

FY07 Level of Effort (Total Objective 3): 129,300.

Threats Addressed by Objective 3:

Community-based natural resource management projects are critical for the long-term conservation of biodiversity within the landscape, as they promote the concept of natural resource conflict mediation at a local scale, improve the capacity of local people to design and execute natural resource management projects and, most critically, promote community-based decision-making processes, with internal regulations and controls for natural resource management - including wildlife. For FY07, WCS' Community Conservation Program will continue to engage communities in the Wakhan, expand the scope of that engagement to include Kyrgyz communities, and Wakhi communities in the Little Pamir and Waghjir Valley, and potentially contribute to projects in other parts of Afghanistan, including Hazarajat and Nuristan.

Activity 3.1. Socioeconomic Surveys of the Wakhan

It is critical to identify local communities and understand their structure, political units, needs, wants, and insights, and to gain their complete cooperation in any conservation initiatives. Accordingly, the WCS community conservation team will continue its socioeconomic survey to determine aspects of civil society in the Wakhan District and to inform parallel WCS conservation initiatives. Specifically, WCS will continue its range use surveys among the Kyrgyz and Wakhi summer settlements in the Little Pamir, to gain data on location and seasonality of settlements, seasonal movement of humans and livestock, village affiliation, number of households, number and type of livestock, and GPS locations.

Level of Effort (FY07): \$31,700.

Expected Accomplishments:

- Increased understanding of local community use in the Little Pamir of the natural resource base through survey data.

Activity 3.2 Conservation Awareness Workshops and Environment Education

Initial non-scientific surveys conducted of 1,436 individuals prior to their participation in the conservation awareness workshops indicate little knowledge of the conservation status of wildlife in the Wakhan, nor of the factors that are affecting that status. WCS will expand its program of conservation awareness workshops and environmental education by promoting conservation education in the Wakhan District.

FY06 fieldwork demonstrated that school attendance in the Wakhan (among Wakhi; Kyrgyz were not surveyed in FY06) is among the highest in Afghanistan, giving the Wakhan District a comparative advantage. Schools therefore become the best means to reach a majority of the coming generation. WCS will work closely with local teachers to supply them with techniques

and materials for conservation education to ensure a lasting impact from the project. WCS will be working closely with IUCN and WWF Pakistan to adapt materials from the Northern Areas of Pakistan. Some materials may be used throughout Afghanistan as well.

WCS will also create a conservation education facilitator position in Wakhan, with specific responsibilities of bringing conservation education materials into schools and training teachers. Mr. Sazgar of Qazideh village, the past principle of the Khandud High School, and been identified as a primary candidate for this position. WCS will also arrange a two-week study travel program for Mr. Sazgar to visit the Al-Amin Model School in Gulmit village (Wakhi) in Northern Areas of Pakistan to observe and learn innovative appropriate conservation education practices. Similarly, conservation educators from Al-Amin will be invited to visit the Wakhan to continue training Mr. Sazgar and supervise on-going work of teacher training in schools. The cross-border dialogue between educated Wakhi counterparts enables more efficient transmission of conservation principles and local experience. This type of transboundary cooperation will also support the development of the proposed Transboundary Park.

Level of Effort (FY07): 36,700

Expected Accomplishments:

- Development of awareness of conservation principles, unsustainable activities, and alternative activities or management techniques among Wakhi and Kyrgyz utilizing the Big and Little Pamirs;
- Development of educational curricula for community conservation from similar communities in Northern Areas of Pakistan.
- Creation of cross-border linkages between Wakhi communities in Afghanistan and Pakistan.

Activity 3.3. Facilitate Community Conservation Committees

Community based natural resource management shifts natural resource tenure systems towards community management. Communities are provided opportunities to realize greater security over natural resources, actively contribute to natural resource management, and sustainably use community held natural resource rights to create community-wide benefits. Finally, helping local communities initiate and maintain reforms for environmental sustainability and stability will help them maintain their unique environment and identity.

In FY07, WCS teams will develop by-laws and an agreement to be signed by shuras of all villages in WCS focal areas in Wakhan. This should include establishment mechanism for funding that allows for distribution of income from future activities. WCS teams will continue to work with community conservation committees to strengthen their abilities and authority over natural resources, and in parallel, promote national legislation that will support the devolution of power over natural resources to local communities.

Successful biodiversity conservation requires that local communities benefit from conservation efforts. Revenues that may be generated from tourism or tourism-related activities (entry fees,

conservation fees, and hunting fees) can contribute to community funds on an equal sharing basis. These funds can be initially established through donor contributions and sustained through shared revenues. National laws, including potential provisions of the Constitution, however mandate that all revenues must go directly to the Ministry of Finance. This will be an important barrier to the devolution of power to local communities for the next year.

Level of Effort (FY07): \$29,200

Expected Accomplishments:

- Continued support of conservation committees at the community level with sufficient authority and community input to manage natural resources effectively for the entire community and without detriment to conservation goals.
- Development of by-laws and an agreement to be signed by shuras of all villages in WCS focal areas in Wakhan, including establishment of a mechanism for funding that allows for distribution of income from future activities. In parallel, changes to national legislation in policies that will allow for the financial benefits to flow directly to local communities.

Activity 3.4. Environmentally and Culturally Sensitive Tourism Development

Community conservation initiatives must be closely linked with economic benefits in order to be sustained. Wakhan has immense potential for adventure, culture, and eco-tourism. In FY07, to ensure that the benefits of our conservation efforts flow directly to local communities, and to diversify and broaden the economic base, WCS will work with local communities to continue dialogue on ecotourism during the community workshops and within the community committees.

Further, WCS will assess trail conditions and access to potential zones for ecotourism in the Wakhan district, including a needs assessment for access improvement. Coupled with this initiative, WCS will conduct a cultural landscape inventory of cultural sites in the Wakhan, including currently unprotected historical monuments such as forts, tombs, inscriptions, and petroglyphs, and prepare an outline for interpretative material development. For instance, many petroglyphs found in the area are dated at 4th century B.C. based on the age of similar sites in neighboring states in Central Asia. This would also support a future World Heritage nomination and Protected Area designations.

WCS will also seek to encourage and facilitate responsible tourism to Wakhan by coordinating with Afghan governmental institutions, NGOs and donors that are seeking to build tourism in the Wakhan. Particularly essential is the Afghan Tourism Organization, which is seeking to develop ecotourism activities without harming the local environment, overwhelming fragile traditional communities, and ensuring that the benefits of tourism will reach more than a few individuals. In particular, WCS will develop voluntary guidelines and codes of conduct for all tourism stakeholders (communities, visitors, the government, and tourism private operators). These may serve as a model for other tourism sites in Afghanistan.

Finally, WCS will work to develop marketing products, such as posters, maps, and an eco-tourist

guidebook, similar to other WCS produced “Eco-travelers Guides”. WCS will continue to work with the media to promote tourism in Afghanistan, and in particular, the Wakhan District. WCS will also work to build capacity among local community members as wildlife guides, providing basic English language training, and training in ecotourism, building on existing efforts of AKDN.

Level of Effort (FY07): \$31,700

Expected Accomplishments:

- Link conservation initiatives (development of parks, preservation of wildlife) to economic benefits derived from those initiatives (ecotourism, scientific research);
- Development and acceptance of draft guidelines for tourism in the Wakhan by NGO’s and donors, including but not limited to, the Aga Khan Foundation, the Aga Khan Development Network, the Asian Development Bank, PACTEC, and WCS.
- Development of guidebooks, maps, and other materials for promotion of tourism in the Wakhan.
- Inventory of biological and cultural sites in Wakhan.

OBJECTIVE 4: CAPACITY-BUILDING INITIATIVES.

Level of Effort (Total Objective 4): \$249,253

Threats Addressed by Objective 4:

Afghanistan faces a serious shortfall of qualified, capable technical experts to manage their wildlife and other natural resources. This threat, if left unaddressed, will potentially lead to mismanagement, poor policy decisions, increased poverty and environmental destruction. WCS addresses this issue by offering a suite of capacity building opportunities for Afghan conservation professionals and students at all levels.

Activity 4.1 Afghanistan Training Courses

There is a wealth of international talent that can assist Afghanistan in training its present and future conservation scientists and managers. These international experts include professors, managers, field scientists, and technical experts across a range of fields, from wildlife fieldwork to rangeland and forestry science to watershed and protected areas management. WCS will use its international expertise, program staff, and WCS scientists and experts that may bring appropriate models from other countries, to enhance capacity through short training courses coupled with practical experience.

Expected Accomplishments: WCS will recruit 6 international experts to teach short courses that vary in length from one week to one month. Approximately 50 people will be trained intensively during these short courses. In addition, WCS project component managers will teach seminars during their time in-country. Between 10 program managers, approximately 300 government, university and NGO staff will be trained in fields of wildlife health, environmental

law and policy, community conservation, rangeland health and more.

Level of Effort (FY07): \$73,376

Activity 4.2 Conservation Study Travel Program

While short courses are an excellent way to bring international best practice methods to Afghanistan's growing environmental sector, direct exposure to how other countries use these methods is crucial to enable Afghan professionals the opportunity to fully understand modern conservation practices. The Conservation Study Travel Program will identify teams of Afghan government and NGO staff for exchanges to other countries. It will then identify and arrange for group study tours to other countries for specific training through visits to sites where innovative, site-appropriate practices are being implemented. For one to six weeks, team members will experience the host country's institutions, observe their own vocations as practiced abroad, develop personal and professional relationships, and exchange ideas. It is expected that not only will team members bring new ideas, ways of thinking, and technical expertise back to Afghanistan, but through connections made in other countries this initiative will create an international network that will foster long-term opportunities for information sharing.

The Conservation Study Travel Program was approved in the Life of Project Workplan and is a key component of the Training and Capacity Building Program. It allows Afghans to learn best practices and see them implemented, build an international network with other conservation professionals, and access the latest research information and new training/conference opportunities that are not available in Afghanistan. For this year, WCS will offer the following training opportunities:

Cambodia Protected Areas. Provincial Government staff, Wakhi community members, and two staff from NEPA will visit a national park run by the WCS Cambodia program to learn about the benefits of ecotourism, protected area management, use of GIS in PA Management, community conservation activities and policy in a country that has faced similar circumstances and challenges due to war, landmines, and economic systems. WCS Cambodia has had a great deal of success working with the government and implementing conservation programs and a great deal can be learned from their program.

Nepal Parks. Senior level government staff do not understand the importance nor see the benefit of biodiversity conservation and protected areas. This affects USAID biodiversity conservation and natural resources management goals for Afghanistan, and the future of the protected area/wildlife department at the Ministry of Agriculture. It also threatens the environment and natural resources of the country. In 2007, MOA requested funds for activities at Band-e-Amir which was denied by the Ministry of Finance because "it is not a priority." WCS wants to take a group of senior level government staff who may not be educated about conservation, but who have the power to make strategic decisions on funding and policy, to a study tour in Nepal. The study tour will meet with key officials in Kathmandu and tour two highly successful protected areas in Nepal that have brought millions of dollars in tourism revenue to local communities and national government. This activity could be potentially co-sponsored with ICIMOD.

The Society for Conservation Biology Annual Meeting (SCB). The Society for Conservation Biology is the foremost international meeting for conservation science. As Afghanistan has lacked the opportunity to participate in such scientific meetings, it has fallen far behind in the science necessary for effective biodiversity conservation. This annual conference brings together over 3,000 conservation biologists from all over the world to present the latest and most advanced research in every field of conservation science, including biology, economics, policy, GIS and remote sensing. Scientists from both the developed and developing worlds, many of whom face similar circumstances and conditions as do Afghans, discuss conservation problems, methodologies, and solutions in nearly every country in the world. WCS Afghanistan will select from the top students, university professors, and Afghan government officers to attend this conference and network with professionals the world over, as well as understand and learn the state of the field. This opportunity is not available through any other training program.

Pakistan Shimshal. Ten Afghan Wakhi community members will travel to Shimshal to meet and learn from the community organization and conservation activities undertaken by the Wakhi people in Pakistan. The similar language, culture, and environment will make this a valuable experience for Afghan Wakhi community leaders to demonstrate the tremendous opportunity that conservation and ecotourism has brought to Shimshal.

US Peace Park/Yellowstone. The Peace Park Conference in Canada will bring people from all over the world involved in implementing transboundary protected areas in one location – Montreal, Canada. WCS will send two or three senior officials involved in creating the Pamir Transboundary Peace Park to this conference to learn valuable lessons from prior implementation and gain recognition and press about the Pamir initiative. The key Afghan government staff will submit an abstract for a poster presentation. This conference will be coupled with a training course in Yellowstone National Park given by WCS North America that will include topics related to the purpose of buffer areas around protected areas, importance of wildlife monitoring and research, and addressing potential border issues. As WCS is facilitating the creation of the Peace Park as the core of its program, preparing the Afghan delegation for the next round of negotiations will be very valuable.

Aligarh Muslim University. Afghanistan currently has no opportunity for post-graduate education. Many university professors are lecturing using outdated materials and teaching methods, with few opportunities for practical fieldwork. This study tour will bring Afghan University professors of biology and wildlife to the Department of Wildlife Sciences at Aligarh Muslim University in India to learn research techniques in conservation biology, practical methods for teaching wildlife biology, and to give them access to a top research facility and Master's program. This introduction will hopefully form a knowledge exchange between the schools that outlasts the brief study tour, and creates opportunities for post-graduate study. WCS will build on linkages initially established last year when the first group of Afghan post-graduates and government officials traveled to AMU for training.

Expected Accomplishments:

- WCS will arrange 9 study travel exchanges for approximately 40 people in FY07. Through this program participants will engage in best practices in protected area management, wildlife research, conservation GIS, community conservation and more.

Level of Effort (FY07): \$85,876

Activity 4.3 Field Training and Scientific Mentoring

Building capacity for scientific research and conservation requires practical training and independent application, in addition to theoretical classroom training. For FY07, WCS will continue to partner scientific field teams surveying mammals, birds, rangelands, and ecosystem health and infectious diseases with appropriate government counterparts and provincial government staff, university graduates in conservation biology and veterinary sciences, or local community members. The teams will spend 1-2 months of intensive training learning scientific methodologies from international experts while in the field. This practical training will be followed by short-term small projects that will build upon skills learned during short courses and in the field, and be independently implemented by each team member. Trainees will learn data collection methodologies and analysis of scientific data, computer, and reporting skills, technical knowledge, and professional responsibility. WCS scientists will select the most promising members of the team for further investment, including opportunities to obtain advanced degrees abroad.

Expected Accomplishments:

- WCS will train 15 government counterparts, university professors and graduate research assistants as part of the field training component. Each of the trainees will also be responsible for implementing a small project after the field season that will build their professional autonomy and analytical skills.

Level of Effort (FY07): \$54,625

Activity 4.4 Public Diplomacy and Outreach

In FY06, WCS developed a public diplomacy strategy to increase awareness of conservation problems and increase support and goodwill for biodiversity conservation activities. Pursuant to this strategy, in FY07 WCS will continue negotiations with Tolo Television to create two television series. The first would show international wildlife films dubbed in Dari, available from a library of hundreds of films maintained by WCS and the International Wildlife Film Festival in Missoula, Montana. Second, WCS will negotiate to create a series documenting wildlife in Afghanistan. If successful, this would be useful for tourism, environmental education, and public diplomacy.

Separately, WCS will work in partnership with UNEP and the ACC to increase awareness of environmental problems in Afghanistan through the creation of posters and supplementary materials for school curriculums. As the Kabul Zoo provides a natural partner for WCS (the

Bronx Zoo lies at its core), WCS will work to improve opportunities for conservation messages in the Zoo.

Finally, WCS will continue its targeted campaign at the expatriate community to cease the illegal trade in wildlife products, and in particularly, endangered species.

Level of Effort (FY07): \$35,375

Expected Accomplishments:

- Assist Afghan media, tourist, and government institutions to develop content on Afghanistan's biodiversity and status to promote conservation.

OPERATIONS AND SECURITY

Level of Effort (Total Operations): \$875,737

Operations support all other project activities and permit the security and safety environment to permit WCS to operate in Afghanistan. Operational activities fall into five major divisions: (1) Security and medical expenses to be able to safely evacuate staff from remote locations; (2) Costs of maintaining an office and logistics costs of delivering teams into the field, including costs of rent, utilities, communications, supplies, books, printing, equipment, and maintenance; (3) Accommodation expenses; (4) Staff salaries; (5) Vehicles.

Operations 5.1. Security and Medical

WCS will continue training for its staff (security/drivers) in IED and VBIED detection and avoidance, defensive driving, anti-surveillance operations, and driver training. WCS will provide training for security staff in guard procedures, vehicle searches, personal searches, IED recognition, radio procedures, and emergency procedures; planning and procedures for contingency operations and quick reaction drills through CTG and Hart security companies. WCS will also provide first responder/first aid in remote location training for its field staff through Remote Medical Solutions Incorporated (RMSI). CTG will provide threat updates on a quarterly basis, and WCS continues to actively participate in the Afghan NGO Security Organization and receive detailed daily and weekly briefings. WCS has put together an operational plan and a security packet that will introduce staff to the security procedures. All new personnel are required to participate in indoctrination training focused on cultural awareness, mine awareness, and threat assessments. Hart security will be contracted to provide WCS with a Quick Reaction Force in case of emergencies.

WCS will contract with RMSI to provide medical support and retrieval solutions in remote and hostile environments. As WCS teams work in areas that involve some risk (like Nuristan), or in areas that are extremely remote (Wakhan), RMSI will provide WCS with a country-wide medical evacuation service if one of its staff are injured and need to be evacuated. WCS will also contract with Track24 for satellite-based tracking of its teams in the field when that technology

becomes ready.

Expected Accomplishments:

- Continued developed of WCS staff that can respond to emergency or hostile conditions.
- Development of inherent capabilities to track, search, and rescue WCS staff in remote locations, stabilize them during transport, and evacuate them as necessary.
- Developing a common set of procedures and awareness for all individuals participating in our program.

Level of Effort (FY07): \$136,750.

Operations 5.2. Office, Logistics, and Communications

Operations 5.2.1 Office, Logistics, and Communications

WCS will continue to maintain an office in Kabul as its base of operations, but is setting up secondary smaller offices in Ishkashim and Kret in the Wakhan to support remote operations in the Wakhan. These secondary offices will be run from renewable energy. The Kret office, in the center of the Wakhi community, will serve as an educational center and base for community conservation efforts. The Ishkashim office provides a gateway into the Wakhan from Tajikistan, provides a liason to the provincial government nearby, and serves as a logistics hub for operating in the Wakhan. Redunant communication systems through high frequency radio, satellite phones, and cell phones are necessary for maintaining safe operations in the field.

Operations 5.2.2. Guesthouse

WCS provides accommodation for its consultants and its international staff on financial and security grounds, and as a matter of necessity for the conduct of business in Kabul. Pursuant to subsection 230.20, of Title 2, Code of Federal Regulations, housing and personal living expenses are unallowable as "fringe benefits or indirect costs " unless "necessary for the performance of the sponsored award and approved by awarding agencies." WCS contends that its provision of accommodations for our international staff and consultants are *necessary* for the performance of the sponsored award, and justified for security needs and cost savings.

Necessity

Practice in Afghanistan by NGOs, foreign embassies, development banks, UN organizations, and USAID contractors has been to provide housing to their employees. WCS would be placed at a competitive disadvantage if it could not provide similar benefits to its staff, especially given that its salaries are more than 50% below those offered by partner organizations. WCS does not include housing per diems as part of its contracts with consultants or its permanent staff. Second, the reasonable costs to acquiring housing as an individual are prohibitive. As the availability of good western-standard, MOSS-compliant housing is in short supply in Kabul, this dearth of adequate housing has driven up rental costs beyond the affordability of an individual.

Cost Savings

Housing of visiting internationals in a private WCS Guest House can be achieved at a

substantially lower rate than in hotels or commercial guest houses. There are three options for housing. First, WCS could pay to keep its staff in a commercial guesthouse. Second, WCS could offer its staff the State Department Lodging and MIE allowance without providing accommodations. Third, WCS could provide housing through its guesthouse.

Commercial Guest House. The cheapest and minimum standard MOSS-compliant commercial guesthouse near the WCS office is the Park Palace in Shar-e-Nau. Costs for the Park Palace, including laundry and internet access is current USD \$2,300 per month per person.

State Department Per Diem. At the State Department maximum Lodging and MIE *per diem* for Kabul, each member of the staff would be entitled to USD\$202 per day, or USD 6,060 per month per person by law in addition to salary.

WCS Guesthouse. Based on the last six months of operation, and incorporating salaries (security guards, house staff), operations (including fuel), equipment (generator and maintenance contracts), initial security upgrades and reconstruction, the cost of the house over the project's three year life span is USD \$7,950/month, irrespective of the number of people in the guesthouse. At a minimum, the guesthouse provides housing for three WCS staff members full time, and at peak operational periods when there are multiple WCS scientists in Afghanistan, it provides accommodations for up to 9 individuals.

At minimum occupancy (3 individuals, \$ per month),

Park Palace:	\$6,900
State Dept <i>Per Diem</i> :	\$18,180
WCS Guesthouse:	\$7,950

At maximum occupancy (9 individuals, \$ per month)

Park Palace:	\$20,700
State Dept. <i>Per Diem</i> :	\$54,540
WCS Guesthouse:	\$7,950

Even at minimum occupancy, the WCS guesthouse is cost competitive. Above minimum occupancy, it is, by far, the lowest priced option for the USG. Given that the guesthouse is approaches maximum occupancy for approximately 6 months of the year, it is by far the cheapest and most cost effective option. The guesthouse saves the US government \$286,380 over paying per diems, and \$70,200 over the Park Palace over the course of the year. Finally, it is also important to note that WCS does not provide per diems to its staff, and no housing allowances (except for food at \$10/day for its consultants and staff that are on travel).

Security

Third, security concerns in Afghanistan necessitate that WCS staff be co-located and protected by WCS guards and security staff. It is important as an organization that we control and monitor the movements of our staff, and protect them while at home. It is much cheaper to do so by protecting staff at a single location than trying to protect staff that may be distributed in multiple

locations, and also allows us to reduce the number of vehicles that we use at any one time. Further, WCS staff are safer being protected by our own security guards; health and sanitation conditions are under WCS control, protecting the health of the staff.

Security also demands that staff spend the minimum period of time commuting in the city – particularly traveling to and from the office to the home. Traveling to various hotels scattered around town increases time spent on the road and exponentially increases the risk of abduction or ambush.

Decreased security also translates into a less competitive position in recruiting participants in our project, if we are not able to provide our staff with a minimal level of security, we will also not be competitive on the marketplace in recruiting people. The housing of WCS internationals at the same venue (WCS Guest House) increases productivity as it facilitates further interaction and informal meetings on work-related matters after normal work hours. Furthermore, in the event of a "White City" (no movement of internationals from Guest Houses due to security threats) international staff can continue working together at the Guest House with a minimum of disruption to the WCS work program. For this basis, WCS believes that the guesthouse is fully justified for the term of its program.

Expected Accomplishments:

- Maintenance of an office, field offices, and a guesthouse as necessary to support and carryout programmatic activities.
- WCS staff necessary to carryout programmatic activities securely and productively.

Level of Effort (FY07): \$397,367.

Operations 5.3. Vehicles

WCS maintains three vehicles for field operations, and, will supplement those vehicles with additional rentals as necessary to carry teams and equipment into the field, or for operations in Kabul. Alternatively, if necessary and cost beneficial, WCS may purchase a low profile (used or new), Toyota Hi-Ace minivan this year for use in Kabul to carry out programmatic operations in the city as its three vehicles will be deployed in the field for months at a time. The purchase of the minivan would approximately equal the costs of rental of a van for one year (\$12,000), and would save money over the course of two years.

Expected Accomplishments:

- Maintenance of sufficient transportation options to deliver WCS teams into the field in a safe and secure manner.

Level of Effort (FY07): \$22,000.

Operations 5.4. Leadership

These costs cover salary and benefits for key personnel, a shared program manager in New York to assist with liason with New York programs (40%), and programmatic contributions by the Assistant Asia Director (25%).

Level of Effort (FY07): \$319,620.

**Afghanistan Biodiversity Conservation Project
USAID Performance Indicators & Milestones for FY07**

OBJECTIVES	INDICATORS	TASKS	TASK PROGRESS (MILESTONES)					ANNUAL BENCHMARK	
Sub-Intermediate Result 5.1.3 Natural Resources Management Improvement			BASELINE FY07	Q1	Q2	Q3	Q4	YEAR 2	BENCHMARK
OBJECTIVE 1: SURVEY AND MONITOR WILDLIFE SPECIES AND THE LANDSCAPE CONTEXT IN WHICH THEY ARE FOUND	INDICATOR 1.1: WILDLIFE ASSESSMENTS	Data collected on occurrence, distribution, and estimated abundance of mammals and birds in the Little Pamir and Wakhjir Valley region of the Wakhan (50%), Mammals in Nuristan (60%); Mammals and Birds in Hazarajat Plateau (70%); Data Analyzed (80%); Data Reported and incorporated into GIS database (90%); Data used to develop protected areas (100%)	Initial WCS data from FY06 suggests the flora and fauna of Afghanistan may have suffered as a result of 30 years of conflict, with the dramatic decline of Ibex in Ajar Valley, the disappearance of Ibex and urial in Band-e-Amir, the low numbers of Marco Polo Sheep, and reports of a high degree of wildlife-livestock conflict.	Winter survey of mammal in the Big Pamir to estimate the degree of wildlife-human conflict due to predation on livestock; Continued winter surveys of Nuristan forests for keystone mammal species; Genetic analysis of scats collected in Nuristan to accurately determine species incidence and population size.	Surveys of mammals and birds in Little Pamir and Wakhjir Valley (2 surveys); Continuing surveys of mammals in Nuristan (1 survey); Continuing surveys in Hazarajat Plateau sites for mammals and birds (2 surveys)	Continued: Surveys of mammals and birds in Little Pamir and Wakhjir Valley (2 surveys); Continuing surveys of mammals in Nuristan (1 survey); Continuing surveys in Hazarajat Plateau sites for mammals and birds (2 surveys)	Data Analyzed and Reported; Data incorporated into GIS database and used to assist in developing protected areas.	Conduct Wildlife Assessments of Little Pamir and Wakhjir Valley (Birds, Mammals; 2 surveys), Hazarajat Plateau (Surveys for Birds and Ungulates, 2 Surveys), and Nuristan (Mammal Surveys, 1 survey). Perform genetic analysis of scat samples.	Interim report on wildlife assessments
	INDICATOR 1.2: RANGELAND ASSESSMENTS	Survey the Little Pamir and Wakhjir Valley (25%); and Hazarajat (50%); Collection of Voucher Specimens (70%); Collection of Remotely Sensed Vegetation Data (80%); Development of Rangelands Database (90%); Draft Interim Report (100%)	WCS has completed an initial analysis of the rangelands in the Big Pamir region, and an initial survey of Little Pamir; WCS has developed a GIS database for data analysis.	Rangeland training course offered in Badakshan (10%); Continued identification of voucher specimens and development of GIS database (20%)	Continued development of database; Contributions to development of rangeland's law (30%)	Continued rangeland surveys of Little Pamir and Wakhjir Valley (40%); Rangeland Surveys of Ajar Valley and Band-e-Amir (70%); Collection of Voucher Specimens (80%)	Identification of voucher specimens; Completion of rangelands database; Collection of plant community information for correlation with remotely-sensed vegetation data (90%); Draft of interim report (100%)	Continue rangeland survey of Big Pamir, Little Pamir, and Waghjir Valley. Collection and analysis of voucher specimens.	Interim report that prioritizes threats to rangelands and wildlife; Development of identification guide to rangeland species; Completion of GIS database.
	INDICATOR 1.3: ECOSYSTEM HEALTH	Serological analysis of blood samples taken in FY06 (15%); Continued surveys of health status and seasonal range use in Big Pamir, Little Pamir and Wakhjir Valley (80%); and Hazarajat Plateau (90%); Development of disease database, reporting, and disease transmission models (100%)	Documentation of husbandry practices and seasonal range use of livestock in Big Pamir and initial evaluation of risk of disease transmission to and from wildlife completed and used to develop FY07 research. Training group identified and initial training provided by Afghan veterinarians and paravets in disease monitoring techniques at wildlife/livestock interface.	Serological screening of blood samples collected in FY06 for Foot and Mouth Disease, Peste des Petits Ruminants (PPR), and Brucellosis (15%)	Finish surveys of livestock health in May-June 2007 in Big Pamir (Kirghize), start survey of Wakhi livestock health in Little Pamir, training of Afghan vets and paravets in disease monitoring (40%)	Surveys of livestock/wildlife health in Little Pamir and Wakhjir valley in July-September; continue training of vets and paravets (80%)	Conduct livestock survey in Hazarajat Plateau (90%); Development of disease database and transmission models (100%)	Analysis of health status, potential threats to wildlife, and input of data into GIS	Interim report and creation of zoonotic disease database delineating links between livestock and wildlife.
	ACTIVITY 1.4: LANDSCAPE ANALYSES AND GIS PROGRAM	Continued acquisition of remote sensing imagery, integration of data, and analysis through the Living Landscape Program at WCS.	Creation of GIS Laboratory to support and integrate all program components; Overlay vegetation, wildlife, and human spatiotemporal patterns collected from surveys in GIS layers; Initial Acquisition of topographic and imagery.	Acquisition of 2006/and programmed 2007 satellite imagery for Eastern Forest Landcover classification (30%); Continued classification and integration of data sources (40%)	Acquisition of high resolution programmed imagery for Wakhan and Hazarajat Plateau (60%); Eastern forest landcover classification completed (70%)	Analysis of Rangelands and ecological forecasting models developed for rangelands (80%)	Analysis of biological, sociological, economic and geographic data through the Living Landscape Program (90%); Interim Report (100%)	Analysis of GIS data	Interim Report and GIS products

**Afghanistan Biodiversity Conservation Project
USAID Performance Indicators & Milestones for FY07**

OBJECTIVES	INDICATORS	TASKS	TASK PROGRESS (MILESTONES)				ANNUAL BENCHMARK		MOV	
			BASELINE FY07	Q1	Q2	Q3	Q4	YEAR 2	BENCHMARK	Means of Verification
Sub-Intermediate Result 5.1.3 Natural Resources Management Improvement										
OBJECTIVE 2: STRENGTHENING LAWS, POLICIES, AND INSTITUTIONS	INDICATOR 2.1: PARKS AND PROTECTED AREAS	Continued progress toward the development of a Transboundary Peace Park between the governments of Afghanistan, Pakistan, Tajikistan, and China through the Second Transboundary Peace Park conference in Dushanbe, Tajikistan; Assistance to the Afghan government in applying for World Heritage Natural Area application for Band-e-Amir in February 2008; Provisional development of World Heritage application for Wakhan in February 2009; Drafting of management plans and push for protected area status of Nuristan, Wakhan, and Hazarajat; Initial work on development enforcement mechanisms.	Initial determinations on appropriate protected area status and proposed boundaries for parks in the Hazarajat Plateau (Ajar Valley and Band-e-Amir National Park), Wakhan (Big Pamir, Little Pamir, and Waghjir Valley), and Nuristan; Holding of first Transboundary Peace Park conference between the governments of Afghanistan, Pakistan, China, and Tajikistan.	Continued collection and synthesis of existing data and analysis in GIS database for proposed protected areas (20%)	Identify current threats to natural resources and recommend potential solutions (50%)	Draft management plans for Wakhan, Hazarajat, and Nuristan developed and circulated among Afghan interagency and NGO's; Comments incorporated (70%);	Completion of proposed World Heritage Natural Site application for Band-e-Amir (80%); Hold Second Transboundary Peace Park conference in Dushanbe, Tajikistan with representatives from the four governments, international organizations supporting the development of the Peace Park, and other scientific and wildlife NGOs (90%); Development of management plans for Wakhan, Hazarajat, and Nuristan proposed protected areas (100%)	Continued collection of data and synthesis of existing data; Coordination of Afghan interagency and NGO's for the creation of a management plan based on analysis of collected biological and socioecological data to update existing protected area boundaries; The management plan must have achievable objectives that address threats to the biodiversity of the area with legal management authority, resources, and participation and support from stakeholders and national level institutions; Implementation of recommendations	Development of draft management plan for protected areas that covers recommendations conservation of natural resources (plants and animals), management of tourism in the area, recommendations on revenue distribution between national government and local communities and plan for administration and protection of protected areas.	Protected area management plans and proposed boundaries completed; World Heritage Proposal; Second Transboundary Conference held
	INDICATOR 2.2: ANALYZE, AND DRAFT LEGISLATION	Development of wildlife laws and regulations in support of biodiversity conservation through the development of a rangelands law, protected area regulations and wildlife & hunting laws and regulation development; Continued mentorship for the Afghan government on matters of international environmental laws and treaties; Lobbying efforts for laws and regulations drafted in FY06; Continuing assessment of the status and practice of environmental laws in Afghanistan (to be incorporated into updated version of compendium).	Review completed on international best practice recommendation for improvement of environmental policies and legislation; Drafting of Forestry law and Protected Area Regulations completed.	Continued work on rangelands law and protected area regulations with partner organizations (25%)	Draft laws and/or regulations completed on wildlife, hunting, and trade (50%); Assistance to parliament to adopt new laws and regulations (60%)	Continued refinement of practice guide and legal compendium; Recommendations on development of enforcement of green issues (80%);	Completion of interim report to Afghan government (100%)	Draft Environmental Legislation on Rangelands and Forestry; Other implementing regulations, included Protected Areas Regulations, developed as necessary; Support implementation of enforcement mechanisms	Report prepared and submitted to Afghan government with specific recommendations for new or revisions to policies and legislation related to biodiversity conservation, including draft legislation and enforcement mechanisms.	Completion of Rangelands law and Wildlife laws; Updated Environmental law practice guide.
	INDICATOR 2.3: ECOSYSTEM SERVICES VALUATION	Conduct an environmental evaluation in Nuristan to begin estimating the contribution of ecosystem services to the regional/national economy, and to serve as a model for regions to incorporate ecosystem values into the national system of accounting.	Initial selection of Nuristan as survey site; completed analysis of issues; defined survey coverage; Assessed the logistical issues associated with the project.	Development of experimental design, selection of statistical tools, and ethics review of survey approach (25%)	Conduct survey pretests and adjust survey instruments; initial training given in survey methodology (50%)	Survey of 250 households in Nuristan (75%)	Completion of Interim Report detailing initial data analysis and survey performance (100%)	Design, test, and conduct ecosystem evaluation surveys in the Eastern Forests of Afghanistan	Interim Report detailing initial data analysis and survey performance	Survey data and analysis

**Afghanistan Biodiversity Conservation Project
USAID Performance Indicators & Milestones for FY07**

OBJECTIVES	INDICATORS	TASKS	TASK PROGRESS (MILESTONES)				ANNUAL BENCHMARK		MOV	
			BASELINE FY07	Q1	Q2	Q3	Q4	YEAR 2	BENCHMARK	Means of Verification
Sub-Intermediate Result 5.1.3 Natural Resources Management Improvement										
OBJECTIVE 3: FACILITATE COMMUNITY- BASED NATURAL RESOURCE MANAGEMENT ACROSS THE LANDSCAPE	INDICATOR 3.1: COMMUNITY CONSERVATION COMMITTEES / PROTECTED AREA COMMITTEES	Conduct socio-economic surveys in the Little Pamir among the Krygiz and Wakhi; environmental education; Establish functional community conservation committees that will serve to coordinate development activities, regulate hunting, and manage grazing.	WCS in FY06 completed socio-economic surveys in the Wakhan District; set up and organize community conservation awareness workshops and environmental education programs in 21 out of 24 villages, and made progress toward the establishment of functional community conservation committees that will serve to coordinate development activities, regulate hunting, and manage grazing; WCS also opened an office in the heart of the Wakhan District in Kret to manage its activities.	Adaptation of materials created for Wakhi communities in the northern mountain areas of Pakistan in partnership with the IUCN Mountain Areas Conservancy Project and WWF Pakistan (20%)	Conduct socioeconomic surveys of 50% of Wakhi and Krygiz communities in the Little Pamir and Wakhjir Valley (30%); Create and staff a conservation facilitator position for Wakhi; Study tour for members of the Wakhi community to National Parks in Northern Pakistan (40%); Continued work to strengthen Community Conservation Committees (50%); Engage communities in Little Pamir in the formation of community conservation committees (60%)	Create transboundary study opportunities for Wakhi conservation facilitator in Pakistan (70%); Develop by-laws and an agreement to be signed by 75% of shuras of all villages in WCS focal area in Wakhan for Community Conservation Committees. This should include establishment mechanism for funding that allows for distribution of income from future activities, based on the WCS amendments to the protected area regulations (90%).	Draft Interim Report (100%)	Analyze survey data; Create interim community conservation committees in 75% of Wakhi Villages	Interim Report summarizing survey data, community conservation education activities, and the capacity and abilities of the interim community conservation committees, including evaluation of the ability of the community conservation committees to manage their natural resources.	Performance may be measured through the provision of data on location and seasonality of settlements, seasonal movement, village affiliation, number of households, number and type of livestock, GPS locations of Wakhi and Krygiz communities in Little Pamir.
	INDICATOR 3.2: ECOTOURISM ENTERPRISE	Link conservation initiatives to economic benefits derived from those initiatives as part of a broader strategy of for sustainable economic development in the community; Develop a draft set of guidelines for tourism in the Wakhan for NGO's and donors; Develop materials to facilitate and promote tourism in Wakhan.	WCS has engaged local community conservation committees on tourism: AKDN has been working on tourism development in Wakhan, but this has been focused on infrastructure, and less on management and sharing of benefits.	Support Afghan Tourism Organization and Ministry of Culture and Tourism to bring together public and private stakeholders for discussions on tourism to begin the drafting process on ecotourism guidelines, including strategy for developing a Wakhan-based ecotourism enterprise (20%); Collaborate with ACC to produce a tourism brochure for Band-e-Amir.	Engagement of Community Conservation Committees for the development of local private tourism enterprises (40%)	Promotion of Wakhan through media (Outside, Explore magazines) as ecotourism destination; Development of ecotourism maps/ecotraveller's guide, and a website devoted to ecotourism in Wakhan (60%); English language courses/cooking courses/advanced ecotourism training for potential Wakhi and Krygiz guides (80%)	Development of tourism guidelines accepted by local communities and tourism operators in Kabul (100%)	Develop ecotourism guidelines accepted by Afghan Tourism Association (TAA), the Ministry of Culture and Tourism, and the Afghan Tourism Organization (ATO) supporting ecotourism partnerships with local inhabitants and raising awareness among tourists and private agencies for Afghanistan	Development of guidelines managing ecological and social impacts of ecotourism; ecotourism materials.	Tourism guidelines; ecotraveller's guide and maps; training courses.

**Afghanistan Biodiversity Conservation Project
USAID Performance Indicators & Milestones for FY07**

OBJECTIVES	INDICATORS	TASKS	TASK PROGRESS (MILESTONES)				ANNUAL BENCHMARK	MOV		
Sub-Intermediate Result 5.1.3 Natural Resources Management Improvement			BASELINE FY07	Q1	Q2	Q3	Q4	YEAR 2	BENCHMARK	Means of Verification
OBJECTIVE 4: TRAINING AND CAPACITY BUILDING	INDICATOR 4.1 and COMMON INDICATOR 204: NUMBER OF PEOPLE TRAINED IN NATURAL RESOURCES MANAGEMENT AND CONSERVATION AS A RESULT OF USG ASSISTANCE	Identify appropriate international experts in wildlife, forestry, rangelands, and protected area management and conservation to teach short courses in these subjects in Afghanistan to university staff and students, NGO workers, and government agency officials; Arrange and implement group study tours and intensive training courses for Afghans working in the environmental sector to other countries for specific training through visits to sites where innovative, site-appropriate practices are being implemented; Practical training and mentoring in modern scientific methodologies for Afghan scientists and government officials in the field.	WCS has trained in FY06 250 people generally in a wide variety of topics related to biodiversity conservation, and has worked to develop a core group of 20+ individuals from academia and government who continue to receive intensive training, scholarship and research opportunities, and practical field-based training and mentorship. FY07 will continue building on these activities.	Continued training for government officials, academics, and community members from Nuristan in wildlife surveys (10%, 12 individuals); Rangeland assessment training in Badakshan (20%, 9 individuals); Mentorship and attendance at the Convention on Biological Diversity meeting for two members of the Ministry of Agriculture in India (30%, 2 individuals)	Protected Area Management Course at WCS Cambodia (40%, 8 individuals);	Bamiyan/Ajar Community Conservation Governance Training in Nepal Park System (50%, 8 individuals); GIS training, mentorship, and startup of Ministry of Agriculture GIS lab (60%, 1 individual); Attendance for 4 Afghan academics/recent graduates at the Society for Conservation Biology Meetings in South Africa (70%, 4 individuals); Continued practical field-based training for wildlife, rangelands, socioeconomic and community conservation teams (80%, 20 individuals); Attendance at the US-Canada Glacier Peace Park Conference for two high-level Afghan officials (2 individuals); Additional opportunistic training opportunities provided by WCS scientists in subject matter expertise (estimate at 300 individuals).	Alighar Muslim University Wildlife Institute Training for Afghan University Professors (90%, 8 Individuals); Wildlife law enforcement training for 15-20 Ministry of Agriculture members and Wakhi community members (100%, 15 individuals)	Evaluating/Testing Training Materials; Continue training courses; Revise and adapt training courses as necessary, including develop new training materials.	Evaluation and adaptation of training and capacity building program; Continued training of 10-20 people trained in-depth through long-term practical field training, mentorship, and foreign training opportunities; One hundred people trained through intensive short courses and study tours (100); Three hundred individuals (300) trained at an introductory level in different scientific disciplines necessary for managing natural resources	Training courses offered; Total number trained.
	INDICATOR 4.4: PUBLIC DIPLOMACY AND CONSERVATION EDUCATION INITIATIVE	WCS will continue to reach out through its education and public diplomacy campaigns to local communities in Ajar Valley and Band-e-Amir, Wakhan, and Nuristan to promote biodiversity conservation. WCS will also continue working with Tolo television (domestically) and the National Geographic Society and similar institutions (internationally) to promote awareness of the current status of Afghan biodiversity.	WCS, UNEP, and ACC have created initial environmentally-oriented materials for the Afghan educational curriculum; WCS launched a low-cost public diplomacy campaign among the expatriate community through magazine articles, advertisement, posters, and cards to stop the illegal trade in wildlife, particularly endangered species.	Printing and distribution of wildlife trade posters (20%); Distribution of environmental education materials for Afghan schools (40%); Adaptation of educational materials for local Wakhi schools (50%)	Integration of educational materials for Wakhan in teaching curriculum (60%); Agreement with Tolo Television for production on Afghan wildlife television show signed (70%)	Production starts for Tolo Television Show (90%)	Interim Report (100%)	Utilize educational materials in field sites and schools; creation of media programs on television and radio; evaluation, adaptation, and continuation of advertising campaigns	Interim Report detailing the development and use of the materials in field sites and schools, as well as the types of media programs developed and the potential number of individuals reached through media campaigns. Report will also review how the materials have been received and how they will be adapted.	Creation of media and educational materials

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Sub-Intermediate Result 5.1.3 Natural Resources Management Improvement			BASELINE FY07	Q1	Q2	Q3	Q4	YEAR 2	BENCHMARK	Means of Verification
USAID COMMON BIODIVERSITY INDICATORS	COMMON INDICATOR 203	Number of people with increased economic benefits derived from sustainable natural resources management and conservation as a result of USG assistance.	Over 50 Percent of Tourism dollars in Wakhan came from wildlife surveying activities sponsored by WCS.	Support Afghan Tourism Organization and Ministry of Culture and Tourism to bring together public and private stakeholders for discussions on tourism to begin the drafting process on ecotourism guidelines, including strategy for developing a Wakhan-based ecotourism enterprises.	Engagement of Community Conservation Committees for the development of local private tourism enterprises.	Promotion of Wakhan through media as ecotourism destination; Development of ecotourism maps/ecotraveller's guide, and a website devoted to ecotourism in Wakhan; Training courses	Development of tourism guidelines accepted by local communities and tourism operators in Kabul.	Activities in support of protected areas and development of ecotourism enterprises.	200 direct and indirect in Wakhan and Hazarajat Plateau	Number of tourist dollars; development of new ecotourism activities.
	COMMON INDICATOR 204	Listed separately as Indicator 4.1								
	COMMON INDICATOR 194	Number of areas under community management	0	Continued work on rangelands law and protected area regulations with partner organizations to increase community management of natural resources.	Community Conservation Programs continued efforts to strengthen Community Conservation Committees; Engage communities in Little Pamir in the formation of community conservation committees.	Develop by-laws and an agreement to be signed by 75% of shuras of all villages in WCS focal area in Wakhan for Community Conservation Committees. This should include establishment mechanism for funding that allows for distribution of income from future activities, based on the WCS amendments to the protected area regulations	Assistance to parliament to adopt new laws and regulations supporting local community management; Recommendations to Afghan government towards effective community management of natural resources as part of Legislation and Policy Program	Creation of community conservation committees for Ajar Valley and Band-e-Amir National Park	2 Areas (Big Pamir, Little Pamir) under community management	Creation of interim conservation committees for management of protected areas in Wakhan; Development of laws, regulations, and policies supporting local community management.