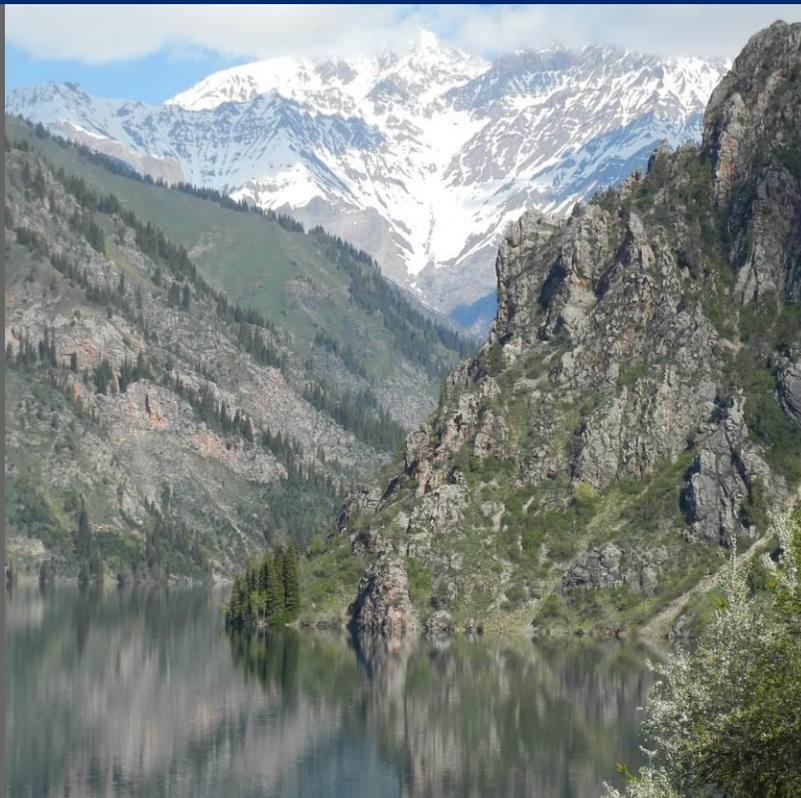




KYRGYZ REPUBLIC ANALYSIS FOR BIODIVERSITY

PROSPERITY, LIVELIHOODS AND CONSERVING ECOSYSTEMS (PLACE) IQC
TASK ORDER # AID-176-TO-13-00001-00



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LIST OF ABBREVIATIONS AND ACRONYMS

Although an effort was made to reduce the number of acronyms used in this text, in some cases, they were necessary. Whenever the acronym or abbreviation appears the first time, it is defined in the text. The following list is provided for ease of reference by the readers of this document.

ADB	Asian Development Bank
BGAS	Gareev Botanical Garden of the National Academy of Sciences
BSAP	Biodiversity Strategy and Action Plan
BMZ	[German] Federal Ministry for Economic Cooperation and Development
CAMP	Central Asian Mountain Partnership
CAR	Central Asian Republics
CAREC	Regional Environmental Center for Central Asia
CBD	Convention on Biological Diversity
CC	Climate Change
CDCS	Country Development Cooperation Strategy
CR	Critically Endangered
DD	Data Deficient
DO	Development Objective
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EN	Endangered
EU	European Union
FAA	Foreign Assistance Act
FAO	Food and Agriculture Organization of the United Nations
FFI	Flora and Fauna International
FLEG	Forest Law Enforcement and Governance
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GKR	Government of the Kyrgyz Republic
Gosregistr	State Agency on Registration of Rights and Immovable Properties
IBA	Important Bird Area
IBMF	Institute of Biology and Mountain Forests
IMF	International Monetary Fund
IUCN	International Union for Conservation of Nature

KR	Kyrgyz Republic
KCBTA	Kyrgyz Community Based Tourism Association
KRIF	Kyrgyz Research Institute of Farming
MAWR	Ministry of Agriculture and Water Resources
NABU	Nature and Biodiversity Conservation Union
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-governmental Organization
NRM	Natural Resource Management
NT	Near Threatened
OECD	Organization for Economic Cooperation and Development
OTI	Office of Transition Initiatives
PA	Protected Area
REDD	Reducing Emissions from Deforestation and Degradation
SAEPF	State Agency for Environment Protection and Forestry
SDC	Swiss Agency for Development and Cooperation
SEA	Strategic Environmental Assessment
SGP	Small Grants Program
SLT	Snow Leopard Trust
SOW	Statement of Work
TICA	Turkish International Cooperation Agency
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Education Scientific and Cultural Organization
USAID	United States Agency for International Development
VU	Vulnerable
WB	World Bank
WWF	World Wildlife Fund

EXECUTIVE SUMMARY

At the time this biodiversity analysis was prepared, USAID/Kyrgyz Republic was formulating its initial Country Development Cooperation Strategy (CDCS) as a mission independent of USAID/Central Asian Republics (CAR). This report is designed to inform USAID about the status and threats to biodiversity in the Kyrgyz Republic (KR) and the government, donor, and other programs that are presently addressing such threats. This analysis also provides suggestions for further conservation actions that are needed in the country.

An important part of this analysis identifies the extent to which USAID/KR programs and activities currently address conservation needs and provide suggested actions that the Mission might consider as new activities are developed. The ECODIT Analysis Team conducted this biodiversity analysis in fulfillment of Foreign Assistance Act (FAA) Section 119, which requires such an analysis whenever a new country strategy is prepared. Specifically, FAA Sec 119 (d) requires each biodiversity analysis to address:

1. The actions necessary in that country to conserve biological diversity, and
2. The extent to which the actions proposed for support by the Agency meet the needs thus identified.

To develop this report, a three-person Analysis Team reviewed published and unpublished written materials (reports, studies, government decisions, articles, etc.) and internet resources. The team built on these resources by conducting interviews with stakeholders and visiting a number of protected areas (PA), community-based conservation programs, ecotourism areas, and other relevant biodiversity-related initiatives near Bishkek, in the Issyk-Kul District, and in the southern area of the country from Bishkek to Jalalabad.

KR is a former Soviet nation that has undergone a number of government changes since independence. Today, the country operates with a limited budget as it strives to become a market economy. Currently, the Government of KR (GKR) puts few resources into biodiversity conservation, which is largely financed with donor support. About two-thirds of the country's population live in rural areas, and most rely heavily on livestock as their primary source of income. The terrain of KR is mountainous and is made up primarily of rocky high peaks and steppe pastures used extensively for livestock grazing. KR is rich in water resources, but contains little arable land and natural forests. Due to its geography, diverse ecosystems, and climatic conditions, KR is host to great biodiversity and is part of the Mountains of Central Asia Hotspot (CI, 2013), an important area for global biodiversity.

The Analysis Team identified nine direct threats to KR's biodiversity:

No.	Direct Threat
1.	Overgrazing and unsustainable use of pastures
2.	Overexploitation and degradation of forests
3.	Pollution and contamination
4.	Overexploitation of individual species
5.	Invasive species
6.	Erosion of local agricultural biodiversity
7.	Energy infrastructure
8.	Mining
9.	Climate Change

Institutional, social, and political factors drive direct threats to biodiversity. These are referred to as “root causes” or “indirect threats” and addressing root causes serves to address the direct threats. Donor resources like USAID are most often applied to addressing root causes of biodiversity threats. Root causes and the actions necessary to address them are summarized in the following table.

Root Causes of Biodiversity Threats	Actions Necessary
1. Ineffective environmental governance systems	1.1. Support the recommendations and priority actions for improved legal and institutional systems that will be outlined and strategically prioritized in the new National Biodiversity Strategy and Action Plan (NBSAP) for KR. Studies, assessments, and the drafting process are currently coordinated by State Agency for Environment Protection and Forestry (SAEPF) and supported by the Global Environment Facility (GEF)/United Nations Environment Programme (UNEP) and are expected to be completed by the end of 2013.
	1.2. Strengthen the status and capacity of SAEPF and its Biodiversity and Protected Areas Department through high-level policy dialogue, institutional strengthening programs, and support.
	1.3. Follow up on successful donor-supported pilot projects addressing decentralization processes in natural resources management (NRM) and the delegation of rights to local communities in pasture, water, and forest resources management (e.g., Pasture Committees).
	1.4. Encourage diversification of governance types for protected areas, including co-management, community management, private sector involvement, etc.
2. Lack of human technical capacity in NRM agencies and institutions	2.1. Support creation of an Environmental Management Training Center for employees of government agencies, nongovernmental organizations (NGOs), academic and education institutions, and others who could benefit from and pass on the knowledge gained.
	2.2. Support and encourage exchange programs at regional and international levels, professional studies and trainings, and cooperation with similar institutions in foreign countries.
	2.3. Support the placement of international experts in key natural resources and conservation institutions.
	2.4. Enhance the role of NGOs and civil society in biodiversity conservation efforts.
3. Lack of basic conservation programs and facilities	3.1. Develop a national biodiversity monitoring system and support its implementation.
	3.2. Encourage development and implementation of recovery plans for endangered species.
	3.3. Support <i>in situ</i> and <i>ex situ</i> facilities engaged in the conservation of native crops, fruits, and nuts.
	3.4. Support animal rehabilitation facilities for endangered species and establish ties with international zoos for placement of nonreleasable animals.
	3.5. Support GKR efforts in Climate Change (CC) adaptation prioritized in National Climate Change adaptation strategies.

Root Causes of Biodiversity Threats	Actions Necessary
4. Inadequate donor coordination in the environment sector	4.1. Set up a mechanism (forum) where international donors and project-implementing agencies in the environment field gather regularly to share ongoing project results, data, lessons learned, and information on planned projects. Coordination at the planning stage is important to achieve synergies, reduce overlaps, and maximize effectiveness of individual projects.
5. Lack of knowledge and awareness of biodiversity and environmental sustainability	<p>5.1. Integrate biodiversity and environmental sustainability themes into national education standards and curricula by encouraging cooperation among Ministry of Education, Academy of Sciences, SAEPF, and environmental groups.</p> <p>5.2. Support informal learning activities involving nature, like festivals, nature clubs, and school nurseries/forests and provide incentives for teachers who provide these. Provide more learning resources, such as books and films, at all stages of education from kindergarten to high school.</p> <p>5.3. Support implementation of the Aarhus Convention through strengthening the Aarhus Center in KR to increase public access to environmental information.</p> <p>5.4. Enhance the role of NGOs and civil society in conducting environment education campaigns.</p> <p>5.5. Encourage more media attention to the issues of conservation and sustainable use that provide practical approaches that people can implement.</p>
6. Lack of appropriate environmental safeguards	<p>6.1. Conduct Strategic Environment Assessments (SEAs) for nationally declared priority economic development sectors—energy, mining, transport/communications, agro-industry, and the tourism/services industry.</p> <p>6.2. Conduct a diagnostic study to assess the country safeguards system of KR with respect to the environmental assessment of investment projects (to reveal gaps and weaknesses of environment impact assessment [EIA] regulations and implementations) and recommend actions to strengthen it.</p> <p>6.3. Ensure inclusion of environmental concerns in municipal and regional development plans.</p>
7. Rural poverty	<p>7.1. Support the development of local businesses and/or manufacturers that add value to natural products and produce more income, such as beekeeping, stone crafts, texturing, rational farming, and ecologic brands, etc.</p> <p>7.2. Support environmentally friendly socio-economic development programs in communities near protected areas to alleviate poverty and heighten appreciation for nature conservation.</p>
8. Lack of financial resources to engage in environmental protection	8.1. Perform in-depth economic valuation studies of ecosystems and biodiversity to inform decision makers on the necessity to allocate funds for nature conservation.

Root Causes of Biodiversity Threats	Actions Necessary
	<p>8.2. Conduct nationwide studies, assessments, and analyses of different financial sustainability approaches for biodiversity conservation. These could include: a) attracting and administering external funds from new sources like debt-for-nature swaps, private voluntary donations, private sector sponsorship of PAs, etc.; b) generating funds through benefit and revenue sharing, sharing costs of managing natural resources and PAs, investment, credit and enterprise funds; and c) market-based fees for ecosystem goods and services such as tourism taxes, resource extraction fees, and Payment for Ecosystem Services programs.</p> <p>8.3. Pilot selected sustainable financing mechanisms.</p>
<p>9. Inefficient enforcement of laws regulating the use of natural resources</p>	<p>9.1. Conduct institutional and legal reforms to clearly separate the responsibilities and actions of those responsible for environmental law enforcement from those who are involved in daily management of the natural resources.</p> <p>9.2. Strengthen the law enforcement institutions (police, environment inspectorate, PAs, and forestry units) through: a) training in anti-poaching measures, b) increasing inspector and ranger salaries to increase incentives, and c) adopting system-level reforms to eliminate corruption.</p>

The activities of USAID/KR were analyzed to determine “the extent to which” these activities address recommended actions, and suggestions for further USAID support to biodiversity conservation objectives are provided. USAID/KR currently has activities focused on economic development, agriculture, democratic governance, education, and health and these activities are expected to be incorporated into the new CDCS. With one major exception, at the present time the extent to which biodiversity concerns are addressed by Mission programs is marginal. One new project, “Conservation and Adaptation in Asia’s High Mountain Landscapes and Communities Project”, implemented by the World Wildlife Fund-US (WWF), is focused entirely on biodiversity conservation and addresses a number of recommended actions. Further ideas for ways that USAID/KR could contribute more directly to the actions necessary to address biodiversity threats within their current program areas are provided in this report.

The authors hope that this information will not only be useful to USAID, but will be of use to all stakeholders working in the Kyrgyz Republic to protect, preserve, and ensure the sustainable use of the plants and animals that are part of this country’s natural heritage.

ACKNOWLEDGEMENTS

We would like to thank the numerous individuals and organizations who provided their time and shared their knowledge of biodiversity, environment, and land use issues and programs in the Kyrgyz Republic with the Analysis Team. All of the individuals that we met with are listed in *Annex A*. We thank you, one and all.

1. INTRODUCTION

1.1 PURPOSE OF THE ANALYSIS

The ECODIT Analysis Team conducted this biodiversity analysis for USAID/Kyrgyz Republic (USAID/KR) in fulfillment of Foreign Assistance Act (FAA) 119, which requires such an analysis whenever USAID prepares a new country strategy. Specifically, FAA Sec 119 (d) requires each biodiversity analysis to address:

1. The actions necessary in that country to conserve biological diversity, and
2. The extent to which the actions proposed for support by the Agency meet the needs thus identified.

This biodiversity analysis has been prepared at a time when USAID/KR is developing its first Country Development Cooperation Strategy (CDCS) as an independent mission, separate from USAID/Central Asian Republics (CAR). USAID/KR will use this document as a planning tool to help integrate biodiversity conservation concerns into their new CDCS. Activities begun under USAID/CAR are expected to continue under this new CDCS, and others are being formulated. Although no draft CDCS was available at the time this analysis was conducted, activity descriptions and interviews with mission staff provided ample information.

In addition to USAID requirements, this document has a broader purpose. It is designed to summarize the status of biodiversity, the conservation threats, and the actions, players, and programs that are attempting to address threats to biodiversity and the environment in KR. This analysis builds on a regional biodiversity assessment prepared for USAID/CAR in 2010 (USAID, 2010). Updated recommendations for further biodiversity conservation activities in KR, and by USAID/KR in particular, are a key part of this endeavor. A full statement of work (SOW) for the analysis can be found in *Annex B*.

1.2 METHODS

A three-person team was responsible for conducting this biodiversity analysis during April and May of 2013. Dr. Pat Foster-Turley served as Team Leader, Ramaz Gokhelasvili as the Regional Natural Resource Management Specialist, and Azat Alamanov as the Kyrgyz Biodiversity Specialist. Biographies of the team members can be found in *Annex C*. Pat Foster-Turley initiated this project in Washington, D.C., where she was briefed by USAID personnel and interviewed other professionals involved in conservation efforts in KR. All three team members studied the published and internet literature available on biodiversity in KR, interviewed many stakeholders in country, and conducted field trips to see the issues first hand.

A full list of published and internet documents used in this analysis is provided in *Annex D*. Besides this material, an effort was made to collect current but unpublished information from government and donor agencies and technical specialists to provide updates.

During the course of this analysis, interviews and discussions were held with scores of people involved in some way in biodiversity conservation. These included government, NGO, community, and donor representatives, technical specialists engaged in biodiversity-related work. A full list of persons interviewed and consulted for this analysis is provided in *Annex A*.

Three site trips completed the field work for this analysis. A single day trip to Ala Archa National Park near the capital of Bishkek provided insight on protected area management and visitor

engagement in this popular mountain park. A second four-day field trip around Issyk-Kul Lake included interviews with Issyk-Kul Biosphere Reserve and Sary Chat Eertash Reserve officials, visits to high summer pastures and forests, spring pastures and Ramsar sites at the lake shore, and visits to the Nature and Biodiversity Conservation Union (NABU) Animal Rehabilitation Center and Karakol Zoo. Overnights in Cholpon Ata and in an eco-tourist yurt camp provided insight into interactions between tourists and the ecology of the region as well. The final field trip of five days encompassed some of the southern part of the country including Suusamy, Chichkan-Toktogul Water Reservoir, Sary Chelek Biosphere Reserve, and community-based tourism projects near it, as well as other sites important as examples of biodiversity threats and conservation measures in KR. The team also investigated high mountain pastures, rare walnut-fruit forests, desert monitor lizard habitats, and agroforestry areas along the way.

We hope that the findings of this biodiversity analysis will be of use to those in the Kyrgyz Republic who are engaged in important measures to conserve the natural resources and ecology of this diverse and engaging land.

2.SOCIAL, ECONOMIC, AND POLITICAL CONTEXT

The situation regarding biodiversity conservation in the Kyrgyz Republic (KR) cannot be understood without some background on the social, economic, and political situation in the country. This chapter attempts to summarize some key features that present the country context for the discussions that follow.

KR is a small, landlocked country (199,951 sq. km) located in the highlands of Central Asia. KR was part of the former Soviet Union, gaining its independence in 1991. Since then, efforts to develop a market economy have been underway, new political parties have been formed, and independent mass media has been strengthened, although frequent changes in government and internal disputes have disrupted progress from time to time. Developments following a political revolution in 2010 now shape the country, and a number of new reforms seek to address the economic and social instability (World Bank [WB], 2013). There has been a constant state of flux in the government institutions and initiatives since 2010, which continues to this day.

KR is largely a pastoral country with longstanding semi-nomadic traditions of moving sheep, goats, horses, and cattle to different seasonal grazing pastures. In a country with only 5.5 million people (WB, 2013), there are about 1.3 million head of cattle, 5.3 million sheep and goats, and 389,000 horses maintained in KR, according to livestock inventory data of 2012 (KR, 2012). This ratio shapes the landscape and culture of the country.

In 2012, about 56.6 percent of the land of KR was devoted to crops, plantations, livestock grazing, and other forms of agriculture (FAO, 2013), and agriculture accounted for about a third of the Gross Domestic Product (GDP) of KR (WB, 2013). Arable land represents about 23 percent of the territory, and 64 percent of this is irrigated (KR, 2008). The main crops of KR are potatoes, vegetables, grapes, fruits, and berries for internal consumption as well as tobacco and cotton, which are, for the most part, exported. Overall, KR is an import-dependent country in food and beverage products, and prices are increasing for the importation of foods like flour, sugar, vegetable oil, and cocoa.

Mining is an important sector in KR and constitutes about 26 percent of tax revenues, 10 percent of GDP, and half of all export earnings (WB, 2013). Gold extraction, particularly from the Kumor Mine, plays a significant role in the economy, and when gold production was reduced in early 2012 due to geological factors, the GDP of KR shrank accordingly. The energy sector, primarily hydropower production, is also important in KR and accounts for about 3.9 percent of the GDP and 16 percent of industrial production.

Many citizens of KR are supported by relatives working overseas. A recent World Bank study (WB, 2013) reports that remittances sent by migrants (especially those in Russia) account for 30 percent of the GDP of KR, and these remittances have increased 20 percent in the first quarter of 2013. This large-scale emigration has also produced skill shortages in a number of professions, including those related to natural resources and biodiversity conservation.

According to a recent United Nations Development Programme (UNDP) study (UNDP, 2013) the Human Development Index (which values health, education, poverty, and other factors) for KR in 2012 is 0.662, ranking it in the medium human development category on a global basis. KR has a high literacy rate, about 98.7 percent, but the quality of public education is said to be declining (OECD and WB, 2010). Government estimates indicate that 36.9 percent of the people of KR live in poverty (KR Social Development Ministry, 2013), many of them in rural

areas where about two-thirds of the population resides (UNDP, 2012). These are also the areas of the country most relevant to the biodiversity conservation issues detailed in this analysis.

3. STATUS OF BIODIVERSITY

3.1 INTRODUCTION

KR is a landlocked and mostly mountainous country that covers a vast array of ecosystems ranging from polar to subtropical. Slightly more than half of the land of KR is devoted to crops, plantations, livestock grazing, and other forms of agriculture (FAO, 2013). Only about 4 percent of the land is covered in forests, but these provide valuable ecosystem services and harbor much biodiversity. KR is especially well endowed with freshwater resources. The main rivers in KR include the Naryn, Chatkal, Talas, Sarydjas, and Chu, which are fed primarily from snowmelt from snowfields and glaciers. There are 923 lakes in KR, 87 percent of which are located above 3,000 m (KR/UNDP, 2008). The largest lake, Issyk-Kul, is slightly saline and covers 6,236 sq. km. and is the second largest alpine lake in the world (after Lake Titicaca in South America). These diverse habitats and climates support a wealth of biodiversity. With only 0.13 percent of the world's landmass (199,951 sq. km), KR has 1 percent of the world's known species (KR, 1998). The Kyrgyz Republic is part of the Mountains of Central Asia Hotspot (CI, 2013) giving it high priority in global biodiversity conservation measures.

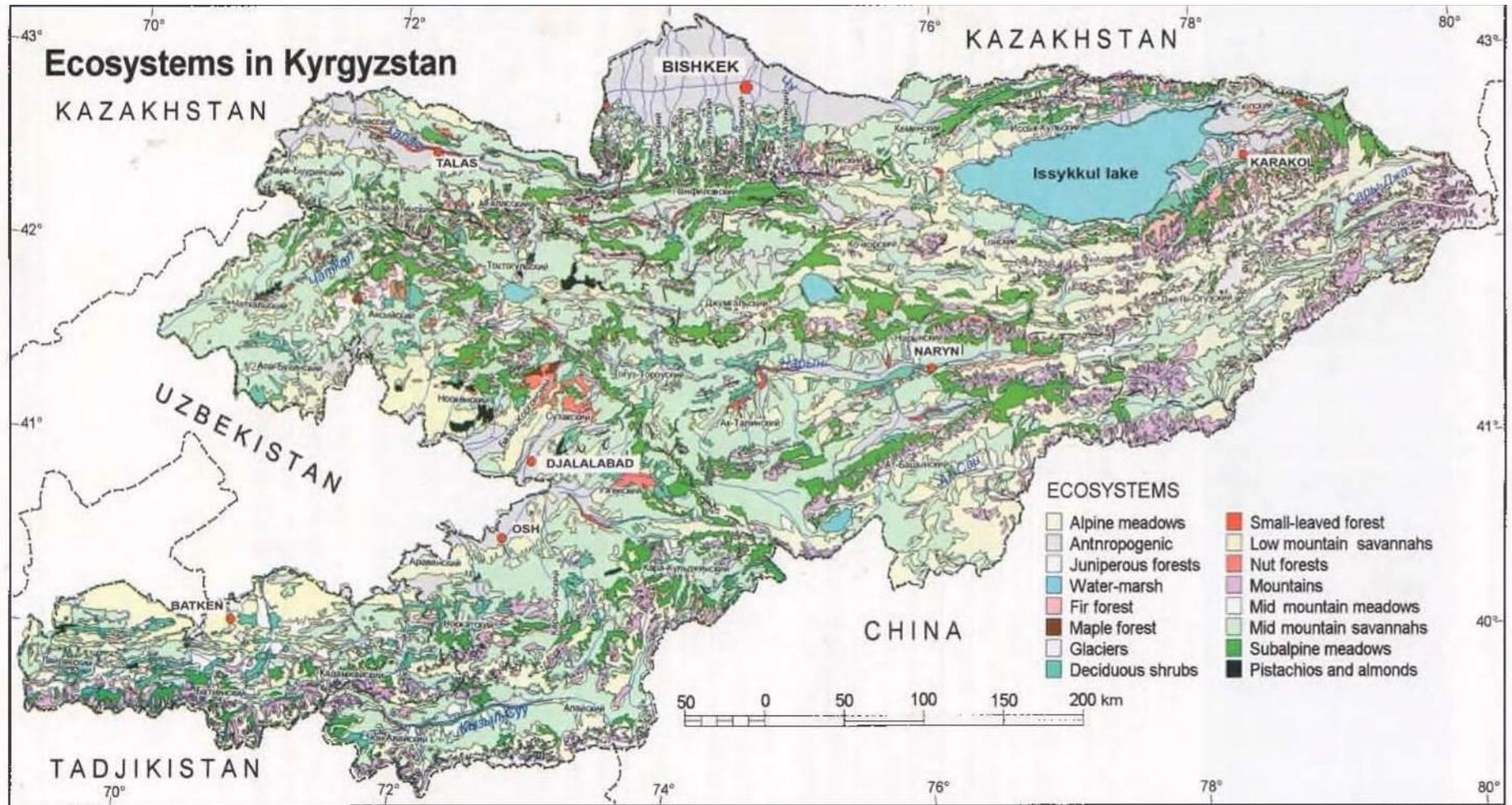
3.2 MAJOR ECOSYSTEMS

Despite the high diversity of ecosystems, much of the country is virtually lifeless due to the extreme climate and environmental conditions. 23 percent of the country is above 3,500 m and is covered by glaciers and rocks; open rock, gravel, or clay constitutes an additional 15 percent; and deserts cover more than 6.8 percent of the territory. A map of the ecosystems of KR prepared for UNDP (2007) is presented in *Exhibit 1* on the next page.

Broad categories of natural terrestrial ecosystems include deserts, semi-deserts, steppes and meadows, wetlands, and various forest types.

- **Deserts** are found mainly in Fergana and Naryn valleys and in foothills between 400 and 1600 m. Characteristic plants include *Salsola*, *Suaeda*, *Ephedra*, and *Sympegma*, and these provide habitat for key species including marbled polecats (*Vormela peregusna*), gray monitor lizards (*Varanus griseus*), and sand grouse (*Syrrhaptes paradoxus*).
- **Semi-Deserts** are found in valleys and foothills between 600 and 2,000 m and are characterized by wormwoods (*Artemisia*) as well as a number of endemic tulip species. Birds of prey and bustards are key species in these habitats.
- **Steppes and Pastures** are widely distributed in KR from altitudes of 700 m to high mountains. Characteristic animals include various birds of prey and marmots, as well as plants such as *Stipa* and *Festuca* and many forage species, but invasive species are moving into many degraded areas.
- **Forests** make up about 4-5 percent of the landscape, but include a number of distinctive forms such as walnut-fruit, juniper, and spruce forests, found at differing altitudes and containing their own contingent of plant and animal species.
- **Wetlands** include rivers, streams, lakes, reservoirs, and wetlands. Although there remain some populations of endemic fish, many introduced species dominate these areas.

Exhibit 1. Ecosystems in Kyrgyzstan



*Note: Borders shown on the map are not definitive.
Source: Emil Shukurov, 2005.*

Source: United Nations Development Programme (UNDP), 2007.

Although the major habitat types in KR are well described, there are no unified data on the areas covered by the different ecosystems. *Exhibit 2* provides data from three different sources (KR, 1998; KR, 2006; UNDP, 2008) for comparison.

Exhibit 2. Ecosystems in Kyrgyz Republic

Type of Ecosystem (Source of data)	Area Covered (ha)		
	(1)	(2)	(3)
Spruce forest	277,200		301,700
Spruce-fir forests		322,000	
Juniper forest	268,000	471,000	254,832
Broad-leafed forest	46,400		8,367
River forest (<i>tugai</i>)	22,600		
Maple forests		8,000	
Walnut forests		94,000	92,875
Small-leafed forest	71,100	69,000	104,064
Pistachios and almonds		50,000	45,847
Deciduous bushes		571,000	
Mid-mountain deciduous shrub-land	97,000		387,196
Mid-mountain pterophilic shrub-land	231,700		
Savannah	608,100		
Almond and pistachio forest	18,200		
Glacier and sub-glacier	1,152,700	744,000	1,968,278
Cryophilic meadow	2,724,200		1,726,349
Alpine meadows		3,363,000	
Sub-alpine meadows		1,773,000	1,320,799
Cryophilic steppe	2,141,300		2,247,457
Cryophilic desert	191,100		195,344
Mid-mountain meadow	876,400	373,000	889,819
Mid-mountain steppe	1,764,300		2,480,353
Mid-mountain desert	254,300		138,434
Mid-mountain savannahs		6,367,000	236,189
Mid-mountain "redini"			23,151
Mountainous dry-farming land (<i>bogara</i>)	279,100		
Foothill steppe	82,300		19,270
Foothill desert	876,800		557,161
Foothill savannahs		1,956,000	
Pterophilic lowland shrub	18,100		
Lakes and wetlands	39,300	34,000	707,614
Rock		1,304,000	915,067
Cultivated land (anthropogenic)	1,247,500	1,935,000	3,211,171

Sources: 1) KR, 1998; 2) UNDP 2008; 3) KR, 2006. USAID 2010. Biodiversity assessment for Central Asia.

3.3 AREAS OF GLOBAL IMPORTANCE

UNESCO Biosphere Reserves

There are two biosphere reserves officially registered in United Nations Education and Scientific and Cultural Organization's (UNESCO) program "Man and the Biosphere" and are described

below. Both contain a mix of natural and cultural features, have visitors' centers and management units, and contain a number of protected areas within them.

1. **Issyk-Kul Biosphere Reserve**

Issyk-Kul Biosphere Reserve was created in 2001 and contains the entire province of Issyk-Kul, including the towns, tourism, and agricultural areas for a total area of 4,311,588 ha. It is said to contain 335 species of animals, including 39 species in the "Red Book" of KR. The core area is a government-protected nature area, "Biosphere Reserve Issyk-Kul," established in 1998, which contains one national park, two nature reserves, and four wildlife sanctuaries.

2. **Sary-Chelek Biosphere Reserve**

The Sary-Chelek Biosphere Reserve was created in 1959 and occupies 23,868 ha of land area on the southern slopes of the Chatkal mountain range of West Tien-Shan. The reserve is home to about 1,200 plant species (about 74 percent of West Tien-Shan flora), including many rare, endemic, medicinal, fruit, and horticultural species (especially tulips). The reserve is said to contain mountain goats, wild boars, bear, and wolves, as well as 180 bird species, 7 amphibian species, and 5 fish species, along with many invertebrates (SAEPF, 2009).

Wetlands of International Importance

KR joined the Convention on Wetlands (Ramsar Convention) on March 12, 2003. The Kyrgyz Republic presently has three sites designated as Wetlands of International Importance with a surface area of 676,569 ha (Ramsar, 2013).

1. **Chatyr Kul** (designated on August 11, 2005, Ramsar site no. 1588) is a State Reserve of about 16,100 ha consisting primarily of a pristine high-altitude lake located near the Torugart Pass in the Tien Shan Mountains. This alpine lake has no fish, but includes a number of rare invertebrates like the amphipod *Gammarus krevetki*. This area is one of the few habitats for Pamir brown-headed gulls (*Larus brunnicephalus*) and 9 species of ducks, including about 40 percent of the world's population of ruddy shelducks (*Tadorna ferruginea*). This site contains a large population of Argali sheep (*Ovis ammon*), called Marco Polo sheep in KR, a species listed in the International Union for Conservation of Nature (IUCN) Red List for Threatened Species, but the site is also used as a summer pasture for horses, sheep, and goats.
2. **Issyk-Kul State Reserve with the Lake Issyk-Kul** (designated on December 11, 2002, Ramsar site no. 1231) occupies 623,600 ha. Lake Issyk-Kul is fed by over 80 streams and minor channels, but has no outflow. This high-altitude (1609 m), deep, and slightly saline lake never freezes and provides important winter habitat for at least 30 species of migratory birds, including Demoiselle cranes (*Anthropoides virgo*), a few species of swans and geese, and many ducks and waders. About 267 bird species use this lake during some parts of the year for breeding, as winter habitat or as a stopover during migrations (BirdLife, 2013). The surrounding area is used as spring pastureland for horses, goats, and sheep, as well as recreational fishing (but not commercial fishing due to the moratorium on fishing from 2008 until August 2013).
3. **Son-Kol Lake** (designated on January 23, 2011, Ramsar site no. 1943) occupies 36,869 ha and includes KR as an important stopover point for many migratory birds, including the black stork (*Ciconia nigra*), and also has breeding populations of a diversity of gulls, terns, geese, and grebes. This area is also used for grazing herds of sheep, goats, and horses and is a popular tourist camping site. Although once fishless, introduced non-native fish, including two species of whitefish (*Coregonus spp.*) among others, provide alternative food

and income sources for local residents, but have altered the natural zooplankton population of the lake and reduced bird visitations.

Important Bird Areas

Specialists from BirdLife International surveyed KR a number of years ago and designated a number of Important Bird Areas (IBAs) with global importance. Unfortunately, there have been no official surveys since, and there is no data on the current distribution and population of birds in the country. Eleven IBAs were designated in KR under the following categories: species of global conservation concern (A1), restricted range species (A2), biome-restricted species (A3), and congregations (A4)—see *Exhibit 3*.

Exhibit 3. Important Bird Areas of KR

Site ID	National Name	Area, ha	Criteria
27414	Western Issyk-Kul Lake	2,700	A1, A4
27415	Eastern Issyk-Kul Lake	n/a	A4
27416	Son-Kul Lake	n/a	A1, A4
27417	Lake Chatyr-Kul	18,100	A1, A3, A4
27418	Gorge Tash-Rabat	2,250	A1, A3
27419	Karkyra Valley	5,000	A4
27420	Tokmak Pheasant Reserve	3,000	A1, A4
27421	Water Reservation of Northern Chu Valley	2,000	A4
27422	Tulek Valley	5,000	A1, A4
27423	Eastern Alai	n/a	A1, A3
27424	Western Alai, Kok-Suu River	10,000	A1, A3

Source: BirdLife International, 2013.

3.4 NATIONAL PROTECTED AREAS

The protected areas (PAs) in the country are established in the Land Code of KR, and the main categories of protected nature areas are identified in the Law of Kyrgyz Republic. The PA system in KR includes a number of types described below along with the corresponding IUCN PA categories. *Exhibit 4* on the next page summarizes the sizes of the different national protected areas of KR, and a map of the protected areas in KR from the Government of Kyrgyz Republic (GKR), translated into English by WWF, is presented in *Exhibit 5* on page 12.

State Nature Reserve (in Russian, *Gosudarstvenny Zapovednik*), IUCN category I

Nature reserves have the highest level of protection, with land designated for the benefit of wildlife, and may be entirely closed to the public. Nature reserves are divided into two zones—the *core zone*, which contains the main habitat area for the species being conserved and is normally only open for ranger patrols and scientific research, and the *buffer zone*, which protects the core zone from nearby human activities. In KR, there are 10 nature reserves, with a total area of 537,925 thousand ha. The largest are **Sarychat Eertash** (149,118 thousand ha, established in 1995 but increased in size in 2013) and **Besh-Aral Reserves** (106,870 thousand ha, established in 1979).

State Natural National Park (*Gosudarstvenny Prirodny Natsionalny Park*), IUCN category II

National parks receive the second highest level of protection and combine wildlife and habitat protection along with outdoor recreational opportunities for visitors and sustainable uses of biological resources for local communities. KR has nine national parks; the oldest is **Ala Archa**

National Park, which was established in 1976 and includes 19,400 ha. Seven more national parks were established between 1996 and 2001, and one new park, **Sarkent National Park** (40,000 ha) was only recently established in 2009. The largest national park is **Chong-Kemin National Park** (123,654 ha), but most are considerably smaller. **Karakol National Park** (38,256 ha), **Saimaluu-Tash National Park** (32,007 ha), **Salkyn-Tor National Park** (10,470 ha), **Besh-Tash National Park** (13,650 ha), **Kyrgyz-Ata National Park** (11,172 ha), and **Kara-Shoro National Park** (14,340 ha) complete the national park system.

Natural Monuments (*Pamyatniki Prirody*), IUCN category III

Natural monuments are usually small in size and protect isolated natural features like waterfalls and scenic rock outcrops. At present, there are 18 designated natural monuments in Kyrgyzstan, which cover a total area of only 60 ha, hence natural monuments make only a minor contribution to protecting the natural heritage of the Kyrgyz Republic.

Wildlife Sanctuaries (*Gosudarstvenny Zakaznik*), IUCN Category IV

Wildlife sanctuaries are generally small and less protected than park and nature reserves, but they provide habitat for valuable game species (like ibex, elk, wild boar, pheasant, and partridge) and for rare and endangered plants. They are open to all economic activities permitted by law, such as grazing, gathering of non-endangered medicinal plants, and logging. These areas are not zoned, have no specific management plans, and only have limited patrols, often being the responsibility of just one or two rangers. There are 50 wildlife sanctuaries in KR—2 complex sanctuaries (10,142 thousand ha), 10 forest sanctuaries (22,687 thousand ha), 14 hunting sanctuaries (250,633 thousand ha), and 24 floristic sanctuaries (5,598 thousand ha).

Exhibit 4: National Protected Areas of KR

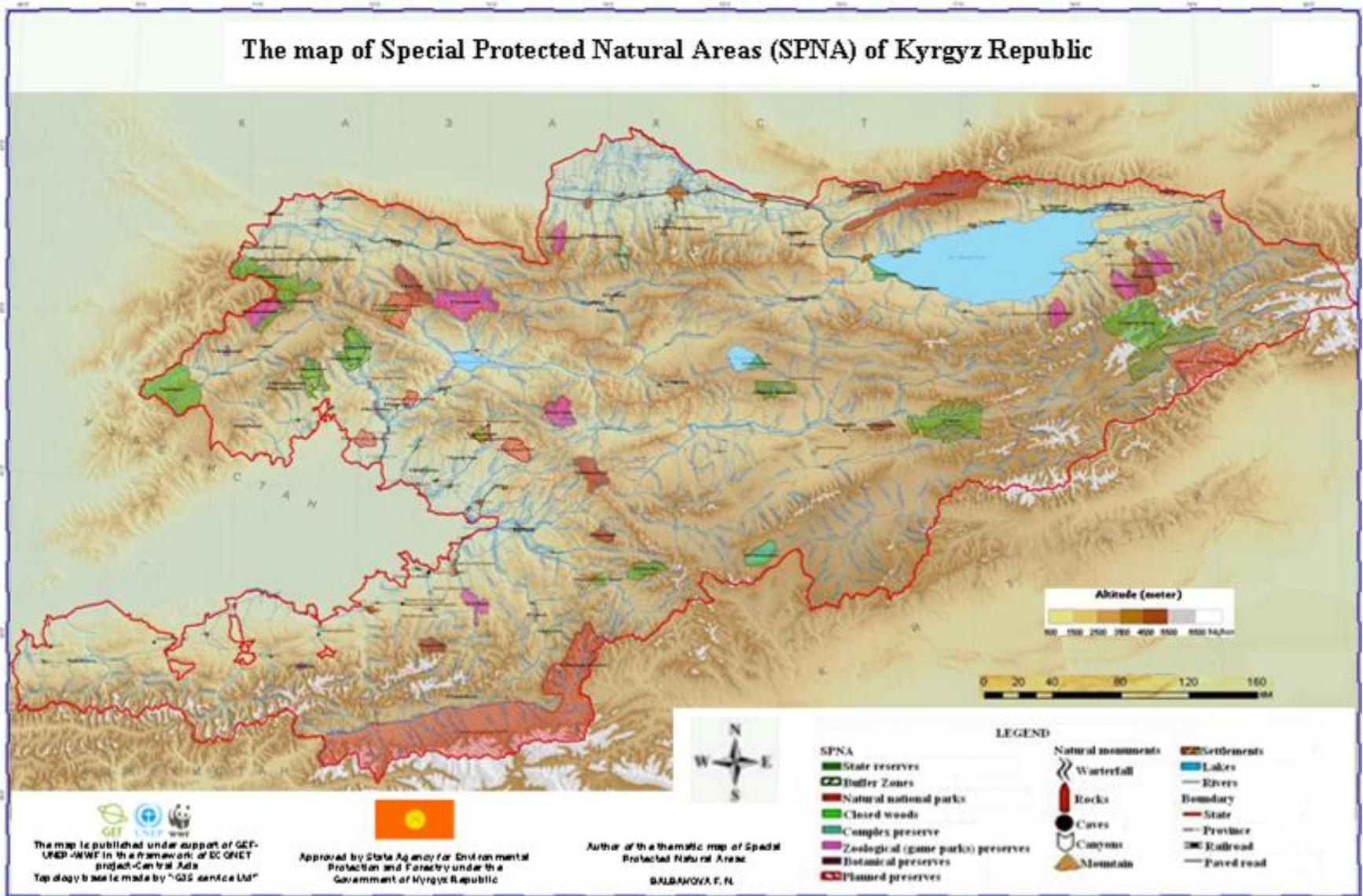
Protected Areas	Changes in total area per year, <i>thousand ha</i>						
	1990	1995	2000	2005	2007	2008	2013
Nature Reserves	164,857	236,937	236,937	354,760	377,760	377,760	537,925
National Parks	11,172	13,458	238,697	259,197	241,997	241,997	306,819
Wildlife Sanctuaries	288,900	288,900	36,176	291,017	289,448	289,448	289,448
Natural Monuments	60	60	60	60	60	60	60
Total area	464,989	539,355	511,870	905,034	909,265	1,048,512	1,134,252

Source: KR, UNDP, 2008, with updated data on 2013 from consultants.

3.5 SPECIES DIVERSITY

Due to its high diversity of ecosystems, the isolation that mountain ranges afford, and other geological and climatic factors, KR is host to an outstanding diversity of flora and fauna. Information on the biodiversity in KR, however, is outdated and unreliable, particularly for lower taxonomic groups. Most information comes from Soviet scientific studies and surveys. For the most part, the information has not been updated since. As seen elsewhere in the world, more information exists on vertebrates (particularly mammals and birds) and vascular plants (particularly those with economic or aesthetic importance). Invertebrates, lower plants, and fungi were also studied extensively in Soviet times but not since.

Exhibit 5. Map of Protected Areas in Kyrgyz Republic



Data for the *Fourth Report to the Convention on Biological Diversity (CBD)* (KR, 2008) provides the most recent attempt to compile existing data on species diversity in KR in comparison to the diversity in the rest of the world—see *Exhibit 6*.

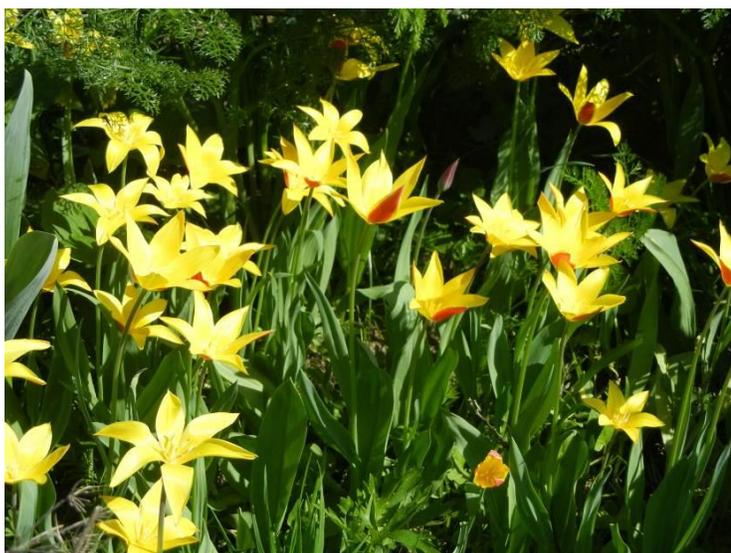
Exhibit 6. Species Richness and Number of Threatened Species in Kyrgyz Republic

Group	World		Kyrgyz Republic			
	Number of species in the world	Number of species per 1000 km2	Number of species in KR	% of world number of species	Number of species per 1,000 km2	Number of species in IUCN Red List of KR
Ultramicrobe (virus), bacteria, protozoan	5,760	0.011	261	0.05	1.32	0
Inferior plants	73,883	0.145	3,676	4.98	18.57	5 (0.13%)
Higher plants	248,428	1.666	4,200	1.52	19.12	83 (2.19%)
Worms	36,200	0.071	1,282	3.54	6.47	0
(Spisula) dipper	50,000	0.098	168	0.34	0.85	0
Arthropods	874,161	5.860	10,242	1.17	51.72	18 (0.17%)
Fish	19,056	0.041	75	0.39	0.38	7 (9.33%)
Amphibian	4,184	0.023	4	0.09	0.02	2 (50%)
Reptile	6,300	0.047	33	0.52	0.15	8 (24.24%)
Birds	9,040	0.062	368	4.07	1.86	57 (1.54%)
Mammal	4,000	0.027	83	2.07	0.44	23 (27.71%)

Source: *Fourth Report to the Convention on Biological Diversity (KR, 2008)*.

A number of animals are found only in KR (endemic species), and others are endemic to the region. There are reported to be 3,240 endemic invertebrates, including 30 percent of the country’s arthropods and nearly 60 percent of the mollusks (KR, 1998). Seventeen endemic vertebrate species and subspecies are recorded in KR, and another 47 vertebrate taxa are endemic to the region. Of the vertebrate endemics, KR contains 12 endemic fish species and at least 3 endemic mammals, including Menzbier’s marmot (*Marmota menzbieri*), the Tien-Shan mouse, and the Tien-Shan subspecies of European brown bear (*Ursus arctos isabellinus*).

KR contains a high biodiversity in plants, including over 200 endemic species and subspecies. KR is also home to a number of native varieties of fruit and nut trees. Many varieties of ornamental plants are also endemic to the country and the region including a variety of tulip species, peonies, irises, and other plants that have been integrated worldwide into horticultural hybrids seen in the world’s gardens today.



Tulip species endemic to KR. Photo by Pat Foster-Turley, May 2013.

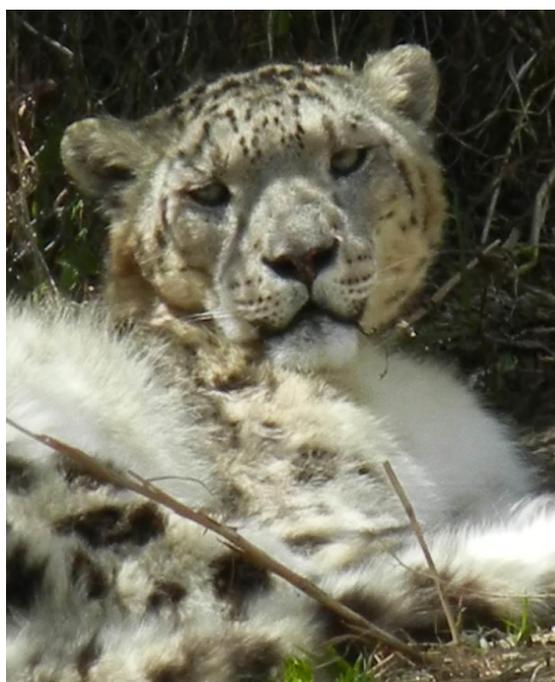
3.6 SPECIES OF GLOBAL CONCERN

There are a number of species of global concern in KR, including those that are registered in the *IUCN Red List of Threatened Species* (IUCN, 2013). The *IUCN Red List* involves a coordinated global effort of scientists and conservationists to classify species and subspecies in categories of threat, ranging from Critically Endangered (CR) to Data Deficient (DD). This list is constantly being updated as new information is available, but it may not represent all of the threatened animals in KR since this country lacks current survey data, which is the foundation for the *IUCN Red Book List*. A summary of the number of current listed species in the *IUCN Red List* is provided in *Exhibit 7*, but this may not fully represent all of the threatened species in KR due to lack of communication between country experts and IUCN expert groups. A full list of KR species on the *IUCN Red List* is provided in *Annex E*.

Exhibit 7. Number of Animal and Plant Species of KR on *IUCN Red List*

Type of Species	Critically Endangered (CR)	Endangered (EN)	Vulnerable (VU)	Near Threatened (NT)	Data Deficient (DD)
Mammals		3	3	5	2
Birds	1	5	10	10	
Fish			3		2
Reptiles			2		1
Arthropods			3	2	1
Mollusks					2
Plants	6	6	2	3	6
Total	7	14	23	20	14

Source: IUCN, 2013.



Snow leopard. Photo by Pat Foster-Turley, May 2013.

Recent conservation initiatives have singled out snow leopards (*Panthera uncia*) as a species of global concern in KR. Snow leopards have great spiritual significance here and often appear on logos and banners throughout the country and also have charismatic appeal to people throughout the world. They serve as a good flagship species for conservation efforts in the high mountain areas that they inhabit. Efforts to conserve the prey base of snow leopards (i.e., native ungulates) and these ecosystems will also have great significance in the protection of those species that live with them. Now the snow leopard is also a top priority species for the President of KR and for the region. Modeling on the Global Tiger Initiative, a new Snow Leopard Initiative is being developed in conjunction with partner countries. WWF, WB, and other entities are involved in this process, which will be officially declared at a regional meeting in August 2013.

3.7 SPECIES OF NATIONAL CONCERN

GKR has compiled a *Red List* for the species occurring in their country in fulfillment of one of the obligations under the CBD. The number of species represented in this national *Red List* is provided in *Exhibit 8* (KR, 1998).

Exhibit 8. Threatened Taxa on the *Red List* of the Kyrgyz Republic

Taxonomic groups	Kyrgyzstan Red List, 1988
Fishes	7
Amphibians	2
Reptiles	8
Birds	57
Mammals	23
Invertebrates	18
Fungi	4
Plants	89

With few exceptions, the direct use of “red-listed” species for hunting, fishing, or collection is forbidden in KR. However, there is no requirement to develop national species action or recovery plans for red-listed species, and data does not exist on their abundance and distribution. The only exception is the Marco Polo sheep (*Ovis ammon*) and snow leopard (*Uncia pantera*). The Marco Polo sheep is a valuable trophy-hunting species, attracting both national and international hunters, and a large source of revenue, as the hunting permits are expensive. A national



Marco Polo Sheep Trophy. Photo by Pat Foster-Turley, May 2013.

program was developed and adopted for the conservation of this species in 2004. In October 2012, the Prime Minister of KR adopted the *National Strategy for Snow Leopard Conservation for the Period 2013–2023*. An action plan for implementation of this strategy is now under development by a group of national and international organizations in KR.

3.8 AGRICULTURAL BIODIVERSITY

The agricultural biodiversity of KR is of global importance due to the variety of cereal crops, fruits, and nuts that have originated here and have now become staples in the rest of the world. The GKR submitted a country report on agricultural plants to the *Second Report on the State of the World's Plant Genetic Resources for Food and Agriculture* (Dzunusova, M., et al., 2008), which summarizes the importance of the biodiversity of agricultural plants.

The center of origin of many cultivated plants is in the western Tien-Shan mountainous area and the southern Fergana Province (Djukhovski, 1974 cited by Dzunuzova, M., et al., 2008). These include various forms of wheat, peas and chickpeas, carrots, onion, garlic, and alfalfa. Southern KR is also said to be the origin of a number of fruit and nut crops including, among others, apples, pears, almonds, pistachio, and walnuts. There is still a high diversity of varieties of these species, but this diversity is being eroded by the introduction of more varieties widely grown in many other parts of the world.

According to the *Biodiversity Strategy and Action Plan (BSAP)* for KR (KR, 1998), there are still wild-growing varieties of these crops, including walnut (*Juglans regia*), Siever's apple (*Malus sieversii*), Kyrgyz apple (*M. kirghisorum*), ordinary pear (*Pyrus communis*), Korzhinski pear (*P. korshinskyi*), regal pear (*P. regelii*), Tien-Shan cherry (*Cerasus tianschanica*), Magaleb cherry (*C. mahaleb*), barberry (*Berberis oblonga*), ordinary almond (*Pistacea vera*), Jungar hawthorn (*Crataegus songorica*), and Turkestan hawthorn (*C. turkestanica*).



Walnut fruit forest. Photo by Pat Foster-Turley, May 2013.

There are also a number of wild relatives of domesticated animals still present in the country, but less information exists on these breeds. Included among them are four breeds of horse, some sheep, and one dog breed (Askar Davietbakov, pers. comm.).

3.9 ECONOMIC VALUE OF BIODIVERSITY AND ECOSYSTEM PROCESSES

Biological resources are exceptionally valuable to the economy of the country. Pastureland is probably the most important biological resource, and livestock is the main source of income for rural people, who make up about two-thirds of the country's population (UNDP, 2012). Rural people also obtain income from the collection of wild mushrooms (more than 10 edible species) and medicinal and edible plants (several dozen species). Many people in the southern part of the country also gather walnuts and fruits of wild apple, pear, apricot, plum, cherry, etc.

Few people in KR hunt and fish, and those who do, do so predominantly for recreational purposes or to supplement their food rather than as a main livelihood. In KR, around 30 species of birds and up to 20 species of mammals are hunted. Marco Polo sheep and mountain goats are both hunted for trophies and sold for hard currency. The trapping of mammals has largely disappeared from the country along with Soviet era fur processing factories, and this practice now provides little economic value. Commercial fishing has been banned in Lake Issyk-Kul and throughout the country, although it still occurs illegally, but it is difficult to estimate the value of this practice.

Commercial harvesting of timber is illegal but may still occur; there is no data on its economic value. Some people, particularly in rural areas, rely on wild plants for medicinal purposes and other forest products for construction, utensils, dyes, etc., but no figures exist for the value of this to the economy.

Tourism is a growing sector in KR, but most visitors come from neighboring countries to enjoy the beaches and lake at Issyk-Kul and not for its biodiversity. Backpacking tourists utilize the well-established homestay system throughout the country, but largely visit for the cultural sights. The national parks and protected areas are often difficult to access, not well promoted, and the amount of tourism revenue they produce is unknown.

A recent assessment conducted jointly by SAEPF and FAO (2010) illustrates the high value of natural ecosystems in terms of provision of services and goods for people in KR. Forested land, although small in area in KR, provides the bulk of the ecosystem services in the country by provision of potable water/water resources, climate control, and ecotourism/hunting/fishing, as well as education and research. Other wooded land provides the bulk of environmental services in soil protection. Finally, other land, which makes up most of the country of KR, provides nearly as many jobs as does forested land, but few other environmental services. Although this study was a good initial investigative study, there are still no economic figures for the value of these services, and more work is needed in this regard.

3.10 PREDICTED EFFECTS OF CLIMATE CHANGE ON BIODIVERSITY

Reports synopsized in the *Fourth Report to the CBD* (KR, 2008) predict that the average temperature in KR will increase from 2.5 to 3.0 C. degrees from 1961 to 2100. Recent reports on glacier melting (Schweithelm, 2012; Malone, 2010) indicate that the increasing retreat of lower altitude glaciers in KR will result in water scarcity during some periods and increased flooding and mudslides due to glacier lake outburst flooding. Little information exists, however, on the predicted effects of climate change (CC) on the biodiversity of KR.

According to studies and maps produced by the Climate Change Office of SAEPF, the boundaries of such habitats as pastures, steppes, and forests are predicted to change. These changes will no doubt have an impact on the range, distribution, and numbers of rare and endangered species tied to particular habitats, but information is lacking.

4. INSTITUTIONAL AND LEGAL FRAMEWORK

Biodiversity and natural ecosystems in the KR are managed by government agencies and institutions that have undergone a number of changes since 1991 when the country became independent of the Soviet Union, but some of the original structures remain. New conservation laws have been enacted, the protected area system has been enhanced, major international biodiversity related conventions have been ratified, and international and national NGOs now operating in KR continue to expand. Many donor organizations have also stepped in to help the country achieve NRM goals in synchrony with those of the rest of the world. This chapter describes the primary institutions that are involved in biodiversity conservation, and the legal framework that is in place. Information on programs involving biodiversity conservation is presented in the next chapter.

4.1 INSTITUTIONS

4.1.1 GOVERNMENT

Frequent changes in government have occurred since independence from the Soviet Union was attained in 1991, and each government has brought its own perspectives to biodiversity conservation efforts. At present, biodiversity and natural resources conservation is not a government priority, and its implementation is overshadowed by economic development interests. The structure of government agencies changes continually. The main agencies involved in the management of natural resources in the KR at the time of this writing are listed here.

State Agency for Environment Protection and Forestry (SAEPF)

SAEPF is the principal agency involved in biodiversity conservation efforts in the KR. Within this agency are divisions responsible for protected areas, species conservation, international biodiversity agreements and other functions. This agency has inadequate status in the government at the present time, but during a meeting with the Analysis Team, they expressed optimism that the status would be upgraded in the near future. The structure of this agency is presented in *Exhibit 9* on the next page. At present, only two staff members work in the primary office relating to biodiversity, the Division of Biodiversity, Protected Areas, Eco-Education and Mass Media.

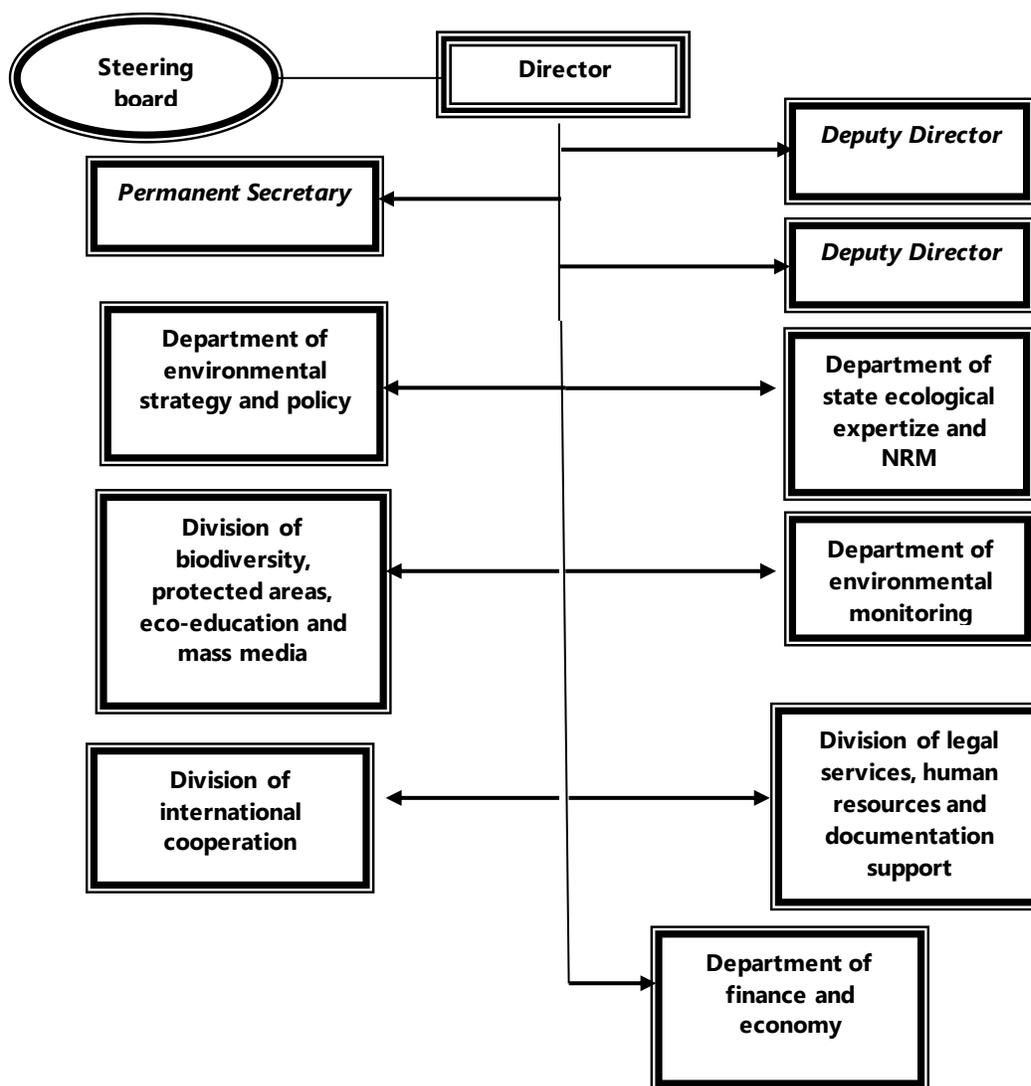
Ministry of Agriculture and Water Resources (MAWR)

This ministry has the mandate for providing government policy in these sectors: agriculture, pastureland management, fisheries, water resources, and others that involve biodiversity. However, biodiversity considerations are subsumed by productivity and development goals. MAWR manages all of these sectors from the position of food security, with little interest in biodiversity concerns.

State Agency on Registration of Rights and Immovable Properties (Gosregistr)

The agency has a mandate for registering all property rights and development of land users' cadasters (extent and value of land) for the purposes of taxation. Gosregistr is responsible for mapping of all the categories of land in KR, including those in reserves and PAs involved in biodiversity conservation.

Exhibit 9. Central Office of the State Agency of Environmental Protection and Forestry



Source: KR website (www.nature.kg).

State Inspection on Technical and Ecological Safety

The State Inspection on Technical and Ecological Safety was established in January 2012 by an act of the Prime Minister. The inspection is involved in biodiversity with the responsibility of guaranteeing environmental safeguards for all activities in KR. This agency inspects human and environmental safety in many sectors, including industrial, mining, architecture and building, energy, agriculture, etc. One division of this agency is responsible for environment protection and forestry concerns, which relates to biodiversity conservation.

State Agency of Geology

The Agency of Geology is responsible for the development of mining and mineral resources use in KR, much of which are located in mountain areas, which are critical habitats for rare and threatened animals and plants. Due to the economic situation in the country, mineral extraction is considered to be a priority sector in development. Biodiversity concerns are rarely considered as limiting factors to these enterprises. This agency has long been considered to be among the

most corrupt in KR; however, the two previous agency heads are now under criminal investigation, and the current situation may be improving.

District Level Authorities

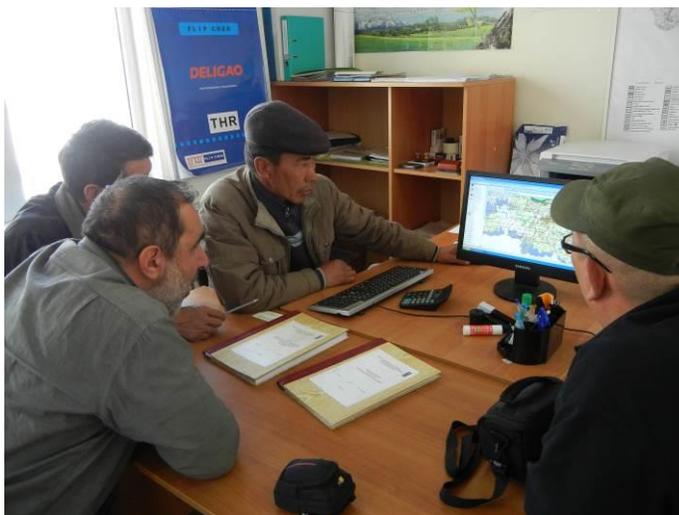
The KR is divided into 7 *oblasts* (provinces), which encompass 40 *rayons* (districts). Each rayon has its own government administration and is responsible for creating development plans for its area. Due to the economic and social situation in the country, all development plans are focused on social and economic aspects, and only rarely mention ecological aspects that might be related to biodiversity.

Self-Governance Authorities

In KR, the smallest administrative unit is *Aiyl Okmot* (village self-governance). KR has 459 Aiyl Okmot, and only a few of them that are located in natural areas, depend on natural resources, and have a plan for environment protection. Although many other of the Aiyl Okmoty may mention environmental issues in their plan, these are not acted upon.

Local User Groups

Rural residents in KR depend heavily on the use of natural resources, and the GKR, recognizing this, has adopted laws that support self-organized, local-level, self-management groups for key resources. Each village has a Pasture Committee and a Water Users Association, both with some relation to biodiversity concerns. There is growing evidence that these groups are better managers of their resources than higher government agencies. Recently, a Mushroom Users group was established in Issyk-Kul oblast following these models. Mushroom collectors made an agreement with the local Forest Service Unit that they will provide labor for forest protection and in return will receive permits for collecting mushrooms in the Forest Service Unit areas.



Meeting with Pasture Users Group in Suusamyr Valley.
Photo by Pat Foster-Turley, May 2013.

4.1.2 ACADEMIC INSTITUTIONS

Academy of Sciences

The structure of the Academy of Sciences remains from Soviet times and has a Central Management (Presidium) and many different institutes under them. These institutes have little government support to engage in scientific work. Only the salaries of scientists are covered, nothing else, and scientists are required to find their own research funding elsewhere. The institutes are largely inactive and suffering from attrition as few younger people are joining the ranks. Three of these institutes have biodiversity-related mandates: the **Institute of Geology named after M. M. Adyshev**, the **Institute of Forest named after P. A. Gan** and the **Institute of Biology and Soil** that also includes two separate divisions, the State Botanical Gardens named after E. Z. Gareev and Zoological Museums.

Universities and Colleges

There are many colleges and universities in KR, but only a handful of these have biology-related curricula, and only one of them offers courses in biological diversity—the Kyrgyz National

University named after J. Balasagyn in its Department of Biology. Other institutes with some biological and ecological content include:

- Bishkek Humanitarian Institute after the name of K. Karasaev.
- Kyrgyz Russian Slavic University.
- Kyrgyz State University after the name of I. Arabaeva.
- Kyrgyz National Agrarian University after the name of K. I. Skryabin.
- University of Central Asia.

These institutions prepare specialists in these sectors: Ecology, Natural Resource Management, Engineer of Forest Service, and Bio-ecology—all areas where some knowledge of the conservation of species and ecosystems is attained.

4.1.3 NON-GOVERMENTAL ORGANIZATIONS

NGOs with biodiversity elements in KR are small in number and most are also small in size and resources. The main ones are described here.

International NGOs

- **World Wildlife Fund (WWF)** in KR is managed by the Central Asia office in Moscow and has a single representative in KR. The principal focus of WWF in this country is the implementation of EcoNet and as a pilot area for work in Central Tien-Shan. Principle activities include community conservation work, monitoring and surveys of flora and fauna, support to the PA administration and anti-poaching work, and ecological education of population and schoolchildren. Monitoring of snow leopards and related activities are managed in collaboration with the Snow Leopard Trust.
- **Flora and Fauna International (FFI)** is managed by the headquarters in the United Kingdom. In KR, their activities involve support of Sarychat Eertash natural reserve and work with local population close to the reserve.
- **The Regional Environment Center for Central Asia (CAREC)** maintains an office in KR, but until recently has had no institutional support. CAREC presently engages in a single project: Payment for Ecosystem Services (PES) and the development of the potential for carbon credits in KR.
- **Nature and Biodiversity Conservation Union (NABU)** is a branch office of German NGO NABU and works in three different areas: rehabilitation center for wild animals confiscated from poachers, anti-poaching efforts, and eco-education for schoolchildren.
- **Snow Leopard Trust (SLT)** in KR has a single representative and works on community conservation work, monitoring, and surveys of snow leopards.

National NGOs

In KR, about 80 national NGOs in the environment protection sector are registered, but only a few of them active on the moment:

- **Kyrgyz Association of Forest and Land Users** is an umbrella organization that assists local user groups.
- **Kyrgyz Community Based Tourism Association (KCBTA)** was established with the support of Switzerland's NGO Helvetas as a structure for improvement of livelihood of the population in rural areas through development of ecotourism. Currently, the KCBTA includes 18 communities in different regions of Kyrgyz Republic.

- **BIOM** engages in eco-education and promoting sustainable livelihoods.
- **Eco Expertize** focuses on improvements in environmental legislation.
- **CAMP Ala Too** was established within the Central Asian Mountain Partnership (CAMP) program in KR and focuses on sustainable pasture management, disaster and climate change risk management, energy efficiency and conflict management on natural resources.

4.1.4 DONOR AND DEVELOPMENT AGENCIES

The main donors in KR that support biodiversity-related initiatives are listed here, except for USAID, which is detailed elsewhere. Further information on donor activities and support are provided in the following chapter.

The Global Environmental Facility (GEF) is the major donor for environmental and biodiversity conservation funding for the Kyrgyz Republic, providing grant funds through seven major program areas: Biodiversity, Climate Change, Chemicals, International Waters, Land Degradation, Sustainable Forest Management/Reducing Emissions from Deforestation and Degradation (REDD+), and Ozone Layer Depletion. The majority of GEF-funded projects in the Kyrgyz Republic are initiated and executed by UNDP, and few by the World Bank, UNEP, Asian Development Bank (ADB), and the UN Food and Agriculture Organization (FAO).

Other multi-lateral agencies assisting KR in the environmental management field include: European Commission, United Nations Economic Commission for Europe (UNECE), UNESCO, Initiative for Environmental Security, World Meteorological Organization, World Health Organization, and Organization for Economic Cooperation and Development (OECD).

Various other countries also provide important grant funding for environmental projects in KR, including Germany, Switzerland, United Kingdom, Japan, Turkey, Norway, the Netherlands, etc.

In addition to grant support, KR receives financial assistance in terms of loans from the World Bank Group, ADB, European Bank for Reconstruction and Development (EBRD), and the International Monetary Fund (IMF).

4.2 KEY NATIONAL STRATEGIES

Unlike many post-Soviet countries, KR is advanced in the development and adoption of national policies, strategies, programs, and action plans on various environmental management aspects. Brief descriptions of the two strategies most relevant to biodiversity are provided here.

National Sustainable Development Strategy

The first *Country Development Strategy* (2007–2010) identified environmental safety as one of the priority areas. In 2013, the new *National Sustainable Development Strategy* (2013–2017) was adopted and contains a separate chapter on “Environmental Protection to ensure sustainable development”, including two sub-chapters: “5.1. Environmental security and objectives of economic growth” and “5.2. Risk reduction and improvement of preparedness for emergencies”.

National Biodiversity Strategy and Action Plan

The first national *Biodiversity Strategy and Action Plan* (BSAP 1999–2004) for KR was adopted in 1998 and contains descriptions of the status of biodiversity, threats, and recommended actions that should form a blueprint for government programs. According the *Fourth Report to the CBD* (KR, 2008), few of these measures have been acted upon.

National Strategy for Snow Leopard Conservation for 2013–2023

In October 2012, the Prime Minister of KR issued a government act on approving the *National Strategy Snow Leopard Conservation for 2013–2023*. Now a working group under the SAEPF is preparing an action plan for implementation of this strategy. The strategy will serve as a platform for cooperation of all players active in this field in KR.

4.3 LAWS AND LEGISLATION

KR has a full implement of environmental legislation enacted to protect biodiversity and ecosystems. Some of the most significant laws and regulations are described in *Exhibit 10*. A full list of environmental legislation and strategies is provided in *Annex F*. Some of the major laws are briefly described here.

Exhibit 10. Some Major Laws and Policies Regulating Environmental Activities in KR

Law name	Adoption date	Purpose
Amendment to the Law of Steady Development of Ecologic and Economic System of Lake Issyk-Kul	April 2013	Bans “biological pollution” including the use of exotic species of fish and plants in aquaculture in Lake Issyk-Kul.
Law on Special Protected Natural Areas	May 3, 2011	Defines buffer zones, core areas, and migration corridors within PAs. Provides management guidelines for PAs.
Forestry Policy	1999	The main sections address improvements in the forest management system that avoid conflict of interests between user groups and government structures.
Law KR № 22: On Environmental Protection, Art.13, 16, 18, 44	February 4, 2002	Provides limits on exploitation of natural resources to be established by the authorized body on environmental protection. Prohibits introduction of animals and plants that might cause damage to native species. Requires environmental assessments be conducted on projects that might harm ecosystems or species and other key components.
Law KR № 53: On Environmental Assessment	May 13, 1999	Regulates environmental assessment issues and aims to prevent negative ecological implications as a result of business or other activities.
Law KR № 48: On Biosphere Territories	June 9, 1999	Designates biosphere territories as areas of land and water ecological systems providing a sustainable balance of biological diversity. According to Article 5, the introduction of new species of plants and animals is prohibited in buffer zones.
Law KR № 59: On Fauna	June 17, 1999	Prohibits the introduction of animals that can harm natural ecosystems and native species or breed with them.

4.4 INTERNATIONAL CONVENTIONS RELATED TO BIODIVERSITY TO WHICH KR IS A PARTY TO

KR is a signatory to the major biodiversity-related conventions listed fully in *Annex G*. Of these, the most relevant and their progress in implementation are provided in *Exhibit 11* below.

Exhibit 11. International Biodiversity-Related Conventions that KR is Party To

Convention name	Year Ratified	Implementation Progress
Convention on Biological Diversity (CBD)	1996	KR produced its Biodiversity Strategy and Action Plan in 1998 and submitted its Fourth Report in 2008. Currently, KR is working on producing the Fifth Report, expected to be finalized in March 2014.
Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES)	2006	KR established a mechanism for implementation of this strategy under SAEPP. Now TRAFFIC International is studying the situation in KR.
United Nations Framework Convention on Climate Change (UNFCCC), New York, 1992	2000	KR actively participated in all dialogues and initiatives in Climate Change sector. The Second National Communication on Climate Change was prepared in 2009 and currently the Third Communication is under preparation.
Ramsar Convention on Wetlands of International Importance, Ramsar, 1971	2002	In 2012, 10 years after ratification of the convention, KR conducted an international workshop with participants from the Convention Secretariat. Also in 2012, two new sites were added to the list of Ramsar sites (Son-Kol Lake and Chatyr-Kul Lake).
UNESCO World Heritage Convention	1995	One World Heritage site is now included in KR—Souleiman Mount was listed in 2009.
United Nations Convention to Combat Desertification (UNCCD)	1999	KR implemented a number of projects under this convention related to sustainable management of pasture resources.

5. PROGRAMS RELATED TO BIODIVERSITY

Most biodiversity-related programs and projects in KR are supported by donors. GKR provides little support for these efforts, and NGOs are also reliant on donors and other outside sources of funding. Important donors and NGOs and their emphases are provided in the previous chapter. This chapter looks more closely at some of the major donor-supported programs in the country, the area where most biodiversity programs originate. Although funding amounts were not available in all cases, an effort is made here to summarize existing data. A full summary of current, past, and regional donor programs can be found in *Annex H*.

5.1 GOVERNMENT PROGRAMS

Although biodiversity-related programs of the GKR are in a number of thematic areas—including species conservation, protected areas, climate change, hunting and fishing regulation, forest and pasture management, etc.—there is little government support for this work aside from the salaries of a handful of staff. For instance, there are no state supported programs for endangered species surveys and recovery plans, for education and awareness activities, or for protected area management programs or other areas usually supported by most governments. The state academic and research institutions face similar budgetary constraints, which do not allow them to carry out regular research and monitoring projects. The only exception is somewhat regular monitoring of game species (mountain goat and mountain sheep), funded from the revenues gained from hunting licenses. In most cases, funding gaps are expected to be paid by donors with the government agencies as main implementing partners.

5.2 NGO PROGRAMS

The primary international and national NGOs operating in KR are described in Chapter 4. These institutions are actively involved in implementation of donor-funded programs mainly in terms of local expertise provision and conducting associated public awareness and education campaigns related to these projects. Their activities are included under the relevant donor sections below. In addition, NGOs attract some additional funds from their parent organizations (in the case of international NGOs) and various private foundations and smaller-scale donors. Most of these programs are small in scale in KR, but this may be changing.

Since late 2012, USAID has begun to support the Snow Leopard Project, which is being implemented by WWF and other local partners such as the Snow Leopard Trust (SLT) and a few others. It is expected that increased support from other donors will increase the scope of this project and will include further biodiversity elements as it develops.

5.3 GEF PROGRAMS

Global Environment Facility (GEF) is the major donor for KR, providing grant funds through seven major program areas: Biodiversity, Climate Change, Chemicals, International Waters, Land Degradation, Sustainable Forest Management/REDD+, and Ozone Layer Depletion. To date, total funds allocated by GEF for KR amounts to US\$23,998,540 with generating co-financing in the amount of US\$129,351,586. Further US\$54,589,701 (with US\$277,422,500 co-financing) is allocated for regional programs in Central Asia.

United National Development Programme (UNDP)

Most of the GEF-funded projects in KR are initiated and executed by UNDP. Recently completed large-scale GEF/UNDP projects with particular emphasis on biodiversity include:

- **The Demonstration of Sustainable Pasture Management in Suusamyr Valley (2007–2012)** worked with local communities to implement their Pasture Management Committees with an aim of reducing pasture degradation and providing further economic benefits, with conservation of steppe biodiversity a side benefit of this project (total value of the project: US\$1,974,000).
- **Strengthening Policy and Regulatory Framework for Mainstreaming Biodiversity in the Fishery Sector (2007–2012)** worked with fishermen and communities to conserve endemic fish in Issyk-Kul Lake and succeeded in the adoption of new GKG policies in this regard (US\$4,095,000).

A new GEF/UNDP medium-size project has recently received support but has not yet been implemented:

- **Improving Coverage of Protected Areas in Central Tian-Shan (2013–2017)** has the objective to improve the coverage and effectiveness of protected areas in the Central Tian-Shan Mountains so as to expand threatened species representation in the national system (US\$5,966,670).

Since 2001, UNDP has also been managing the GEF Small Grants Program (SGP) in KR, providing funding for projects in GEF priority areas. More than 3 million has been provided so far for 230 of these projects. An additional US\$2.5 million is available until June 2014 for Operational Phase 5. Biodiversity is a subject area under this program and grants of less than US\$50,000 have been provided since its inception for a number of NGO and community-based projects aimed at biodiversity conservation.

United Nations Environment Programme (UNEP)

Some of the GEF projects in KR are also implemented by the UNEP. The main biodiversity related programs are:

- **Preparation of the second national *Biodiversity Strategy and Action Plan (2012–2013)***, which is assisting the GKR in preparing in-depth studies and assessments of biodiversity conservation measures including a review of laws and regulations, implementation of international obligations, etc., and this process will include many public hearings. When completed in 2014, this will become the most up-to-date reference material for both local organizations and international development agencies acting in the biodiversity field (US\$492,000).
- **Sustainable Land Management in the High Pamir and Pamir-Alai Mountains—Integrated and Trans-boundary Initiative in Central Asia (2007–2012)** worked to develop and implement an integrated management system for the preservation and rehabilitation of the natural resources in the High Pamir and Pamir-Alai mountain areas (US\$10,347,400).
- **Development of the Econet for Long-term Conservation of Biodiversity in the Central Asia Eco-regions (2006–2010)** implemented jointly with WWF. This project created a foundation for further development of national protected areas systems in Central Asian countries, including KR (US\$2,160,000).

Food and Agriculture Organization (FAO)

FAO recently initiated another large GEF project in KR:

- **Sustainable Management of Mountainous Forest and Land Resources under Climate Change Conditions (2013–2017)**, which will be implemented jointly with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and local NGOs. This consists of three major components: 1) strengthening the enabling environment for sustainable forest and land management, 2) enhancing carbon stocks in dryland forest through innovative management and rehabilitation practices, and 3) promoting and demonstrating climate-friendly agricultural practices (US\$22,645,500).

5.4 OTHER DONOR PROGRAMS

The second largest donor (after GEF) in biodiversity related fields in KR is German Federal Ministry for Economic Cooperation and Development (BMZ). Its projects in KR are mainly implemented by GIZ.

- **Biodiversity Conservation in North Tian-Shan (2013–2016)** will be executed by NABU and consists of three interlinked components: 1) support to PAs, 2) eco-tourism development, and 3) sustainable management of pasture resources (US\$1,300,000).
- **Sustainable Use of Natural Resources in Central Asia (2002–2015)** covers all five countries of the region. Sustainable pasture management, wildlife management, and energy efficiency are priorities in KR with cross-cutting climate change adaptation aspects. MAWR and SAEPF are government partners and the NGOs. CAMP Alatau and Center for Energy Efficient Building in Central Asia are the main local implementing partners in this project.

GIZ is also an executing agency for a recently funded European Union (EU) project:

- **Forest and Biodiversity Governance Including Environmental Monitoring in Central Asia (2013–2017)**. This project will be implemented jointly with CAREC and local NGOs and consists of three major components: 1) forest law enforcement and governance in Central Asia (FLEG Central Asia), 2) ecological restoration and biodiversity conservation in Central Asia, and 3) environmental monitoring in Central Asia (US\$5,720,000).

In addition to the grant support, KR receives financial assistance in terms of loans from WB, ADB, and ERBD. Municipal infrastructure improvement projects funded by these agencies significantly reduces municipal pollution to natural ecosystems, which has benefits for biodiversity but is not a focus of these projects, and loans are not described fully here.

5.5 ASSESSMENT OF THEIR STRENGTHENS AND WEAKNESSES

Although the donor coordination mechanism exists in KR at the strategic level (www.donors.kg), some overlapping takes place at the level of individual projects. In some cases, work completed by one donor is not built on by the next, and resources are wasted to begin again from scratch. In other cases, similar projects are being considered by different donors in the absence of information on the other's plans, leading to potential duplication of efforts. More efforts on thematic-level coordination in environment programs may improve the effectiveness of individual projects and ensure synergies between them.

Many donor-funded projects lack sustainability, with some exceptions. Often activities initiated by donor funds stop soon after project ends. Integration of more effective sustainability

mechanisms are desired in such projects to ensure that any positive results gained in the projects continue on.

Many donor-funded projects pilot innovative approaches at a site level and have very positive results, but further assistance is required to introduce these innovations at national scale and to ensure their continuous use. One good example is the electronic databases use in community pasture management, piloted by UNDP in Suusamy Valley. This program should be applied nationwide now that the pilot project has been completed.

5.6 GAPS WHERE USAID COULD BEST LEVERAGE FUNDS

A full description of areas where USAID/KR could best contribute to biodiversity conservation within the scope of their proposed new strategy is detailed in the following chapter. However, this analysis has detected some gaps in current donor programs that may not be directly in line with current mission directions.

There is a need for further efforts to decentralize the management of biological resources in KR, through continued work and national dissemination of previous donor-supported work in pasture and forest management and further strengthening of the relevant local management committees. Similar needs exist for strengthening protected park management and including local groups and private sector initiatives that will build sustainability.

Little attention has been given by donors to environmental education and awareness, and without these elements, there is little hope that biodiversity considerations will be addressed effectively in the country.

Agro-biodiversity has been neglected by donors ever since completion of the GEF/UNDP 2005-2010 project that sought to address this issue. More work is needed in this area to protect native agricultural biodiversity in light of the extensive programs being designed to bring in more productive but non-native crops.

6. THREATS TO BIODIVERSITY

The Analysis Team utilized two categories of threats: 1) **direct threats**, where immediate causes to biodiversity loss on the ground occur, and 2) **indirect threat/root causes**, which describe the social, political, and economic basis for these proximal threats. Both of these categories of biodiversity threats in KR were analyzed in two previous reports of particular interest.

The Government of the KR prepared a comprehensive *Biodiversity Strategy and Action Plan* (BSAP) for the CBD in 1998 (KR, 1998) and submitted the *Fourth Report to the CBD* in 2008. The BSAP described the current direct and indirect threats in detail, and these were referred to again in 2008 but with no further discussion. A number of the original threats are no longer relevant due to the many changes in the government and politics of KR in the intervening years, but where threats remain, they are referred to in the following text.

A second source of threats determination for KR was made as a part of the *USAID Biodiversity Assessment for the Central Asian Republics* (CAR) (2010). Although this report considered regional threats, a number of them hold true for KR as a nation.

6.1 DIRECT THREATS

Seven direct threats to biodiversity in the CAR region were determined in the *Regional Biodiversity Assessment*, and of these, six are major threats in KR: 1) overgrazing and unsustainable use of pastures, 2) over-exploitation of forests, 3) pollution and contamination, 4) over-exploitation and poaching of individual species, 5) invasive species, and 6) climate change. Only one direct threat, diversion and inefficient use of water, was not seen to be as much of a threat to biodiversity in KR as it is to downstream countries. In addition to these threats, there are other direct threats that concern KR. All of these direct threats are described below.

1) Overgrazing and unsustainable use of pastures is a threat already mentioned in the 1998 BSAP and one that continues today. Livestock—sheep, goats, cattle, horses—are grazed on mountain pastures covering more than 40 percent of the land of KR (UNDP, 2012), including some areas that once were forested. Crumbling of some Soviet era bridges to high pastures have resulted in more grazing in areas near villages. Many of these areas are overgrazed, leading to destruction of native vegetation, invasion of fast-growing non-edible annuals with shallow root systems, and invasive shrubs (Gareeva and Maselli, 2008), and further habitat destruction is caused by erosion. A number of donor projects described elsewhere are working to counteract overgrazing by helping communities implement Pasture Management Committees that have been empowered by GKR. As more highland summer pastures are opened up, however, there is the increased risk of competition with wild ungulates like mountain goats and changes in the food sources for predators, such as endangered snow leopards.

2) Overexploitation and degradation of forests continues to be a problem in KR 15 years after the BSAP was published. Forests occupy less than 6 percent of the land and are especially susceptible to further degradation and loss. Natural regeneration of forests is also problematic in many areas due to unrestricted grazing and an increasing numbers of goats, which feed on young trees. In a country with such limited forest resources, even small-scale logging produces a threat. Although commercial logging is illegal, permits are still granted for firewood cutting and other uses. There is no valid data on the amount of wood that can be cut sustainably, and many people forgo the permit process entirely without recrimination. Walnut

roots are also a valuable commodity and are reported to be harvested and illegally traded, but again, no reliable data exists on this threat.

3) Pollution and contamination is mentioned in the BSAP and continues to this day. Municipal waste is a primary contaminant of waterways and lakes due to the crumbling wastewater treatment systems remaining from Soviet times and the lack of adequate water-monitoring efforts. Burgeoning tourism facilities around Issyk-Kul Lake often lack appropriate water sanitation facilities, adding to the problem. In addition, mining efforts that make up an important part of the GDP of KR receive little scrutiny from the government, and the extent of contamination from accidents at tailing ponds is currently unknown and uninvestigated.

4) Over-exploitation of individual species is mentioned in the BSAP, especially in regard to overfishing of native species, overhunting, and unsustainable collection of medicinal and ornamental plants. Today, there are still issues with fishing, including the use of illegal monofilament nets, which over-exploit both native and introduced fish indiscriminately. There is a lack of data on fish stocks and how severe this problem is, but it undoubtedly is still a threat in many areas. Likewise, although hunting is legally regulated, there is a lack of information on the numbers and distribution of target species, and there are a number of ways that official permitting regulations are circumvented. Plants are also over-exploited. According to the BSAP, a number of species of native tulips and other rare ornamental and medicinal plants have disappeared in areas near villages where they have been overharvested, although populations today are still said to be present in various protected areas. However, there are no recent inventories on the status and distribution of these plants throughout KR and current information on most plants in KR is scarce.

5) Invasive species have long been recognized as a problem in KR, and this threat is highlighted in the BSAP in regards to the introduction of non-native fish, particularly pike-perch into Issyk-Kul Lake. During Soviet times, in a search for higher productivity, a number of non-native fish—including rainbow trout in rivers and various non-native carp in lakes—altered the native fish faunal composition and drove some species to near-extinction. This problem is recognized today in Issyk-Kul, and in April 2013, a law was passed that prohibits open cage fish farming of non-native fish here as a measure to prevent further introductions. But most aquatic habitats countrywide remain dominated by non-native fish species. Invasive plants are another serious threat to native biodiversity in KR, and this is a pronounced problem in overgrazed pastures. Various fast-growing invasive shrubs like *Karagana spp.* have displaced other more valuable native fodder species, thus reducing the area available for grazing and putting pressure on other habitats.

6) Erosion of local agricultural biodiversity is a threat that is receiving scant attention in KR. Due to the introduction of plant material from other countries, the total number of registered agricultural varieties and hybrids in KR has increased from 537 to 617 between 2004 and 2008. However, this comes with a loss of local varieties, which have dropped from 93 to 74 in the same period (Dzunusova, M., et al., 2008). There is presently a lack of adequate seed storage facilities and gene banks and a lack of *in situ* projects to preserve local agricultural biodiversity in KR, so more varieties continue to be lost. There is also a shortage of specialists and facilities that engage in *in situ* measures to nurture these varieties. Among the *ex situ* facilities already in operation that need further support are those at Kyrgyz Research Institute of Farming (KRIF), Gareev Botanical Garden of the National Academy of Sciences (BGAS), and Institute of Biology and Mountain Forests (IBMF).

7) Energy infrastructure was already viewed as a threat to biodiversity in the BSAP, particularly in regard to the vultures and other raptors caught in power lines, but this problem may be exacerbated due to the new country development strategy (KR, 2013), which is proposing an increase in energy production in KR. Further development of dams and other hydropower generation infrastructure will limit habitat for those aquatic species requiring steady water flows and depths, and may cause significant changes in rivers and surrounding ecosystems. Likewise, the addition of more transformers, power lines, and other infrastructure will increase the threats to birds flying in these areas.

8) Mining was seen as a threat in the BSAP, and this threat has continued and may increase in future years if the recommendations in the National Economic Development Policy are realized. The Kumtor Gold Mine currently accounts for more than a quarter of the GDP of KR, but the country aims to diversify with the establishment of other mines as well. Large pit gold mines like this one located in fragile high-mountain ecosystems remove important wildlife habitat and, if not carefully designed and managed, pose risks that toxic mine tailings may inadvertently get released into aquatic ecosystems to the detriment of species living here. KR is an earthquake-prone country, which intensifies the risk of release of toxic elements into aquatic ecosystems.

9) Climate change is a threat to those species in KR living in ecosystems that will become constricted as glaciers melt and temperature and moisture regimes change. Some species will be able to adapt, but others, which are already in restricted ranges, may disappear entirely. Not enough is known about the projected effects of climate change on species and ecosystems in KR, however, to make strong predictions in this regard.

6.2 INDIRECT THREATS/ROOT CAUSES

Direct threats to biodiversity—or the factors happening on the ground or in the water—are driven by institutional, social, and political factors, sometimes referred to as “root causes.” All of the direct threats listed previously can best be addressed through acknowledgment and remedies for the major root causes listed here.

A number of root causes were mentioned in the 1998 BSAP, but changing political, economic, and social conditions since then have changed the situation considerably. The regional *USAID Biodiversity Assessment for CAR* (USAID, 2010) also discussed indirect threats, but these were primarily those that occurred across the region. The biodiversity of KR shares some of these regional threats, but with its own particular milieu of political, social, and economic conditions. The indirect threats/root causes of biodiversity loss in KR described here have been compiled based on the published reports, stakeholder interviews, and observations of the Analysis Team during its mission in the country.

1) Ineffective environmental governance systems present serious threats to the conservation of biodiversity in KR. Conflicting government agency mandates are the norm in KR, including between MAWR and SAEPF in many areas. Whereas MAWR is focused on productivity and economic gains, these often run counter to SAEPF’s mandate of protecting the environment and biodiversity. In conflicts such as these, the economically driven mandates of MAWR usually win over biodiversity concerns. Even within SAEPF, there are conflicts at the department level, such as those between the Protected Area Department and the departments of Forestry and Hunting. Some attempts have been made by KR to solve this issue by setting up intergovernmental committees on themes like climate change, pastures, etc., where different ministries take part, but there is still more coordination needed. The legal status and strength of SAEPF is robust compared to other sectoral ministries and government agencies in KR, but the

Department of Biodiversity and Protected Areas is the weakest among divisions of the SAEPF. In addition, although some decentralization steps are made in NRM, most of the decision-making and controlling power is still concentrated at the central government level; oblast and rayon self-governing bodies and local communities have a limited role in forestry, hunting, and protected area management.

2) Lack of human technical capacity in natural resource management agencies and institutions is a problem in KR as well as regionally. The high level of staff turnover removes those with experience and replaces them with people naïve to the issues. Staffing in key biodiversity related departments is meager—there are only two staff members in the entire biodiversity, protected areas, eco-education and mass media division. There is also a lack of support for biodiversity and natural resources-related activities. For instance, only salaries are supported in the scientific institutes and protected areas; any funds for equipment, research, or program activities must be found from outside sources. With this situation, there is a lack of motivation mechanisms for young people to become involved in this field, so there is little recruitment of them.

3) Lack of basic conservation programs and facilities is evident in all areas related to biodiversity conservation in KR. The Soviet era institutes of science have disintegrated and suffer from a lack of funding and obsolete equipment and facilities. For instance, there are no surveys of endangered and rare species and no information on their distribution and abundance, even for those species, such as Marco Polo sheep, which are subject to trophy hunting, and there are no species management plans that are required by the CBD. Although there is currently some attention to the conservation of snow leopards, which will include these activities, the state of knowledge of lesser-known species and rare plants, in particular, is deplorable. At the site level, there are no efforts to survey and update globally recognized International Bird Area sites, and few, if any, management plans for protected areas. Visitor centers in national parks and natural history museums, both good sources to raise public awareness, are nonexistent or decrepit. The only captive animal facilities in KR—the Karakol Zoo and the Rehabilitation Center for Wild Animals—are operated by a branch of NABU that neither engages in research nor cooperates in international captive-breeding programs. Similarly, there are a lack of adequate facilities for both *ex situ* gene banks and seed storage facilities for native crop relatives and rare plant species and for *in situ* preservation of native fruit and nut varieties and crop relatives (Dzunosova, 2008).

4) Inadequate donor coordination in the environment sector results in inefficient use of limited conservation funds. Although strategic-level donor cooperation occurred in KR as a result of its selection as one of the pilot countries during the February 2003 Rome Conference on Harmonization (www.donors.kg), the coordination on thematic and project levels is modest and often depends on the interest of individuals. There are cases of overlap among different donor-funded projects, such as the number of projects that have addressed pasture management. In addition, the experience, expertise, and knowledge gained by one project are not usually applied by others in the same area. SAEPF also recognizes this issue and stresses the need for better coordination/cooperation among donors.

5) Lack of knowledge and awareness of biodiversity and environmental sustainability in all levels of society in KR is a problem. Crucial data on species abundance, distribution, habitat requirements, etc., is lacking. Biodiversity matters are given the lowest priority in government actions, and there is little understanding of the importance of biodiversity conservation to national development and sustainability concerns. The general public is not provided with information on biodiversity or even of the location and existence of protected areas. There is

little programming in the media on conservation or environmental concerns and little attention to these issues in education programs from primary school on up to the university level.

6) Lack of appropriate environmental safeguards is a threat, particularly in the case of the hydropower and mining sectors. There are no Strategic Environmental Assessments (SEAs) in KR, which would take a broad view of the issues involved before individual projects are considered. Without SEAs, sectoral development plans for hydropower infrastructure or mining industry developments are insufficient. National regulations and enforcement of Environmental Impact Assessments (EIA) for individual projects are also weak and may not engage appropriate impartial experts as reviewers. At the local level, there are no requirements that biodiversity and ecosystem concerns be included in local development plans, which are focused entirely on economic considerations without concerns for environmental sustainability. All of these issues can lead to further deterioration of biodiversity and future loss of the values that natural ecosystems provide.

7) Rural poverty is a concern throughout the country. At the local level, poverty is a main driver for poaching of fish and game and for the unsustainable collection of firewood in limited and fragile forest ecosystems. There are few programs that provide alternative sources of income to those living close to protected areas and in fragile natural landscapes that would counter this unsustainable use of natural resources.

8) Lack of financial resources to engage in environmental protection measures is a threat at all levels. The insufficient financial resources have an impact on the amount of attention given to biodiversity conservation matters at all levels of government and cause low levels of effectiveness and sustainability of both government and donor programs. For example, the level of funding for PAs is a way below the basic needs, and efforts of international donor-funded single projects are undermined by the lack of sustainable and regular funding mechanisms.

9) Inefficient enforcement of laws regulating the use of natural resources affects biodiversity and habitat conservation measures. It is inconvenient for fishermen and hunters in local areas to obtain permits from distant towns, and the capacities of law enforcement agencies are low. Bribery also plays a role in lack of enforcement—on-the-spot unofficial payments to individuals often circumvent laws and regulations. Even in the heavily regulated trophy-hunting business, there are a number of ways that these requirements can be ignored by those with power. On a larger scale, environmental impact regulations for natural resource extraction operations and other industries may be lessened or ignored by those who should be enforcing these laws.

7. ACTIONS NECESSARY TO CONSERVE BIODIVERSITY

Direct on-the-ground and in-the-water threats to biodiversity are driven by the institutional, social, and political factors, which are the root causes. These are more appropriately addressed by donor and stakeholder actions in order to yield long-term results. Addressing these root causes will have an impact on the direct threats and will help conserve biodiversity in KR. A number of actions necessary to address these root causes are presented in *Exhibit 12*. These needs are based on the observations and findings of this analysis, taking in mind the actions that are already being made by GKR, NGOs, and donors. The necessary actions identified are findings related to KR and do not necessarily represent recommendations for USAID.

Exhibit 12: Actions Necessary for Biodiversity Conservation

Root Causes of Biodiversity Threats	Actions Necessary
1. Ineffective environmental governance systems	<p>1.1. Support the recommendations and priority actions for improved legal and institutional systems that will be outlined and strategically prioritized in the new National Biodiversity Strategy and Action Plan for the KR. Studies, assessments, and the drafting process is currently coordinated by SAEPF and supported by the GEF/UNEP and is expected to be completed by the end of 2013.</p> <p>1.2. Strengthen the status and capacity of SAEPF and its biodiversity and protected areas department through high level-policy dialogue, institutional strengthening programs, and support.</p> <p>1.3. Follow up on successful donor-supported pilot projects addressing decentralization processes in NRM and the delegation of rights to local communities in pasture, water, and forest resources management (e.g., Pasture Committees).</p> <p>1.4. Encourage diversification of governance types for protected areas, including co-management, community management, private sector involvement, etc.</p>
2. Lack of human technical capacity in NRM agencies and institutions	<p>2.1. Support creation of an Environmental Management Training Center for employees of government agencies, NGOs, academic and education institutions, and others who could benefit from and pass on the knowledge gained.</p> <p>2.2. Support and encourage exchange programs at regional and international levels, professional studies and trainings, and cooperation with similar institutions in foreign countries.</p> <p>2.3. Support the placement of international experts in key natural resources and conservation institutions.</p> <p>2.4. Enhance the role of NGOs and civil society in biodiversity conservation efforts.</p>
3. Lack of basic conservation programs and facilities	<p>3.1. Develop a national biodiversity monitoring system and support its implementation.</p> <p>3.2. Encourage development and implementation of recovery plans for endangered species.</p> <p>3.3. Support <i>in situ</i> and <i>ex situ</i> facilities engaged in the conservation of native crops, fruits, and nuts.</p> <p>3.4. Support animal rehabilitation facilities for endangered species and establish ties with international zoos for placement of non-releasable animals.</p>

Root Causes of Biodiversity Threats	Actions Necessary
	3.5. Support GKR efforts in CC adaptation prioritized in National Climate Change adaptation strategies.
4. Inadequate donor coordination in the environment sector	4.1. Set up a mechanism (forum) where international donors and project implementing agencies in the environment field gather regularly to share ongoing project results, data, lessons learned, and information on planned projects. Coordination at the planning stage is important to achieve synergies, reduce overlaps, and maximize effectiveness of individual projects.
5. Lack of knowledge and awareness of biodiversity and environmental sustainability	<p>5.1. Integrate biodiversity and environmental sustainability themes into national education standards and curricula by encouraging cooperation among Ministry of Education, Academy of Sciences, SAEPF, and environmental groups.</p> <p>5.2. Support informal learning activities involving nature, like festivals, nature clubs, and school nurseries/forests and provide incentives for teachers who provide these. Provide more learning resources such as books and films at all stages of education from kindergarten to high school.</p> <p>5.3. Support implementation of the Aarhus Convention through strengthening the Aarhus Center in KR to increase public access to environmental information.</p> <p>5.4. Enhance the role of NGOs and civil society in conducting environment education campaigns.</p> <p>5.5. Encourage more media attention to the issues of conservation and sustainable use that provide practical approaches that people can implement.</p>
6. Lack of appropriate environmental safeguards	<p>6.1. Conduct SEAs for nationally declared priority economic development sectors: energy, mining, transport/communications, agro-industry, and the tourism/services industry.</p> <p>6.2. Conduct a diagnostic study to assess the country safeguards system of KR with respect to the environmental assessment of investment projects (to reveal gaps and weaknesses of EIA regulations and implementations) and recommend actions to strengthen it.</p> <p>6.3. Ensure inclusion of environmental concerns in municipal and regional development plans.</p>
7. Rural poverty	<p>7.1. Support the development of local businesses and/or manufacturers that add value to natural products and produce more income such as beekeeping, stone crafts, texturing, rational farming, and ecologic brands, etc.</p> <p>7.2. Support environmentally friendly socio-economic development programs in communities near protected areas to alleviate poverty and heighten appreciation for nature conservation</p>
8. Lack of financial resources to engage in environmental protection	<p>8.1. Perform in-depth economic valuation studies of ecosystems and biodiversity to inform decision makers on the necessity to allocate funds for nature conservation.</p> <p>8.2. Conduct nationwide studies, assessments, and analyses of different financial sustainability approaches for biodiversity conservation. These could include a) attracting and administering external funds from new sources like debt-for-nature swaps, private voluntary donations, private sector sponsorship of PAs, etc.; b) generating funds through benefit and revenue sharing, sharing costs of managing natural resources and PAs, investment, credit and enterprise funds; and c) market-based fees for ecosystem goods and services such as tourism taxes, resource extraction fees, and Payment for Ecosystem Services programs.</p>

Root Causes of Biodiversity Threats	Actions Necessary
	8.3. Pilot selected sustainable financing mechanisms.
9. Inefficient enforcement of laws regulating the use of natural resources	9.1. Conduct institutional and legal reforms to clearly separate the responsibilities and actions of those responsible for environmental law enforcement from who that are involved in daily management of the natural resources.
	9.2. Strengthen the law enforcement institutions (police, environment inspectorate, PAs and forestry units) through: a) training in anti-poaching measures, b) increasing inspector and ranger salaries to increase incentives, and c) adopting system-level reforms to eliminate corruption.

8. USAID/KR STRATEGY AND PROGRAMS

This biodiversity analysis is prepared to assist USAID/Kyrgyz Republic as they become an independent mission from USAID/CAR and develop their own Country Development Cooperation Strategy (CDCS). Although a draft CDCS was not available at the time this report was drafted, the mission provided descriptions of all activities underway. These activities primarily cluster under the themes of economic growth/agriculture, democratic governance, health, and education, and many of these activities will continue under the new CDCS Development Objectives (DOs). It is not predicted that any new DOs specifically related to the environment and natural resources will be adopted. Any biodiversity-related activities will be framed in terms of the other DOs. This report is designed to fulfill the requirements of the Section 119 of the Foreign Assistance Act of 1961, which states that:

“Each country development strategy statement or other country plan prepared by the Agency for International Development shall include an analysis of

1. the actions necessary in that country to conserve biological diversity, and
2. the extent to which the actions proposed for support by the Agency meet the needs thus identified.”

This chapter addresses the second part of the requirement, the “extent to which” USAID/Kyrgyz Republic addresses the actions necessary to conserve biodiversity in the country. As new activities are developed under the new CDCS, however, there are also opportunities to include programs that more effectively address biodiversity threats and recommendations for KR. *Annex I* illustrates how USAID/KR can most effectively address biodiversity threats and recommendations as new programs are developed. The cross-cutting issues of gender and climate change are also discussed in the final section of this chapter.

8.1 EXTENT TO WHICH USAID/KR ADDRESSES BIODIVERSITY CONSERVATION

In addition, this report provides suggestions for further inclusion of biodiversity aspects to existing programs and considers potential threats to biodiversity conservation efforts that may be posed by these activities. The “extent to which” to which USAID’s current program meets biodiversity conservation needs are described in *Exhibit 13* are found in *Annex I*. This part of the assessment looks only at biodiversity aspects that are relevant to the activities already planned and underway, described in more detail by the mission in *Annex J* and also determined through interviews with mission program staff.

Exhibit 13. Biodiversity Aspects of Current USAID/KR Programs

Activity and Duration	Extent to Which Program Currently Addresses Biodiversity	Potential Conflicts with Biodiversity	Possibilities for Future Biodiversity Efforts
Economic Growth			
Kyrgyz Agri-Input Enterprise Development Project (KAED), IFDC (Sept 2010–Jan 2014)	Does not directly address biodiversity concerns.	Supports replacing native crops and cattle breeds with more productive, but less bio-diverse, forms.	Support gene banks preserving genetic material of native strains of wheat, etc., such as the National Agrarian Institute to preserve crop varieties being replaced by imported seeds. Link private production centers with <i>in situ</i> facilities supporting local crop varieties.
Local Development Program, Chemonics International (Sept 2010–Aug 2013)	Ecotourism activities may support protection of natural ecosystems that attract these tourists.	No conflicts determined.	Support production of brochures and material describing nearby PAs and providing conservation information. Choose municipalities that lie in proximity to PAs to give alternative incomes instead of unsustainable natural resources use. If project continues, look for synergies with upcoming GEF/UNDP project on PAs
Regional Energy Security, Efficiency, and Trade (RESET), Tetra Tech ES (Sept 2010–Sept 2013)	Provision of electricity to rural areas may reduce fuel wood cutting in fragile areas.	Development of new hydropower facilities may limit water flow to natural ecosystems during critical months, thus threatening native biodiversity.	No programs recommended.
Economic Policy Reform Project "REFORMA," Deloitte, Inc. (Sept 2011–Sept 2013)	No biodiversity elements determined.	No threats determined.	Addition of natural resources-related agencies and organizations can enhance biodiversity elements.
Conservation and Adaptation in Asia's High Mountain Landscapes and Communities Project, WWF-US (Oct 2012–Sept 2016)	This program directly addresses a number of biodiversity threats and recommendations.	No threats determined.	This program is already directly focused on biodiversity conservation.

Women's Leadership in Small and Medium Enterprises (WLSME), ACDI/VOCA and Bai Tushum Fund (Sept 2012–Sept 2015)	No activities underway at the time of this report, so unable to assess biodiversity components.	No activities underway at the time of this report, so unable to assess biodiversity components.	Efforts to support women engaged in environmentally sound ecotourism endeavors, in sustainable production of natural products (e.g., honey, natural soaps and teas, handicrafts, etc.), and in other nature-based activities can enhance biodiversity conservation measures. Choose municipalities that lie in proximity to PAs to give alternative incomes instead of unsustainable natural resources use.
Democratic Governance			
Strengthening Human Rights in Kyrgyzstan, Freedom House (Mar 2010–Sept 2013)	No biodiversity elements determined.	No threats determined.	No programs recommended.
Media Support Initiative, Internews (2009–2014)	To the extent that biodiversity related material is broadcast, biodiversity concerns about public awareness are addressed.	No threats determined.	Encourage and support the broadcast of environmental and conservation programming.
Youth Theater for Peace Program, International Research & Exchanges Board (IREX) (Mar 2010–Feb 2014)	No biodiversity elements determined.	No threats determined.	Plays developed on themes of natural resources conflicts (e.g., use of pastures vs. replanting forests, etc.) could address biodiversity threats.
Legal Support for Civil Society, ICNL (Sept 2009–Sept 2014)	To the extent that environmental NGOs use these services, biodiversity conservation can be enhanced.	No threats determined	Encourage more environment groups to use these services to build more capacity in this sector.
Kyrgyzstan Parliamentary Strengthening Program (KPSP) (2010–2015)	No biodiversity elements determined.	No threats determined.	Little interest expressed by MPs in environment, but if they seek training in environmental matters, this would help address biodiversity threats of lack of government knowledge about biodiversity concerns.
International Youth Foundation (IYF) Jasa.kg (Mar 2011–Mar 2015)	No biodiversity elements determined.	No threats determined.	Community service by young citizens could include conservation-related activities like trail creation in PAs, environmental clean-up projects, surveys of rare species, etc.

Kyrgyzstan Political Processes Program, Consortium for Elections and Political Processes (CEPPS) IRI, NDI, IFES (2007–2015)	No biodiversity elements determined.	No threats determined.	No programs recommended.
USAID-IDLO Kyrgyzstan Judicial Strengthening Program, International Development Law Organization (IDLO) (2011–2016)	No biodiversity elements determined.	No threats determined.	Training for judges in environment and natural resources matters could be included here (providing they express an interest in this).
Counter Trafficking Program in Central Asia, International Organization for Migration (IOM) (2011–2015)	No biodiversity elements determined.	No threats determined.	No programs recommended.
Support to the Kyrgyzstani Legal Defense Community, ABA (1207) (2012–2015)	No biodiversity elements determined.	No threats determined.	Training in environmental laws could be provided to attorneys to help further compliance in this area.
Local Transparency and Cooperation Initiative, EFCA (1207) (2012–2015)	Efforts underway to teach citizens the facts around environmental implications of extractive industries (to remove “uneducated hysteria” over certain projects), enhance biodiversity concerns over lack of knowledge.	No threats determined.	More education and awareness programs are needed in order for citizens to recognize and respond to true threats, and not perceived ones, from the work of extractive industries.
Public Television and Online Media Support Project, Internews (2012–2015)	No biodiversity elements determined.	No threats determined.	More environmental and conservation programming can be supported through this activity.
Conflict Mitigation through Targeted Analysis and Community Action in Kyrgyzstan, ACTED (Jan 2012–Jan 2015)	No biodiversity elements determined.	No threats determined.	Environmental conflicts could be mediated through this program.
Kabar Ordo: Our Time for Dialogue, Search for Common Ground (1207) (2012–2014)	No biodiversity elements determined.	No threats determined.	No programs recommended.

"Ak Zhol: The Path to Peace through Prosperity," Civil Society Support Center (2012–2015)	No biodiversity elements determined.	No threats determined.	No programs recommended.
Women's Peace Banks (1207) (2012–2014)	No biodiversity elements determined.	No threats determined.	No programs recommended.
Joint USAID and UNDP project "Support to National Budget Transparency in the Kyrgyz Republic," UNDP (2012–2014)	No biodiversity elements determined.	No threats determined.	Efforts to support transparency in natural resources management and budgets could enhance biodiversity concerns in this realm.
Collaborative Governance Program, East-West Management Institute, Inc. (2013–2018)	To the extent that environmental NGOs use these services, biodiversity conservation can be enhanced.	No threats determined.	Efforts to increase the participation and capacity of environmental NGOs would enhance biodiversity conservation efforts.
Health			
Quality Health Care Project (QHCP), Abt Associates (2010–2015)	No biodiversity elements determined.	No threats determined.	No programs recommended.
Dialogue on HIV and TB Project, PSI (2009–2014)	No biodiversity elements determined.	No threats determined.	No programs recommended.
TB Care, KNCV (2011–2014)	No biodiversity elements determined.	No threats determined.	No programs recommended.
Demographic and Health Survey, ICF Macro (2010–2013)	No biodiversity elements determined.	No threats determined.	No programs recommended.
Maternal and Child Health Integrated Program (MCHIP), John Snow Institute (2010–2013)	No biodiversity elements determined.	No threats determined.	No programs recommended.
Education			
National Admission Test (NAT), Center for Educational Assessment and Teaching Methods (CEATM) (2012–2013)	No biodiversity elements determined.	No threats determined.	Upgrading tests and developing new test with stronger ecology and conservation components could address biodiversity threats of lack of knowledge and training.

Quality Reading Project (QRP), American University of Central Asia (AUCA)	No activities underway at the time of this report, so unable to assess biodiversity components.	No activities underway at the time of this report, so unable to assess biodiversity components.	Good opportunity to develop reading materials with a conservation, biodiversity, and natural resources focus for learning-to-read programs.
American University of Central Asia Move Forward (2010–2013)	No biodiversity elements determined.	No threats determined.	Environmental training for journalists could advance biodiversity recommendations related to lack of public awareness.
Humanitarian Assistance			
As needed	No biodiversity elements determined.	Materials used in humanitarian assistance products need to be procured from environmentally sustainable sources.	No programs recommended.
USAID/OTI (Office of Transition Initiatives)			
USAID/OTI (Office of Transition Initiatives), International Resources Group (IRG) (Apr 2010 to Dec 2013)	Some biodiversity-related initiatives, including educating citizens about environmental concerns from mining, youth production of environmental videos, tree planting efforts, and interactive website: www.reach-initiative.kg , which has some environmental information.	No threats determined.	Conflict over natural resources use can be more fully included in OTI programs, thus aiding biodiversity conservation in KR.

8.2 NEW PROGRAM AREAS TO BE CONSIDERED

Although at the time of this writing the USAID/KR CDCS has not been formalized, it is likely that programming will continue under the current clusters of economic growth, democratic governance, education, and health. As the CDCS is being finalized, it is unlikely that a self-standing environment DO will be included, but there may be room to fit some new biodiversity elements into the existing categories. Some suggestions for biodiversity programs and activities that could fit into these elements are given here.

Economic Growth

1. SEAs can be integrated into the economic sector development projects (e.g., energy, agriculture) or within economic policy reform projects. The nationally declared priority economic development sectors in KR are energy, mining, transport and communications, agriculture (agro-industry), and tourism and services industry. No national-level SEAs are done for these sectors, and developments are still at initial stages, so the possibility exists

to minimize potential negative environmental and biodiversity impacts at the planning stage. There is an opportunity to cooperate in this subject with international lending institutions (WB, ADB, EBRD, etc.) operating in KR.

2. Economic valuation studies of ecosystems can be considered within upcoming projects in those sectors that highly depend on ecosystem services and goods like agriculture, energy, and local development. Such studies would demonstrate the economic values of KR's biodiversity and ecosystems, and would motivate the national decision makers and private sector to support conservation. These studies are also crucial to develop sustainable and long-term financing mechanisms.
3. USAID-supported local development projects (and programs aimed at enhancing small and medium-sized enterprises in poor communities) can contain biodiversity conservation measures by targeting municipalities and communities that are located nearby to national parks and other protected areas. In addition to poverty alleviation objectives, such an approach would result in reduction of pressure on PAs and in enhancing locals' appreciation of nature conservation. Sustainable natural resources management practices can also be easily integrated into these projects with focus on pastures, forests, and water to follow up on successful pilot projects in KR.
4. Opportunity exists in KR to initiate or integrate agro-biodiversity programs under USAID agriculture initiatives. Agro-biodiversity is a neglected area of focus in KR, and its importance cannot be overstated. Southern KR, in particular, is noted for the biodiversity of native strains of fruits and nuts that do not yet receive enough protection to ensure their continuation. Wild varieties of crops like wheat and vegetables are threatened by increased importation of non-native strains that are more productive in the present, but likely to be less resilient overall to various diseases and changes in climatic conditions. The Agrarian University of Kyrgyzstan and the State Commission on Testing of Crop Varieties are good entry points to *in situ* protection of wheat and other cereal crops, including efforts at the local level. Fruit and nut crops are maintained in programs at Kyrgyz Research Institute of Farming and the Gareev Botanical Garden among others. Any of these institutions would provide good entry points to agro-biodiversity programs supported under USAID agriculture initiatives.

Democratic Governance

1. There is a pressing need to strengthen the status and capacity of the State Agency of Environment Protection and Forestry (SAEPF). This can be done through: a) high-level policy dialogue with the government of KR to increase its status, b) inclusion of SAEPF in upcoming institutional strengthening and capacity-building programs for government agencies, c) encouraging cooperation of SAEPF and other environmental institutions with international programs of relevant U.S. agencies. For example, there is a possibility to support SAEPF through the U.S. National Parks Service through its sister parks, international volunteers and exchange programs, through the capacity-building efforts and technical assistance that can be provided by the U.S. Forest Service, and by grants that can be provided by the U.S. Fish and Wildlife Service.
2. Programs aimed to strengthen civil society and NGOs in KR may consider support to environmental NGOs through their capacity building. Assistance can also be provided through USAID Development Grants Program. Support to the Aarchus Convention Center can also be integrated into the Democratic Governance projects as the objective of this center is to enable public access to environmental information and civil society participation in decision-making processes. Related media support initiatives can include environmental information dissemination, training for environmental journalists, etc. This would significantly increase public awareness of environmental issues.

3. Projects addressing decentralization and municipal and regional development planning may include environmental and climate change concerns to help ensure the sustainability of their environment. More work is needed to further decentralization of management of natural resources and protected areas. Community-based management units like Pasture, Forest and Water User groups have received some donor support, and good models exist for expansion of these efforts. Natural disaster risk management and integration of climate change adaptation and mitigation measures are usually integral parts of municipal and regional development planning and need support in KR.

Health

Health programs do not easily lend themselves to biodiversity conservation objectives and none are suggested under this DO.

Education

1. Creation of an Environmental Management Training Center is recommended in KR as a response to one of the root causes of biodiversity threats: “Lack of human technical capacity in natural resource management agencies and institutions.” This project could include establishment of a permanent facility, development of curriculum and teaching materials, conducting the training of trainers, and ensuring its further sustainability, that together would work to increase environmental knowledge and capacity in the country. USAID may lead this project or may join efforts of other development agencies through its education programs.
2. Ecology, biodiversity, and conservation materials and courses need to be strengthened in KR at all levels from primary school to universities. USAID could develop a conservation biology initiative under their education DO to focus on work in this neglected area.

8.3 CROSS-CUTTING ISSUES: GENDER AND CLIMATE CHANGE

Two cross-cutting issues, climate change and gender, are supported through new USAID policies, and these issues need to be considered in developing the new CDCS for USAID/KR. The impact of climate change and the gender aspects of biodiversity are considered in the body of this report.

The USAID Climate Change and Development Strategy 2012–2016 (USAID, 2012) ensures that climate change perspectives are included in mission programming. Certain biodiversity measures recommended in this assessment enhance resilience to the projected effects of climate change. For instance, maintaining biodiversity of commercial crop and tree relatives ensures the availability of strains that may be more resilient to changing climatic conditions and diseases, thus ensuring sustainability in the agricultural sector. Efforts to enhance protection of natural and protected areas also help maintain the country’s ecological resilience to changing moisture and temperature regimes. More education and awareness of biodiversity conservation matters also goes hand in hand with more knowledge about the importance of natural habitats and species as the climatic conditions continue to evolve.

In accordance with USAID’s Gender Equality and Female Empowerment Policy (USAID, 2012), it is also important that gender concerns be considered in any biodiversity initiatives that are undertaken. It is known that in KR, like most other places on earth, rural people rely heavily on the use of nature resources in their environment. According to the UNDP Poverty Reduction Program (UNDP, 2013), in the years from 2005 to 2011, this dependency on natural resources has increased. And this increase has the most noticeable effect on the lives of women.

Women in KR are the main gatherers of natural products like berries, nuts, mushrooms, etc., and the principal producers of natural handicrafts, jams, herbal soaps, smoked fish, and other products that can be sold. Women are also closely engaged in servicing home-stay guests, feeding tourists, and other activities that go side by side with ecotourism activities supporting nature conservation. Degradation of biodiversity and scenic natural habitats impacts their ability to feed their families and to earn an income to support them. Efforts to enhance ecotourism programs near protected areas and other activities involving sustainable use of natural resources are a good entrée for building more entrepreneurial capacity among women and also for spreading environmental awareness about the value of biodiversity.

Women are also under-represented in local natural resources management efforts. For example, in the water sector, a government report on gender (Koshmatov, 2009) showed that only 18 percent of people employed here were women, and that only 6 women served as directors in the 436 Water User Associations, a clear indication of gender differences in this field. There is no published information available on the activity of women in the Pasture Users Associations, but stakeholders that were questioned thought that a similar situation exists here as well. Any USAID actions at the local level should seek to involve more women in these efforts. In all programs related to natural resources, there are opportunities like these to empower women in KR.

ANNEX A: A LIST OF PERSONS CONTACTED AND THEIR INSTITUTIONAL AFFILIATION

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ANNEX B: STATEMENT OF WORK FOR THE ANALYSIS

C.1 OBJECTIVES AND RATIONALE

The purpose of this requirement is to obtain a country-specific biodiversity analysis for the Kyrgyz Republic. The previous analysis was completed in 2010 and was part of the Central Asian Republics Biodiversity Assessment, a copy of which is provided in this solicitation. The anticipated dates for the assessment including in-country travel are April 8 – May 30, 2013, including approximately three to four weeks in the Kyrgyz Republic. The biodiversity analysis will address the requirements of Section 119 (**Biodiversity Analysis**) of the Foreign Assistance Act of 1961 (as amended) and ADS 201.3.4.1b, Tropical Forests and Biodiversity Analysis for country strategic plans. The analysis is mandatory for the strategic planning process of new USAID Country Development Cooperation Strategies.

“FAA Sec 119 (d) Country Analysis Requirements. Each country development strategy statement or other country plan prepared by the Agency for International Development shall include an analysis of

1. the actions necessary in that country to conserve biological diversity, and
2. the extent to which the actions proposed for support by the Agency meet the needs thus identified.”

By mandating this analysis, the United States Congress is recognizing the fundamental role that the conservation of biodiversity plays in sustainable development. Based on this analysis, USAID/Kyrgyz Republic will define how its programs in the new Country Development Cooperation Strategy (CDCS) contribute to conservation needs in the Kyrgyz Republic. The analysis will also serve as a planning tool to assist USAID/Kyrgyz Republic in integrating environmental concerns into its overall program.

This analysis should satisfy Section 119 and provide information that will provide useful background for the design and implementation of biodiversity conservation activities as well as a means to integrate biodiversity conservation into other sectoral programs. It informs not only biodiversity programs, but also activities related to poverty alleviation, agriculture, democracy and governance, and natural resource-based conflict. The analysis shall also help to identify threats, stakeholders, and potential partners. It should review the potential impacts either positive or negative that proposed programs within a country strategy might have on biodiversity.

For further guidance and information on best practices see the reports: “Tropical Forestry and Biodiversity (FAA 118 and 119) Analyses: Lessons Learned and Best Practices from Recent USAID Experience” and “Best Practices for Biodiversity and Tropical Forest Assessments” (http://pdf.usaid.gov/pdf_docs/PNADE195.pdf and https://pdf.usaid.gov/pdf_docs/PNADE673.pdf).

II. BACKGROUND

The Kyrgyz Republic is a small, landlocked country in the center of Eurasia. The country shares borders with Kazakhstan, Uzbekistan, Tajikistan, and China. The national territory extends

approximately 900 km from east to west and 410 km from north to south. The terrain of the Kyrgyz Republic is dominated by the Tien-Shan and Pamir mountain systems. These ranges occupy 65 percent of the country's territory. The Alay Range of the Tien-Shan mountain system dominates the southwest crescent of the country, and the main Tien-Shan Range runs along the boundary between the southern Kyrgyz Republic and China before extending into China's Xinjiang Uygur Autonomous Region. The Kyrgyz Republic's average elevation is 2,750 m above sea level, ranging from 7,439 m at Peak Jengish Chokusu to 394 m in the Fergana Valley near Osh. Ninety percent of the country lies more than 1,500 m above sea level.

Despite its small land mass, the Kyrgyz Republic contains a wide variation in elevation and geology, leading to a broad range of habitats and a high diversity of species. The diversity of ecosystems in the Kyrgyz Republic is not evenly distributed throughout the country. The western and central areas of the Tien-Shan mountain range contain the highest diversity of eco-regions, while the Fergana Valley and southern region of the Kyrgyz Republic contain the fewest number of eco-regions. Particularly unique eco-regions include relict walnut forests, tugai or desert riparian forests, and Lake Issyk-Kul.

The Kyrgyz Republic's biodiversity is of an ancient origin. The country contains a high level of endemic species. The country's location on the edge of several biogeographic regions and its variety of ecological zones has influenced its fauna and flora. Specifically, the Kyrgyz Republic contains approximately 2,000 species of fungi and 3,786 species of higher plants. The highest representation of plant species comes from the following families: Poaceae (224 species), Fabaceae (222), Asteraceae (80), Brassicaceae (73), Rosaceae (50), and Alliaceae (40). Approximately 200 species of vascular plant are endemic to the Kyrgyz Republic.

Endemism is also significant among the Kyrgyz Republic's fauna. Specifically, the country contains 12 endemic fish species and at least 3 endemic mammal species including Menzbier's marmot (*Marmota menzbieri*), the Tien-Shan mouse, and the Tien-Shan subspecies of European brown bear (*Ursus arctos isabellinus*).

Many of the Kyrgyz Republic's biological resources are used directly for subsistence or commercial extraction. The country contains more than 200 species of medicinal plants. The Kyrgyz Republic also lies within an important center of origin for domesticated fruit and nut crops and possesses a number of wild relatives of these plants, including walnuts, apples, apricots, pistachio. Fruit-walnut forests in the south of the Kyrgyz Republic are especially valuable. These forests are an important storehouse for genetic varieties and a potential source of pest and disease-resistant varieties for cultivated plant species. The ancestors of many important cultivated plants found in the Kyrgyz Republic include: walnut (*Juglans regia*), Siever's apple (*Malus sieversii*), Kyrgyz apple (*M. kirghisorum*), Sogdian wild prune (*Prunus sogdiana*), common pear (*Pyrus communis*), Korzhinski's pear (*P. korshinskyi*), Regel's pear (*P. regelii*), Tien-Shan cherry (*Cerasus tianschanica*), Magaleb cherry (*C. mahaleb*), barberry (*Berberis oblonga*), almond (*Amygdalus communis*), pistachio (*Pistacia vera*), Jungar hawthorn (*Crataegus songorica*), and Turkestan hawthorn (*C. turkestanica*).

III. STATEMENT OF WORK

The contractor shall work with USAID/Kyrgyz Republic to evaluate the biodiversity concerns in the Kyrgyz Republic and undertake the appropriate synthesis of the information addressing 1) actions necessary to conserve biodiversity, and 2) the extent current USAID programs meet the biodiversity needs thus identified.

USAID anticipates providing only limited support to the contractor in identifying contacts and sites, and will not schedule meetings for the contractor—with the exception of meetings within the USAID/Kyrgyz Republic mission and the U.S. Embassy in Bishkek. If the contractor believes that USAID assistance will be required to schedule a meeting or site visit, the Contractor should notify the COR in advance and explain the extenuating circumstances. The contractor shall perform the following tasks:

TASK 1 - Data Collection:

1. Prior to departure, the contractor shall review existing background information about the Kyrgyz Republic including the Central Asian Republics 2010 Biodiversity Assessment and relevant host country and/or donor environmental reviews specific to the country's natural resources, ecological and biological specificities, current status of biodiversity, climate change and sustainable landscapes, and institutional organizations. The contractor shall work with the mission to become knowledgeable about key stakeholders and donors in biodiversity, legislation related to biodiversity, and other relevant information required for the country analysis. Principal donors include the World Bank, the Asian Development Bank, UNDP, GIZ, the European Commission, EBRD, and SDC.
2. Prior to departure, the contractor shall gather relevant information on regional programs and other United States Government Agencies active in the Kyrgyz Republic.
3. Consult with mission personnel to identify stakeholders, nongovernmental organizations (NGOs), and local officials to conduct the interviews and identify priority site visits.
4. Meet with the relevant local government institutions, agencies, and ministries to gather information, recommendations, and experiences about past and planned activities from the officials and persons directly involved in biodiversity issues. The contractor shall gather detailed information about changes in the country's specificities, such as protected areas, endangered species, rates, and types of land conversion from natural to agricultural or plantation systems after the 2010 report.
5. Meet with other international donors, agencies, and NGOs involved in biodiversity programs in the Kyrgyz Republic and become familiar with ongoing and planned activities by other donors and agencies.

TASK 2 - Analysis:

Based upon the review of documents, interviews, and site visits, the contractor shall provide the following analysis:

1. The current status of biodiversity in the Kyrgyz Republic.
2. The social, economic, institutional, legal, and policy context for their use and conservation, including actions currently being taken by government, other donors, NGOs, and the private sector.
3. The key direct and indirect threats to biodiversity and a discussion of rates of loss.
4. The actions needed to conserve and sustainably manage biodiversity in the Kyrgyz Republic in the current context based on analysis of government, donor, and NGO responses to meet these needs.
5. The implications for USAID or other donor programming and environmental monitoring on biodiversity.
6. Provide recommendations which shall define the actions for USAID/Kyrgyz Republic to consider biodiversity conservation within the development of the new CDCS in particular in

relation to use of natural resources, governance of biodiversity resources and policies that may affect (both positive and negative) biodiversity.

7. The implications of climate change for biodiversity conservation based on climate projections for the Kyrgyz Republic and potential for integration of climate change responses within any USAID activities following the USAID Climate Change and Development Strategy (http://www.usaid.gov/our_work/policy_planning_and_learning/documents/GCCS.pdf).
8. The role of gender in conservation in keeping with USAID's new gender policy (http://www.usaid.gov/our_work/policyplanning_and_learning/documents/GenderEqualityPolicy.pdf).
9. The capacity and associated enabling environment needed to implement conservation. Capacity should be analyzed at the macro, meso and micro levels.

TASK 3 – Report:

The contractor must prepare a report describing the analysis and conclusions. This report must meet the legal requirement of FAA Section 119: (1) clearly articulating the actions necessary to conserve biodiversity in the Kyrgyz Republic, and (2) clearly describing the extent to which USAID's programs meet the needs identified. Analysis of gender, climate change, and capacity should be incorporated as appropriate throughout the report and listed as separate recommendations as appropriate.

IV. QUALIFICATION OF PERSONNEL

The Offeror will form an assessment team consisting of one key personnel position – (1) Team Leader, and optional (2) Technical Specialist(s), (3) Local Specialist(s). Regardless of the team structure chosen, the Team Leader will be responsible for the coordination of data collection, analysis, as well as for the production of all interim deliverables and the final report.

1. Team Leader (KEY): The Team Leader should be a senior-level manager and technical specialist with at least 10 years of experience working in the field of biodiversity conservation in an international context. This position requires a graduate degree in a relevant technical background. The Team Leader should also be a strong writer with past experience preparing, preferably as a team leader, biodiversity assessments that meet Section 119 requirements. Similar and relevant past biodiversity assessment experience in this region and country is preferred.

Optional Personnel

2. Technical Specialist(s): The Offeror may elect to aid the team leader with one to two additional technical specialists with skills and experience that complement the team leader, particularly by filling in gaps essential to analyzing biodiversity in the Kyrgyz Republic. These technical specialists must hold relevant graduate degrees and be, at a minimum, mid-level experts with at least five years of experience working in their respective fields, preferably in an international context. They should also be strong writers with past experience preparing biodiversity assessments or other professional documents of similar topic and scope. Similar and relevant past biodiversity assessment experience in this region and country is preferred.

3. Local Specialist(s): The Offeror is strongly encouraged to work with local specialists with experience working with biodiversity conservation or other environmental conservation efforts in the Kyrgyz Republic. Similar and relevant past biodiversity assessment experience in this region and country is preferred.

ANNEX C: BIOGRAPHICAL SKETCHES OF TEAM MEMBERS

Team Leader – Dr. Pat Foster-Turley is an international development specialist with over 20 years of experience in biodiversity, natural resources management, and environmental economics, working in more than 20 countries in Asia, Africa, and Eastern Europe. She has successfully led diverse international teams in conducting FAA 118/119 biodiversity and tropical forestry analyses, designing new programs and other natural resources tasks for USAID missions. Most recently, she was based in Bangkok leading 118/119 assessment teams for the Asia region (18 countries), simultaneously completing an assessment for Burma and abbreviated assessments for Laos, Vietnam, and China for USAID’s Regional Development Mission for Asia. Within the past three years, she has also completed FAA 118/119 assessments for Albania, Serbia, Montenegro, Azerbaijan, Georgia (with ECODIT), and Cambodia. Dr. Foster-Turley has also worked on the USAID side of natural resource management programs while serving as an American Association for the Advancement of Science (AAAS) Fellow in a bilateral mission for Tanzania, in the regional Southern African Mission in Botswana, and in the USAID Global Bureau in Washington, D.C., giving her a wide perspective on USAID processes. She has strong communication and social skills and works well with people of all cultures, nationalities, and income levels as either a team member or team leader.

NRM Specialist – Ramaz Gokhelashvili is a biodiversity conservation specialist and wildlife ecologist, natural resources and environmental manager with more than 20 years of experience in these fields. He holds an M.Sc. in Wildlife Management from University of Idaho (USA) with focus on conservation biology, endangered species conservation, protected areas management, and social aspects of natural resources management; and a second M.Sc. in Ecology from Tbilisi State University (Georgia) with focus on ecosystems ecology and environmental management. Ramaz has initiated and managed numerous nature conservation projects and programs, assessments, and studies in Georgia and other countries of the Caucasus Region and the Kyrgyz Republic. His particular professional experience and expertise includes: regional and international environmental cooperation; civil society development and networking; institutional capacity building; natural resource management and biodiversity policy development; outreach and publicity campaigns; fundraising for environmental projects; assistance to protected areas in performing the management; management planning for protected areas and endangered species; coordination and facilitation of workshops, trainings, and conferences; development of databases and monitoring systems; nature tourism development; wildlife ecology and conservation biology; water and coastal resource management; and ecosystems management. Ramaz is author of 12 books, including 3 high-school text books, more than 40 scientific peer-review papers and more than 90 articles in environment fields. Mr. Gokhelashvili is fluent in Georgian, English, and Russian

Local Biodiversity Specialist – Azat Alamanov is a local biodiversity expert with significant experience with data collection, analysis, and other research regarding biodiversity conservation, mainstreaming conservation in fisheries management, the impacts of ecotourism on the local environment and sites surrounding protected areas, and in developing packages for tourism within protected areas. He has participated in the preparation of the Red List of endangered species for Kyrgyzstan and supported projects for the protection of biodiversity and protected areas. Since May 2008, he has been managing a United Nations Development Programme (UNDP) project focused on strengthening policy and regulatory framework for mainstreaming biodiversity into the fisheries sector.

ANNEX D: REFERENCES

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<http://www.worldbank.org/en/country/kyrgyzrepublic/overview> accessed 4/23/13

Useful websites:

<http://caresd.net/>

A Digital Network on Environmental and Sustainable Development Practice and Policy in Central Asia and the Neighboring Regions of Russia

<http://www.donors.kg/>

Information about activities of international donor organizations in Kyrgyzstan

<http://ramsar.wetlands.org/Database/SearchforRamsarsites/tabid/765/Default.aspx>

Information on Ramsar sites in the Kyrgyz Republic

<http://www.birdlife.org/datazone/country/kyrgyzstan/ibas>

Important Bird Areas and map

www.nature.kg

Official SAEPF government website

<http://www.cbtkyrgyzstan.kg/index.php/en/>

Kyrgyz Republic Community Based Tourism

www.iucnredlist.org

IUCN Red List of Threatened Species

http://www.reach-initiative.org/countries/kyrgyzstan_/kyrgystan-resource-center/kyrgyzstan-maps

Digital maps of Kyrgyz Republic

ANNEX E: CURRENT IUCN RED LIST FOR KR

IUCN 2012. IUCN Red List of Threatened Species. Version 2012.2. <www.iucnredlist.org>. Downloaded on May 10, 2013.

Critically Endangered (CR) – 7 species

#	Scientific Name	Common Name
	Plants	
1.	<i>Ammopiptanthus nanus</i>	
2.	<i>Calligonum calcareum</i>	
3.	<i>Crataegus knorringiana</i>	
4.	<i>Polygonum toktogulicum</i>	
5.	<i>Pyrus korshinskyi</i>	
6.	<i>Sibiraea tianschanica</i>	
	Birds	
7.	<i>Vanellus gregarious</i>	Sociable Lapwing

Endangered (EN) – 14 species

#	Scientific Name	Common Name
	Plants	
1.	<i>Armeniaca vulgaris</i>	Wild Apricot
2.	<i>Atraphaxis muschketowi</i>	Shrubby Buckwheat
3.	<i>Betula tianschanica</i>	
4.	<i>Lonicera paradoxa</i>	
5.	<i>Malus niedzwetzkyana</i>	
6.	<i>Spiraeanthus schrenkianus</i>	
	Mammals	
7.	<i>Equus hemionus</i>	Asian Wild Ass
8.	<i>Cuon alpinus</i>	Asiatic Wild Dog
9.	<i>Panthera uncial</i>	Snow Leopard
	Birds	
10.	<i>Neophron percnopterus</i>	Egyptian Vulture
11.	<i>Branta ruficollis</i>	Red-breasted Goose
12.	<i>Falco cherrug</i>	Saker Falcon
13.	<i>Melanitta fusca</i>	Velvet Scoter
14.	<i>Oxyura leucocephala</i>	White-headed Duck

Vulnerable (VU) – 23 species

#	Scientific Name	Common Name
	Plants	
1.	<i>Amygdalus bucharica</i>	Wild Almond
2.	<i>Malus sieversii</i>	
	Mammals	
3.	<i>Bison bonasus</i>	European Bison
4.	<i>Gazella subgutturosa</i>	Goitered Gazelle
5.	<i>Marmota menzbieri</i>	Menzbier's Marmot
	Birds	
	<i>Pelecanus crispus</i>	Dalmatian Pelican
6.	<i>Aquila heliaca</i>	Imperial Eagle
7.	<i>Otis tarda</i>	Great Bustard
8.	<i>Aquila clanga</i>	Greater Spotted Eagle
9.	<i>Chlamydotis undulata</i>	Houbara Bustard
10.	<i>Clangula hyemalis</i>	Long-tailed Duck
11.	<i>Marmaronetta angustirostris</i>	Marbled Teal
12.	<i>Columba eversmanni</i>	Pale-backed Pigeon
13.	<i>Haliaeetus leucoryphus</i>	Pallas's Fish-eagle
14.	<i>Larus relictus</i>	Relict Gull
	Fish	
15.	<i>Luciobarbus brachycephalus</i>	
16.	<i>Luciobarbus capito</i>	
17.	<i>Cyprinus carpio</i>	Wild Common Carp
	Reptiles	
18.	<i>Testudo hosfieldii</i>	Central Asian Tortoise
19.	<i>Phrynocephalus strauchi</i>	Strauch's Agama
	Arthropods	
20.	<i>Parnassius apollo</i>	Apollo Butterfly
	<i>Chalepoxenus tarbinskii</i>	
21.	<i>Saga pedo</i>	Predatory Bush Cricket

Near Threatened (NT) – 20 species

#	Scientific Name	Common Name
	Plants	
1.	<i>Fraxinus sogdiana</i>	
2.	<i>Populus pruinosa</i>	
3.	<i>Juglans regia</i>	Walnut

	Mammals	
4.	<i>Mustela altaica</i>	Mountain Weasel
5.	<i>Ovis ammon</i>	Argali, Wild Sheep
6.	<i>Lutra lutra</i>	Eurasian Otter
7.	<i>Otocolobus manul</i>	Manul, Pallas's Cat
8.	<i>Allactaga vinogradovi</i>	Vinogradov's Jerboa
	Birds	
9.	<i>Limosa limosa</i>	Black-tailed Godwit
10.	<i>Glareola nordmanni</i>	Black-winged Pranticole
11.	<i>Aegypius monachus</i>	Black Vulture
12.	<i>Numenius arquata</i>	Eurasian Curlew
13.	<i>Coracias garrulus</i>	European Roller
14.	<i>Aythya nyroca</i>	Ferruginous Duck
15.	<i>Gallinago media</i>	Great Snipe
16.	<i>Tetrax tetrax</i>	Little Bustard
17.	<i>Circus macrourus</i>	Pallid Harrier
18.	<i>Falco vespertinus</i>	Red-footed Falcon
	Arthropods	
19.	<i>Libellula pontica</i>	Red Chaser
20.	<i>Prengaris arion</i>	Large Blue

Data Deficient (DD) – 14 species

#	Scientific Name	Common Name
	Plants	
1.	<i>Amygdalus susakensis</i>	
2.	<i>Astragalus bosbutoensis</i>	
3.	<i>Calophaca soongorica</i>	
4.	<i>Pyrus asia-mediae</i>	
5.	<i>Sorbaria olgae</i>	
6.	<i>Zygophyllum kaschgaricum</i>	
	Mammals	
7.	<i>Ellobius alaicus</i>	Alai Mole Vole
8.	<i>Myotis bucharensis</i>	Bokhara Whiskered Bat
	Fish	
9.	<i>Perca schrenkii</i>	Balkhash Perch
10.	<i>Capoetobrama kuschakewitschi</i>	Chu Sharpray
	Reptiles	
11.	<i>Naja oxiana</i>	Central Asian Cobra
	Arthropods	
12.	<i>Hyles hippophaes</i>	
	Mollusks	
13.	<i>Corbicula producta</i>	<i>Corbicula producta</i>
14.	<i>Euglesa gurvichi</i>	<i>Euglesa gurvichi</i>

ANNEX F: ENVIRONMENT-RELATED LEGISLATION & CONCEPTS, PLANS, PROGRAMS & STRATEGIES

Since the revolution in 2010, two important biodiversity-related laws have been modified:

1. Amendment to The Law of Steady Development of Ecologic and Economic System of Lake Issyk-Kul, April 2013
2. The Law of the Kyrgyz Republic “On Protected Areas” as of May 28, 1994, № 1561-XII. Amended by May 3, 2011

Others are listed in the *Fourth Report to the Convention on Biological Diversity* (KR, 2008) as follows:

3. The Law of the Kyrgyz Republic “On protection and use of the vegetation” as of June 20, 2001, № 53.
4. The Law of the Kyrgyz Republic “On Environmental Expertise” as of June 16, 1999, № 54.
5. The Law of the Kyrgyz Republic “On Biosphere Reserves in the Kyrgyz Republic” as of June 9, 1999, № 48.
6. The Law of the Kyrgyz Republic “On Veterinary” as of March 6, 1992, № 805-XII.
7. The Law of the Kyrgyz Republic “On Fauna” as of June 17, 1999, № 59.
8. The Law of the Kyrgyz Republic “On Plant Quarantine” as of June 2, 1998, № 26.
9. The Law of the Kyrgyz Republic “On Accession to the International Convention on protection of the new sorts of plants” as of January 14, 2000, № 10.
10. The Law of the Kyrgyz Republic “On Accession of the Kyrgyz Republic to the Convention on Biological Diversity” as of July 26, 1996, № 40.
11. The Law of the Kyrgyz Republic “On Accession of the Kyrgyz Republic to the Kartakhena Protocol on Biological Safety to the UN Convention on Biological Diversity” as of August 6, 2005, № 140.
12. The Law of the Kyrgyz Republic “On ratification of the UN Convention on Environmental Impact Assessment in transboundary context” as of January 15, 2001.
13. The Law of the Kyrgyz Republic “On Fishery” as of June 25, 1997, № 39.
14. The Law of the Kyrgyz Republic “On Seeds” as of June 19, 1997, № 38.
15. The Law of the Kyrgyz Republic “On Chemicalization and Plant Protection” as of January 25, 1999, № 12.
16. The Law of the Kyrgyz Republic “On basics of technical regulation” as of May 22, 2004, № 67.
17. The Law of the Kyrgyz Republic “On Breeding in the livestock-breeding of the Kyrgyz Republic” as of December 18, 1992, № 1124-XII.
18. The Law of the Kyrgyz Republic “On tariffs paid for use of natural flora and fauna objects in the Kyrgyz Republic” as of August 11, 2008, № 200.
19. The Law of the Kyrgyz Republic “On ban of capture, transportation, buying, selling and withdrawal of the valuable and endemic species of fish in the Issyk-Kul and Son-Kul Lakes” as of August 7, 2008.
20. The Law of the Kyrgyz Republic “On Air Protection” as of June 12, 1999, № 51

21. The Law of the Kyrgyz Republic “On traditional knowledge protection” as of July 31, 2007, № 116
22. The Law of the Kyrgyz Republic “On Public Associations” as of October 15, 1999, № 111.
23. The Law of the Kyrgyz Republic “On Jaamats (communities) and their associations” as of February 21, 2005, № 36.
24. “Code of the Kyrgyz Republic on Administrative Liability” as of August 4, 1998, № 114.
25. Forestry Code of the Kyrgyz Republic as of July 8, 1999, № 66 (in version of the Laws of the Kyrgyz Republic as of June 28, 2003, № 119, June 28, 2003, № 120, March 3, 2005, № 41).
26. Land Code of the Kyrgyz Republic as of June 2, 1999, № 45 with amendments made in the Law of the Kyrgyz Republic as of October 17, 200, № 231.
27. Criminal Code of the Kyrgyz Republic as of October 1, 1997, № 68 with amendments made by the Law of the Kyrgyz Republic as of October 17, 2008, № 231.
28. Decree of the President of the Kyrgyz Republic “On Introduction of the moratorium on logging, processing and selling of the valuable wood growing on territory of the forestry fund of the Kyrgyz Republic” as of November 22, 2006, № 565.
29. Decree of the President of the Kyrgyz Republic “On Measures protecting and increasing fish stocks in the Issyk-Kul, Son-Kul Lakes and other water bodies of the Kyrgyz Republic” as of January 10, 2008, №.
30. Decree of the President of the Kyrgyz Republic “On Measures on extension, legal support and introduction of interaction of the state bodies, municipalities and civil society in practice in the Kyrgyz Republic” as of May 11, 2006, № 241.
31. Concept of the Forestry Sector Development of the Kyrgyz Republic approved by the Government of the Kyrgyz Republic as of April 14, 2004, № 256.
32. Concept of Environmental Safety as basic strategic document to conduct state policy on environment protection and rational nature use. Resolution of the Government of the Kyrgyz Republic as of October 16, 2007, № 469.
33. National Framework Programme within the Central Asian Countries Initiative on Land Management (CACILM), 2006.
34. Resolution of the Government of the Kyrgyz Republic as of June 22, 2004, № 465 “Concept of agricultural policy of the Kyrgyz Republic till 2010”.
35. Regulation on State Forest Protection of the Kyrgyz Republic approved by the Resolution of the Government of the Kyrgyz Republic as of June 24, 1997, № 371.
36. Resolution of the Government of the Kyrgyz Republic as of June 23, 2003, № 374 “On set up of the Interagency Commission under the Government of the Kyrgyz Republic on WTO issues”.
37. Resolution of the Government of the Kyrgyz Republic № 369 as of July 21, 2001 “On measures on implementation of the Framework Convention on Climate Change”.
38. Resolution of the Government of the Kyrgyz Republic № 24 as of January 23, 1997 “On the National Commission of the Government of the Kyrgyz Republic on UNESCO matters”.
39. Resolution of the Government of the Kyrgyz Republic “On Measures on use of outrun pastures of the Kyrgyz Republic” as of November 30, 1998, № 775.
40. Resolution of the Government of the Kyrgyz Republic “On approval of the regulation on leasing and use of the pastures” as of September 27, 2004, № 718.
41. Resolution of the Government of the Kyrgyz Republic “On implementation of the Cartagena Protocol on Biological Safety to the UN Convention on Biological Diversity” as of September 15, 2005, № 433.

42. Resolution of the Government of the Kyrgyz Republic “Concept of cooperation between the public associations, public funds, non-governmental organizations and state bodies of the Kyrgyz Republic”.
43. Resolution of the Government of the Kyrgyz Republic as of April 14, 2004, № 256 “On approval of the Concept of Forestry Development of the Kyrgyz Republic till 2025”.
44. Resolution of the Government of the Kyrgyz Republic № 161 as of April 22, 2008 “On approval of the Fishery Development Programme of the Kyrgyz Republic for 2008–2012”.
45. Resolution of the Government of the Kyrgyz Republic № 310 as of July 25, 2005 “On status of the Chatyr-Kul Lake as a wetland having international importance”.
46. Resolution of the Government of the Kyrgyz Republic № 901 as of December 30, 2006 “On control and surveillance of safety measures in field of veterinary, plant quarantine, epidemiology, sanitary and environment conducted by the state authorities”.
47. Resolution of the Government of the Kyrgyz Republic № 802 as of November 25, 2002 “Action Plan on implementation of proposals on comprehensive tourism development in the Issyk-Kul region”.
48. Resolution of the Government of the Kyrgyz Republic as of October 18, 1996, № 332 “Concept of environmental safety of the Kyrgyz Republic”.
49. Resolution of the Government of the Kyrgyz Republic as of August 3, 2002, № 524 “On approval of the Biodiversity Conservation Strategy of the Kyrgyz Republic”.
50. Resolution of the Government of the Kyrgyz Republic as of January 24, 2000, №40 “On approval of the regulation on the Biosphere Reserve Issyk-Kul”.
51. Resolution of the Government of the Kyrgyz Republic as of April 28, 2005, № 170 “On approval of the list of rare and endangered species of animals and plants for their inclusion in the Red Book of the Kyrgyz Republic”.
52. Resolution of the Government of the Kyrgyz Republic as of April 11, 2008, № 145 “On the National Forest Inventory”.
53. Decision of the Security Council of the Kyrgyz Republic “On status, draft concept and measures ensuring environmental safety of the Kyrgyz Republic” as of August 4, 1997.
54. Directive of the State Agency on Environmental Protection and Forestry under the Government of the Kyrgyz Republic as of August 6, 2007, № 01-13/180 “On approval of the Strategy and Action Plan on development of the electronic informational resources in the forestry sector of the Kyrgyz Republic”.

Environmental Strategies, Plans, Etc.

Year	Title	Decree
1998	National Strategy on Sustainable Human Development	Decree of the President No. 87 of 3 April 1998
	Concept of Introducing Private Ownership of Land in the Kyrgyz Republic	Decree of the President No. 310 of 13 October 1998
	The Concept on Strengthening and Development of the Environmental Protection Activities for 1998–2001	Resolution of the Government No. 416 of 4 July 1998
	State Land Programme until 2005	Resolution of the Government No. 548 of 17 August 1998
1999	National Environmental Health Action Plan	Resolution of the Government No. 611 of 8 November 1999
	Agricultural Land Monitoring Programme for 1999–2005 and Beyond	Resolution of the Government No. 115 of 1 March 1999

Year	Title	Decree
2000	State Doctrine of Education of the Kyrgyz Republic	Decree of the President No. 244 of 27 August 2000
2001	Programme of Measures on Development of Tourism in the Kyrgyz Republic until 2010	Resolution of the Government No. 33 of 2 February 2001
2002	The National Action Plan on Education for All of the Kyrgyz Republic	Resolution of the Government No. 504 of 30 June 2002
	Concept of Development of Education in the Kyrgyz Republic until 2010	Resolution of the Government No. 259 of 29 April 2002
	State Programme on Elimination of Use of Ozone-Depleting Substances	Resolution of the Government No. 263 of 29 April 2002
	Concept of Development of Forestry until 2025	Resolution of the Government No. 523 of 3 August 2002
	Strategy for Biodiversity Conservation of the Kyrgyz Republic and Action Plan	Resolution of the Government No. 524 of 3 August 2002
	National Strategy and Action Plan on Sustainable Development of the Mountain Territories	Resolution of the Government No. 37 of 21 January 2002
	The National Report Rio+10 and the Action Plan until 2010 to the Agenda 21	Resolution of the Government No. 411-r of 2 August 2002
	The Comprehensive Development Framework Strategy up to 2010	Resolution of the Government No.309 of 16 May 2002
	The Concept of Education System Development in the Kyrgyz Republic until 2010	Order of the President No. 259 of 2002
2003	Concept of Continuous Environmental Education	Order of the Ministry of Ecology and Emergencies No. C498 of 27 October 2003
2004	Concept of Development of Forestry up to 2025	Resolution of the Government No. 256 of 14 April 2004
	National Forest Programme for 2005–2015	Resolution of the Government No. 858 of 25 November 2004
	Agrarian Policy Concept until 2010	Resolution of the Government No. 465 of 22 June 2004
	Programme on Study, Conservation and Rational Use of Argali in the Kyrgyz Republic for 2004–2008	Resolution of the Government No. 235 of 7 April 2004
	Marketing Strategy for Sustainable Development of the Tourist Industry of the Kyrgyz Republic until 2010 “Hospitable Kyrgyzstan”	Resolution of the Government No. 734 of 16 October 2004
2005	State Programme on Use of Industrial and Domestic Waste	Resolution of the Government No. 389 of 19 August 2005
	Management Plan on the State of the Environment	Order of Ministry of Health No. 452 of 21 October 2005
2006	National Action Plan of Forestry Development for 2006–2010	Resolution of the Government No. 693 of 27 September 2006
	Education Development Strategy of the Kyrgyz Republic (2007–2010)	Order of the Ministry of Education and Science No. 658/1 of 19 October 2006
	National Implementation Plan for the Stockholm Convention	Resolution of the Government

Year	Title	Decree
	on Persistent Organic Pollutants	No. 371-r of 3 July 2006
	National Framework Programme on Land Management 2006–2016	Resolution of the Government No. 647-r of 21 November 2006
2007	Country Development Strategy	Decree of the President No. 249 of 16 May 2007
	Ecological Security Concept of the Kyrgyz Republic	Decree of the President No. 506 of 23 November 2007
2008	Programme of Activities of the Government of the Kyrgyz Republic for 2008	Resolution of the Government No. 14 of 19 January 2008
	Programme of Fishery Development for 2008–2012	Resolution of the Government No. 161 of 22 April 2008
2009	Action Plan on Improvement of the Amelioration of the State of Irrigation Lands in Kyrgyz Republic for 2009–2010	Resolution of the Government No. 26 of 19 January 2009
	Action Plan for Sustainable Development of environment and economic system of “Issik-Kul”	Resolution of the Government No. 281 of 8 May 2009
2010	Action Plan on status study and conservation of mountain sheep and mountain goat in Kyrgyz Republic for 2010–2014	Resolution of the Government No. 238 of 11 October 2010
2012	Action Plan for Implementing the Programme of Work on Protected Areas of the CBD	The State Agency on Environment Protection and Forestry under Government of the Kyrgyz Republic
	Action Plan on Development of Pasture Management in the Kyrgyz Republic (2012–2015)	Resolution of the Government No. 89 of 10 February 2012
	State of the Environment of Kyrgyz Republic (2006–2011)	Resolution of the Government No. 553 of 7 August 2012
	National Security Concept (including environmental aspects)	Decree of the President No. 120 of 9 June 2012
2013	National Sustainable Development Strategy 2013–2017	Decree of the President of 21 January 2013
	National Adaptation Strategy to Climate Change	Drafting process
	National Biodiversity Strategy and Action Plan	Drafting process
	National Action Plan on Forestry in Kyrgyz Republic for 2011–2015	Drafting completed, but not yet adopted by the Government

ANNEX G: INTERNATIONAL CONVENTIONS AND TREATIES

From the *Fourth Report to the Convention on Biological Diversity (KR, 2008)*

Conventions:

1. Convention on protection of the World Cultural and Natural Heritage (1995)
2. Convention on Biological Diversity (1996)
3. Convention on Combating Desertification in the countries facing severe drought and/or desertification especially in Africa (1999)
4. Convention on transboundary air pollution on long distances (2000)
5. Convention on Environmental Impact Assessment in transboundary context (2001)
6. Convention on access to information, public participation in decision-making process and access to justice on issues related to environment (2001)
7. Convention on Wetlands having international importance mainly as habitats of the waterfowl (Ramsar) (2002)
8. UN Framework Convention on Climate Change (2000)
9. Kyoto Protocol to the UN Framework Convention on Climate Change (2003)
10. Cartagena Protocol on Biological Diversity to the UN Convention on Biological Diversity (2005)
11. UN Convention on International Trade of Endangered Species (CITES) (1973)
12. Stockholm Convention on Persistent Organic Pollutants (2002)
13. Rotterdam Convention on procedure of preliminary sound agreement in terms of specific hazardous chemicals and pesticides in international trade (2002)
14. UN Convention on protection new sorts of plants (2000)
15. Basel Convention on control of transboundary transportation of hazardous waste and its removal (1996)
16. Convention of the European and Mediterranean organization on plants protection (ratified by the Resolution of the Government of the Kyrgyz Republic as of April 12, 1999, № 214)
17. Vienna Convention on ozone layer protection and Montreal Protocol on depleting substances (2000)

Agreements:

18. Agreement on partnership and cooperation between the European Community and its states-members from one hand and the Kyrgyz Republic from other hand as of 09.02.1995, Brussels (ratified by Law of the Kyrgyz Republic as of 05.07.1997, № 43)
19. Agreement between the Government of the Kyrgyz Republic, the Government of the Republic of Uzbekistan, and the Government of the Republic of Kazakhstan on Cooperation in field of conservation of biodiversity of the Western Tien-Shan as of 17.03.1998, Bishkek (signed by the Prime Minister of the Kyrgyz Republic on 17.03.1998)
20. Agreement on Intention between the Interstate Sustainable Development Commission (ISDC) and the Central Asian WWF Programme on implementation of "Econet" in the region. ISDC's decision № 3 as of November 16, 2007, Bishkek

21. Agreement between the CIS countries on cooperation in field of plant quarantine as of November 13, 1992, Moscow (signed by the Prime Minister of the Kyrgyz Republic on November 13, 1992)
22. Agreement between the Ministry of Agriculture, Water Resources and Processing Industry of the Kyrgyz Republic and the Ministry of Agricultural Policy of Ukraine on Cooperation in field of testing and protection of the plant sorts (Kiev, March 28, 2003)
23. Agreement between the Government of the Republic of Kazakhstan, the Government of the Kyrgyz Republic, the Government of the Republic of Tajikistan, and the Government of the Republic of Uzbekistan on Cooperation in field of plant quarantine as of June 8, 2000, Astana (signed by the Prime Minister of the Kyrgyz Republic on June 8, 2000)
24. Agreement on Cooperation in field of environmental protection (the Almaty's Declaration of the Presidents of Central Asia, 1997; the Tashkent's Declaration of the Special UN Programme for Central Asia, 1998; the Dushanbe's Declaration, 2002)
25. Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, and the Republic of Uzbekistan on Cooperation in field of integrated management in use and protection of interstate water resources (1992)
26. Agreement on Cooperation in emergency prevention and mitigation between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, and the Republic of Turkmenistan (1997)
27. Agreement TRIPS within WTO (1998)
28. Agreement on Sanitary and Phytosanitary control within WTO (1998)

ANNEX H: SUMMARY OF CURRENT, PAST, AND REGIONAL DONOR PROGRAMS

Donor/ Implementing Agency	Project Name, Objectives, Priority Themes	Duration	Amount in US\$ millions
Current Biodiversity Programs			
GEF/UNDP	Improving the coverage and management effectiveness of PAs in the Central Tian-Shan Mountains: To improve the coverage and effectiveness of protected areas in the Central Tian-Shan Mountains so as to expand threatened species representation in the national system.	2013–2017	5.967
GEF/FAO with GIZ	Sustainable management of mountainous forest and land resources under climate change conditions: To contribute to the sustainable management of mountainous silvo-agro-pastoral ecosystems in the Kyrgyz Republic by securing the flow of multiple ecosystem services.	2013–2017	22.645
EU/GIZ with CAREC, other NGOs	Forest and biodiversity governance including environmental monitoring in Central Asia: To support forest law enforcement and governance, ecological restoration and biodiversity conservation, and environmental monitoring.	2013–2015	5.720
GEF/UNEP	Support to Kyrgyzstan for the revision of the NBSAPs and development of <i>Fifth National Report to the CBD</i> : To enable Kyrgyzstan to revise its <i>National Biodiversity Strategies and Action Plans</i> (NBSAPs) and to develop the <i>Fifth National Report to the CBD</i> .	2012–2013	0.492
BMZ/NABU	Biodiversity conservation in North Tian-Shan: To support protected areas, eco-tourism development, and sustainable management of pasture resources.	2013–2016	1.300
GEF/UNDP	Small Grants Program supporting small-scale projects GEF priority areas implemented by NGOs, most of which have been completed.	2001–2014	3.615
GEF/UNEP	Reducing global and local environmental risks from primary mercury mining in Khaidarkan, the Kyrgyz Republic: To enable socially compatible economic transition of the Khaidarkan community from primary mercury mining to more environmentally and socially sound economic activities.	2012–2015	3.951
GEF/ADB	Southern Agriculture Area Development Project: To promote a region-wide adoption of introduced techniques in improved agricultural, orchard, and pasture management in Batken, Jalalabad, and Osh regions of the Kyrgyz Republic.	2007–2013	31.234
BMZ/GIZ	Sustainable management of natural resources in KR.	2005–2015	
Completed Biodiversity Programs			
GEF/UNDP	Demonstration of sustainable pasture management in Suusamyр Valley: Worked to develop economically beneficial and reproductive mechanisms of pasture management.	2007–2013	1.964

GEF/UNDP	Sustainable management of endemic ichthofauna of the Issyk-Kul Lake basin: Addressed the conservation of endemic fish in Issyk-Kul Lake basin.	2008–2013	4.095
UNDP	Capacity Building for Improved National Financing of Global Environmental Management in KR: To improve national financing for global environmental objectives in via improved national financial systems in Kyrgyzstan.	2008–2012	0.665
GEF/UNEP	<i>In Situ</i> /On Farm Conservation and Use of Agricultural Biodiversity (Horticultural Crops and Wild Fruit Species) in Central Asia: This program was designed to build capacity among farmers, institutes, and local communities to conserve globally significant <i>in situ</i> /on farm horticultural crops and wild fruit species in Central Asia.	2005–2010	12.239
GEF/UNDP	Enabling Sustainable Dryland Management Through Mobile Pastoral Custodianship: Worked to enable sustainable land management in rangelands by removing policy and capacity obstacles and to identify innovative practical ways in which sustainable drylands can be managed.	2005–2011	2.875
GEF/WB	Disaster Hazard Mitigation Project: Designed to protect the integrity of the Mailuu-Suu ecosystem by addressing transboundary contamination of the Mailuu-Suu river and land degradation in the surrounding areas.	2005–2012	11.760
TICA	Rehabilitation of Ton fish factory: Establishment of incubation on production of fish materials and conservation of biological diversity and balance	2008–2012	
Regional Programs that Include KR			
GEF/ADB	Central Asian Countries Initiative for Land Management (CACILM) Multi-country Partnership Framework: Regional program designed to combat land degradation and improve rural livelihoods in the Central Asian countries including KR.	2006–2016	135.698
GEF/UNEP	Sustainable Land Management in the High Pamir and Pamir-Alai Mountains and Integrated and Transboundary Initiative in Central Asia: To develop and implement an integrated management system for the preservation and rehabilitation of the natural resources in the High Pamir and Pamir-Alai mountain areas as a framework for sustainable land management and development of the natural environment and local populations living in the concerned mountain ranges and the adjacent lowlands.	2007–2013	10.347
GIZ	Transboundary water management in Central Asia.	2009–2011	
GEF/UNEP with WWF	Development of the Econet for Long-term Conservation of Biodiversity in the Central Asia Ecoregions.	2006–2010	2.160
GEF/UNEP	The Implementation of the Regional Environmental Action Plan in Central Asia: Aimed to improve environmental quality through enhanced integrated ecosystems management.	2005–2010	2.716
FAO	Assistance in implementation of forest policy: Aimed to increase awareness and capacity of the forest sector and local communities.	2006–2010	
EU	Assistance to Pamir-Alai Transboundary Protected Areas: Improved transboundary protection of biodiversity in Kyrgyzstan and Tajikistan.	2007–2008	

ANNEX I: SUMMARY MATRIX OF THREATS, ACTIONS, EXTENT TO WHICH USAID ADDRESSES THREATS, & RECOMMENDATIONS

Root Causes of Biodiversity Threats	Actions Necessary	Extent to Which USAID Addresses Threats	Recommendations for USAID to Address Threats
<p>1. Ineffective environmental governance systems</p>	<p>1.1. Support the recommendations and priority actions for improved legal and institutional systems that will be outlined and strategically prioritized in the new National Biodiversity Strategy and Action Plan (NBSAP) for the KR. Studies, assessments, and the drafting process is currently coordinated by SAEPF and supported by the GEF/UNEP and is expected to be completed by the end of 2013.</p>	<p>Not yet addressed.</p>	<p>1.1. Consider assistance to KR government prioritized actions in legal and institutional reforms that will be outlined in the new NBSAP.</p>
	<p>1.2. Strengthen the status and capacity of SAEPF and its biodiversity and protected areas department through high-level policy dialogue, institutional strengthening programs, and support.</p>	<p>Partially addressed: - Conservation and Adaptation in Asia’s High Mountain Landscapes and Communities Project</p> <p>May be addressed: - Kyrgyzstan Parliamentary Strengthening Program - Kyrgyzstan Political Processes Program - Joint USAID and UNDP project "Support to National Budget Transparency in the KR" - USAID/OTI (Office of Transition Initiatives) program - Kyrgyz Republic Transition Initiative</p>	<p>1.2. Consider the pressing need of strengthening the status and capacity of SAEPF through: a) high-level policy dialogue with GKR, b) inclusion of SAEPF in upcoming institutional strengthening and capacity-building programs for government agencies, c) supporting SAEPF cooperation with international programs of relevant U.S. agencies: National Parks Service, Forest Service, Fish and Wildlife Service, EPA, etc.</p>

Root Causes of Biodiversity Threats	Actions Necessary	Extent to Which USAID Addresses Threats	Recommendations for USAID to Address Threats
	<p>1.3. Follow up on successful donor-supported pilot projects addressing decentralization processes in natural resources management: delegation of rights to local communities in pasture, water, and forest resources management (e.g., Pasture Committees).</p>	<p>May be addressed: - Conservation and Adaptation in Asia's High Mountain Landscapes and Communities Project</p>	<p>1.3. Opportunity exists for the Integrated Natural Resources Management Program (focus on pastures, forests, and water) to follow up on successful pilot projects in KR, as a cross-cutting initiative between Economic Growth and Democratic Governance programs.</p>
	<p>1.4. Encourage diversification of governance types for protected areas, including co-management, community management, private sector involvement, etc.</p>	<p>May be addressed: - Collaborative Governance Program - Conservation and Adaptation in Asia's High Mountain Landscapes and Communities Project</p>	<p>1.4. Consider potential and opportunity in KR for improving governance of natural resources and protected areas within forthcoming Democratic Governance projects.</p>
<p>2. Lack of human technical capacity in natural resource management agencies and institutions</p>	<p>2.1. Support creation of an Environmental Management Training Center for employees of government agencies, NGOs, academic and education institutions, and others who could benefit from and pass on the knowledge gained.</p>	<p>Not yet addressed.</p>	<p>2.1. Consider assistance in creation of an Environmental Management Training Center in KR (or for Central Asia). This project could include establishment of a permanent facility, development of curriculum and teaching materials, conducting the training of trainers, and ensuring its further sustainability.</p>
	<p>2.2. Support and encourage exchange programs at regional and international levels, professional studies and trainings, and cooperation with similar institutions in foreign countries.</p>	<p>Partially addressed: - Conservation and Adaptation in Asia's High Mountain Landscapes and Communities Project</p>	<p>2.2. Encourage cooperation of SAEPF and other environmental institutions with international programs of relevant U.S. agencies: National Parks Service, Forest Service, Fish and Wildlife Service, etc.</p>
	<p>2.3. Support the placement of international experts in key natural resources and conservation institutions.</p>	<p>Not yet addressed.</p>	<p>2.3. Encourage cooperation of SAEPF and other environmental institutions with international programs of relevant U.S. agencies: National Parks Service, Forest Service, Fish and Wildlife Service, etc.</p>

Root Causes of Biodiversity Threats	Actions Necessary	Extent to Which USAID Addresses Threats	Recommendations for USAID to Address Threats
	2.4. Enhance the role of NGOs and civil society in biodiversity conservation efforts.	May be addressed: - Legal Support for Civil Society - Collaborative Governance Program - USAID/OTI (Office of Transition Initiatives) Program - Kyrgyz Republic Transition Initiative	2.4. a) Consider capacity building of environmental NGOs within forthcoming Democratic Governance projects, b) Assistance to KR environmental NGOs through USAID Development Grants Program.
3. Lack of basic conservation programs and facilities	3.1. Develop a national biodiversity monitoring system and support its implementation.	Not yet addressed.	Not relevant to USAID programs.
	3.2. Encourage development and implementation of recovery plans for endangered species.	Partially addressed: - Conservation and Adaptation in Asia's High Mountain Landscapes and Communities Project	Not relevant to USAID programs.
	3.3. Support <i>in situ</i> and <i>ex situ</i> facilities engaged in the conservation of native crops, fruits, and nuts.	Not yet addressed.	3.1. Opportunity exists to initiate agro-biodiversity programs supported under USAID agriculture initiatives.
	3.4. Support animal rehabilitation facilities for endangered species and establish ties with international zoos for placement of non-releasable animals.	May be addressed: - Conservation and Adaptation in Asia's High Mountain Landscapes and Communities Project	Not relevant to USAID programs.
	3.5. Support GKR efforts in climate change adaptation prioritized in National Climate Change adaptation strategies.	Not yet addressed.	3.2. Efforts may be supported in natural disaster risk management and integration of CC adaptation and mitigation measures in municipal and regional development plans.

Root Causes of Biodiversity Threats	Actions Necessary	Extent to Which USAID Addresses Threats	Recommendations for USAID to Address Threats
4. Inadequate donor coordination in the environment sector	4.1. Set up a mechanism (forum) where international donors and project implementing agencies in the environment field gather regularly to share ongoing project results, data, lessons learned, and information on planned projects. Coordination at the planning stage is important to achieve synergies, reduce overlaps, and maximize effectiveness of individual projects.	Not yet addressed.	4.1. Having a “light” environmental portfolio, it is probably not advisable that USAID/KR leads this process, but active involvement is suggest if other donors initiate the donor coordination mechanism in environment field.
5. Lack of knowledge and awareness of biodiversity and environmental sustainability	5.1. Integrate biodiversity and environmental sustainability themes into national education standards and curricula by encouraging cooperation among Ministry of Education, Academy of Sciences, SAEPF, and environmental groups.	May be addressed: - American University of Central Asia Move Forward	5.1. Consider integration of biodiversity and environmental sustainability themes if assistance projects to national education system reforms are planned.
	5.2. Support informal learning activities involving nature, like festivals, nature clubs, and school nurseries/forests, and provide incentives for teachers who provide these. Provide more learning resources such as books and films at all stages of education from kindergarten to high school.	May be addressed: - New program: Reading - American University of Central Asia Move Forward	5.2. Consider inclusion of learning resources development and provision in forthcoming education projects.
	5.3. Support implementation of the Aarchus Convention through strengthening the Aarchus Center in KR to increase public access to environmental information.	May be addressed: - Local Transparency and Cooperation Initiative - Media Support Initiative - Public Television and Online Media Support Project	5.3. Consider supporting the Aarchus Center within upcoming Democratic Governance projects (public access to information, civil society participation in decision-making processes).

Root Causes of Biodiversity Threats	Actions Necessary	Extent to Which USAID Addresses Threats	Recommendations for USAID to Address Threats
	<p>5.4. Enhance the role of NGOs and civil society in conducting environment education campaigns.</p>	<p>May be addressed:</p> <ul style="list-style-type: none"> - International Youth Foundation - Local Transparency and Cooperation Initiative - Media Support Initiative - Public Television and Online Media Support Project - Collaborative Governance Program 	<p>5.4. a) Consider capacity building of KR environmental NGOs within forthcoming Democratic Governance projects, b) Assistance to KR environmental NGOs through USAID Development Grants Program.</p>
	<p>5.5. Encourage more media attention to the issues of conservation and sustainable use that provide practical approaches that people can implement.</p>	<p>May be addressed:</p> <ul style="list-style-type: none"> - Media Support Initiative - Public Television and Online Media Support Project 	<p>5.5. Consider integration of environmental topics into forthcoming media support projects, including environmental information dissemination, training for environmental journalists, etc.</p>
<p>6. Lack of appropriate environmental safeguards</p>	<p>6.1. Conduct Strategic Environment Assessments (SEAs) for nationally declared priority economic development sectors: energy, mining, transport/communications, agro-industry, and the tourism/services industry.</p>	<p>May be addressed:</p> <ul style="list-style-type: none"> - Regional Energy Security, Efficiency, and Trade 	<p>6.1. Consider conducting Strategic Environment Assessments (SEAs) for the economic sectors supported by USAID Economic Growth Program (energy, agriculture, etc.). Opportunity exists to cooperate with international lending institutions (WB, ADB, EBRD, etc.)</p>
	<p>6.2. Conduct a diagnostic study to assess the country safeguards system of KR with respect to the environmental assessment of investment projects (to reveal gaps and weaknesses of EIA regulations and implementations) and recommend actions to strengthen it.</p>	<p>Not yet addressed.</p>	<p>Not relevant to USAID programs.</p>
	<p>6.3. Ensure inclusion of environmental concerns in municipal and regional development plans.</p>	<p>May be addressed:</p> <ul style="list-style-type: none"> - Local Development Program 	<p>6.2. Consider integration of environmental and climate change concerns within support projects on municipal and regional development planning.</p>

Root Causes of Biodiversity Threats	Actions Necessary	Extent to Which USAID Addresses Threats	Recommendations for USAID to Address Threats
<p>7. Rural poverty</p>	<p>7.1. Support the development of local businesses and/or manufacturers that add value to natural products and produce more income such as beekeeping, stone crafts, texturing, rational farming, and ecologic brands, etc.</p>	<p>Addressed by:</p> <ul style="list-style-type: none"> - Local Development Program - Women’s Leadership in Small and Medium Enterprises <p>May be addressed:</p> <ul style="list-style-type: none"> - Conservation and Adaptation in Asia’s High Mountain Landscapes and Communities Project - International Youth Foundation 	<p>7.1. Consider opportunities of sustainable use of natural resources within local development projects</p>
	<p>7.2. Support socio-economic development programs in communities near protected areas to alleviate poverty and heighten appreciation for nature conservation.</p>	<p>May be addressed:</p> <ul style="list-style-type: none"> - Local Development Program - Women’s Leadership in Small and Medium Enterprises - Regional Energy Security, Efficiency, and Trade - International Youth Foundation - Conflict Mitigation through Targeted Analysis and Community Action in Kyrgyzstan - Conservation and Adaptation in Asia’s High Mountain Landscapes and Communities Project 	<p>7.2. Consider municipalities that hold protected areas when selecting target geographic and administrative units at design phase for site level Economic Grows projects.</p>
<p>8. Lack of financial resources to engage in environmental protection measures</p>	<p>8.1. Perform in-depth economic valuation studies of ecosystems and biodiversity to inform decision makers on the necessity to allocate funds for nature conservation.</p>	<p>Not yet addressed.</p>	<p>8.1. Economic valuation studies can be considered for selected ecosystems within upcoming Economic Growth projects.</p>

Root Causes of Biodiversity Threats	Actions Necessary	Extent to Which USAID Addresses Threats	Recommendations for USAID to Address Threats
	<p>8.2. Conduct nationwide studies, assessments, and analyses of different financial sustainability approaches for biodiversity conservation. These could include a) attracting and administering external funds from new sources like debt-for-nature swaps, private voluntary donations, private sector sponsorship of PAs, etc.; b) generating funds through benefit and revenue sharing, sharing costs of managing natural resources and PAs, investment, credit and enterprise funds; and c) market-based fees for ecosystem goods and services such as tourism taxes, resource extraction fees, and Payment for Ecosystem Services programs.</p>	<p>Not yet addressed.</p>	<p>Not relevant to USAID programs.</p>
	<p>8.3. Pilot selected sustainable financing mechanisms.</p>	<p>Not yet addressed.</p>	<p>Not relevant to USAID programs.</p>
<p>9. Inefficient enforcement of laws regulating the use of natural resources</p>	<p>9.1. Conduct institutional and legal reforms to clearly separate the responsibilities and actions of those responsible for environmental law enforcement from those who are involved in daily management of the natural resources.</p>	<p>Not yet addressed.</p>	<p>Not relevant to USAID programs.</p>
	<p>9.2. Strengthen the law enforcement institutions (police, environment inspectorate, PAs and forestry units) through: a) training in anti-poaching measures, b) increasing inspector and ranger salaries to increase incentives, and c) adopting system-level reforms to eliminate corruption.</p>	<p>May be addressed</p> <ul style="list-style-type: none"> - Economic Policy Reform Project "REFORMA," (system level reforms to eliminate corruption) - Joint USAID and UNDP project "Support to National Budget Transparency in the KR" - USAID/OTI (Office of Transition Initiatives) Program - Kyrgyz Republic Transition Initiative 	<p>9.1. Consider environmental law enforcement aspects if further assistance is provided to KR law enforcement institutions.</p>

ANNEX J: DESCRIPTION OF USAID/KR PROGRAMS

Activity and Duration	Description Provided by Mission
Economic Growth	
Kyrgyz Agri-Input Enterprise Development Project (KAED), IFDC (Sept 2010–Jan 2014)	<p>Strengthen the agro-input sector in Kyrgyz Republic with an ultimate focus on food security by assisting the Association of Agri-businessmen of Kyrgyz Republic and other local service providers as important institutions for improving farmer and business profits. Components include:</p> <ul style="list-style-type: none"> •strengthening input supply systems and markets; •enhancing technology transfers and private sector extension services; and •supporting the livestock sector by introducing and disseminating improved animal feed and health practices. <p>The project budget includes programs under joint U.S.-KG Economic Development Fund in the amount of \$20 million aimed at supporting seed production and livestock sectors of Kyrgyz Republic</p>
Local Development Program, Chemonics International (Sept 2010–Aug 2013)	<p>Stimulate rapid, diversified, and sustained economic growth at the local level through:</p> <ul style="list-style-type: none"> • advancing business and investment environment; • increasing municipal finance and capital investment; • improving competitiveness of sectors with the most economic potential, including agriculture and processing; • upgrading workforce education; and • promoting replication of best practices and supporting required economic and administrative reforms at the national level.
Regional Energy Security, Efficiency, and Trade (RESET), Tetra Tech ES (Sept 2010–Sept 2013)	<p>Assist development of energy sector through:</p> <ul style="list-style-type: none"> • addressing issues related to investment in generation capacity and the management of hydro-electricity facilities, reservoirs, and water management using market-based solutions for electricity trading; • strengthening the capacity of the national electricity transmission system operator and other key national system counterparts; • increasing electricity sector financial viability and sustainability by reducing commercial and technical losses; and • providing coordinated support to the CASA-1000 program for export of electricity from Central Asia to South Asia.
Economic Policy Reform Project "REFORMA," Deloitte, Inc. (Sept 2011–Sept 2013)	<p>Continue support of economic reforms aimed at improving livelihoods within a supportive macro- and micro-economic environment by:</p> <ul style="list-style-type: none"> • addressing business environment improvement issues; • strengthening and increasing human and institutional capacity development of select government agencies and private sector organizations; and • continuing successful reform efforts started by USAID earlier.
Conservation and Adaptation in Asia's High Mountain Landscapes and Communities Project, WWF-US (Oct 2012–Sept 2016)	<p>Improve livelihoods and motivate local communities to engage in both conservation of snow leopards and prey species as well as sustainable management of high mountain landscapes by:</p> <ul style="list-style-type: none"> • strengthening community institutions and mechanisms related to management, equitable benefit sharing, and access to natural resources; • empowering indigenous, poor, marginalized and vulnerable communities, especially women; • supporting alternative livelihoods to reduce dependence on natural resources, and

Activity and Duration	Description Provided by Mission
	<ul style="list-style-type: none"> • supporting ecotourism development.
Women's Leadership in Small and Medium Enterprises (WLSME), ACDI/VOCA and Bai Tushum Fund (BT Fund) (Sept 2012–Sept 2015)	Promote the growth of women-owned small and medium enterprises (SMEs) in Kyrgyzstan by: <ul style="list-style-type: none"> • using market-based, efficient, sustainable, and focused on learning approach; • targeting assistance to potential high-growth female entrepreneurs; • providing nonfinancial services that increase women's human capital, social capital and access to market information, primarily those related to priority market sectors offering greater economic opportunities to women; • increasing the number of women who grow their micro-enterprises to small enterprises; and • increasing the demand for, and provision of, financial services to women-led SMEs.
Democratic Governance	
Strengthening Human Rights in Kyrgyzstan, Freedom House (Mar 2010–Sept 2013)	Advancing systematic human rights reform, analysis, outreach and more extensive human rights by: <ul style="list-style-type: none"> • creating avenues for dialogue between the government and civil society on human rights work in Kyrgyz Republic • increasing civic advocacy on human rights at the national and local levels; and • improving independent analysis and expanding public debate on human rights and human rights reform at the national and local levels.
Media Support Initiative, Internews (2009–2014)	Improve access to information in Central Asia by providing satellite broadcasts of objective, diverse, high-quality television programming. Components include: <ul style="list-style-type: none"> • providing television stations with educational programming; and • helping to strengthen the legal enabling environment for media.
Youth Theater for Peace Program, International Research & Exchanges Board (IREX) (Mar 2010–Feb 2014)	This program mitigates potential conflict among youth through theater. Participants develop plays based on real situations in their communities that address: <ul style="list-style-type: none"> • living peacefully in a multi-ethnic environment; • leading a healthy lifestyle; and • taking positive actions to improve their communities.
Legal Support for Civil Society (ICNL) (Sept 2009–Sept 2014)	This program supports by: <ul style="list-style-type: none"> • developing civil society enabling legislation; • increasing the capacity of lawyers to assist NGOs with legal advice and advocacy; and • promoting public discussion of legal and policy issues affecting civil society and NGOs.
Kyrgyzstan Parliamentary Strengthening Program (KPSP) (2010–2015)	Assist the Jogorku Kenesh in developing more effective legislative processes, improved government oversight, and enhanced parliamentary outreach. Key results will include: <ul style="list-style-type: none"> • strengthened institutional and human capacity of the parliament; and • accountability and transparency in the legislative process.

Activity and Duration	Description Provided by Mission
International Youth Foundation (IYF) Jasa.kg (Mar 2011–Mar 2015)	<p>The goal of the project is to catalyze a generation of young people to actively engage in building a stable, prosperous, and democratic Kyrgyz Republic. The project has three primary objectives:</p> <ul style="list-style-type: none"> • inspiring active citizenship among Kyrgyzstani youth; • preparing youth for the marketplace; • life skills development for youth living in orphanages.
Kyrgyzstan Political Processes Program, Consortium for Elections and Political Processes (CEPPS) IRI, NDI, IFES (2007–2015)	<p>Strengthening political party responsiveness and promoting an active citizenry by:</p> <ul style="list-style-type: none"> • enhancing political parties' ability to address key areas of citizen concern; • promoting a well-informed and more politically responsible citizenry; and • preparing young people for their role as active citizens educated in the spirit of democratic institutions.
USAID-IDLO Kyrgyzstan Judicial Strengthening Program, International Development Law Organization (IDLO) (2011–2016)	<p>Provide targeted assistance to the judicial system by:</p> <ul style="list-style-type: none"> • increasing its independence, effectiveness, and integrity; • strengthening the rule of law in Kyrgyz Republic • decreasing corruption, supporting judicial independence, improving the judicial personnel system and internal judicial management; and • restoring judicial integrity by increasing public access to judicial information and its management.
Counter Trafficking Program in Central Asia, International Organization for Migration (IOM) (2011–2015)	<p>Provide assistance to the government and civil society actors in responding to the problem of human trafficking by:</p> <ul style="list-style-type: none"> • conducting awareness-raising campaigns on key trafficking issues focused on national-level advocacy, policy debate, and informational activities; and • protecting both female and male victims of trafficking through direct assistance.
Support to the Kyrgyzstani Legal Defense Community, ABA (1207) (2012–2015)	<p>This program will advance critical reforms in the area of criminal legal defense, build public confidence in the legal system and promote stability in Kyrgyz Republic, by:</p> <ul style="list-style-type: none"> • supporting development and growth of a unified bar association and well-qualified attorneys able to serve the needs of the public; and • equipping the next generation of lawyers with the advocacy skills and knowledge to provide quality legal representation to citizens in need.
Local Transparency and Cooperation Initiative, EFCA (1207) (2012–2015)	<p>Ensuring greater stability through transparency, accountability, and confidence in public financial management, the extractive sector, and public service delivery by:</p> <ul style="list-style-type: none"> • improving cooperation and accountability between citizens and local government in the provision of quality public services; and • increasing transparency, public confidence, and mutual understanding in the extractive industry.
Public Television and Online Media Support Project, Internews (1207) (2012–2015)	<p>Supporting the Kyrgyz Republic media's ability to deliver accurate and impartial news and information to promote stability and reconciliation by:</p> <ul style="list-style-type: none"> • increasing the capacity of Kyrgyz Television and Radio to bridge citizens and government in its role as a Public Service Broadcaster; and • expanding alternative media and information sources.
Conflict Mitigation through Targeted Analysis and Community Action in Kyrgyzstan, ACTED (Jan 2012–Jan 2015)	<p>Minimizing instability through informed public policy and early warning analysis for citizens protection by:</p> <ul style="list-style-type: none"> • supporting actionable analysis on conflict and instability trends; and • supporting informal and formal community leadership capacity for conflict mitigation.

Activity and Duration	Description Provided by Mission
Kabar Ordo: Our Time for Dialogue, Search for Common Ground (1207) (2012–2014)	The program works to prevent the re-emergence of violent conflict in southern Kyrgyz Republic through more comprehensive and accessible conflict-sensitive reporting and early warning analysis, including: <ul style="list-style-type: none"> • supporting the dissemination of conflict-sensitive information and analysis of local conflict trends; and • increasing public awareness and understanding of collaborative approaches to inter-ethnic conflict dynamics.
"Ak Zhol: The Path to Peace through Prosperity," Civil Society Support Center (1207) (2012–2015)	Through the Ak Zhol Project, the Association of Civil Society Support Center Jalalabad will address the divisions between people across seven villages in three regions of southern Kyrgyzstan by: <ul style="list-style-type: none"> • increasing mutual understanding, by providing training and facilitated discussions for positive conflict resolution; and • encouraging inter-communal cooperation to increase village economic resources for the duration of the project and beyond.
Women's Peace Banks (1207) (2012–2014)	The program will empower women in southern Kyrgyz Republic to lead inter-ethnic reconciliation initiatives in Osh and Jalalabad cities and promote women's peacebuilding role at the national level by achieving: <ul style="list-style-type: none"> • greater cooperation and trust between women in communities recovering from conflict; and • increased role of women in promoting reconciliation and mitigating conflict.
Joint USAID and UNDP project "Support to National Budget Transparency in the Kyrgyz Republic," UNDP (1207) (2012–2014)	The project will be implemented in three substantive components: <ul style="list-style-type: none"> • support to design and implementation of anti-corruption strategy; • transparency of budget process and quality of budget draft; and • accountability and efficiency of budget execution.
Collaborative Governance Program, East-West Management Institute, Inc. (2013–2018)	The project will foster effective collaboration between civil society and the GKR to: <ul style="list-style-type: none"> • deliver services through social procurement mechanisms; • strengthen civil society's ability to provide input to public policy and government oversight; • work to complete the legal and regulatory framework for social procurement; • enhance the legal framework for philanthropy; and • help develop the strategy on GKR's support to civil society organizations (CSOs).
Health	
Quality Health Care Project (QHCP), Abt Associates (2010–2015)	Provide technical assistance and trainings to assist the Kyrgyz Republic to improve the quality, scope, and coordination of health services by: <ul style="list-style-type: none"> • incorporating modern quality improvement techniques and evidence-based international standards into ongoing reforms of health systems; • assisting Kyrgyzstan to improve the management, financing, and implementation of medical services provided for tuberculosis, HIV/AIDS and primary health care, including maternal and child health services; and • building upon the successes of USAID health reform activities implemented over the past 10 years throughout Kyrgyzstan by continuing to improve access to quality TB, HIV, and MCH health care services; • facilitated the development of Den Sooluk National Health Program.

Activity and Duration	Description Provided by Mission
Dialogue on HIV and TB Project, PSI (2009–2014)	Provide technical assistance, training, and direct outreach services to increase access to quality HIV prevention and Tuberculosis (TB) prevention and treatment interventions among most-at-risk populations (MARPs) by: <ul style="list-style-type: none"> • strengthening governmental and nongovernmental organizations to improve prevention services; • increasing awareness and building capacity to reach MARPs in order to prevent the spread of HIV and TB (including co-infection); • combining best practices and effective approaches using community mobilization and direct outreach to improve TB and HIV prevention, health seeking, and adherence behavior of MARPs; • improving TB case detection; and • enhancing adherence to TB prevention and treatment.
TB Care, KNCV (2011–2014)	TB CARE will: <ul style="list-style-type: none"> • support Kyrgyz Republic in implementing its tuberculosis national strategic plan and will complement existing and planned projects; • ensure development, piloting, and scale-up of Programmatic Management for Drug Resistant TB in Kyrgyzstan; • assist Kyrgyzstan's National TB Program to build capacity in drug resistant TB diagnosis, increase the availability of treatment, and support routine surveillance of MDR TB; • develop a systematic approach to promote and sustain community involvement; • engage policy-makers and monitor progress on the government's national TB strategy implementation commitments in coordination with all donors.
Demographic and Health Survey, ICF Macro (2010–2013)	Assist the government and provide decision makers with databases and analyses useful for informed policy formation and policy changes; program planning; monitoring and evaluation; fostering and reinforcing country ownership of data collection, analysis, presentation, and use. The DHS includes the following: <ul style="list-style-type: none"> • collection and dissemination of accurate, nationally representative data on maternal & child health, infant and child mortality, fertility, family planning, tuberculosis prevention, gender, adult health risk factors for cardiovascular diseases, life-style issues, such as physical activity, smoking and alcohol usage, chronic diseases, and nutrition; • developing host-country skills and resources necessary to conduct high-quality demographic and health surveys.
Maternal and Child Health Integrated Program (MCHIP), John Snow Institute (2010–2013)	USAID/CAR provided funding to the Global Health Bureau's Maternal and Child Health Integrated Program (MCHIP) to provide assistance in response to the recent polio outbreak in Central Asia. There are three interrelated assistance objectives: <ul style="list-style-type: none"> • build capacity for M&E analysis by introducing the Reaching Every District approach (RED) into national, oblast, and district systems; • improve evidence-based program planning and prioritization, and improve partner coordination on immunization; • bring together government, nongovernment, and UN agency partners in the Inter-Agency Coordinating Committee for polio and working groups to utilize data for policy and program strengthening, and facilitate cross-border collaboration, planning, and information sharing in the region.

Activity and Duration	Description Provided by Mission
Education	
National Admission Test (NAT), Center for Educational Assessment and Teaching Methods (CEATM) (2012–2013)	<p>The National Admission Test (NAT) is one of the largest anti-corruption educational projects aimed to provide equal and fair access to higher education by:</p> <ul style="list-style-type: none"> • providing transparent and independent testing across the country in three languages for student's choice: Kyrgyz, Russian, and Uzbek; • requiring NAT results for entering any higher education institution; • requiring NAT results for receiving state-covered scholarships at universities; • upgrading tests and developing new tests to provide quality and choice for subject tests; • publishing updated study guides for students; • conducting public awareness campaigns, and seminars in each region.
American University of Central Asia (AUCA) Move Forward (2010–2013)	<p>With the help of the USAID AUCA Moving Forward grant, AUCA will focus on:</p> <ul style="list-style-type: none"> • developing programs of academic excellence that will attract international attention and distinguish AUCA as the premier intellectual hub of Central Asia. One such initiative is the launch of the Institute for Central Asian Studies; • working with USAID-supported programs to make it possible for AUCA faculty members to acquire experience at institutions of higher education in the U.S. and elsewhere, and bring that knowledge and expertise back to Kyrgyzstan; • upgrading technology systems to more efficiently respond to the needs of the students, faculty, and staff.
Humanitarian Assistance	
As needed	<p>USAID works in close collaboration with the Ministry of Emergency Situations, the Ministry of Agriculture, other relevant ministries, and other donors to provide disaster and humanitarian assistance in times of acute need.</p>
USAID/OTI (Office of Transition Initiatives)	
USAID/OTI (Office of Transition Initiatives) Program - Kyrgyz Republic Transition Initiative, International Resources Group (IRG) (Apr 2010–Dec 2013)	<p>USAID/OTI is supporting the Kyrgyz Republic's efforts to establish a more stable, secure democracy through small grants to civil society, government, and private sector partners to implement high-impact, short-term projects. With offices in Bishkek and Osh, the program provides targeted assistance in volatile communities in order to:</p> <ul style="list-style-type: none"> • support the ongoing democratic political transition at the national and local level; and • address emerging sources of instability and drivers of conflict at the community level.