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Conservation and Adaptation in Asia's High Mountain Landscapes and Communities: Semi-annual Report

October 1, 2013 – March 31, 2014

World Wildlife Fund

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List of Acronyms Used

AHM	Asia High Mountains
ASER	Altai-Sayan Ecoregion
BTFEC	Bhutan Trust for Environmental Conservation
DADO	District Agriculture Development Office
CARE	Cooperative for Assistance and Relief Everywhere
CGCDCA	Chitral Gol Community Development and Conservation Association
CGNP	Chitral Gol National Park
CHARIS	Contribution to High Asia Runoff from Ice and Snow
CKNP	Central Karakorum National Park
COFSUN	Community Based Forestry Supporter's Network
DNA	Deoxyribonucleic acid
DNPWC	Department of National Parks and Wildlife Conservation
DoFPS	Department of Forests and Park Services
ECOSS	Ecotourism and Conservation Society of Sikkim
FECOFUN	Federation of Community Forestry Users, Nepal
GB	Gilgit-Baltistan
GBFWPD	Gilgit-Baltistan Forest and Wildlife Protection Department
GEF	Global Environment Facility
GIS	Geographic Information System
GPS	Global Positioning System
GSLCF	Global Snow Leopard Conservation Forum
GSLEP	Global Snow Leopard Ecosystem and Protection Plan
GTI	Global Tiger Initiative
HCDO	Hoper Conservation and Development Organization
INTERPOL	International Criminal Police Organization
JICA	Japan International Cooperation Agency
KCA	Kangchenjunga Conservation Area
KCAMC	Kangchenjunga Conservation Area Management Committee
KP	Khyber Pakhtunkhwa
LTDC	Lachen Tourism Development Committee
METT	Management Effectiveness Tracking Tool
MP	Minister of Parliament
NTNC	National Trust for Nature Conservation
NGO	Non-governmental Organization
PA	Protected Area
SADCWO	Shandur Area Development, Conservation, and Welfare Organization
SEED	Social, Economic, Environmental Development
SLCC	Snow Leopard Conservation Committee
SLN	Snow Leopard Network
SLSS	Snow Leopard Survival Strategy
SLT	Snow Leopard Trust
TOR	Terms of Reference
UNDP	United Nations Development Program

USAID	United States Agency for International Development
VCC	Village Conservation Committee
VWG	Village Wildlife Guards
WCC	Women's Conservation Committee
WCP	Wangchuck Centennial Park
WMD	Watershed Management Division
WWF	World Wildlife Fund
WWF-US	World Wildlife Fund-United States

Conservation and Adaptation in Asia's High Mountain Landscapes and Communities

Part 1. Project Highlights October 1, 2013-March 31, 2014

During this reporting period good progress continued to be made toward achieving WWF Asia High Mountains (AHM) Project objectives. Some AHM Project highlights for this reporting period included:

- In Bhutan, preliminary planning and background work for implementing an innovative springshed restoration and water security activity was performed with the actual restoration work to be conducted later this summer.

- In Sikkim, India, WWF continued to train Himal Rakshaks (volunteer "Mountain Guardians") on wildlife and habitat monitoring techniques and established a much needed trash recycling program in the tourist center of Lachen in North Sikkim.

- In Kyrgyzstan, as a preliminary step toward conducting a climate vulnerability assessment and implementing an adaptation strategy, two workshops titled "Climate Change Challenges and Livelihood Adaptation" were held at project sites to introduce local residents to these topics.

- In Mongolia, findings of 1115 interviews conducted during a human-wildlife conflict survey in the western Altai-Sayan Ecoreion were analyzed while a new snow leopard distribution map for this region was prepared.

- In Nepal, following years of preliminary research, a snow leopard was collared with a satellite GPS tracking system revealing the collared animal's extensive travels in the western Kangchenjunga landscape, findings from which will be used to improve regional conservation efforts.

- In Pakistan, work continued on improving wildlife protection and public awareness of conservation issues and on introduction of alternative livelihood activities for residents of snow leopard range area project sites.

- The regional highlight of this reporting period was the successful holding of the Global Snow Leopard Conservation Forum, which was held from October 21-23, 2013 in Bishkek, resulting in the unanimous adoption of the Bishkek Declaration on snow leopard conservation and the Global Snow Leopard Ecosystem and Protection Plan (GSLEP) by the 12 snow leopard range states.

Part 2. Project Activity Progress

Objective 1: Promote climate-smart management of high mountain landscapes and snow leopard habitat for sustainable development in specific sites

Sub-objective 1.1: Strengthen local natural resource institution's governance and capacity.

Activity 1.1.2: Train local associations and NGOs to improve institutional governance and their capacity on sustainable management of natural resources. (Countries: K)

Country: Kyrgyzstan

Two workshops titled "Climate Change Challenges and Livelihood Adaptation" were held for community groups to build local capacity with respect to improving sustainability of natural resource use in the context of a rapidly changing climate. Topics discussed at these workshops included global and local climate change issues; potential local climate change impacts, such a possible increase in bubonic plague outbreaks; possible local adaptation actions; and resources needed to implement adaptation actions. The first workshop was held on February 8, 2014 in Engilchek and was attended by 25 people (14 men, 11 women) (Photo 1). The second workshop was held on February 14, 2014 in Akshirak and was attended by 18 persons (13 men, 5 women) (Photo 2).

Photo 1. Community sustainable natural resource and climate adaptation workshop, Engilchek, Issyk Kul, Kyrgyzstan, February 2014.

Photo 2. Community sustainable natural resource and climate adaptation workshop, Akshirak, Issyk Kul, Kyrgyzstan, February 2014.

<u>Activity 1.1.3:</u> Provide technical support for local associations and NGOs to conduct awareness raising activities regarding sustainable natural resource management and use. (Countries: K)

<u>Country: Kyrgyzstan</u>

From November 28 to December 18, 2013, a photo exhibition titled "The Land of the Snow Leopard" was held with AHM Project support at the Karakol Artists Union in Karakol, Issyk-Kul Province, Kyrgyzstan. The exhibition featured photos of wildlife and landscapes from the Sarychat-Ertash State Reserve AHM project site taken by reserve biologist Alexander Vereshchagin. The exhibition was successful in educating residents of Issyk Kul Province about the natural wonders of the reserve and was a featured in the local print, broadcast, and online media, with a story devoted to the exhibition and AHM project activities appearing in the provincial newspaper Karakolka, on provincial Oblast TV on both November 28 and 29, and also on the AKI Press news website (Photos 3 and 4).

Photo 3. Opening of the "The Land of the Snow Leopard" photo exhibition at the Karakol Artisits Union in Karakol, Issyk Kul, Kyrgyzstan, November 2014.

Photo 4. Photographer and Sarychat-Ertash State Reserve biologist Alexander Vereschagin (center) at the opening of the "The Land of the Snow Leopard" photo exhibition at the Karakol Artists Union in Karakol, Issyk Kul, Kyrgyzstan, November 2014.

<u>Activity 1.1.4:</u> Build governance capacity of local community herder groups to develop sustainable pasture and watershed management plans as well as strategies to mitigate human-wildlife conflict, such as the relocation of winter livestock sheds to low-risk areas. (Countries: M)

<u>Country: Mongolia</u>
In Mongolia in AHM Project Year 2, WWF compiled the findings of the 1115 interviews done for the comprehensive human-wildlife conflict social survey in known snow leopard range areas of Mongolia's Altai-Sayan Ecoregion (ASER) that was conducted in Project Year 1. This survey examined the scale, timing, locations, and causes of human-wildlife conflict, particularly conflict with snow leopards, and revealed that roughly one quarter of the 1115 respondents surveyed felt that there is a high rate of conflict between herders and snow leopards in the survey region. Findings of this survey are currently being compiled into a survey report that will be used to develop future strategies to mitigate human-snow leopard conflict in the ASER.

Activity 1.1.5: Raise awareness and provide education about the role of predators, particularly snow leopards, in maintaining the ecological health of mountain pastures. (Countries: P)

<u>Country: Pakistan</u>
In Pakistan, two conservation awareness events were held in the project region. The first event was co-organized by WWF and the Chitral Wildlife Division to mark World Wildlife Day in Chitral Town on March 3, 2014 (Photos 5 and 6). The purpose of this event was to instill a positive attitude towards wildlife and create awareness amongst university students of their role in natural resources conservation in Chitral. This even featured a series of lectures on the history of World Wildlife Day, the snow leopard and its conservation issues, the wildlife of Khyber-Pakhtunkhwa Province, and the impacts of climate change on wildlife and wildlife habitat. 14 men and 13 women participated in this event including students and instructors from Shaheed Benazir Bhutto University and Chitral Wildlife Division staff members.

Photo 5. Participants in the Chitral, KP, Pakistan World Wildlife Day conservation awareness raising event, March 2014.

Photo 6. Participants in the Chitral, KP, Pakistan World Wildlife Day conservation awareness raising event, March 2014.

The second event was co-organized by WWF and the Hoper Conservation and Development Organization (HCDO) to mark World Water Day on March 22, 2014 in Gilgit-Baltistan's Hoper Valley (Photos 7 and 8). The purpose of this program was to educate school students and other community members about: 1) the importance of water for life and livelihood; 2) the impact of climate change on water resources in Hoper; and 3) the role of predators such as snow leopards, brown bears, and wolves in maintaining the ecological health of mountain pastures and watersheds, e.g. by controlling populations of both wild ungulates and burrowing rodents and pikas. This event featured poster and speech competitions and was attended by 70 men and boys and 90 women and girls.

Photo 7. Participants in the Hoper Valley, GB, Pakistan World Water Day celebration and conservation awareness raising event, March 2014.

Photo 8. Judges and organizers of the World Water Day celebration speech and poster competition, Hoper Valley, GB, Pakistan, march 2014.

Both of these events contributed to an increased awareness of the interconnectedness of wildlife, healthy pastures, and healthy watersheds across all spectrums of society in project areas; increased ownership for project activities developed among the key stakeholders, including increased support for conservation of snow leopards, snow leopard prey, snow leopard habitat, and watersheds in general; and educated participants about the importance water for life and livelihoods as well as the impact of climate change on water resources.

Activity 1.1.6: Facilitate cooperation among stakeholders to establish a model of local natural resource management. (Countries: K)

Country: Kyrgyzstan

After a promising start, further development of AHM Project cooperation with the Kumtor gold mine to build public-private partnerships for improving local natural resource management is now looking very unlikely. This is due to recurring regional strikes again the Kumtor mine in Issyk-Kul Province, including blocking of the mine road by protesters, and a parliamentary discussion in Bishkek on nationalizing the mine. However, cooperation with other businesses, such as tourism companies and trophy hunt operators continues to be explored.

<u>Activity 1.1.8:</u> Conduct pro-poor planning training for local youth to be local resource persons and mobilize them in the preparation of livelihood improvement plans. (Countries: N)

<u>Country: Nepal</u>
WWF and CARE organized two pro-poor planning trainings in partnership with Kangchenjunga Conservation Area Management Committee (KCAMC) and Community Based Forestry Supporter's Network (COFSUN). Two three-day trainings were organized in Yamphudin (February 24-26, 2014) and Olangchungolla (26-28 February 2014) (Photo 9). The trainings highlighted the importance of pro-poor and inclusive planning in natural resource management and other local development initiatives. A total of 45 community members (21 women) participated in the trainings.

Photo 9. Pro-poor planning training Yamphudin, Kangchenjunga Conservation Area, Nepal, February 2014.

<u>Activity 1.1.10:</u> Work with tribe/community-based traditional resource management groups to build capacity for better resource management, including curtailing illegal hunting and extraction of wildlife resources, regulating free grazing near core snow leopard habitat, and watershed conservation. (Countries: I, P)

<u>Country: Pakistan (1.1.10a):</u>
In the Hoper Valley, GB, WWF continued working to formalize functioning of the valley's primary tribe-based natural resource user group, the Hoper Conservation and Development

Organization (HCDO). To this end, from February 25-27, 2014 WWF in cooperation with the Italian-funded Social, Economic, Environmental Development (SEED) Project, held a workshop on governance, management, and leadership for HCDO members at the WWF Gilgit field office, which was attended by 9 HCDO members (Photo 10).

Photo 10. HCDO members participating in the WWF and SEED Project governance, management, and leadership workshop with WWF staff members and GBFWPD officials, February 2014**.**

WWF also supported two HCDO quarterly "progress and review" meetings on November 18, 2013 and March 14, 2014 which were attended by 35 men and 47 men, respectively, from Hoper Valley. At these meetings HCDO members and village elders discussed project related matters, including such topics as ways to strengthen the local wildlife watch and ward system in the valley (Photo 11). At these meetings, agreements were signed by HCDO representatives to launch a series of spring project activities that include planting of fodder crops to mitigate overgrazing, establishing livestock insurance scheme to mitigate human-wildlife conflict losses, and demonstrating improved cattle sheds to improve livestock survival rates. Project progress and responsibilities of both WWF and the HCDO were reviewed and discussed.

Photo 11. Participants of an HCDO quarterly progress and review meeting, Hoper Valley, Gilgit-Baltistan, Pakistan, November 2013.

Country: Pakistan (1.1.10b):

In the Laspur Valley, Chitral District, KP, WWF provided support to the Shandur Area Development, Conservation, and Welfare Organization (SADCWO) to establish a formal working office for this village conservation committee (VCC). By agreement between WWF and the SADCWO, the VCC provided the work space for the committee while WWF provided needed stationery and furniture for formal office setup. This office was opened on December 5, 2013 (Photo 12).

Photo 12. Opening of the Shandur Area Development, Conservation, and Welfare Organization village conservation committee office in the Laspur Valley, Chitral District, KP, December 2013.

Sub-objective 1.2: Increase community resiliency to climate change impacts.

Activity 1.2.1: Work with local communities to implement adaptation actions identified in climate change vulnerability assessments that reduce vulnerabilities of communities, high mountain ecosystems, and snow leopards. (Countries: B, K, M, P)

Country: Bhutan
In the first half of AHM Project Year 2, planning and preparations were made for conducting a springshed restoration in Wangchuck Centennial Park's eastern Kurtoe Geog. This included contacting suppliers of tree saplings, fencing, and construction materials for building water storage facilities. Once the items are procured, the Kurtoe Geog administration will contract labor for performing the actual restoration and improved water storage facility work, which is expected to be completed by July 2014.

Country: Kyrgyzstan
WWF began work on producing a climate vulnerability assessment for the project region of Kyrgyzstan by performing a preliminary analysis of existing meteorological and flow data for the project region as well as by researching other possible sources of information for inclusion in the assessment. Work on the assessment will continue in the second half of AHM Project year 2.

Activity 1.2.2: Work with local institutions (e.g. agricultural extension offices, local resource user groups, and herder groups) to promote best land management practices and enhance crop productivity and climate resilience through rainwater harvesting, small-scale water storage, and introduction of drought and pest-tolerant crops. (Countries: B, N)

Country: Bhutan
Note: The following activity was not reported in the AHM Year 1 Annual Report.

WWF sponsored the successful launch of a "Farmers' School" in the remote town of Dunggar in eastern Wangchuck Centennial Park (WCP) from September 27-28, 2013 (Photo 13). This collaborative effort between WWF, the Kurtoe Geog Agriculture Extension office, the local Kurtoe Geog government, and WCP sought to improve technical expertise and sustainability with respect to small-scale agriculture. Agriculture technical expertise was provided by the agricultural extension agent while lessons on conservation and the environment were taught by WCP staff members. Lessons were also taught on community group governance. The local geog government provided use of land for practical sessions for the farmers. 60 farmers (35 women) participated in this first trial session of the WCP farmers' school. Future WCP farmers school sessions will continue to provide a platform for learning and sharing on issues that affect farmers in the region, including on such matters as pest infestation, availability of water for agriculture, soil erosion, seed storage, fertilizers, pesticides, and climate change impacts. There are also plans to sell vegetables and tree saplings produced by farmers' school projects. Funds raised will be used for further agricultural demonstration projects, such as a green house agriculture demonstration, and to make the farmers' school financially self-sustaining.

Photo 13. Farmers learning how to prepare bio-pesticide from chili peppers at the WCP farmers' school held in the town of Dunggar, September 2013.

Country: Nepal

WWF is currently assisting KCA communities to increase their adaptive capacity by helping them prepare and implement community-based climate adaptation plans using WWF's 2012 climate vulnerability assessment for the KCA's Tamur River Basin as a basis. A total of 10 community adaptation plans have been prepared by KCA communities through participatory methods. All community-based adaptation plans are now being implemented with the support of WWF and CARE. A large focus of these adaptation plans is working with project communities to promote best land management practices, such current efforts to improve pasture management and enhance crop productivity using drought and pest tolerance crops. One such current demonstration concerns the use of the improved maize variety, *Manakamana-2*. Manakamana-2 maize is now being cultivated on a demonstration basis by 26 households in KCA communities in close consultation with experts from the District Agriculture Development Office (DADO) and the Federation of Community Forestry Users, Nepal (FECOFUN). Results of this maize adaptation demonstration experiment will be forthcoming.

Activity 1.2.3: Promote climate-smart grazing practices that maintain healthy pastures for livelihoods and wildlife (e.g. rotational grazing and grazing set asides). (Countries: K, M, N, P)

Country: Pakistan (1.2.3a)

The pastures of the project region are grazed by both wild ungulates and livestock. However, the total area of usable pasturelands is in decline due to population growth and consequent

overgrazing, creating a large problem for livestock-dependent communities. Under this activity, WWF has been working with communities in Chitral's Rumboor Valley to improve traditional grazing practices by taking into account growing human populations and the impacts of climate change on the valley. To this end, an improved sustainable pasture management plan for Rumboor was prepared through a participatory process. The first part of this process included focus group discussions with VCC and WCC members and individual interviews with local herders. A total of 36 herders (13 women) participated in these discussions (Photo 14). This participatory process yielded information on livestock types, pasture rotation timing and procedures, as well as problems associated with livestock grazing and possible solutions.

The second part of this process consisted of a one-day training workshop for local stakeholders on improved livestock and pasture management techniques, held on December 27, 2013 in Chitral (Photo 15). The 24 workshop participants (6 Women) included representatives of VCCs, WCCs, the KP Wildlife and Forest Department, the Snow Leopard Foundation, and Joint Forest Management Committees. Primary topics discussed were indigenous vs. modern pasture management practices; improved pasture management techniques; improved livestock management techniques; the findings of pasture management focus group discussions; and the draft pasture management plan that resulted. One outcome of the workshop was an agreement to defer grazing on Rumboor's important 1200 ha Ossu Nullah pasture, formerly grazed in late winter and early spring, until after May, to increase fodder productivity of sprouting grass. Further implementation of improved pasture management practices is ongoing.

Photo 14. Women's Conservation Committee pasture management focus group discussion, Rumboor Valley, Chitral, Pakistan, October 2013.

Photo 15. Participants of the Training on Livestock and Pasture Management, Chitral, Pakistan, December 2013.

Country: Pakistan (1.2.3c)

In order to halt loss of forest cover and land degradation, and to help diversify and adapt livelihoods to a changing climate in Chitral's Laspur Valley, WWF is promoting multipurpose forestry for timber, fuel wood, and fodder production as well as for land degradation control. To this end, in March 2014 WWF distributed nearly 7000 multipurpose tree seedlings to residents of Laspur Valley, including species of the genuses *Robinia*, *Alnthus*, and *Poplar*, 2000 of which were provided by Chitral Forest Department (Photo 16).

Photo 16. Distribution of multipurpose tree seedlings by WWF and the Chitral Forest Department, Laspur Valley, Chitral, Pakistan, March 2014.

Country: Pakistan (1.2.3d)

Chitral District's arable land is limited by steep mountain slopes while poor road infrastructure limits market access for famers. Consequently, farmers in Laspur have limited land and are reliant on raising staple crops such as maize, wheat, rice, and potatoes as well as livestock fodder crops. A few commercial orchards exist, but most fruit is grown at home for family consumption, including apples, pears, apricots, walnuts, mulberries, pomegranates and persimmons. However, orchard produce has a high market value in down-country markets. Thus, in order to promote a climate-smart alternative agricultural livelihood option, residents of the Rumboor Valley project site were provided with apricot, walnut, almond, pear, persimmon, and peach tree seedlings to establish a two acre orchard on disused farm land in February 2014 while a similar three acre orchard was planted in the Laspur Valley in March 2014 (Photo 17).

Photo 17. Planting fruit tree seedlings in the Laspur Valley, Chitral, Pakistan, March 2014.

Country: Pakistan (1.2.3e)

In Chitral District, human-wildlife conflict regularly results in the loss of livestock and thus poses a threat to the livelihoods of poor subsistence herders. Without alternatives for redress, these herders often kill the predator believed responsible in retaliation for their losses. However it has been shown that comparable numbers of livestock are lost annually to disease. Thus in order to increase the survival rate of livestock and simultaneously build support for protection of large wild predators such as snow leopards, from February 11-12, 2014 a vaccination campaign against the peste des petits ruminants (goat plague) virus was conducted in the Laspur Valley (Photo 18). This campaign was organized by WWF and the Chitral District Livestock Office and vaccinated nearly 4000 sheep and goats, which will also be beneficial in reducing the rate of transmission of this disease from livestock to wild ungulates. The campaign was also

accompanied by instruction on the need to protect snow leopards and methods for reducing loss of livestock to these cats.

Photo 18. Livestock vaccination campaign in the Laspur Valley, Chitral District, KP.

Activity 1.2.4: Organize local campaigns and workshops to raise awareness of climate change and adaptation actions for agriculture, especially among indigenous, marginalized, and poor populations. (Countries: B, I)

Country: Bhutan

In the first half of AHM Project Year 2, WWF began preparations for holding a week-long climate change adaptation training for local governments and village leaders in WCP. These preparations included developing an agenda and booking conference facilities. The training will be held in late June and will be attended by 10 village headman from WCP, 10 geog administrative officers and at least 5 WCP staff members, with the goal of training these local leaders on methods for improving the resilience of livelihoods and ecosystems in WCP to climate change impacts. The training will be held in the town of Bumthang and be led by WWF staff members.

Activity 1.2.5: Partner with University of Colorado to establish a system of monitoring and evaluation to test headwater ecosystem conservation efforts and downstream benefits for water supplies. (Countries: B)

Country: Bhutan

From November 7-8, 2013, a training on management of hydro-meteorological station data was organized by WWF and WCP for 12 field staff members of Wangchuck Centennial Park (Photo

19). The primary purpose of the training was to educate participants about managing data collected by two remote hydro-meteorological stations inside WCP and analysis of this and other data for improving conservation planning at the park in the face of a changing climate. Topics covered during the training included an introduction to the goals of hydro-meteorological monitoring; types of hydro-meteorological stations; identification of sites for installing these stations; station data collection, processing, and archiving; basic data analysis using Microsoft Excel; installation and maintenance of hydro-meteorological stations; and retrieval of data from stations in WCP. This training was led by the Department of Hydro-meteorological Services within the Ministry of Economic Affairs.

Photo 19. Participants of the training on management of hydro-meteorological station data, Wangchuck Centennial Park, Bhutan, Novmeber 2014.

Sub-objective 1.3: Enhance community engagement in conservation

Activity 1.3.2: Study the severity of livestock depredation and develop a comprehensive human-snow leopard conflict mitigation program (e.g. livestock insurance schemes). (Countries: B, I, N, P)

Country: Pakistan

In October 2013, WWF compiled the results of the human-wildlife conflict survey conducted amongst all 647 households in Gilgit-Baltistan's Hoper Valley the previous September. This survey accurately censused livestock populations and livestock mortality in the valley and found that 76 percent of livestock mortality in the valley resulted from predation by carnivores, primarily snow leopards, at great economic loss to the affected families. Findings of this survey are currently being compiled into a report that will serve as the basis for developing strategies to reduce human-wildlife conflict by reducing livestock mortality rates, improving local livelihoods, improving protection of the endangered snow leopard and other wild predators, and improving pasture use practices in regard to reducing grazing disturbance to wildlife.

Activity 1.3.4: Disseminate lessons and best practices for mitigating human-wildlife conflict with stakeholders and decision makers. (Countries: B, M)

Country: Bhutan

From March 16-28, 2014, eight WCP staff members participated in a study tour of the Kangchenjunga Conservation Area (KCA) in eastern Nepal (Photos 20 and 21). A primary objective of the exchange was to meet with the Ghunsa Village Snow leopard Conservation Committee (SLCC) to learn about their community-based snow leopard conflict mitigation and conservation efforts. SLCC members explained the impact of human-snow leopard conflict on local livelihoods in Ghunsa and about measures taken to curb poaching and retaliatory killing of snow leopards. SLCC members also explained how they increased community participation in snow leopard conservation efforts and led a visit one of their primary snow leopard monitoring sites at nearby Khambachen Village. On their way into and out of the KCA, the WCP group also learned about how community-based ecotourism and alternative income initiatives were implemented and managed in KCA villages, as well as about other KCA community groups working on issues such as health, education, and agriculture.

Photo 20. WCP study tour participants meeting with their counterparts from the Kangchenjunga Conservation Area Management Committee, Lelep Village, KCA, Nepal, March 2014.

Photo 21. A WCP staff member (right) meeting with the director of the Ghunsa Snow Leopard Conservation Committee during the WCP study tour to the KCA, Ghunsa Village, KCA, Nepal, March 2014.

Activity 1.3.9: Develop and support community-based eco-friendly income generation training and alternatives (e.g. felt production, facilitating market linkages, production of yak/horse milk and cheese, eco-tourism). (Countries: K)

Country: Kyrgyzstan
An exhibition and sale of felt handicrafts produced by women in the WWF AHM Project communities of Akshirak and Karakolka was held on the sidelines of the Global Snow Leopard Conservation Forum in Bishkek on October 23, 2013. This activity served to promote both AHM Project alternative livelihood activities as well as the AHM Project itself.

Activity 1.3.10: Provide alternatives to fuel wood including clean energy sources and more efficient fuel wood cook stoves to reduce adverse effects on forests. (Countries: B, I, N)

Country: Bhutan
In Wangchuck Centennial Park (WCP) from February 2-3, 2014, WWF, in cooperation with the Department of Forests and Park Services' (DoFPS) Watershed Management Division (WMD) and the Bhutan Trust for Environmental Conservation (BTFEC), held a two day training for local nomadic herders on making bio-briquettes and the use of smokeless, fuel-efficient cook stoves designed specifically for burning these briquettes (Photos 22-24). Herders participating in the training were also educated about the ecological damage that results from excessive cutting of rhododendrons, other shrubs, and trees for fuel, and how the use of bio-briquettes can reduce this damage by reducing the need for fuel wood cutting. Modules used during the training included instruction on types of dead forest litter and agricultural refuse that are appropriate for making briquettes, production of charcoal from these materials using traditional slow-burn burial methods, grinding of the charcoal produced into powder and mixing it with clay to produce briquette paste, the use of briquette molds, and sun drying of briquettes. Participants also received instruction on how they may eventually be able to generate additional income by selling bio-briquettes to trekking groups visiting WCP. In total, 35 nomads (10 women) from Chhokhor Geog in central WCP were trained on the purpose, production, and use of bio-briquettes. While WWF and the WMD covered costs of the training, the BTFEC donated 35 sets of charcoal grinders, briquette molds, and briquette cook stoves, costing approximately USD 200 per set, to training participants.

Photo 22. Participants grinding charcoal produced from biomass for making bio-briquettes.

Photo 23. Participants putting the biomass charcoal and clay mixture into briquette molds.

Photo 24. Finished bio-briquettes produced by the workshop being sun dried.

Country: India

From February 1-2, 2014, WWF organized a bio-briquette making demonstration at the Lachen Village community World Wetlands Day festival to demonstrate to local residents one low-cost, carbon-neutral alternative to fuel wood cutting. The demonstration was similar to the training held in Bhutan (above), with bricks being made from agricultural waste converted to charcoal using briquette molds donated to WWF's partner NGO at Lachen, the Lachen Tourism Development Committee (LTDC). These briquette molds will be shared on a rotational basis amongst trained villagers interested in making bio-briquettes. Smokeless stoves specially designed for burning the briquettes, particularly for heating water or home heating, will either be locally made or purchased in bulk nearby in West Bengal and sold to villagers. More than 200 residents participated in the festival and 82 persons (8 women) directly participated in the bio-briquette making demonstration. This event will be followed up by a longer training on bio-briquette making in April held in cooperation with Lachen Dzumsa (Village Council) and the LTDC.

In addition, earlier on December 19, 2013, WWF held meetings with the Lachen Dzumsa and LTDC members to develop a project work plan for the coming year and to discuss monitoring of ongoing activities. These meetings were attended by 33 men including the Lachen pipon (village leader).

Activity 1.3.11: Promote sustainable Community Based Tourism (CBT) by strengthening existing initiatives of home stays and sustainable tourism practices, and engaging private sector, investors, and operators. (Countries: B, I, N)

Country: India

A campaign to promote household trash separation and recycling was launched by WWF in the tourism center of Lachen Village, North Sikkim from November 12–13, 2013 in cooperation with the Zero Waste Himalayas Group, other local NGOs and a team of student volunteers. Posters explaining the how and why of trash separation were distributed in the village and volunteers visited nearly all households in Lachen Village to directly explain to people about the environmental problems of improper trash disposal and how they could easily separate and recycle plastics, glass, Tetra Pak cartons, and metal. Volunteers also distributed sturdy sacks to households specifically for separating and storing their recyclables.

At the same time, renovation of a disused building converted to the Lachen Village recycling center was completed and inaugurated during the Lachen World Wetland Day celebration on Feb. 2, 2014, which was attended by Sikkim's MP. During the village World Wetland Day festival, an exhibit on trash management and the new recycling center was set up for villagers (Photos 25-27). The gathering of the entire village of Lachen was also used as an opportunity to spread awareness on biodiversity conservation efforts in the region and to talk about the importance of high altitude ecosystems. However, household trash disposal remains a challenge at Lachen and more efforts will be required to make trash separation and recycling routine on a village-wide basis. In addition, in support of the ongoing ban on water sold in plastic bottles at Lachen and Thangu Villages in North Sikkim, water quality analyses were conducted at these villages which showed that water from both villages fell within desired parameters for potability.

Finally, in order to strengthen Sikkim's community-based homestay industry, in February 2014 WWF, in cooperation with the Ecotourism and Conservation Society of Sikkim (ECOSS), organized a two-day advanced training needs assessment for homestay operators and guides in Uttarey Village, West Sikkim. Findings of this assessment were that local ecotourism training needs included guide training, organizational development, development of a code of conduct, and awareness raising on the purpose of ecotourism and solid waste management. These trainings needs shall be addressed in the second half of AHM Project Year 2.

Photo 25. Villagers attending the Lachen Village World Water Day celebration, Lachen, North Sikkim, February 2014.

Photo 26. Villagers at an exhibit on trash separation and recycling presented by LTDC volunteers at the Lachen Village World Water Day celebration, Lachen, North Sikkim, February 2014.

Photo 27. The Honorable MP of Sikkim inaugurating the new Lachen Village trash recycling center on the occasion of the Lachen Village World Water Day celebration, Lachen, North Sikkim, February 2014.

Sub-objective 1.4: Conserve snow leopards and their habitat in priority sites

Activity 1.4.1: Develop a monitoring protocol for selected field sites to assess abundance and distribution of snow leopards and their prey base using sign surveys, fixed-point counts, camera traps, and genetic analysis. (Countries: B, I, M, N, P)

Country: Bhutan (1.4.1a)
During the winter of 2014, preparations were made for continuing the ongoing WCP snow leopard camera trap, sign, and prey base survey in the eastern section of the park which will be conducted during the month of April. These preparations included selecting survey blocks and designing the optimal camera trap layout for these blocks; obtaining all research permits from the necessary government agencies; and collecting equipment and batteries for conducting the survey. The study will cover an area of approximately 480 km^2 of snow leopard habitat.

Country: Bhutan (1.4.1b)
In October 2013, WWF, in cooperation with the WCP Species Management and Research Section, continued field research on human-wildlife conflict in WCP by conducting a trial Asiatic black bear camera trap study (Photo 28). This study deployed 14 camera traps over a 52 day period using 14 custom-built camera trap stations baited with honey. 129 pictures of two individual bears were collected from these traps during the survey. Findings of this preliminary survey are currently being used to design a longer term survey with higher trap density and conducted earlier in the year to correspond with the peak of annual black bear activity in WCP. Eventually, results of this survey will be used to educate local residents on how to avoid at times devastating economic losses resulting from human-black bear conflict and the consequent retaliatory killing of problem bears.

Photo 28. An Asiatic Black Bear (*Ursus thibetanus*) showing its identifying V-shaped chest mark while reaching for bait at a camera trap in WCP, Bhutan.

Country: India

In an effort to continue development and implementation of a standardized snow leopard monitoring protocol in Sikkim, from December 3-20, 2013 WWF sponsored one WWF field staff member from the Sikkim field office to assist and be trained by the Nature Conservation Foundation during their late autumn snow leopard sign, camera trap, and prey species survey of Kibber Wildlife Sanctuary in Himachal Pradesh. Fundamentals of field survey techniques and camera trapping were learned and insight was gained on conservation initiatives occurring in the sanctuary, particularly through interaction with the community groups in the sanctuary. In addition, techniques for assessing the size of the harmful feral dog population in the sanctuary were learned. Skills and lessons learned through this exchange will be replicated in AHM project sites in Sikkim.

Country: Pakistan

In Pakistan during the winter of 2014, WWF drafted a snow leopard monitoring protocol for project sites to assess the abundance and distribution of snow leopards and their prey species using sign surveys, DNA testing of scat, and fixed-point counts. In addition, analysis of other factors such as predator and prey migration corridors and dietary preferences have been incorporated into the protocol. Once finalized, WWF will organize a training on the use of the protocol for monitoring snow leopards and their prey as well as on methods for conducting snow leopard habitat assessments that will target relevant wildlife department staff, partner NGOs, and other interested community members in the project region.

Activity 1.4.2: Conduct a snow leopard population survey in Gilgit-Baltisan and develop GIS-based species distribution maps for snow leopards and prey species, and prepare species conservation plan in consultation with partners and with approval of district government. (Countries: P)

Country: Pakistan

Since appointment of two village wildlife guards (VWG) in Hoper Valley, Gilgit-Baltistan (GB) in AHM Project Year 1, these guards have produced simple monthly wildlife survey reports that are submitted to WWF and the local GB wildlife Department. In addition, these guards were trained and participated in two WWF-led Snow leopard and prey species populations surveys in the Hoper region that tallied snow leopard pug marks, prey kills, scat, and prey populations along set survey transects, with 243 Siberian ibex having been counted during the survey (Photos 29 and 30). Findings of these surveys will be used to evaluate emerging conservation issues and effectiveness of current conservation planning and initiatives in GB.

Photo 29. Snow and Snow leopard Pug mark photographed during a snow leopard and prey species population survey, Hoper Valley, Gilgit-Baltistan, Pakistan, December 2013.

Photo 30. A herd of Siberian ibex photographed during a snow leopard and prey species population survey, Hoper Valley, Gilgit-Baltistan, Pakistan, December 2013.

Activity 1.4.3: Conduct snow leopard distribution survey across the Altai-Sayan Eco-Region of Mongolia using SLIMS and participation of local stakeholders. (Countries: M)

Country: Mongolia

In AHM Project Year 2, WWF compiled the findings of the Year 1 Altai-Sayan Ecoregion (ASER) snow leopard distribution mapping workshops and snow leopard monitoring field surveys into a single, comprehensive snow leopard distribution map and database for the Mongolian ASER region (Figure 1). This comprehensive snow leopard distribution map for western Mongolia will serve as a preliminary baseline for planning more detailed government and community-supported snow leopard conservation work in the ASER. In particular, this distribution map will highlight snow leopard hot spots in the ASER region that are in need of

more intensive snow leopard conservation efforts in coming project years, and will illustrate for local communities and governments the case for conducting this work.

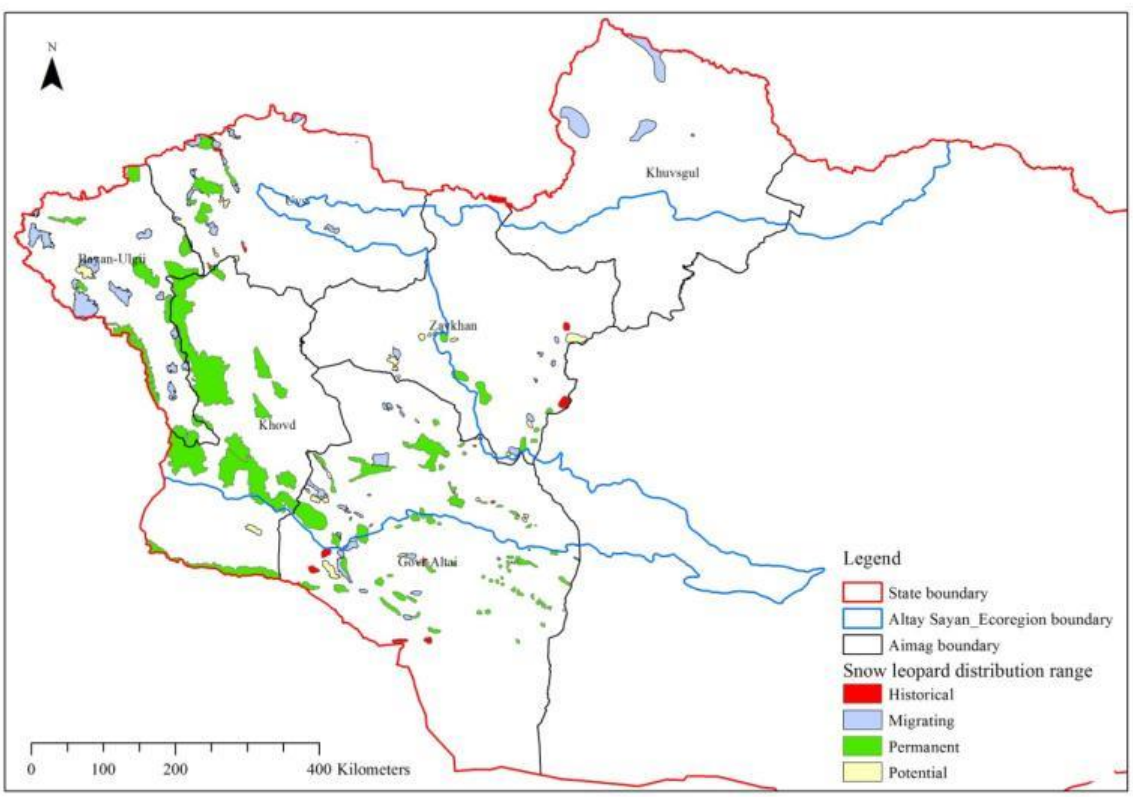

Figure 1. Updated WWF snow leopard distribution map for the Mongolian Altai-Sayan Ecoregion, Winter 2014.

<u>Activity 1.4.4:</u> Perform a snow leopard population survey by collecting and performing genetic analysis, and possibly using camera traps, in sites where snow leopards are present. (Countries: K)

<u>Country: Bhutan</u>
In the winter of 2014, analysis of snow leopard and blue sheep population data collected during the 2012-2013 camera trap and sign survey of WCP's western range continued, while preparations, including permitting procedures, were started for expanding this survey to WCP's eastern range in the spring of 2014.

<u>Country: Kyrgyzstan</u>
On February 13, 2014 a training workshop on camera trap operation, maintenance, site selection, and data handling was held on site in Ak Shirak Village for 11 staff members (all men) from the Sarychat-Ertash State Reserve (Photo 31). As part of this activity, the AHM Project supported set up in the reserve of ten additional cameras purchased with project co-funding from WWF Netherlands.

The WWF AHM Project is also currently working in cooperation with experts from the Kyrgyzstan National Academy of Sciences' Institute of Biology to design future snow leopard monitoring efforts in Kyrgyzstan. Priority snow leopard sites not yet covered by monitoring activities identified included the north gorge of the Chong Kyzyl Suu River basin in Issyk Kul Province - site of a University of Colorado glacier monitoring project, the Naryn Nature Reserve, and the neighboring Salkyn-Tor National Park as well as other sites in the northern and inner Tian Shan. Tentative plans between WWF and the Institute of Biology to cooperate on expanding snow leopard monitoring efforts to these sites have been made.

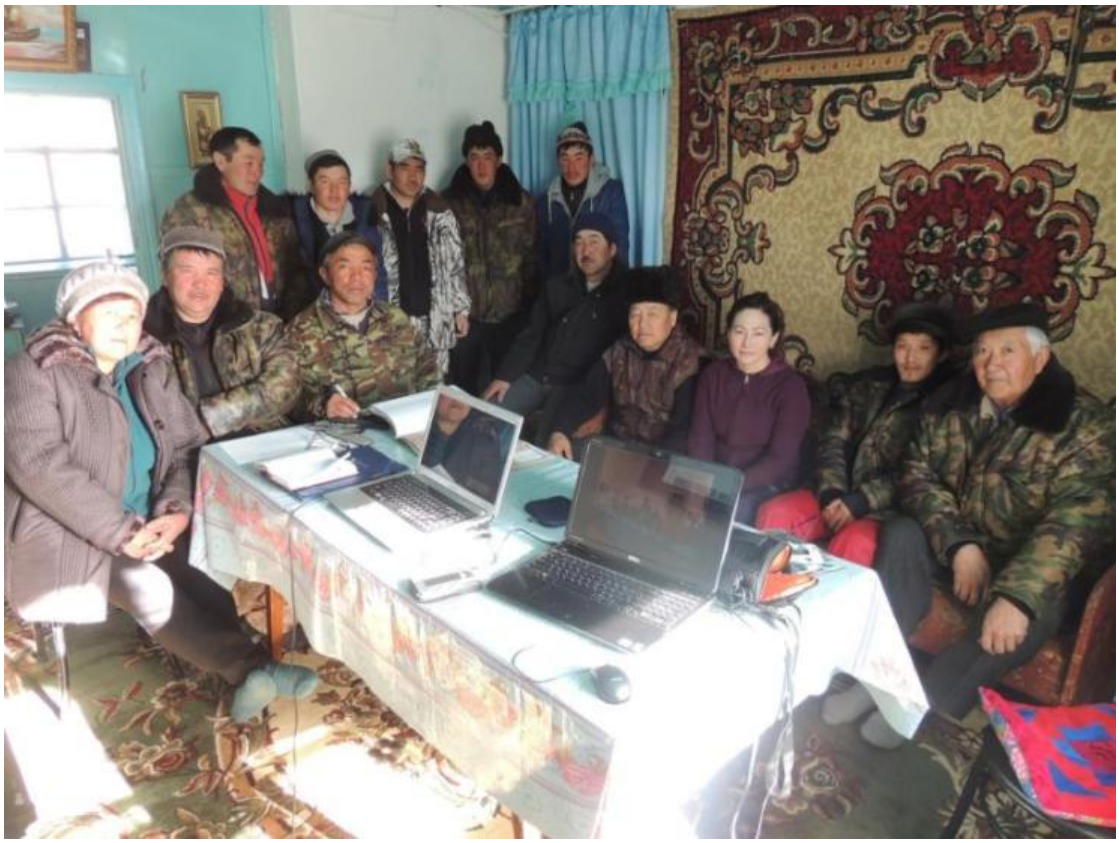

Photo 31. Sarychat-Ertash State Reserve staff participating in a snow leopard camera trap monitoring workshop in Ak Shirak Village, Issyk Kul Province, February 2014.

Country: Mongolia

In the winter of 2014, the WWF Mongolia field team worked with an experienced WWF snow leopard biologist from WWF US to design a snow leopard camera trap survey for Jargalant Khairkhan Mountain in the AHM Project region of western Mongolia. These preparations including systematically designing survey blocks and camera trap layout based on earlier snow leopard sign surveys, selecting the rate at which the limited number of camera traps will be shifted to new trapping sites on the mountain, and developing a plan for post-survey analysis of survey data. This survey will be conducted in the spring and summer of 2014.

<u>Activity 1.4.5:</u> Begin radio-tracking of snow leopards using GPS collars to collect information on home range size, habitat type and preferences, hunting behavior and frequency, and activity patterns. (Countries: N)

<u>Country: Nepal</u>
On November 25, 2013, WWF, working in cooperation with the Department of National Parks and Wildlife Conservation (DNPWC), the National Trust for Nature Conservation (NTNC), and the Ghunsa Snow Leopard Conservation Committee (SLCC), successfully fitted a snow leopard with a satellite GPS tracking collar near Khambachen Village in eastern Nepal's Kangchenjunga Conservation Area (Photos 32 and 33). This marked the first time a snow leopard was collared using satellite tracking technology in Nepal. This event was preceded by years of preliminary research on snow leopards in the KCA, including snow leopard sign surveys, camera trap surveys, DNA analysis of predator scat, and an in-depth survey of local knowledge on human-snow leopard conflict in the KCA. Based on findings of earlier research, optimal snow leopard capture sites were selected, and a sub-adult male snow leopard was captured, immobilized, and fitted with a collar.

This collar takes the snow leopards location every 4 hours, is fitted with activity sensors, and is programmed to automatically drop off the snow leopard after approximately 2 years. Data received from the collar will help delineate the snow leopard's movement patterns, habitat use and preferences, activity patterns, and home range, which will all be used to identify critical core habitat and migration corridors. These findings will be used for improving habitat protection, particularly with respect to developing landscape-level conservation plans and improving the climate resilience of local ecosystems inhabited by snow leopards. In the first 4 months after capture, the collared snow leopard's movements have included several weeks spent in the Kangchenjunga region of Sikkim, India, clearly illustrating the transboundary nature of this cat's movements (Figure 2). These findings were shared with experts in Sikkim, and both countries agreed to collaborate on wildlife research through information sharing and using comparable methodologies of data collection. Following this success, plans are currently underway for WWF and partners to collar an additional three snow leopards in the KCA.

Photo 32. Fitting the sedated snow leopard with a satellite GPS tracking collar, KCA, Nepal, November 2013.

Photo 33. Collared snow leopard moving away from the trapping site, KCA, Nepal, November 2013.

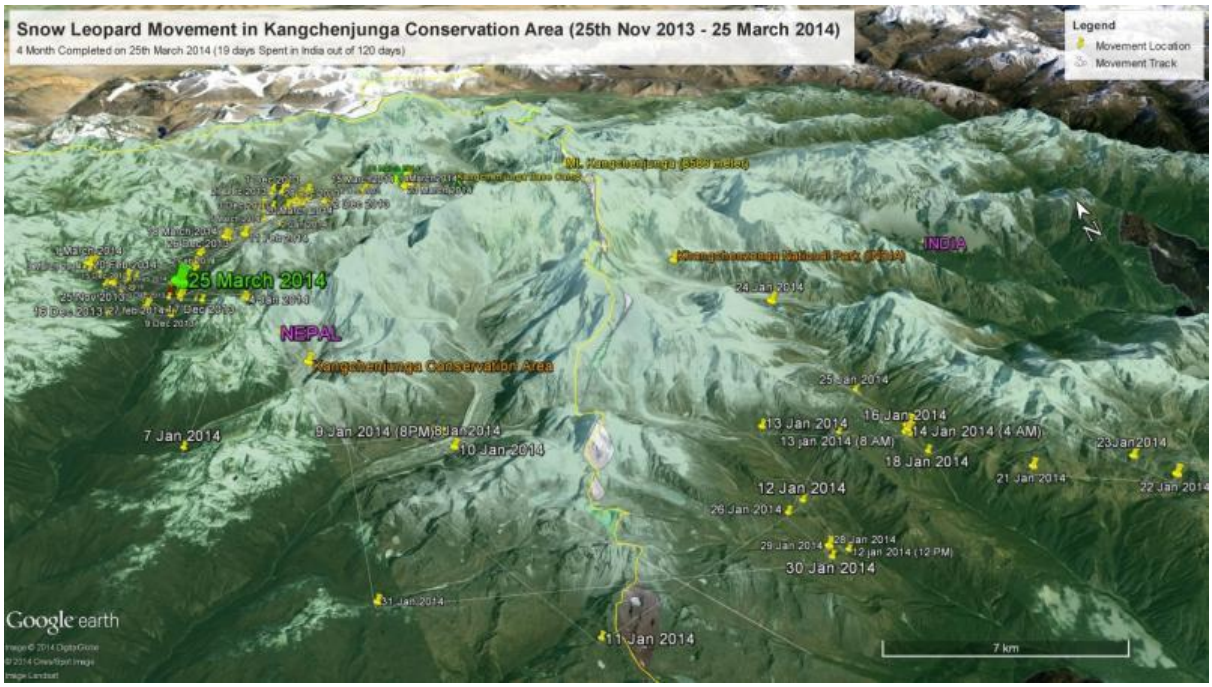

Figure 2. Map of movements around the Kangchenjunga Massif of the snow leopard collared with funding from the WWF AHM Project from November 25, 2013 to March 25, 2014.

<u>Activity 1.4.6:</u> Train local community members such as livestock herders to be citizen scientists conducting monitoring of snow leopard populations, preys species, and threats to snow leopards (e.g. poaching, retaliatory killing, and habitat degradation) and to conduct anti-poaching efforts through local SLCCs and other wildlife protection organizations. (Countries: I, M, N, P)

<u>Country: India</u>

From January 20-25, 2014, WWF led a wildlife and habitat field survey techniques training at the Barsey Rhododendron Sanctuary in West Sikkim (Photo 34). 45 participants (6 women) were trained, including Himal Rakshaks (volunteer "Mountain Guardians"), community Eco-Development Committee members, and State Forest Department field personnel as well as several Indian researchers working in the sanctuary with funding from JICA. Topics covered by practical sessions included field collection of animal sign, such as scat and fur, for diet analysis and DNA testing; recording habitat information at sign collection sites; site selection for setting up camera traps; camera trap set up; and analysis of camera trap data. Participants also learned about how these field techniques were being used for broader ongoing snow leopard and red panda studies at Barsey and elsewhere in Sikkim, and will use these techniques to begin community-based wildlife monitoring in their home regions of Sikkim.

Photo 34. WWF staff member leading a practical training on wildlife and habitat field survey techniques organized for Himal Rakshaks and State Forest Department staff members, Barsey Rhododendron Sanctuary, West Sikkim, January 2014.

Country: Pakistan

On November 26, 2013, a day-long workshop was organized in Hoper Valley, GB, to train local livestock herders; game watchers from the GB Forest, Wildlife and Environment Department; and game watchers from Central Karakorum National Park (CKNP) on snow leopard and prey species monitoring (Photo 35). 36 participants (all men) attended including 25 residents of Hoper Valley; 2 Hoper Valley Village Wildlife Guards; 8 GB Forest, Wildlife and Environment Department field staff; and 1 CKNP game watcher. Topics covered by the training included snow leopard ecology and behavior; threats to snow leopards; snow leopard conservation measures and survey methods; and techniques for reducing human-snow leopard conflict. With respect to snow leopard prey species, participants learned about the ecology and behavior of ibex and other local prey species; threats to these prey species; and conservation measures and survey methods for prey species. Participants agreed to be actively involved in snow leopard monitoring and will collect and contribute valuable information on snow leopard and prey species distributions that will be used to update snow leopard distribution maps and improve conservation efforts in the project region.

Photo 35. WWF staff member leading a training on snow leopard and prey species monitoring for community members and government wildlife workers, Hoper Valley, Gilgit-Baltistan, Pakistan, November 2013.

Activity 1.4.8: Establish a watch and ward system of Village Wildlife Guards to protect snow leopards and other species against hunting and poaching in Gilgit-Baltistan and Chitral. (Countries: P)

Country: Pakistan
In order to better control wildlife poaching and other illegal natural resource issues in Chitral District's Laspur Valley, such as free grazing and greenwood cutting, WWF, in partnership with the Chitral District Wildlife Division, supported the hiring of a second village wildlife guard (VWG) for Laspur. This second VWG was hired on March 10, 2014 and in addition to conducting anti-poaching patrols, will actively participate in local snow leopard monitoring and wildlife education, greatly enhancing the local capacity to conduct community-based conservation activities.

In Chitral District's Rumboor Valley, WWF, in cooperation with the Chitral Gol Community Development and Conservation Association (CGCDCA) and Chitral Gol National Park (CGNP), hired 3 community watchers for the Rumboor Valley. These community watchers will be the basis for an effective watch and ward system to prevent illegal exploitation of natural resources in Rumboor and they are now actively participating in conservation activities at Rumboor with the support of village conservation committees (VCCs) in the valley.

Activity 1.4.10: Involve local communities in species conservation activities through conservation education, training, and practical experience in snare removal and fire prevention. (Countries: K)

Country: Kyrgyzstan
In November 2013, WWF supported the community of Engilchek in establishing a community-based anti-poaching team comprised of the 5 village men with the most experience working in the remote areas surrounding their community. This team will operate under local community

supervision with the goal of ensuring proper natural resources use and enforcement of relevant wildlife and environmental legislation around Engilchek. This activity is being directed by the Engilchek Nur NGO in consultation with WWF, which will guide development of anti-poaching team guidelines and regulations and ensure that the team meets all legal requirements.

Activity 1.4.11: Pursue establishment of a system of protected areas for snow leopard conservation that considers recent and predicted changes in key habitats. (Countries: K)

Country: Kyrgyzstan

On October 24, 2013, the WWF AHM Project Kyrgyzstan team participated in the launch workshop for the UNDP-led "Improving the Coverage and Management Effectiveness of PAs in the Central Tian Shan Mountains" GEF Project (Photo 36). A presentation was given on WWF's USAID-funded AHM project activities in Kyrgyzstan and possible areas of cooperation with the new GEF project were discussed. It was agreed to test a new method for improving effectiveness of nature conservation efforts in protected areas developed by WWF Russia in conjunction with the already widely-used Management Effectiveness Tracking Tool (METT) system. A special training on the use of this new methodology will be given by WWF in partnership with GEF project in Bishkek in late spring 2014. Following integration of WWF's proposals and initial documentation for creation of additional protected areas in the central Tian Shan into the GEF project, further work on establishment of the proposed PAs has been handed over to GEF project itself, although WWF experts will continue to serve as expert advisers to this project, as requested.

Photo 36. WWF AHM Project Kyrgyzstan team attending the launch workshop for the "Improving the Coverage and Management Effectiveness of PAs in the Central Tian Shan Mountains" GEF Project, Bishkek, Kyrgyzstan, October 2013,

<u>Objective 2:</u> Improve transnational collaboration on climate change adaptation and snow leopard conservation in Asia's high mountain landscapes.

<u>Sub-objective 2.1:</u> Building cooperation through the Climate Summit for a Living Himalayas and its regional "Framework of Cooperation" for protection of Asia's high mountain landscapes and snow leopard

Activity 2.1.8: Convene a regional meeting of Himalayan experts on snow leopard conservation and headwaters management.

From October 1-2, 2013, WWF held the Regional Snow Leopard Workshop for the Living Himalayas-Eastern Himalayas in Kathmandu, Nepal (Photo 37). This meeting was attended by 27 WWF, NGO, and government staff members (3 women) working on snow leopard issues from Bhutan, India, Nepal, and Pakistan. Topics covered during the workshop included a review of earlier WWF snow leopard strategies for the eastern Himalayas; country presentations on snow leopard conservation efforts from the four participating countries; possibilities for developing a regional snow leopard monitoring framework; possibilities for cooperation on regional snow leopard distribution and habitat mapping; snow leopard trade monitoring; and a gap analysis to examine gaps in national and regional snow leopard conservation work in the Himalayas, which identified the need to incorporate climate change issues into snow leopard conservation plans as one large gap. The main output of the workshop was a short report titled Priority Actions for Conservation of Snow Leopards in the Himalayan Region, which will be used to guide design of future snow leopard conservation work in the region.

Photo 37. Participants at the Regional Snow Leopard Workshop for the Living Himalayas-Eastern Himalayas held in Kathmandu, Nepal, October 2013.

<u>Sub-objective 2.2</u>: Facilitate discussions on climate change and snow leopard conservation among the range countries

<u>Activity 2.2.1:</u> Conduct a range wide review of climate change vulnerability, and the impact of climate change on glacier melt rates, the availability of water resources, ecosystems, snow leopard habitat, and downstream communities. Also analyze the effects of regional black carbon emissions on glacial melt rates and review current policy initiatives to manage the impacts of glacial meltoff.

During this reporting period, findings of the daft map book titled "Maps of the Snow Leopard Range, Water Provision, and Climate Change" were presented to USAID after which the draft was sent out to leading experts on high Asia for peer review. Numerous responses were received and these comments are currently being incorporated into the final draft of the map book. In addition, plans were developed for distributing the report online accompanied by downloadable mapping data.

Activity 2.2.2 Organize a technical meeting of regional experts on climate change and headwaters management to present and refine findings of range wide review, and discuss the intersection of climate change, water security, and snow leopard conservation.

During this reporting period, the original plan for this activity was modified, and this event will now be a climate adaptation training for about 50 Bhutanese government environmental workers from throughout Bhutan as well as 15 WWF staff members and partners from the 6 AHM project countries, who will be responsible for developing climate vulnerability assessments and implementing climate adaptation strategies under the WWF AHM Project. Key field personnel will attend the training and learn about the fundamentals of climate change adaptation and climate-smart conservation and development. Training modules will include key adaptation concepts, integrated adaptation approaches, example adaptation options, and adaptation for specific ecosystems and communities, including freshwater and forests. Additional sessions will present progress of AHM Year 1 climate efforts, followed by "climate-smarting" of current and future AHM grant field activities with field site staff. This regional training will be led by the WWF-US Climate Adaptation Team from May 19-24, 2014 in Thimpu, Bhutan.

<u>Sub-objective 2.3:</u> Update range-wide information on snow leopard trafficking and provide trafficking information to enforcement efforts at the national and regional network levels

Activity 2.3.1: Update information on commercial hunting and trade of snow leopards

TRAFFIC has continued work on updating its 2003 snow leopard trade report "Fading Footprints." TRAFFIC has approached state government agencies and NGOs responsible for monitoring wildlife trade in all 12 known snow leopard range states. To this end, TRAFFIC sent questionnaires to relevant government agencies and NGOs in the snow leopard range states concerning arrests and seizures involving snow leopard poaching and the trade in snow leopard parts. TRAFFIC has also reached out to the nearly 300 members of the Snow Leopard Network (SLN) throughout the world for help in compiling snow leopard trade reports. The questionnaire was also sent to INTERPOL which forwarded it to INTERPOL member nation central crime bureaus. Thus far information on snow leopard poaching and trade has been received from Bhutan, China, India, Kyrgyzstan, Mongolia, Nepal, Pakistan, and Tajikistan. However, at present no information has been received yet from Afghanistan, Kazakhstan, Russia, and Uzbekistan. Further research on the trade and poaching of snow leopards is now being conducted while results already received are being compiled into a report. Recommendations are also being developed that will be presented to snow leopard range nation governments. TRAFFIC has also approached the Government of India about partnering with India's Project Snow Leopard on sharing information and cooperating on reducing poaching and illegal trade of snow leopards in India.

<u>Sub-objective 2.4:</u> Building momentum through a range-wide network for snow leopard conservation

Activity 2.4.1: Conduct a range-wide snow leopard vulnerability and grassland degradation analysis using GIS and remote sensing, and use this analysis to identify core snow leopard habitat, potential snow leopard habitat, and the impacts of grassland degradation on water supply (Note: Project Activity 2.4.2 has been merged with this activity).

In January 2014, the range wide review prepared for this activity, titled Assessing Community and Ecosystem Vulnerability to Climate Change and Glacial Melt in Asia's High Mountains, was sent out for peer-review. In February, comments on the report were received back from various scientists and climate change experts in the AHM project region, including from the University of Colorado's USAID-funded CHARIS program. As with the map book in Activity 2.2.1, above, WWF-US staff are now in the process of integrating these comments into a final draft that will be published online in the summer of 2014.

Due to WWF-US staff changes, the earlier proposed white paper combining the map book and range-wide review report will not be compiled. Instead, remaining work with these documents will focus on developing an interactive website to synthesize key information from both. Website plans have been discussed with WWF experts on online mapping tools and communications to further define key aspects of the website, including its target audience, functionality, and technical specifications. WWF is now drafting a TOR for web designers interested in building the site, and will procure a contractor in the spring of 2014. It is anticipated that the site will be ready for testing by August 2014. The two main goals of the site will be to: 1) disseminate key information from the snow leopard water security mapping and range wide review reports in an easy to use, interactive map of the Snow leopard range with various themes, including water security, climate change, and climate adaptation strategies and 2) provide database access to GIS files used to develop all maps in the map book for use by GIS mapping professionals and snow leopard and climate change experts in the region.

Activity 2.4.4: Review national snow leopard conservation action plans and the revised Snow Leopard Survival Strategy from a climate change adaptation perspective and update these documents to be climate smart.

The new draft Snow Leopard Survival Strategy (SLSS) was reviewed by the WWF-US climate change adaptation team. As part of the "climate-smarting" process, the major impacts of climate change in snow leopard range areas and the vulnerability of snow leopard to these impacts were highlighted as were recommendations to address these impacts. In addition, the WWF climate change adaptation team, in consultation with snow leopard experts, developed a species-specific climate change vulnerability assessment for the snow leopard which was presented to the Snow Leopard Network.

The revised SLSS will be published online in the summer of 2014, and this new "climate smart" version is considered to be a significant improvement over the original document published in 2003. In addition to climate, the new SLSS also addresses emerging threats facing snow leopards, such as mining activities and infrastructure development, that were not considered major threats in 2003. With online release, the revised SLSS will reach a much broader audience while the digital document can be updated to address new threats much more quickly as they arise.

Activity 2.4.5 Support a small grants program for site-based and national activities through SLN's Snow Leopard Conservation Grant to support conservation programs across the snow leopard's range.

In January 2014, with support from USAID, WWF, and other donors, the SLT-managed SLN Snow Leopard Conservation Grant Program awarded 7 small grants for snow leopard research totaling USD 55,215. The winning proposals were selected from a very competitive field of 21 applications. This year, the WWF AHM Project directly supported three awards totaling USD 33,000 in a newly established grant category for snow leopard research and conservation work that addresses climate change-related issues. These three winning proposals will investigate the impact of emerging diseases on snow leopards, wild prey, and livestock in southern Mongolia; modeling the response of snow leopard populations to threats from climate change in Kazakhstan; and the reoccupation by snow leopards and prey species of habitat recently exposed by glacial retreat and receding permanent snow lines in Nepal. USD 7000 that SLT originally budgeted for climate change category proposals in 2014 was unused and will be carried over to the 2015 small grant program. It is believed that, following promotion of this new grant category this year, there will be even more climate change related proposals next year. Work on all 7 grants is already underway and reporting on each grant project is due at the end of January, 2015.

Activity 2.4.6 Conduct a snow leopard study tour to SLT's Tost Uul Mongolia research base to share technology, knowledge, and best practices of snow leopard monitoring and conservation with the Himalayan countries (e.g. Bhutan, India, Nepal, and Pakistan)

From October 26 to November 7, 2013, the AHM project sponsored a wildlife field technician from Nepal's National Trust for Nature Conservation to visit the Snow Leopard Trusts's Tost Uul Mountain Snow Leopard Research Base in Mongolia. During this exchange, the technician learned snow leopard capture techniques for the purpose of collaring snow leopards with satellite GPS tracking transmitters. Specific topics covered during this practical training included snare setting, use of snare alarm transmitter systems, immobilization of captured snow leopards, handling of immobilized snow leopards, standard data collection on immobilized snow leopards, and fitting of snow leopards with satellite GPS collars. Immediately after returning from Mongolia, the trained technician joined the successful AHM Project snow leopard collaring activity in the Kangchenjunga Conservation Area (KCA), described under Activity 1.4.5 above, and was responsible for immobilizing the captured snow leopard.

<u>Sub-objective 2.5:</u> Launch the beginnings of the Alliance on Asia's High Mountain Landscapes

Activity 2.5.3: Co-organize and provide support for the Global Snow Leopard Conservation Forum meeting of the 12 snow leopard range nations, to be sponsored by the Government of Kyrgyzstan in Bishkek in October 2013.

<u>Country: Kyrgyzstan</u>
In Bishkek, WWF's on-site support for the Global Snow Leopard Conservation Forum was led by the WWF AHM Project Kyrgyzstan Team. This support included organizing a three-day media tour from October 18-20 for journalists from 5 international and 15 national news outlets outlets that visited the Koendu Ranger Station in the Sarychat-Ertash State Reserve, Kyrgyzstan's premier snow leopard reserve. WWF directly supported the forum by: 1) providing travel support for 4 Bhutanese and 2 Pakistani government delegates to attend as well as for 4 WWF delegates from the Nepal, Russia, and US offices; 2) paying for forum sign boards; 3) paying for forum stationary and supplies, and 4) paying for forum ground transportation. At the Global Snow Leopard Conservation Forum itself, WWF also organized the "The Land of the Snow Leopard" photo exhibition in the exhibition area of the main conference hall, afterwards moving the entire exhibition to Karakol (see Activity 1.1.3), and also a felt handicrafts exhibit (see Activity 1.3.9). The forum was held from October 21-23, 2013 and resulted in the unanimous adoption of the Bishkek Declaration on snow leopard conservation and also the Global Snow Leopard Ecosystem and Protection Plan (GSLEP) by the 12 snow leopard range states (Photo 38, see forum agenda in Annex). Media Coverage of WWF snow leopard activities and staff members in the run-up to and during the Global Snow Leopard Conservation Forum from October 18-23, 2013, included the following:

- October 18, 2013: A television news interview with WWF's Kyrgyz project consultant Azat Alamanov on Kyrgyz TV Channel 1.
- October 22, 2013: A brief press conference with WWF Russia's Mikhail Paltsyn.
- October 22, 2013: A television interview with WWF Russia's Olga Pereladova on Kyrgyz TV Channel 5.
- October 22, 2013: A radio interview with Farida Balbakova on Kyrgyz Radio 1's "Theme of the Day" show, repeated on October 23, 2013.
- Three showings of a film on WWF's snow leopard conservation work in Kyrgyzstan on various Kyrgyz television stations from October 21-23, 2013.
- And 8 online news stories on various news websites.

As a follow up to the forum, WWF is currently working with GTI, SLT, and other forum partners to support the creation of a post-forum secretariat for implementation of the GSLEP. During this reporting period, this has involved working within the secretariat steering committee to design the secretariat structure and also supporting the planning of the first-post forum meeting of the secretariat, which will be a training on GSLEP implementation for national focal points from the 12 snow leopard range states. This meeting will be held in June 2014 in Kyrgyzstan.

Photo 38. Kyrgyz President Almazbek Atambayev (center right) attending the Global Snow Leopard Conservation Forum (GSLCF).

Reported Implementation Issues and Challenges

Implementing challenges reported by country offices during this reporting period included a long delay in receiving funds for field activities. This resulted in project progress being slowed during the winter of 2014. Another challenge this reporting period was the major reorganization of WWF US office, which resulted in the need to train new AHM support staff on AHM Project operations.

Reported Measures and Adaptive Management

Adaptive Management this period included country offices temporarily re-directing money from other sources for continuation of AHM project activities in the interim period prior to receiving their annual funding. WWF will make every attempt to complete the AHM Year 3 Work Plan by mid-summer to ensure timely release of AHM Project Year 3 funding. Another challenge that will need to be addressed in AHM Project Year 3 will be finding an alternative channel for

funding Kyrgyzstan activities other than the WWF Russia Central Asia Program office, due to recently imposed sanctions on cooperation with Russia imposed by the US Government.

Annex: Agenda for the Global Snow Leopard Conservation Forum

PROGRAM OF THE GLOBAL SNOW LEOPARD CONSERVATION FORUM

Bishkek, Kyrgyz Republic, October 21-23, 2013

DAY 0: MONDAY, OCTOBER 21 (Hotel Ak-Keme)	
Morning	Arrival and registration of participants
10:00 - 13:00	**Thematic working meetings**: - Discussion of national components – breakfast hall, right wing, level "B" - Discussion of global components – breakfast hall, left wing, level "B" - Discussion of the Draft Twelve-Month Action Plan – Red Hall, level "B"
13:00 - 14:00	Lunch for sponsored participants – restaurant of the Ak-Keme hotel, level "L"
14:00 - 15:30	**Senior Officials Meeting** (Range Country delegations, co-organizers, and Secretariat) – Large Conference Hall, level "L" **Bilateral and thematic working meetings** (cont'd) – breakfast hall (right and left wings), Red Hall, level "B"
15:30 – 15:45	Coffee break – Lobby Bar, level "L"
15:45 - 17:30	**Senior Officials Meeting** (cont'd) – Large Conference Hall, level "L" **Bilateral and thematic working meetings** (cont'd) – breakfast hall (right and left wings), Red Hall, level "B"
18:00 - 18:30	Transfer by buses from "Ak-Keme" to NABU Office for Reception
18:30 - 20:30	**Reception for Forum participants hosted by NABU at the NABU Office in Bishkek**
20:30 – 21:00	Transfer by buses from NABU Office to "Ak-Keme" hotel

DAY 1: TUESDAY, OCTOBER 22 (Congress Hall, State Residence Ala-Archa)	
08:00 - 09:00	Transfer by buses from "Ak-Keme" hotel to the Congress Hall
08:30 - 10:00 09:30 – 09:50	Registration, snow leopard and cultural exhibition, coffee – Lobby of the Congress Hall Completion of the Senior Officials Meeting – Hall of the Press Center of the Congress Hall
10:00 - 10:30	**FORUM OPENING** – Hall of the press center of the Congress Hall Snow Leopard Documentary ***Tayirbek Sarpashev***, *Vice Prime Minister of the Kyrgyz Republic, Chairman of the Forum Organizing Committee* *Brief remarks by the Forum co-organizers (3 minutes each): NABU, SLT, UNDP, USAID, World Bank, GTI, WWF*
10:30 - 11:00	Group Photo, Coffee Break

11:00 - 14:00	**PLENARY SESSION 1: Joining Efforts for Saving Snow Leopard – Final Review of the Forum's Documents** – hall of the press center of the Congress Hall *Chair:* **Sabir Atadjanov**, Director, State Agency on Environment Protection and Forestry under the Government of the Kyrgyz Republic *Co-Chair:* **Satyawan Garbyal**, Additional Director General of Forests, Ministry of Environment and Forests, Government of India Statements by Heads of Delegations of the snow leopard range countries (10 minutes each) *Afghanistan, Bhutan, China, India, Kazakhstan, Kyrgyz Republic, Mongolia, Nepal, Pakistan, Russian Federation, Tajikistan, Uzbekistan* Final review of the Bishkek Declaration on Snow Leopard Conservation and the Global Snow Leopard Ecosystem Protection Program (GSLEP)
14:00 - 15:00	Media Briefing – hall of the press center of the Congress Hall Lunch – restaurant of the Congress Hall
15:00 - 16:30	**PLENARY SESSION 2: Operationalizing the Global Snow Leopard Ecosystem Protection Program (GSLEP)** – Hall of the Press Center of the Congress Hall *Chair:* **Amirkhan Amirkhanov**, Deputy Head, Federal Service for Environmental Oversight of the Russian Federation *(to be confirmed)* *Co-Chair:* **Yoko Watanabe**, Program Manager, Global Environment Facility *Session A. GSLEP operationalization tasks and coordination mechanism* - presentation of outcomes of Senior Officials Meeting by representative of the Forum Organizing Committee - statements by delegations of the snow leopard range countries - statements by representatives of partner organizations - summary of the discussion
16:30 - 16:50	Coffee Break – restaurant of the Congress Hall

16:50 - 17:50	**PLENARY SESSION 2 (cont'd)** – Hall of the Press Center of the Congress Hall *Session B. Mobilization of resources for the launch and implementation of GSLEP.* - statements by delegations of the snow leopard range countries - statements by representatives of the GSLEP partner organizations - summary of the discussion
18:00 - 21:00	Dinner Reception on behalf of the Government of the Kyrgyz Republic – Restaurant of the Congress Hall
21:00 - 21:30	Transfer by buses from Congress Hall to "Ak-Keme" hotel

DAY 2: WEDNESDAY, OCTOBER 23 (Congress Hall, State Residence Ala-Archa)	
08:00 - 08:30	Transfer by buses from Ak-Keme Hotel to the Congress Hall
09:00 - 10:00	**SPECIAL SESSION: From the Global Program to Projects on the Ground** – Main Room of the Congress Hall *Chair:* **Sabir Atadjanov**, Director, State Agency on Environment Protection and Forestry under the Government of the Kyrgyz Republic *Co-Chair:* **Thomas Tennhardt**, Vice President, NABU 1. **Results of the Regional Conference on the Project "Transboundary Cooperation for Biodiversity Conservation in the Northern Tian Shan Mountains"** Remarks by representative of NABU 2. **Project Launch: "Improving the Coverage and Management Effectiveness of Protected Areas in the Central Tian Shan Mountains"** Remarks by the Program Manager of the GEF, and the Resident Representative of the UNDP and the UN System in the Kyrgyz Republic
10.00 - 10.05	**Opening of the High Level Segment** – Main Room of the Congress Hall **Tayirbek Sarpashev, Vice Prime Minister of the Kyrgyz Republic, Chairman of the Forum Organizing Committee**
10.05 - 10.15	**Opening Remarks - Honorable President Almazbek Atambayev, Kyrgyz Republic**
10.15 - 11.30	**Statements by the Heads of Range Countries' Delegations on National Follow-Up Actions** Afghanistan, Bhutan, China, India, Kazakhstan, Mongolia, Nepal, Pakistan, Russian Federation, Tajikistan, Uzbekistan (5 minutes per country)
11.30 - 12.15	**Statements by representatives of International Organizations, program partners** *CITES, CMS, GEF, INTERPOL, NABU, SLC, SLT, TRAFFIC, UNDP, USAID, World Bank, GTI, WWF* (3 minutes per organization)
12.15 - 12.25	**Adoption of the Bishkek Declaration on Snow Leopard Conservation and the Global Snow Leopard Ecosystem Protection Program** **Group Photo** of Delegation Heads – Main Room of the Congress Hall
12.30 - 13.00	**Press Conference** of Delegation Heads – Hall of the Press Center of the Congress Hall
13.00 - 14.00	**State reception on behalf of the President of the Kyrgyz Republic** – Restaurant of the Congress Hall
14:00 - 15:00	**PLENARY SESSION 3: Role of Business and Industry in Conservation of Snow Leopard and Community Engagement –** Hall of the Press Center of the Congress Hall *Chair:* **Abdymital Chyngojoev**, Deputy Director, State Agency on Environment Protection and Forestry under the Government of the Kyrgyz Republic *Co-Chair:* **Carlos Drews**, Programme Director, WWF International Representatives of the business community, countries, international organizations, experts.

15:00 - 16:00	**PLENARY SESSION 4: Operationalizing the Program – Transboundary Cooperation in Conservation, Management and Enforcement –** Hall of the Press Center of the Congress Hall *Chair:* **Nurlan Kapparov**, Minister of Environmental Protection of the Republic of Kazakhstan *Co-Chair:* **Ioana Botezatu**, Unit Manager, Environmental Crime Programme, INTERPOL Countries' and international experts' presentations
16:00 - 16:30	Coffee Break
16:30 - 17:30	**PLENARY SESSION 5: Operationalizing the Program – Developing Better Livelihoods and Engaging Local Communities –** Hall of the Press Center of the Congress Hall *Chair:* **Tek Bahadur Thapa**, Minister of Forests and Soil Conservation of Nepal *Co-Chair:* **Adriana Dinu**, Officer in Charge and Deputy Executive Coordinator, United Nations Development Programme Countries' and international experts' presentations
17:30 - 18:30	**PLENARY SESSION 6: Operationalizing the Program – Role of Leaders and Leadership in Wildlife Conservation –** Hall of the Press Center of the Congress Hall *Chair:* **Yershey Dorji**, Minister of Agriculture and Forests of Bhutan *Co-Chair:* **Brad Rutherford**, Executive Director, Snow Leopard Trust Countries' and international experts' presentations
18:30 - 18:45	**FORUM CLOSING: Summary of Next Steps –** Hall of the Press Center of the Congress Hall *Chair:* **Abdymital Chyngojoev**, Deputy Director, State Agency on Environment Protection and Forestry under the Government of the Kyrgyz Republic *Co-Chair:* **Andrey Kushlin**, Program Manager, Global Tiger Initiative, The World Bank
19:00 - 21:00	Dinner – Restaurant of the Congress Hall
21:00	Transfer by buses from the Congress hall to Ak-Keme Hotel