

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

2006 Annual Report



SUMMARY OF ACCOMPLISHMENTS FOR FY06

Baseline Science and Analysis

In FY06, WCS has completed surveys of avian and large mammal incidence and population size estimates in the Big Pamir proposed park in Wakhan and the Hazarajat Plateau, the first such comprehensive and scientific studies in nearly three decades. Further, WCS completed an extensive range inventory of the Big Pamir and Little Pamir and did initial surveys of ecosystem health of Wakhan species in the Big Pamir to better understand the grazing dynamics of domestic animals in Wakhan and their effects on biodiversity. In 2006, WCS started the first mammal surveys of Nuristan province completed in three decades, and the second in history, with three survey teams assessing the wildlife in the remaining forests of Nuristan. Teams found evidence of markhor, jackals, black bears, Persian leopards, fox, and crested porcupine. WCS has researched and compiled baseline data predating the Afghan-Soviet conflict to estimate the effects of biodiversity loss. This is one of the few comprehensive collections of such data remaining in the world. Copies have been provided to the Afghan government.

Community Conservation & Economics

WCS has set up a community conservation office in the heart of the Wakhan at Kret, equipped with audiovisual facilities. From this base, WCS has surveyed 54% of the households and organized community conservation education workshops in the upper and lower Wakhan that would lay the groundwork for the community conservation committees and coordination on ecotourism.

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, interdisciplinary WCS teams have been focused on revisions to the Forestry and Rangeland laws, creating a compendium and commentary of environmental laws in Afghanistan, and starting initial surveys of deforestation and wildlife trade. Further, WCS has been working with four countries, Pakistan, Afghanistan, China, and Tajikistan towards the formation of a Transboundary Peace Park in the Pamirs.

Training and Capacity Building

WCS has implemented a series of short courses, practical field training and mentorship, international training opportunities, and broad scale public diplomacy and education activities for both government and academia. In FY06, WCS has trained 235 participants from the Department of Forest and Rangelands of the Ministry of Agriculture, the National Environmental Protection Agency, students and professors from Kabul and Nangrahar University, and the Kabul Zoo.

Coordination with NGOs and Government

WCS developed a close working relationship and trusted advisor role with the government for technical information on biodiversity conservation and continues to work to build capacity in the government to continue this work in the future. Specifically, WCS has developed close working relationship 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. WCS has been building strong working relationships at the provincial level in Badakhshan Province, including the local offices of the Ministry of Agriculture, NEPA, Deputy Governor of Badakhshan, the Badakhshan Chief of Police, the Provincial Reconstruction Teams, and local USAID offices. Finally, WCS has been coordinating closely with the Aga Khan Development Network, the Asian Development Bank, the United Nations Environment Program, the International Crane Foundation, and Save the Environment Afghanistan.

Operations, Security, and Logistics

WCS set up the infrastructure and procedures necessary to carry out the program, including setting up furnished and equipped office and guesthouse facilities in Kabul, field bases in Wakhan (in the villages of Qala-e Panj and Kret), and initiated the establishment of a regional office in Ishkashim in lower Wakhan. WCS has recruited international and local staff. WCS has set up auditable financial accounting and inventory systems and completed its registration as an NGO within Afghanistan. Finally, WCS has developed logistics and security support systems for sites and field, including acquiring specially-modified and designed vehicles for working year-round at the off-road, high-altitude field sites within Wakhan.

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

Activity 1.1. Wildlife Surveys

In 2006, WCS carried out the first comprehensive surveys of birds and large mammals in the Wakhan region since 1978, outside of WCS scientist Dr. George Schaller's study of Marco Polo Sheep in 2004 and Dr. Anthony Fitzherbert's rapid assessment survey in 2003. In addition, WCS started the first surveys of Nuristan in over 30 years by bringing 12 community, government and university graduates from the region to Kabul for training. WCS scientists also discovered nearly 30 new birds species previously unknown to the Wakhan, and 11 for Hazarajat region.

Activity 1.1.1: Mammal Surveys

The first phase of the mammalian survey was carried out in the Proposed Big Pamir Wildlife Reserve within the Big Pamir region. WCS will follow up with surveys of the Little Pamir and Waghjir Valley in 2007 and in 2008, respectively. During the survey, the WCS mammals team spent 35 days in the field, sampled an area of 289 km² and surveying snow leopard sign transects and status, and conducted distribution and abundance surveys for mountain ungulates. These surveys included 11 main valleys and 25 sub valleys; areas considered to hold high densities of wildlife species. The mammals team, through direct and indirect observation, verified the presence of 9 mammal species (Snow Leopard, Marco Polo Sheep, Asiatic Ibex, Wolf, Brown Bear, Red Fox, Long-Tailed Marmot, Cape Hare and Ermine). WCS Wakhan teams also contributed to direct and indirect survey data with interviews with local inhabitants about livestock depredation by wolves and snow leopards. WCS teams also surveyed Nuristan Forests and the Hazarajat Plateau; these activities are described separately elsewhere in this document, and in Activity 1.1.3 below.

Activity 1.1.2: Avifauna Surveys

The WCS bird survey team targeted all major physiographic divisions of the Wakhan and the Big Pamir region. The WCS avifauna survey team tallied a total of 3,786 individuals belonging to 109 bird species. This is the largest number of species ever recorded in the Wakhan Pamir in a single survey and adds potentially 30 new species to a cumulative list of 139 species reported by Petocz 1978 (100 spp.), Fitzhebert & Mishra 2003 (48 spp.), Schaller 2004 (30 spp.), and Ostrowski/WCS 2006 (59 spp.), and looks to increase with recent fieldwork. This takes the total number of species recorded in Wakhan and Pamir to 161 species, and included are previous unreported and rare migratory species. WCS also made opportunistic winter observations of Wakhan, and was able to confirm the status of 19 species as resident in the region, and reconfirm the presence of 11 species not previously recorded in Wakhan. It also highlights the presence of species (i.e. golden eagle, lammergeier, ibisbill) that are known to be attractive to birdwatchers and ecotourists.

Activity 1.1.3: Wildlife Surveys of Hazarajat Plateau and Nuristan

Funded separately under Activity 2.3, WCS also conducted extensive surveys of birds

and mammals in the Ajar Valley and the Hazarajat Plateau, particularly for Ibex and Urial, as well as of small mammals and birds. As part of its Eastern Forests program (Activity 2.4), WCS trained officials to survey the eastern forests for indicator species. These programs are discussed more fully under their respective sections.

Activity 1.1.4: Collection of Baseline Data.

WCS scientists have put together an extensive collection of historical data on wildlife population abundance and incidence from natural history museums, scientific journals, and academic institutes around the world, and previous reports on Afghan wildlife. WCS has contributed scanned copies of these materials to Afghan scholar Nancy Dupree for the Afghanistan Center at the University of Kabul and to the Ministry of Agriculture and the National Environmental Protection Agency.

Progress and Performance Assessment

In accordance with the indicators, WCS successfully completed its objectives for Activity 1.1 in FY2006.

Activity 1.3 Assessment of Rangelands in Wakhan

Having a good understanding of the type and conditions of the rangelands is essential for looking at causality between human activities and changes in wildlife abundance as well as for managing natural resources. The rangeland assessment in the summer of 2006 occurred from Goz Khun along the Pamir River and the Wakhan Range (portions of Big Pamir Hunting Reserve) to the Tulibi Valley and then returning to Sargez. The rangeland team established 42 “monitoring plots” that varied in elevation from 3,474 to 4,718 meters during field work in July and August. The team also collected over 100 species of voucher specimens from the Big and Little Pamir. The excel data sheets will be added to a GIS system and added to a base map of LANDSAT ETM+ image and other mapped resources. Further, training materials were developed for a training exercise on rangeland management, rangeland health assessment, GPS use, and Watershed Management to the *Forestry and Rangeland Department* in Faizabad. The training was conducted for 30 participants in January 2007.

Progress and Performance Assessment

In accordance with the indicators, WCS has successfully completed its objectives for FY06.

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

For FY06, WCS focused on data collection on disease issues related to livestock management in the Big Pamir region and the Wakhan Valley. At present, there are no other programs that are surveying wildlife or domestic livestock health or diseases in Wakhan. Dr. Stephan Ostrowski, DVM, PhD led a team of Afghan veterinarian research assistants from the University of Kabul and a counterpart the Kabul Zoo to survey the

Wakhi pasture areas in the Big Pamir region of the Wakhan District from July 2006 until end of August 2006. The Ecosystem Health team also followed up with serological surveying of livestock for disease in November and December 2006.

During the summer field season, the Ecosystem Health team interviewed 65 households distributed in 10 major settlements in the areas of Djermasirt, Manjulak and Shikkargah (3,800-4,500 m). From these interviews, and field counts, they accurately (+/- 10%) determined the numbers of sheep, goats, yaks and cows grazing in these areas, documented the seasonal patterns of range use in these populations, and delimited geographically the extend of these areas. Through questionnaire investigations, they also documented the major mortality trends in livestock populations, and evaluated clinically the occurrence and relative impact of a number of economically important diseases (e.g. Foot and Mouth Disease). Approximately 75 blood samples were taken for further serological investigations and specimens of endo- and ecto-parasites are currently under taxonomic determinations.

During this winter field season, the Ecosystem Health team re-interviewed in Wakhan villages 33 households which utilized Big Pamir pastures in summer 2006. From these duplicate interviews they could assess timing of transhumance, cross-check livestock numbers, assess autumn mortality, and evaluate partitioning of herds between animals left to winter in Big Pamir and those returned to Wakhan valley. Through these questionnaire investigations, they also documented the major mortality trends in livestock populations during autumn, losses during transhumance and evaluated clinically the occurrence and relative impact of a number of economically important diseases (e.g. Foot and Mouth Disease). The team took 471 blood samples from sheep and goats and a number of other samples from cattle suspected of Foot and Mouth Disease and from goats with clinical signs of contagious keratoconjunctivitis, both diseases known to affect wild mountain ungulates. WCS will assess the potential exposure of livestock to a number of infectious agents reported to affect mountain ungulates via serological screening of blood samples in spring 2007.

During October 2006, members of the Ecosystem Health team accompanied the mission of Dr Christopher Shank, PhD, in the Hazarajat Plateau and carried out cloacae sampling on 89 healthy, sick or dead domestic and wild birds. Samples were analyzed by the Central Veterinary Laboratory of Kabul and were all negative for H5 subtype avian influenza RNA. In spring 2007 WCS will train Afghan veterinary teams, in collaboration with FAO, for surveying wild bird populations for avian influenza.

The Ecosystem Health team continued to conduct opportunistic surveys of wildlife trade patterns both in Wakhan and in markets for wildlife. Legal and illicit wildlife trade has an important influence on the spread of infectious disease, and may directly threaten wildlife populations. This is combined with complementary and parallel efforts under Activity 2.6.

Progress and Performance Assessment

In accordance with the indicators, WCS successfully accomplished its objectives for FY2006. The Ecosystem Health Team will provide more in-depth training to Wakhi community members in FY 2007.

Activity 1.6. Landscape Assessments and GIS Program

In FY06, WCS has developed, equipped and staffed a fully functional GIS lab that functions to integrate all field activities. WCS also hired an Afghan GIS specialist, a former Senior UN GIS Training specialists, and have been training him to perform landscape-level analyses in the specific field of conservation GIS – an entirely new technical field for Afghanistan. The WCS GIS officer has become the focal point for conservation GIS in Afghanistan and serves as a mentor to the Ministry of Agriculture (and potentially NEPA) and work with Ministry, at their request, to build their own GIS capabilities in the specialized technical field of conservation GIS. This individual will provide long-term benefits during the current project, and beyond its termination date.

The GIS team purchased a comprehensive set of topographic maps (both Russian and US maps) and other map and vector data of the country. Through developing partnerships with USGS and through working through NASA and other sites, we have acquired basic imagery at no cost for all sites, including both Landsat TM and Aster. We have also generated from the Shuttle Radar Topography Mission a 90 meter Digital Elevation Model (DEM). GIS Program staff have incorporated field data, both biological and socio-economical, into the common database and integrated with available imagery. Available information on historical species incidence and distribution has also been added. Much of this data has been used to plan next year's conservation activities.

Progress and Performance Assessment

WCS fully accomplished its objectives for FY2006 in accordance with the indicators.

FY06 GIS PRODUCTS

Date	S/N	Activities	Team/Person	Remarks
	1	Wakhan Corridor Map Book	Rangelands	
	2	Wakhan Topographic Maps for Community Conservation, Health and Rangeland Teams	All Teams	
	3	Species Database Structure and Converting to GIS layers	Wildlife Surveys	
July	4	Security Mapping teams' locations in Wakhan	Operations	
	5	Afghanistan Route Map	Operations	
	6	Kabul City Map	Operations	
	7	Shahri Naw and WCS Office Location	Operations	
	8	Location of Embassies and NGOs Kabul City Map	Operations	
	9	Badakhshan Province Map	Operations	
	10	Wakhan Large Scale Route Maps	Wildlife Surveys	
	11	Teams' Location Database Structure	Don McLean	
	12	Building data, layer	Wildlife Surveys	
	13	Mapping Big Pamir and Protected Area	Wildlife Surveys	
Aug	14	Wakhan District Map	Wildlife Surveys	
	15	Afghanistan Political Map	Law and Policy	
	16	Afghanistan Land cover Map	Eastern Forests	
	17	Nuristan and Kunar Land Cover Maps	Eastern Forests	
	18	Plotting Black Bear Coordinates on Nuristan and Kunar Provinces	Training	
	19	Mapping All 22 Kabul Province Districts	Law and Policy	
	20	<i>Converting Data into GIS Layer (Scanning, Georeferencing, Digitizing and Mapping upon request</i>	Integrative	
	21	Pastures 1970, 2006 and Overlap	Community Conservation	
	22	Updating Big Pamir Protected Area	Community Conservation	
	23	Wakhan Rivers and names	Community Conservation	
	24	Wakhan Streams	Community Conservation	
	25	Wakhi-Khyrgyz Settlements	Community Conservation	
	26	Pasture Area Big Pamir	Ecosystem Heath	
	27	Pasture Areas Overlap Map	Ecosystem Heath	
	28	Team's Route Map	Ecosystem Heath	
	29	Wakhan District Large Scale Maps (3 Sheets)	Wildlife Surveys	
	30	Two Teams' route Maps	Wildlife Surveys	
Sept/Nov	31	Valleys Surveyed During 2006 First Phase surveys & Marco polo Sheep Sightings	Wildlife Surveys	
	32	Ajar Valley Topographic and Aster Satellite Maps	Hazarajat	
	33	Royal Land Delineation Map	Hazarajat	
	34	Teams' Route Maps	Hazarajat	
	35	Bandi Amir National Park and Land Use Plan	Hazarajat	
	36	Bandi Amir Field Survey Zoning	Hazarajat	
	37	Bandi Amir Protected Area Update	Hazarajat	
	38	Bandi Amir Topographic and Aster Satellite Maps	Hazarajat	
	39	Eastern Forest Area of Interest	Eastern Forests	
	40	AOI Overlay onto Russian Maps	Eastern Forests	
	41	UNEP Forest Cover Change Map (Scan, Georeference, and digitize) for Overlaying onto Russian Topographic Maps	Eastern Forests	
Dec	42	Maps for Eastern Forest Survey teams' training	Wildlife Surveys	
	43	Eastern Forest Area of Interest	Eastern Forests	
	44	Eastern Forest Study Area	Eastern Forests	
	45	AOI Route Maps (Nuristan, Kunar)	Eastern Forests	

	46	Study Area 50Square Km grid	Eastern Forests	
	47	Eastern Forest Change and Study Area	Eastern Forests	
	48	Grid 50 Square Km Maps for Surveyors (27 Maps)	Eastern Forests	
	49	Grid 50 Square Km Maps Index	Eastern Forests	
	50	EFP Teams' Route Map	Eastern Forests	
	51	Final Report Maps Bandi Amir and Ajar	Hazarajat	
	52	Final Report Maps Wakhan Corridor	Ecosystem Heath	
	53	Final Report Maps Wakhan Corridor	Community Conservation	
	54	Reviewed all GIS layers		
	55	Developing GIS Database Structure		
	56	Final Report Map (Main Roads coming to Kabul from Eastern Provinces area highlighted)	Eastern Forests	
	57	Wood Bazaars	Eastern Forests	
	58	Maps for Bandi Amir Brochure (Afghanistan & Bamyan, Bayman and the Bandi Amir)	Hazarajat	(English, Dari and Pashto)
Jan	59	Clean and aggregate all feature datasets	GIS	
	60	Draft Perfect Table for every and each GIS Layer	GIS	
	61	Paghman Topographic Map	Wildlife Surveys	
	62	Team C track	Eastern Forests	
	63	All teams' grids	Eastern Forests	
		Process all data coming from the field	Integrative	
		Develop Metadata for core feature datasets	Integrative	

OBJECTIVE 2: 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. In 2006, WCS developed close working relationships with its partners in drafting regulations and laws for natural resource management.

Activity 2.1 Update Wakhan Protected Areas

WCS has integrated and analyzed data from other program activities and acquired remote sensing data to provide a framework with which to update protected area boundaries. The collection of a substantial body of data on wildlife incidence and distribution, ecosystem health, rangeland status, and the socioeconomics of Wakhan have permitted us to gain a clearer picture of proposed protected area boundaries.

Activity 2.2 Assessment and Development of a Transboundary Peace Park

The development of a Transboundary Peace Park that would encompass the Pamirs, as well as sections of the Hindu Kush, Karakoram, Himalayas, Tien Shans, and Kunlun ranges, will create one of the most spectacular mountain region protected areas on earth. The borders of four countries – Afghanistan, Pakistan, China and Tajikistan – meet at this knot of mountains. In 2006, WCS brought together representatives from Tajikistan, Pakistan, China and Afghanistan assembled for a three-day workshop in Urumqi, China to discuss the creation of a Pamir Transboundary Conservation Initiative. This workshop was sponsored by WCS and USAID. All four countries are concerned with protecting the integrity of the environment and promoting sustainable livelihoods among its people. Furthermore, WCS has been working closely with the US Department of State to engage the governments of China, Afghanistan, Pakistan, and Tajikistan to support the creation of the Peace Park.

WCS is planning the second workshop on Pamir transboundary conservation scheduled for the fall of 2007 in Dushanbe, Tajikistan. The second workshop is expected to review the recommendations from the Urumqi workshop, finalize an action plan for the Pamir region, and identify implementing agencies, organizations, and donors for each initiative. The third workshop is expected to be held in the fall of 2008 in Islamabad, Pakistan. This workshop will act as the official launch for transboundary cooperation, and any final agreements between countries are expected to be signed then.

Activity 2.3 Central Hazarajat Plateau Conservation Initiatives.

Band-e-Amir is a high profile proposed protected area and several agencies are working on developing the area as a national park. The Asian Development Bank (ADB) has been particularly active over the past two years and has completed a variety of park planning reports, public consultations, and on-the-ground projects. WCS activities have focused on conducting baseline science to update research that was now 30 years old, meeting with local communities to better understand their position on the development of the protected area, and building consensus among the Afghan government and international

community.

Band-e-Amir Coordination Committee

WCS created an ad hoc Band-e-Amir Coordination Committee, through its Biodiversity Conservation Working Group, to share information and to coordinate policy, planning and development activities related to Band-e-Amir, and to ensure that existing laws were upheld in the creation of the protected areas. The Coordinating Committee for Band-e-Amir has been extremely successful in building consensus and spurring accomplishment. One of the major issues addressed by the Committee was to decide on the best approach to obtain early protected status for Band-e-Amir. It is universally recognized that pressures on Band-e-Amir are mounting and authority to provide interim protection is required as soon as possible. Finally, through the Coordinating Committee, WCS developed an inter-agency plan for developing Band-e-Amir as a legal and functioning protected area and is also working to obtain World Heritage Protection Statuses for the site as well.

World Heritage Natural Area Status for Band-e-Amir

In FY06, WCS convened a meeting with the United Nations Educational, Cultural, and Scientific Organization (UNESCO), USAID, The US Embassy, the Ministry of Agriculture, Ministry of Culture and Tourism, and the National Environmental Protection Agency on developing an initial proposal for consideration of Band-e-Amir as Afghanistan's first Natural Heritage listing. Band-e-Amir qualifies under multiple categories for a Natural Heritage listing by providing outstanding universal value under all four listing criteria: (a) Geology; (b) High Scenic Beauty; (c) Cultural Significance; and (d) Biodiversity Value. The travertine dams that contain the five lakes making up Band-e-Amir are rare geological features. Where they have been created in other parts of the world, they have been protected and bestowed World Heritage status. Moreover, Band-e-Amir is a place of tremendous scenic beauty. 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, which holds tremendous cultural significance to all Muslims. Finally, Band-e-Amir may contain species that are universally endangered, and may therefore need protection provided by World Heritage Status.

The benefits of World Heritage status for Band-e-Amir would raise awareness of conservation issues in the park, increase protection, enhance funding, improve management, and harness ecotourism (pursuant to Indicator 3.2). A World Heritage listing for Band-e-Amir would complement the nomination of Bamiyan as a Cultural Heritage site with respect to tourism development, as they are only 75 km apart.

It is clear for Band-e-Amir, WCS, working with its partners, including the Afghan government, that there must be the regulatory environment in place for Band-e-Amir to be nominated successful for inscription on the World Heritage List, including adherence to the international environmental regime. The nomination process also requires information on boundaries, a management plan, and funding commitment. WCS will be working, on behalf of the Afghan government, to prepare a nomination in February of 2008, with final approval in 2009, and put into place these requirements for the

application.

Meetings with Government Officials

WCS Hazarajat Program held multiple meetings with government officials at the national, provincial, and district levels to make them aware of WCS initiatives at Band-e-Amir and Ajar Valley. WCS also worked closely with a Ministry of Agriculture counterpart, who worked in tandem with the WCS Hazarajat Program Manager, Dr. Chris Shank. On the provincial level, WCS also meet with the Governor of Bamiyan Province, the Deputy Governor, and the Provincial Head for the Ministry of Agriculture for Bamiyan Province. WCS also met with Wolesewa, Afghan tribal elders, and district agricultural officials. To ensure that local communities were aware and supportive of WCS initiatives at Ajar and Band-e-Amir, WCS met with shuras in 4 Ajar villages, Dehganqala, Yelga, Dehe Myana, and Dehe Tajik. All shuras expressed support for the project. Through these interactions, WCS also gained a much better understanding of the community structure at Ajar Valley, and the issues that may confront the development of a future protected area.

Activity 2.4 Eastern Forests Program

In 2006, WCS started wildlife surveys in Nuristan. These surveys have indicated the continued presence of snow leopards (or potentially the snow leopard/leopard hybrid suggested to exist by scientists at the Field Museum of Natural History during the 1965 Street Expedition) including witnessing a snow leopard attack on livestock, as well as Persian leopards, Asiatic Black Bears, Red Fox, Jackals, Wolves, Markhor, and Crested Porcupine. These observations were made on direct sightings, tracks, signs (such as indicative porcupine scraps on trees), scats, and tracks, when they could be clearly determined. The Nuristan survey teams have collected scat samples, and WCS will send them to the American Museum of Natural History genetics lab for analysis for species identification, population size, and inbreeding.

Through our GIS team (Activity 1.6), WCS has collected, and is continuing to obtain existing remote sensing data to estimate current rates of forest loss, classify remaining forest cover, and determine sample areas for wildlife surveys in the Eastern Forests. The remote sensing data will consist of high resolution data focused on Nuristan and Kunar, and medium resolution data for analysis of the entire Eastern Forest Complex.

Progress and Performance Assessment

WCS has successfully completed all of its objectives for this activity in accordance with the indicators.

Activity 2.6 Review of Wildlife and Protected Areas Legislation and Policies

Activity 2.6.1 Legislative and Regulatory Review

In 2006, WCS continued its in-depth review of all compiled legislation. The current state of law in Afghanistan is almost impossibly confused, including laws and regulations

spanning three or four separate governmental regimes. Some of these legal acts are still recognized; others have been officially repealed; while the status of many others remains questionable. WCS has completed a compilation of existing national level biodiversity legislation for Afghanistan and will continue to identify national and local legislation as our review and drafting work continues. It has started filling in the perceived gaps in the legislation by drafting new laws and regulations, in conjunction with its partners at UNEP.

Environmental Law Compendium and Practice Guide

WCS has compiled and anticipates publishing, in cooperation with UNEP, the Ministry of Agriculture, and the National Environmental Protection Agency, a compendium of environmental law and practice for Afghanistan. The contents will include descriptions of institutional frameworks for environmental management, legislative promulgation procedures, as well as an analysis and description of identified legislation. Due to the draft status of some of the laws reviewed, our review will necessarily remain preliminary. Still, we will publish a finished product for distribution to interested parties in both Dari and English.

Laws included in the compendium include the newly enacted Environment Law and Mining Law; current drafts of the Forestry Law, Protected Area Regulations; an old version of a Rangeland Law, and current draft of a Rangeland Law. There appear to be few laws or regulations specifically addressing wildlife, wildlife trade, or hunting – although we have been presented with royal edicts from the ‘60s and ‘70s granting certain individuals the right to engage in wildlife trade.

All laws (including any related material) have been incorporated into a hard copy and soft copy library at the WCS offices, with translation from Dari to English underway. Translations will be completed during the first quarter of FY07. Upon completion of all translations, all identified biodiversity related legislation will be formatted for publication in hard copy, CD and downloadable pdf format.

Progress and Performance Assessment

WCS has successfully completed all of its objectives for this activity in accordance with the indicators.

Activity 2.7 Environmental Services Valuation

WCS has met the goals for 2006 through the formation of an advisory group, selection of a biologically important region to model, collected available data, and started developing survey methodologies. These actions will 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.

Progress and Performance Assessment

WCS has successfully completed all of its objectives for this activity in accordance with the indicators.

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

Activity 3.1 Socioeconomic Surveys of Wakhan

During 2006, the WCS Community Conservation Program (CCP) concentrated its efforts on identifying all Wakhan villages that utilize grazing resources in the Big Pamir and Little Pamir, and surveyed all Wakhi pasture settlements in the Big Pamir to determine number and type of livestock, the number of households using each pasture area and their village affiliation, and the seasonal migratory pattern of each group of herders.

During 2006, the WCS CCP surveyed 320 households in 21 villages that use Pamir grazing resources. This translated into 54% of all households across 21 villages and which represents more than 3600 individuals. This activity provided data on demographics (age, gender, birth/death, marriage), occupation, education, land ownership, livestock ownership (type, number, age), dairy and wool production, and livestock sales, purchases, consumption and mortality, including causes of loss, that will be provided in the supplementary Annual Report.

Activity 3.2 Conservation Awareness and Environmental Education

In 2006, the CCP completed a series of Conservation Education Workshops in Wakhan. The workshops were held with the close cooperation of the Community Development Councils (CDC) and community notables. A total of 21 workshops were held in each of 21 villages with overwhelming participation of both men and women. A total of 1436 community members (945 male and 491 female) attended despite extremely cold weather, very high snowfall, and long travel distances. This was the first program to engage men and women on a large scale in the Wakhi community, according to discussions with local Wakhi. As women play an important role in the Wakhi society, their engagement, and trust of the WCS CCP team is crucial to the effective management of natural resources and protection of biodiversity in the Wakhan district.

Activity 3.3 Community Organization and Governance

The WCS Community Conservation Program initially met with 22 village councils (shuras) representing Wakhi villages using Pamir grazing resources during Quarter 3, 2006. In Quarter 4, WCS CPP building on the foundations laid in Quarter 3, met again with the councils. All councils agreed unanimously to take responsibility for biodiversity conservation, and to work with WCS to establish conservation committees and develop a governance structure. Discussion of community-specific conservation activities and responsibilities are the next step. The WCS field office in Kret (discussed above) will be utilized to work with these Wakhan communities throughout 2007 on governance.

Progress and Performance Assessment

WCS achieved substantial completion nearly of its objectives for this activity in accordance with the indicators. WCS successfully surveyed 88% of the villages in the

upper and lower Wakhan that utilize the Pamirs, and 80% of the number of households. This allowed it to complete a robust socioeconomic survey of the region. WCS also was able to conduct environmental workshops in nearly 90% of the villages targeted in the indicator benchmarks for FY06, and was able to successfully, and for the first time, engage both men and women. Although the total percentage of the population was less than 50%, this was due to the severity of winter conditions at the time, and the closing of trails and passes necessary to access the remaining 3 villages. Finally, WCS exceeded its targets in the FY06 Workplan indicators (50%) by getting 92% of Wakhi villages utilizing the Pamirs in the Wakhan Corridor agree to setting up Community Conservation Committees.

Activity 3.4 Ecotourism Enterprise Development

In FY06, the WCS Community Conservation Program identified 14 individuals from 10 villages who had received basic tourism-related training from other NGO stakeholders. WCS worked with 7 of these individuals providing on-the-job training. These individuals will be the focus of our activities over the next two years, as well as others identified from local shuras and the national solidarity program.

In 2006, the WCS CPP continued to work with these individuals to broaden their understanding of the importance of conservation to the community. WCS CCP met with village councils, and 13 village councils nominated 28 individuals as candidates for training as nature guides who can also work as wildlife census takers (see Activity 1.1) and as support personnel for future protected areas (see Activity 2.5). Some of the candidates also received training in basic livestock health (see Activity 1.5), which will continue through 2007.

Finally, WCS organized a meeting with the Aga Khan Foundation, PACTEC, and Shah Ismael, the head of the Wakhi people, to resolve the current barriers to the creation of an airstrip in Qala-Panj, in the heart of the Wakhan, and the initiation of a tourism zone and future protected area for the region. Creation of an airstrip in the area would greatly facilitate tourism, and support the creation of ecotourism enterprises in the region. WCS has been engaging the Afghan Tourism Organization, the Ministry of Culture and Tourism, and private tourism companies in Afghanistan to develop guidelines for ecotourism, local revenue sharing, and protection of local cultures.

Progress and Performance Assessment

WCS has successfully completed its objectives for this activity in accordance with the indicators.

OBJECTIVE 4: CAPACITY-BUILDING INITIATIVES.

In FY06, WCS addressed the dearth of scientific training, particularly in the field, for conservation science through an ambitious set of training courses, study tours,

Activity 4.1 Afghanistan Training Courses

A total of 208 people were trained in these courses in 2006. Of the 208, 12 were given four weeks of intense, thorough training in wildlife survey methodology and theory, which included data collection, use of field equipment, and survey protocol. The group of 12 includes members of the Provincial Department of Forestry, Nuristan community, and recent veterinary graduates from the University of Nangarhar. The purpose of the training was to prepare the group to conduct surveys independently in the Eastern Forest region. Given the language barriers, depth of new information and necessity to conduct the training in Kabul instead of Nuristan for security reasons, this was a significant challenge. Initial assessments suggest the teams are conducting the surveys without incident and, despite security threats and winter weather, continue to gather the first data from the region in over 30 years.

In addition, 40 members of the Kabul Zoo, Kabul Central Veterinary Lab and university professors and students attended WCS Ecosystem Health Manager, Dr. Stephane Ostrowski's, four-day training covering topics in wildlife immobilization, handling and sampling.

Several brief seminars introduced a variety of conservation issues in Afghanistan to the government, NGO and expatriate community in 2006. WCS Community Conservation Manager, John Mock, implemented a seminar titled, "Community Conservation in the Wakhan." There were approximately 70 attendees between two venues in Kabul. In addition, Hazarajat Plateau Program Manager, Chris Shank taught an introductory birding course to 45 participants from the Ministry of Agriculture and FAO. Government staff from Khole Hashmat Khan was also included. This seminar will be followed up by more detailed trainings in spring of 2007. Finally, Training and Capacity Building Manager, Kara Stevens taught a seminar on proposal writing to the Capacity Building staff of the Department of Forest and Rangelands at the request of the Deputy Director General of the Department of Natural Resources. The participants will use this skill to acquire funding for their planned training programs in protected area management, conflict resolution, rangeland health, and social forestry.

Activity 4.2 Conservation Study Travel Program

In 2006, eight participants took part in two different study tours.

Afghan conservation professional, Mr. Abdul Wali Modaqiq, presented a poster session on the status of Himalayan Black and Brown Bear in Nuristan Province at the 17th Annual Conference on Bear Research and Management in Nagano, Japan. Mr. Modaqiq also took part in a range-wide mapping exercise that included data collected from Nuristan Province on black bear sightings. This is the first year (of 17) that a

representative from Afghanistan took part in the conference and included data points for inclusion in the range mapping exercise; attending this conference helped teach analysis skills for mapping the distributions of endangered species and assessing their status.

Seven members of the Ministry of Agriculture and WCS field teams attended a two-week course at Aligarh Muslim University in Aligarh, India. The course included many aspects of wildlife biology, as well as GIS and statistical program applications, field equipment use, and lab work. The participants were exposed to the national park system of India, a top wildlife Master's program and its faculty, and up to date research methodologies for studying wildlife. The participants returned full of confidence and motivation about the possible developments they could undertake in Afghanistan, such as having a scat analysis lab at the Ministry of Agriculture, catching and banding birds, such as falcons, for tracking and monitoring and GIS applications.

Activity 4.3 Field Training and Scientific Mentoring

In 2006, 22 individuals received field training and/or one-on-one mentoring from a WCS program manager with technical expertise in GIS, rangelands, veterinary science, community conservation, wildlife surveying or wildlife trade. Of the group of 22, nine were from the Government of Afghanistan, such as the Ministry of Agriculture, National Environmental Protection Agency, and Kabul Municipality. Eleven were recent graduates of Kabul University's Faculty of Agriculture and 2 were full-time WCS staff. WCS continues to work with all of the field team members on small projects and capacity building exercises.

Progress and Performance Assessment

WCS has substantially completed nearly all of its objectives for this activity in accordance with the indicators, providing intense practical field training for a core group of 22 individuals, and a wide variety of scientific training for 235 individuals (Benchmark 250 individuals, 94% achievement).

Activity 4.4 Public Diplomacy and Outreach

Public diplomacy activities, such as working with the Afghan media (television, radio), outreach to schools and children, and through local institutions that should have a conservation focus (such as the Kabul Zoo), increase awareness of conservation problems and increase support and goodwill for biodiversity conservation activities. Such outreach also benefits US Government interests by increasing public support for US activities in Afghanistan. American science and technology has tremendous appeal throughout the Islamic world, despite unfavorable ratings in other categories. Awareness surveys in the Wakhan at least, indicate that Afghans are not well informed about the threats to the environment and wildlife in Afghanistan.

WCS, in close partnership with Afghan Conservation Corps and UNEP, finalized wildlife education posters that will soon be presented to the Ministry of Education for use in their supplementary education package that will be distributed to schools all over Afghanistan.

Kara Stevens, Training and Capacity Building Manager, and Alex Dehgan, Country Director spoke at several seminars and workshops in 2006 on topics related to biodiversity, wildlife and conservation. For example, UNEP sponsored an environmental journalism training at which WCS spoke on the importance of biodiversity and conservation in Afghanistan. This access will make WCS the go-to source for media articles related to these subjects.

Video media is a powerful tool to demonstrate the complexity and beauty of wildlife and ecosystems. In collaboration with International Wildlife Film Festival, WCS is bringing twenty award winning nature films to Afghanistan for use in educational programs at the Kabul Zoo, at the Universities and during WCS trainings. Furthermore, WCS is working on copyright issues with IWFF to be able to dub these films into Dari for broadcast on Tolo TV.

Finally, since expatriates and military personnel are the major consumers of wildlife furs and products in Kabul, WCS has stepped up a campaign to educate them about the threats to wildlife in Afghanistan. At the business card display found at the most frequented restaurants, WCS has placed a compelling card that features a snow leopard cub with the caption, "My friends don't buy snow leopard pelts." A similar poster is in the process of being printed that will be distributed to PRTs, military bases and in other key locations throughout the country.

Progress and Performance Assessment

WCS has successfully completed all of its objectives for this activity in accordance with the indicators.

OPERATIONS, SECURITY, AND LOGISTICS

WCS set up the infrastructure in 2006 necessary to carry out the program, including setting up furnished and equipped office and guesthouse facilities in Kabul, field bases in Wakhan (in the villages of Qila-e Panj and Kret), and initiated the establishment of a regional office in Ishkashim in lower Wakhan. WCS has recruited international and local staff. WCS has set up auditable financial accounting and inventory systems and completed its registration as an NGO within Afghanistan. Finally, WCS has developed logistics and security support systems for sites and field, including acquiring specially-modified and designed vehicles for working year-round at the off-road, high-altitude field sites within Wakhan.

Facilities, Staff, and Logistics

Specifically, WCS set up an office, furnished it with office equipment, satellite-based internet connections, and furniture, purchased vehicles, hired and trained staff, set up auditable financial mechanisms, and started placing teams into the field in extremely remote and challenging environments. Over the last year, WCS has put in systems to facilitate the challenging logistics of moving teams into the field in some of the most remote places on earth, monitoring their security, and resupplying them as needed. We have opened a regional office in the Wakhan, and small field bases in the heart of the Wakhan at Kret and Qala-Panj for resupplying teams. Finally, we have developed management policies that are transparent, treat national and international staff equally, and maintain our financial integrity. We have also fully registered in Afghanistan and are in full compliance with all laws and regulations.

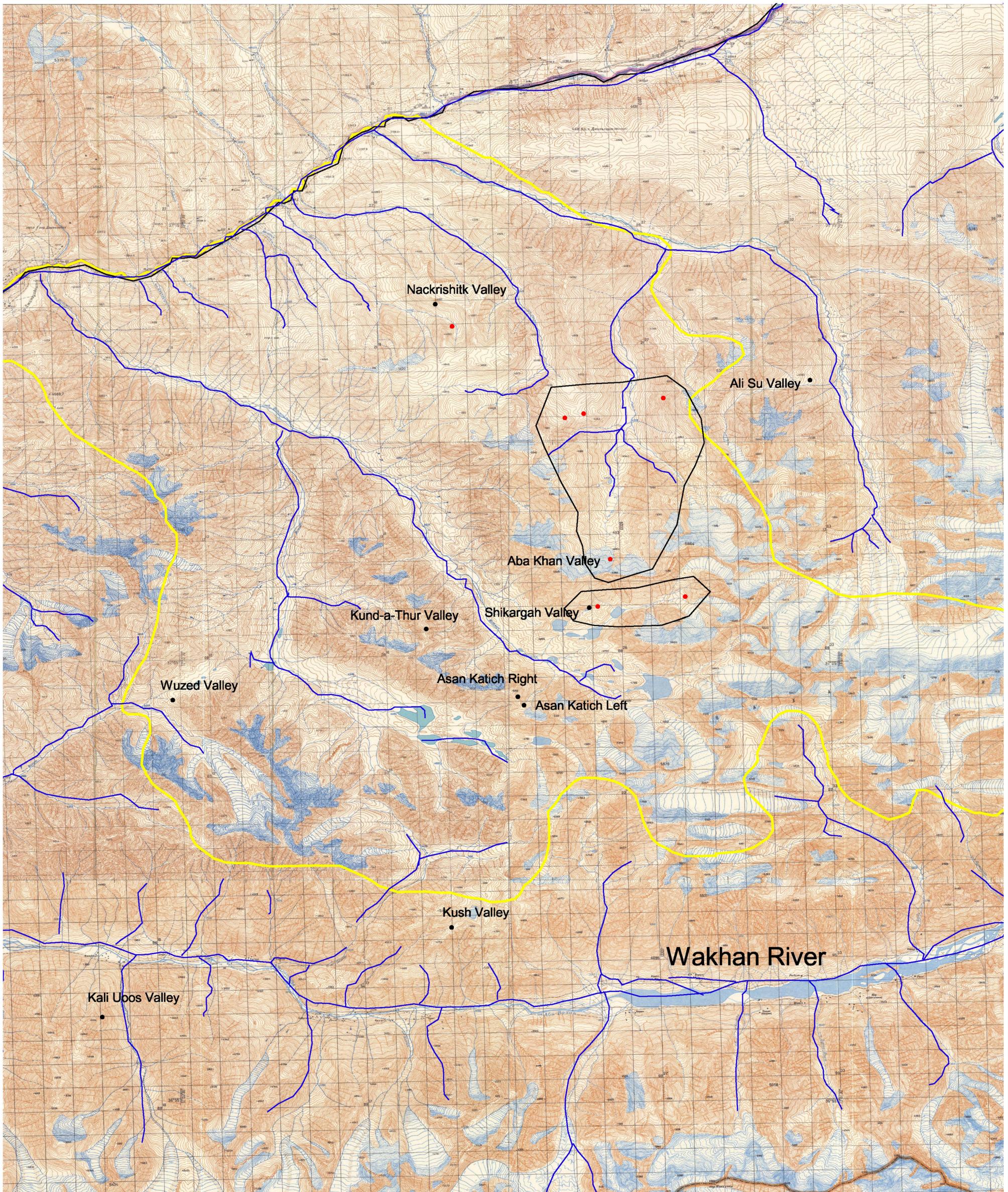
Security

Afghanistan is a volatile and unpredictable environment, and security risks are difficult to determine. Threats may arise against both our facilities and field teams. The remoteness of the country and the omnipresence of mines and unexploded ordinance has also posed substantial dangers. Accordingly, WCS Afghanistan has invested considerable resources into security and operations. To mitigate these risks, WCS has joined the Afghanistan NGO Security Organization, which provides intelligence for NGOs on security in the country. WCS has also hired a cadre of experienced security guards with multiple years of experience in the military, and intelligence, and a security company to provide training. We have devoted considerable resources to training our guard staff in surveillance, IED detection and avoidance, bomb threats, personal and vehicle searches, basic and advanced lifesaving. WCS has invested resources into hardening its facilities, creating and supplying first aid kits for deployed personnel, teams, vehicles, and facilities, developing UN MOSS compliant structures, and developing evacuation plans and an extensive operations manual.

Progress and Performance Assessment

Although operations and security are not monitored through individual indicators, they are key requirements to be able to carry out all other project activities, and ensure both international and national participants can do so safely.

Valleys Surveyed During WCS First Phase Surveys, Summer 2006 Wakhan Corridor Marcopolo Sheep Sightings



5 0 5 10 Kilometers

Legend

- International Boundaries
- Riverline
- Protected Area
- Valleys Surveyed
- Marcopolo Sheep Sightings

Sighting Location	X Coord	Y Coord	MPS Sighting
Nakjershetk Valley	72.977888	37.210666	10 Females + 6 fawns
Abakhan Valley	73.038000	37.121972	9 Males
Abakhan Valley	73.027916	37.177416	5 Females + 1 fawn
Abakhan Valley	73.020777	37.175805	8 Females
Abakhan Valley	73.058194	37.183333	7 Females
Shikargah Valley	73.033250	37.103916	9 Females
Shikargah Valley	73.066527	37.107722	30 Males

Note:
Russian 1:50K Topo Maps:
Gauss Kruger Projection
Datum: Hirat North
Protected Area and Valleys Surveyed:
Field survey data during WCS first phase
survey, summer 2006.
Geographic Coordinate System.
Datum: WGS 84 Horizontal Datum