



US Agency for International Development (USAID)
Asia Bureau Regional

AMENDMENT 4 TO INITIAL ENVIRONMENTAL EXAMINATION

PROGRAM/ACTIVITY DATA:

Cooperative Agreement: Leader with Associates Award to the World Wildlife Fund

Countries: Central Asian Republics, Mongolia, Nepal, India, China, Afghanistan, Pakistan, Bhutan

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

Time Period: September 2012-September 2017

Funding begins: FY 2011

Funding ends: FY 2017

LOP Amounts: \$8,000,000

IEE prepared by: Hari Swaminathan, Environmental Security and Resilience Team, Asia Bureau

Hari Swaminathan Date 12/01/2016

Date: 11/29/2016

IEE Amendment (Y/N): Y **DCN of Original:** Asia and Middle East 12-168, AMD1 Asia 14-142, AMD2 Asia 16-072, and AMD 3 Asia 16-097

ENVIRONMENTAL ACTION RECOMMENDED: (Place X where applicable)

Categorical Exclusion: X Negative Determination: X
Positive Determination: _____ Deferral: _____

ADDITIONAL ELEMENTS: (Place X where applicable)

CONDITIONS X PVO/NGO: _____

PURPOSE OF AMENDMENT:

The purpose of this amendment is to revise the threshold decision for several anticipated Conservation and Adaptation in Asia’s High Mountain (AHM) Landscapes and Communities activities.

BACKGROUND:

The United States Agency for International Development (USAID) aims to catalyze an alliance that covers the majority of the Asia range of snow leopards from Afghanistan to Mongolia to build momentum for snow leopard conservation and to improve the adaptive capabilities and lives of some of the world’s most remote communities in the high mountains of Asia. These communities are dependent on glaciers for water directly and their resource management supports the overall water quantity and quality for river basins. Critical to this integration is a focus on landscapes: landscapes that include the snow leopard’s habitat and adjacent communities. Both people and wildlife are at risk to climate change. Glacier retreat impacts environmental flows that play a significant role in the health of high mountain ecosystems. Recognizing how this web of life is connected not only within the biological world, but also to the physical world will contribute to the development of holistic approaches that have at their heart the conservation of the region’s water supplies. Therefore, this program aims to have the additional co-benefit of protecting the headwaters of Asia’s major rivers in response to glacier melt.

Snow leopard landscapes include large and critical tracts of snow packs and glaciers and forests—some of the last forests in Asia—and store over three times the amount of carbon as non-snow leopard landscapes in Asia. A majority of the landscapes lie in the 25 biodiversity hotspots of the world. This program will build on past and on-going USAID-funded programs and projects in selected countries and will seek to foster consistent, coordinated and continuous efforts by various stakeholders to protect habitats and increase population of snow leopards as well as to provide benefits to local communities.

The program will focus on targeted, policies, transnational cooperation across the snow leopard range states with limited site-based efforts in key areas. The program will also foster linkages to the private sector that can assist with innovative enterprises and/or technologies for adaptation and conservation and as well as linkages among governmental and non-governmental organizations across the range states.

The planned overall outcomes of this program are:

- The beginnings of a regional alliance with governments, non-governmental organizations and communities for snow leopard conservation across the high mountains of Asia.
- The successful implementation of environmentally and economically-resilient development for high mountain communities.
- The conservation of critical headwater landscapes for Asia’s important rivers.

ACTIVITY DESCRIPTION:

This IEE revises the process for conducting and approving supplemental environmental reviews of newly anticipated Conservation and Adaptation in Asia’s High Mountain (AHM) Landscapes and Communities activities. A list of defined or illustrative new activities being planned and their associated recommended mitigation measures is show in the table below:

Defined/Illustrative Activities	Mitigation Measures	Recommended Threshold Determination
Bhutan		
B1. Erection of an electric fence to prevent crop loss to wildlife in neighboring Nubi Geog.	Already completed in AHM Project Year 3. The solar-powered fence was erected around already existing agricultural fields and did not alter environmental and physical conditions at the site in anyway. Shocks incurred by touching the fence will frighten the animal involved but not result in physical injury.	Categorical Exclusion
B2. Recycling of trash in Sephu Geog will be promoted by erecting storage facilities for recyclable materials and working with local communities and recyclers to ensure that trash collected is recycled in a timely manner. Composting of biodegradable waste will also be demonstrated and management of materials that can't be reused or recycled will be addressed.	Storage facilities (Activity B.S1.1) will consist of small (2m x 2m x 1.5m) wire cages placed on the ground at a central location in the selected village where plastic bottles, glass bottles, and aluminum cans will be collected. No physical alteration of the landscape will occur. Mosquito borne diseases do not occur in this high altitude (2700m) valley, so spread of disease is not an issue. Composting of plant matter will be conducted on an agricultural plot and will not have any adverse environmental effects.	Categorical Exclusion
B3. Second sustainable caterpillar fungus harvesting campaign.	This training exercise (Activity B.S1.3) will not result in any environmental damage to the environment and in fact will reduce the physical impact of caterpillar fungus collectors on collection sites.	Categorical Exclusion
B4. Improving the villages' water filtration tank system.	EMMP form will be provided for Activity B.S1.4	Negative Determination with Conditions
B5. Reforest 5 ha of State Reserve Forest land in Lubzur Village.	This is a reforestation activity (Activity B.S1.5) will convert degraded forest land into healthy forest using locally occurring native tree species and will not adversely affect the local environment.	Categorical Exclusion
B6. In Sephu Geog, farm road drainage systems along the Busa Chiwog (village cluster) and Wangdi Gonpa farm roads will be improved.	EMMP form will be provided for Activity B.S1.6.	Negative Determination with Conditions.
B7. In Sephu Geog, support will be provided to reduce grazing pressure on pastures and in forests by planting both perennial and seasonal fodder	Fodder crops (Activity B.S1.7) to be used are local varieties recommended by the district agricultural extension office that have been used elsewhere in the project region without ill effect. Stalls used for feeding will be pre-	Categorical Exclusion

<p>crops on a demonstration basis on 20 ha of degraded land. Planting of fodder crops will be accompanied by lessons on stall feeding of livestock with these crops.</p>	<p>existing cow sheds. All fodder crops will be planted on dis-used agricultural plots in local farming villages.</p>	
<p>B8. In conjunction with the fodder crop planting activity, above, fodder crops harvested will be used in a silage making and storage demonstration with the goal of providing cattle with adequate winter fodder that minimizes the need for free grazing on natural mountain pastures. This demonstration will include both pit and bag methods of producing silage from fodder crops.</p>	<p>EMMP form will be provided for Activity B.S1.8.</p>	<p>Negative Determination with Conditions.</p>
<p>B9. Five interested farmers in Sephu Geog will be selected for a greenhouse vegetable farming demonstration using water efficient irrigation systems.</p>	<p>The greenhouses (Activity B.S1.9) will be erected on already existing agricultural plots and will not involve any physical alteration of the landscape. The watering system involved will be hoses connected to local village water taps.</p>	<p>Categorical Exclusion</p>
<p>B10. How to make and use bio-fertilizers and pesticides from manure, chili peppers, and other locally available ingredients to reduce Busa's dependence on chemical fertilizers and pesticides which can potentially contaminate local springs and streams.</p>	<p>Bio-fertilizers and bio-pesticides (Activity B.S1.10) will be made from local materials produced in the village such as cow manure and chili peppers that villagers are exposed to on a daily basis without ill-effect. No manufactured chemical compounds will be used. Similar trainings have already occurred at other AHM Project sites without ill effect for participants or the local environment.</p>	<p>Categorical Exclusion</p>
<p>B11. Bamboo planting and protection activity.</p>	<p>Bamboo planted (Activity B.S1.11) will be exclusively a local variety sustainably collected from shoots in village plots and forested areas near the village. No new bamboo species will be introduced. These shoots will be planted in plots in yards of local farm houses and will not involve any new large-scale alteration of local land cover.</p>	<p>Categorical Exclusion</p>
<p>Supply seed to local residents to plant fodder crops on 150 ha.</p>	<p>Fodder crops (Activity B.S2.2) to be used are local varieties recommended by the district agricultural extension office that have been used elsewhere in the project region without ill effect. Stalls used for feeding will be pre-existing cow sheds. All fodder crops will be planted on dis-used agricultural plots in local</p>	<p>Categorical Exclusion</p>

	farming villages.	
B12. A springshed protection and improvement activity for Thangbi Village that will include planting the 3-acre spring catchment area for this village with native tree species, digging a few strategically placed groundwater recharge trenches, fencing off the springshed to keep out free roaming livestock, and digging a small pond well below the spring for watering livestock.	EMMP form will be provided for Activity B.S2.3.	Negative Determination with Conditions.
B13. WCNP will conduct a springshed protection and improvement activity for Gorche Village that will include planting 2 acres of degraded land in the springshed above the village water intake pipe with native species, fencing off of the springshed, and construction of a simple passive filtration tank to remove sediment from the village water supply.	EMMP form will be provided for Activity B.S2.4.	Negative Determination with Conditions.
B14. WCNP will construct a small ranger's cabin strategically placed at the Nyepa Zampa bridge.	EMMP form will be provided for Activity B.S2.5.	Negative Determination with Conditions.
B15. UWICE will provide support for villagers at second climate-smart village in Nimshong Village to erect 3 greenhouses for producing off season vegetables and erected an electric fence to prevent crop loss to wildlife at a site where crop production is already believed to be in decline due to various climate change impacts.	Greenhouses (Activity B.S3.17) will be erected on already existing agricultural plots and will not change land use or land cover in anyway and will have no adverse environmental impact. The solar-powered electric fence will be erected around already existing agricultural fields and will not alter environmental and physical conditions at the site in anyway. Shocks incurred by touching the fence will frighten the animal involved but not result in physical injury.	Categorical Exclusion
B16. Demonstration biogas digesters.	Biogas digesters (Activity B.S3.1 – Ney Village And Activity B.S3.5 – Shawa Village) will be placed at central locations in villages and will not involve disturbance to new land. Digesters will be fed with various waste materials ordinarily found in the village itself and will	Categorical Exclusion

	improve disposal practices of materials used, such as animal manure. No adverse environmental impact from these digesters is anticipated.	
B17. WCNP will conduct a fodder crop planting demonstration at selected sites in the Eastern WCNP region.	Fodder crops (Activity B.S3.4) that will be used are local varieties recommended by the district agricultural extension office that have been used elsewhere in the project region without ill effect. Fodder crops harvested will be used for stall feeding cows in pre-existing cow sheds. All fodder crops will be planted on dis-used agricultural plots in local farming villages.	Categorical Exclusion
B18. Construction of a water storage tank above the main village for irrigation and household use, particularly during spring drought; trial cultivation of cardamom as a cash crop to diversify livelihoods; a biogas digester demonstration to reduce dependence on firewood and imported cooking gas; and planting of fodder crops to reduce grazing pressure on local pastures and increase dairy productivity.	EMMP form will be provided for Activity B.S3.5.	Negative Determination with Conditions.
B19. In Gangzur Geog, 5 ha of land in the upper Gangzur Chu River catchment and 4 ha of land in the Lekpagang Chu River that have been degraded by woodcutting will be reforested with native species to improve runoff infiltration and seasonal availability of drinking and irrigation water in Ngar, Gangzur, and Jang Villages during dry season.	This reforestation activity (Activity B.S3.6) will convert degraded forest land into healthy forest using locally occurring native tree species. No adverse environmental impacts are anticipated.	Categorical Exclusion
B20. In Gangzur Geog, protection of the drinking water source for Ngar, Gangzur, and Jang Villages will be improved by erecting a sturdy barbed wire fence around the pipe intake points and the hillsides above.	This barbed wire fence (Activity B.S3.7) will be erected in a forested area and will not cause any damage to the forest or prevent movement of wildlife around the enclosure. The fence will not be electrified and no adverse environmental impacts are expected.	Categorical Exclusion
B21. In Gangzur Geog, farm road drainage systems will be improved on a demonstration	EMMP form will be provided for Activity WMD B.S3.8.	Negative Determination with Conditions.

basis in both the Gangzur Chu and Lekpagang Chu River catchments.		
B22. In Gangzur Geog, work will be conducted at selected farming sites in both the Gangzur Chu and Lekpagang Chu catchments to demonstrate methods for reducing soil erosion from agricultural terraces on steep hillsides as one way to improve surface water quality, agricultural productivity, and watershed management in general. Activities that will be undertaken include planting of hedge rows between terraces, reinforcing terraces by building stone walls to support them, and planting of trees, shrubs and other vegetation around the outer edges of terrace cultivation plots.	Planting of trees, shrubs, and grasses for erosion control on agricultural terraces (Activity B.S3.10) will all be done using local varieties recommended by the local agricultural extension office that are used without ill effect elsewhere in the project region. Stone walls for reinforcing agricultural terraces will be constructed by hand using stones collected fieldside and transported short distances to work sites by wheel barrow with no disturbance to local ecosystems expected to occur. All work will be conducted on pre-existing agricultural terraces and will not involve creation of new terraces.	Categorical Exclusion
B23. Repair of the main irrigation canal for these two villages as well.	EMMP form will be provided for Activity WMD B.S3.11.	Negative Determination with Conditions.
B24. A demonstration river bank erosion control project.	EMMP form will be provided for Activity B.S3.12.	Negative Determination with Conditions.
B25. Support will be provided for planting of fodder crops on fallow agricultural terraces.	Fodder crops (Activity B.S3.13) to be used are local varieties recommended by the district agricultural extension office that have been used elsewhere in the project region without ill effect. Fodder crops harvested will be used for stall feeding cows in pre-existing cow sheds. All fodder crops will be planted on dis-used agricultural plots in local farming villages.	Categorical Exclusion
India		
II. Developing a crop rotation system designed to enhance soil fertility; implementing a village composting program to increase soil fertility and minimize the use of chemical fertilizers; and developing a system of integrated pest management at Lachen to minimize the use of chemical	The crop rotation design process (Activity I.S1.1) will be led by local agricultural experts with experience in this area using local crop varieties and will not have adverse effects on the local environment. Composting of plant matter will be conducted on agricultural plots and will not have adverse effects on the local environment. Bio-fertilizers and bio-pesticides will be made from local materials produced in the village such as cow manure, cow urine, and	Categorical Exclusion

pesticides which will include training on the production and use of bio-pesticides.	chili peppers that villagers are exposed to on a daily basis without ill-effect. No manufactured chemical compounds will be used. Similar trainings have already occurred at other AHM Project sites without ill effect for participants or the local environment.	
I2. In Lachung Village, North Sikkim, WWF and partners will work to promote climate-smart agricultural practices in the village, including developing a crop rotation system designed to enhance soil fertility; implementing a village composting program to increase soil fertility and minimize the use of chemical fertilizers; and developing a system of integrated pest management at Lachung to minimize the use of chemical pesticides which will include training on the production and use of bio-pesticides.	The crop rotation design process (Activity I.CC.1) will be led by local agricultural experts with experience in this area using local crop varieties and will not have adverse effects on the local environment. Composting of plant matter will be conducted on agricultural plots and will not have adverse effects on the local environment. Bio-fertilizers and bio-pesticides will be made from local materials produced in the village such as cow manure, cow urine, and chili peppers that villagers are exposed to on a daily basis without ill-effect. No manufactured chemical compounds will be used. Similar trainings have already occurred at other AHM Project sites without ill effect for participants or the local environment. It is anticipated that this activity will reduce current use of chemical fertilizers and pesticides in the village.	Categorical Exclusion
Kyrgyz Republic		
K1. A demonstration yak herd.	The small demonstration yak herd (Activity K.S1.3) has not had any adverse impacts on the local environment. No adverse environmental impacts are anticipated in AHM Year 5.	Categorical Exclusion
K2. Training for all three demonstration site villages on processing and use of yak wool as well as on production of yak milk products.	For Activity K.S1.4, residents of the Sarychat-Ertash Reserve buffer zone currently process sheep wool for making handicrafts and produce dairy products from cow's milk without adverse effects on their health or the local environment. Processing of yak wool for handicrafts and production of dairy products from yak milk are also not anticipated to have any adverse effects on participants' health or the local environment.	Categorical Exclusion
K3. Demonstrate beekeeping and start-up of small-scale greenhouse agriculture for vegetable cultivation at selected sites in the Chon Kyzyl Suu Valley.	The beekeeping activity (Activity K.S2.2) will provide hives that will be populated by a local bee species and will not introduce non-native bee species to the area and thus will not have an adverse impact on local bee species or the environment. The greenhouses will be erected on already existing agricultural plots and will not involve any physical alteration of the landscape, thus will not have any adverse impacts on the local environment.	Categorical Exclusion
K4. WWF will work with local	For Activity K.S2.5, residents of the Chon	Categorical Exclusion

<p>residents and retailers in Bishkek and Karakol to process and market local dairy products and sustainably-harvested wild mushroom and wild medicinal herb products.</p>	<p>Kyzyl Suu Valley currently market their surplus dairy products on a small scale in Kyzyl Suu Town, the local highway market town. However, there is a potentially larger market for mountain dairy products from free-ranging cows in both Karakol, the provincial capital, as well as Bishkek and tourist centers along Lake Issyk Kul. WWF will work with communities and retailers to see what the possibilities are for improving marketing of local mountain dairy products.</p> <p>WWF will also work with local plant experts to develop a sustainable harvesting plan for local non-endangered mushrooms and medicinal plants and then teach local residents methods for sustainably harvesting, hygienically processing and packaging, and selling these plants.</p> <p>With proper management and oversight by local village councils, no adverse environmental impacts are expected to result from any of the above activities.</p>	
<p>Mongolia</p>		
<p>M1. Rehabilitate three broken or damaged wells used by herders in this basin.</p>	<p>For Activity M.S1.1, repair of these wells will involve hiring a technician to replace broken hand pumps and install a small, gated, exclosure fence around the well head area to keep livestock out. Watering troughs for livestock will also be placed just beyond the fence, several meters away from the well head. No adverse environmental impacts are expected to result from this work.</p>	<p>Categorical Exclusion</p>
<p>Nepal</p>		
<p>N1. Improving wall of water sources in pasture areas, piping water to pasture areas that have fallen into dis-use due to a lack of water, improving access to dis-used pastures by repairing trails, and removal of unpalatable invasive species that have colonized former pastures that have fallen into dis-use.</p>	<p>For Activity N.S1.4, water will be piped from neighboring springs or streams up to 2 km to pasture campsites that have fallen into disuse by herders due to drying up of former water sources. Trails to remote pastures that have been damaged by landslides will be repaired using hand tools, such as shovels and pick axes, by workers travelling on foot so that livestock can once again access these pastures. Unpalatable species that have colonized disused mountain pastures will be removed by hand to promote growth of grasses. No environmental damage will result from any of these activities.</p>	<p>Categorical Exclusion</p>

Pakistan		
P1. Promote planting of native species of fast growing multi-purpose timber and fodder trees, such as poplar and willows in the Hoper Valley as one adaptation strategy to reduce cutting of local forests and improve degraded land and local watershed management, including through bioengineering works such as planting willows to reduce rates of stream bank erosion.	Trees to be planted (Activity P.S1.7) are tree species native to northern Pakistan. Native willow species will be planted along river banks prior to the onset of the summer monsoon and will not cause environmental damage or reduce river water quality.	Categorical Exclusion
P2. WWF will promote planting of fodder crops and winter stall feeding of livestock in Hoper.	Fodder crops (Activity P.S1.8) to be used are local varieties recommended by the local district agricultural department that have been used elsewhere in the project region without ill effect. Stalls used for feeding will be pre-existing cow sheds. All fodder crops will be planted on degraded agricultural plots in local farming villages.	Categorical Exclusion
P3. Promote planting of fruit trees for home orchards in Hoper as one adaptation strategy to improve local food and livelihood security as well as watershed management in settled areas.	Fruit trees (Activity P.S1.9) to be used are local varieties recommended by the district agricultural department that have been used elsewhere in the project region without ill effect.	Categorical Exclusion
P4. Introducing organic composting practices to Hoper.	For Activity P.S1.10, composting of waste plant material will be conducted on agricultural plots and will not adversely affect the local environment.	Categorical Exclusion
P5. WWF will provide support for a home poultry rearing training for women in Hoper as one adaptation strategy.	For Activity P.S1.11, chickens provided will be selected by district poultry experts and will be of a local variety available in Pakistan. An earlier AHM-funded chicken raising activity was conducted without ill effect for the local environment or human health and no adverse effects are expected from these small-scale poultry raising demonstrations in Hoper.	Categorical Exclusion
P6. Promote planting of fruit trees for home orchards in the Laspur Valley as well as watershed management in settled areas.	For Activity P.S2.9, fruit trees that will be used are local varieties recommended by the district agricultural department that have been used elsewhere in the project region without ill effect.	Categorical Exclusion
P7. Promote planting of multi-purpose fodder trees along	For Activity P.S2.6, trees that will be planted are local varieties of native tree species found in	Categorical Exclusion

irrigation channels near Phargram Village.	northern Pakistan and will not cause environmental damage or reduce irrigation water quality.	
P8. In Laspur Valley's Phargram River watershed, WWF will design a program for planting multi-purpose native tree species to maximize benefits for watershed management which will then be implemented by the Forest Department.	For Activity P.S2.7, trees that will be planted are tree species native to northern Pakistan that have been planted elsewhere in the project region without ill effect for the environment.	Categorical Exclusion
P9. WWF will work to improve the sustainability of the valuable wild black cumin harvest.	For Activity P.S2.8, black cumin is a widely occurring and non-endangered wild plant found in northern Pakistan and beyond that does have sufficient market value to merit the effort of collecting and selling it. In Laspur this plant has long been collected by local families and sold in nearby market towns. WWF will work with local residents to ensure the sustainability of this alternative income generating activity so that this resource does not decline in the future.	Categorical Exclusion
P10. WWF will develop and demonstrate a sustainability plan for the wild black cumin harvest that will include temporary enclosure fences to promote natural regeneration in degraded areas and harvesting guidelines to preserve this resource.	For Activity P.S2.8, the enclosure fence used will consist of fence posts and barbed wire and will not alter the landscape or impeded movements of wildlife, livestock and people around the fence to other areas of the valley. The sustainability plan will be developed in cooperation with experts from the district government.	Categorical Exclusion
P11. WWF will promote planting of fruit trees for home orchards in the Laspur Valley.	For Activity P.S2.10, fruit trees that will be used are local varieties recommended by the district agricultural department that have been used elsewhere in the project region without ill effect.	Categorical Exclusion
P12. WWF will conduct a livestock vaccination campaign in the Laspur Valley to vaccinate 3000 goats and sheep.	EMMP form will be provided for Activity P.S2.11.	Negative Determination with Conditions.
P13. Erect enclosure fences around these sites to promote natural regeneration.	For Activity P.CC.3, temporary enclosure fences will consist of fence poles and barbed wire and will promote the growth of trees and vegetation within the enclosure. These fences will have no negative environmental impact on the landscape. And will not prevent movement of wildlife, livestock, or people around the	Categorical Exclusion

	enclosure.	
P14. Conduct village fruit tree planting in Rumboor Valley.	For Activity P.CC.4, fruit trees that will be used are local varieties recommended by the district agricultural department that have been used elsewhere in the project region without ill effect.	Categorical Exclusion
P15. Conduct a second livestock vaccination campaign at Hoper to vaccinate an additional 5000 goats and sheep. At the same time, local herders will be trained on how to identify local livestock diseases and their prevention.	EMMP form will be provided for Activity P.S1.12.	Negative Determination with Conditions.
P16. Flood protection wall	EMMP form will be provided for this Activity P.S.1.1.2.	Negative Determination with Conditions.

SUMMARY OF FINDINGS AND RECOMMENDED THRESHOLD DECISION:

A Negative Determination with Conditions, pursuant to 22 CFR 216.3(a)(3) is recommended for all the new Conservation and Adaptation in AHM Landscapes and Communities activities that have the potential to result in significant adverse environmental, health, and/or safety impact and activities, such as those shown in the table above. The conditions of the negative determination are:

1. Prior to initiating site-specific activities, the Implementing Partner (IP) will conduct supplemental environmental review of these activities, document those reviews using an Environmental Review Checklist (ERC), such as that provided in Annex 1 of this IEE amendment, and subsequently prepare suitable and adequate Environmental Mitigation and Monitoring Plans (EMMPs).
2. The AOR will approve the ERC/EMMP(s) prior to start of site-specific activities.
3. EMMPs will be captured in annual work plans, and therefore budgeted for and reviewed for adequacy at least annually.
4. The AOR, and whenever feasible a cognizant Mission Environmental Officer (MEO), will be responsible for monitoring compliance of activities by means of desktop reviews and field inspections.
5. If an individual activity is found to pose significant adverse environmental effects that have not been identified and addressed in the approved EMMPs, new EMMPs will be developed to include environmental safeguards for such effects and then be approved.
6. If at any time the project is found to be out of compliance with the IEE, the AOR will immediately notify the Asia Bureau Environmental Officer (BEO).
7. Implementing partners will report on environmental compliance requirements as part of their routine project reporting to USAID.

APPROVAL OF ENVIRONMENTAL ACTION RECOMMENDED:

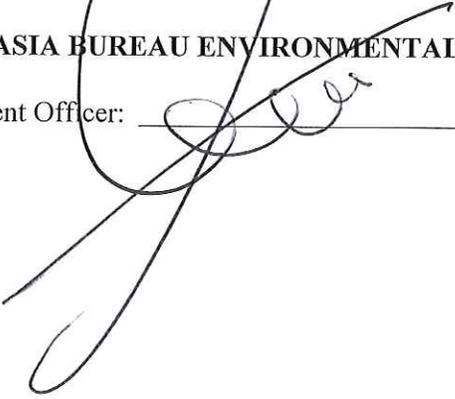
By signing below, you approve the Amended IEE for Conservation and Adaptation in AHM Landscapes and Communities.

Asia/TS Director/Acting:
Mary Melnyk

 Date 12/1/2016

DECISION OF THE ASIA BUREAU ENVIRONMENTAL OFFICER:

Asia Bureau Environment Officer:
William Gibson

 Date December 1, 2016



USAID
FROM THE AMERICAN PEOPLE

ENVIRONMENTAL REVIEW CHECKLIST FOR IDENTIFYING POTENTIAL ENVIRONMENTAL IMPACTS OF PROJECT ACTIVITIES AND PROCESSES

For: [Activity Name]

Implemented under:
Conservation and Adaptation in Asia's High
Mountain Landscapes and Communities
DCN: Asia 16-097

Prepared by: World Wildlife fund

ENVIRONMENTAL REVIEW CHECKLIST FOR IDENTIFYING POTENTIAL ENVIRONMENTAL IMPACTS OF PROJECT ACTIVITIES AND PROCESSES

The Environmental Review Checklist for Identifying Potential Environmental Impacts of Project Activities and Processes (ERC) is intended for use mainly by implementing partners to: assess activity-specific baseline conditions, including applicable environmental requirements; identify potential adverse environmental effects associated with planned activity(s) and processes; and develop environmental mitigation and monitoring plans (EMMPs) that can effectively avoid or adequately minimize the identified effects. This ERC can also be substituted for other ERC versions that may have been attached to project initial environmental examinations (IEE). If implementing partners are in doubt about whether a planned activity requires preparation of an ERC, they should contact their Contracting Officer’s Representative (COR)/Agreement Officer’s Representative (AOR) for clarification. *(When preparing the checklist, please indicate “not applicable” for items that have no bearing on the activity.)*

A. Activity and Site Information

Project Name: (as stated in the triggering IEE)	
Mission/Country:	
DCN of Triggering IEE:	
Activity/Site Name:	
Type of Activity:	
Name of Reviewer and Summary of Professional Qualifications:	
Date of Review:	

B. Activity Description

1. Activity purpose and need
2. Location of activity
3. Beneficiaries, e.g., size of community, number of school children, etc.
4. Number of employees and annual revenue, if this is a business
5. Implementation timeframe and schedule
6. Detailed description of activity and site, e.g., size of the facility or hectares of land; steps that will be taken to accomplish the activity
7. Existing or planned certifications, e.g., ISO 14001 EMS, ISO 9000, HCCP, SA 8000, Global Gap, Environmental Product Declarations, Eco Flower, EcoLogo, Cradle to Cradle, UL Environment, GREENGUARD, Fair Trade, Green Seal, LEED, or various Forest Certifications
8. Site map, e.g., provide an image from Google Earth of the location
9. Photos of site *(when available)*

C. Activity-Specific Baseline Environmental Conditions

1. Population characteristics
2. Geography
3. Natural resources, e.g., nearby forest/protected areas, ground and surface water resources
4. Current land use
5. Proximity to public facilities, e.g. schools, hospitals, etc.
6. Other relevant description of current environmental conditions in proximity to the activity

D. Legal, Regulatory, and Permitting Requirements

1. National environmental impact assessment requirements for this activity
2. Applicable National or local permits for this activity, responsible party, and schedule for obtaining them:

Permit Type	Responsible party	Schedule
Zoning		
Building/Construction		
Source Material Extraction		
Waste Disposal		
Wastewater		
Storm Water Management		
Air Quality		
Water Use		
Historical or Cultural Preservation		
Wetlands or Water bodies		
Threatened or Endangered Species		
<i>Other</i>		

3. Additional national or other international environmental laws, conventions, standards with which the activity might be required to comply
 - a. Air emission standards
 - b. Water discharge standards
 - c. Solid waste disposal or storage regulations
 - d. Hazardous waste storage and disposal
 - e. Historical or cultural preservation
 - f. Other

E. Engineering Safety and Integrity (*for Sections E. and F., provide a discussion for any of the listed issues that are likely to have bearing on this activity*)

1. Will the activity be required to adhere to formal engineering designs/plans? Have these been or will they be developed by a qualified engineer?
2. Do designs/plans effectively and comprehensively address:
 - a. Management of storm water runoff and its effects?
 - b. Reuse, recycling, and disposal of construction debris and by-products?
 - c. Energy efficiency and/or preference for renewable energy sources?
 - d. Pollution prevention and cleaner production measures?
 - e. Maximum reliance on green building or green land-use approaches?
 - f. Emergency response planning?
 - g. Mitigation or avoidance of occupational safety and health hazards?
 - h. Environmental management of mobilization and de-mobilization?
 - i. Capacity of the host country recipient organization to sustain the environmental management aspects of the activity after closure and handover?
3. Are there known geological hazards, e.g., faults, landslides, or unstable soil structure, which could affect the activity? If so, how will the project ensure structural integrity?
4. Will the site require grading, trenching, or excavation? Will the activity generate borrow pits? If so, how will these be managed during implementation and closure?
5. Will the activity cause interference with the current drainage systems or conditions? Will it increase the risk of flooding?
6. Will the activity interfere with above- or below-ground utility transmission lines, e.g., communications, water, sewer, or natural gas?
7. Will the activity potentially interfere with vehicle or pedestrian traffic?

8. Does the activity increase the risk of fire, explosion, or hazardous chemical releases?
9. Does the activity require disposal or retrofitting of polychlorinated biphenyl-containing equipment, e.g., transformers or florescent light ballasts?

F. Environment, Health, and Safety Consequences

1. Potential impacts to public health and well-being

- a. Will the activity require temporary or permanent property land taking?
- b. Will activities require temporary or permanent human resettlement?
- c. Will area residents and/or workers be exposed to pesticides, fertilizer, or other toxic substances, e.g., as a result of farming or manufacturing? If so, how will the project:
 - i. Ensure that these chemicals do not contaminate ground or surface water?
 - ii. Ensure that workers use protective clothing and equipment to prevent exposure?
 - iii. Control releases of these substances to air, water, and land?
 - iv. Restrict access to the site to reduce the potential for human exposure?
- d. Will the activity generate pesticide, chemical, or industrial wastes? Could these wastes potentially contaminate soil, groundwater or surface water?
- e. Will chemical containers be stored at the site?
- f. Does the activity remove asbestos-containing materials or use of building materials that may contain asbestos, formaldehyde, or other toxic materials? Can the project certify that building materials are non-toxic? If so, how will these wastes be disposed of?
- g. Will the activity generate other solid or hazardous wastes such as construction debris, dry or wet cell batteries, florescent tubes, aerosol cans, paint, solvents, etc.? If so, how will this waste be disposed of?
- h. Will the activity generate nontoxic, nonhazardous solid wastes (subsequently requiring land resources for disposal)?
- i. Will the activity pose the need to handle and dispose of medical wastes? If so, describe measures of ensuring occupational and public health and safety, both onsite and offsite.
- j. Does the activity provide a new source of drinking water for a community? If so, how will the project monitor water quality in accordance with health standards?
- k. Will the activity potentially disturb soil contaminated with toxic or hazardous materials?
- l. Will activities, e.g., construction, refurbishment, demolition, or blasting, result in increased noise or light pollution, which could adversely affect the natural or human environment?

2. Atmospheric and air quality impacts

- a. Will the activity result in increased emission of air pollutants from a vent or as fugitive releases, e.g., soot, sulfur dioxide, oxides of nitrogen, volatile organic compounds, methane.
- b. Will the activity involve burning of wood or biomass?
- c. Will the activity install, operate, maintain, or decommission systems containing ozone depleting substances, e.g., freon or other refrigerants?
- d. Will the activity generate an increase in carbon emissions?
- e. Will the activity increase odor and/or noise?

3. Water quality changes and impacts

- a. How far is the site located from the nearest river, stream, or lake?
- b. Will the activity disturb wetland, lacustrine, or riparian areas?
- c. What is the depth to groundwater at the site?
- d. Will the activity result in increased ground or surface water extraction? If so, what are the volumes? Permit requirements?
- e. Will the activity discharge domestic or industrial sewage to surface, ground water, or publicly-owned treatment facility?
- f. Does the activity result in increased volumes of storm water run-off and/or is there potential for discharges of potentially contaminated (including suspended solids) storm water?

- g. Will the activity result in the runoff of pesticides, fertilizers, or toxic chemicals into surface water or groundwater?
- h. Will the activity result in discharge of livestock wastes such as manure or blood into surface water?
- i. Does the site require excavation, placing of fill, or substrate removal (e.g., gravel) from a river, stream or lake?

4. Land use changes and impacts

- a. Will the activity convert fallow land to agricultural land?
- b. Will the activity convert forest land to agricultural land?
- c. Will the activity convert agricultural land to commercial, industrial, or residential uses?
- d. Will the activity require onsite storage of liquid fuels or hazardous materials in bulk quantities?
- e. Will the activity result in natural resource extraction, e.g., granite, limestone, coal, lignite, oil, or gas?
- f. Will the activity alter the viewshed of area residents or others?

5. Impacts to forestry, biodiversity, protected areas and endangered species

- a. Is the site located adjacent to a protected area, national park, nature preserve, or wildlife refuge?
- b. Is the site located in or near threatened or endangered (T&E) species habitat? Is there a plan for identifying T&E species during activity implementation? If T&E species are identified during implementation, is there a formal process for halting work, avoiding impacts, and notifying authorities?
- c. Is the site located in a migratory bird flight or other animal migratory pathway?
- d. Will the activity involve harvesting of non-timber forest products, e.g., mushrooms, medicinal and aromatic plants (MAPs), herbs, or woody debris?
- e. Will the activity involve tree removal or logging? If so, please describe.

6. Global Climate Change Vulnerabilities

- a. Is the site or activity vulnerable to effects of climate change?
- b. Do climate models predict temperature changes, such as warming in this region? Has it increased recently? What is the climate history? Are seasonal temperatures changes predicted?
- c. Is rainfall predicted to increase or decrease, or increased frequency of storms? Delay in onset of the rainy season? Increased variability? Inter-seasonal variations?
- d. Is their likelihood of changing water availability that would affect agricultural production, or water for sanitation, industry, energy, and the environment, or undermine economic growth and human security?
- e. What are there other likely vulnerabilities?

7. Historic or cultural resources

- a. Are there cultural or historic sites located at or near the site? If so, what is the distance from these? What is the plan for avoiding disturbance or notifying authorities?
- b. Are there unique ethnic or traditional cultures or values present in the site? If so, what is the applicable preservation plan?

G. Further Analysis of Recommended Actions *(if the applicable IEE requires the use of ERCs to perform further analysis of recommended actions, then check the appropriate box below. If this analysis is not required, then skip this and proceed with Section H. If required by the IEE, the ERC shall be copied to the Bureau Environmental Officer (BEO)).*

1. Categorical Exclusion: The activity is not likely to have an effect on the natural or physical environment. No further environmental review is required.*

2. Negative Determination with Conditions: The activity does not have potentially significant adverse environmental, health, or safety effects, but may contribute to minor impacts that can be eliminated or adequately minimized by appropriate mitigation measures. EMMPs shall be developed, approved by the

AOR prior to beginning the activity, incorporated into workplans, and then implemented. See Sections H and I below.*

3. Positive Determination: The activity has potentially significant adverse environmental effects and requires further analysis of alternatives, solicitation of stakeholder input, and incorporation of environmental considerations into activity design. A Scoping Statement must be prepared and be submitted to the BEO for approval. Following BEO approval an Environmental Assessment (EA) will be conducted. The activity may not be implemented until the BEO clears the final EA. For activities related to the procurement, use, or training related to pesticides, a PERUSAP will be prepared for BEO approval.

4. Activity Cancellation: The activity poses significant and unmitigable adverse environmental effects. Adequate EMMPs cannot be developed to eliminate these effects and alternatives are not feasible. The project is not recommended for funding.

***Note regarding applicability related to Pesticides (216.2(e):** The exemptions of §216.2(b)(1) and the categorical exclusions of §216.2(c)(2) *such as technical assistance, education, and training* are not applicable to assistance for the procurement or use of pesticides.

H. EMMPs (Using the format provided below, or its equivalent, list the processes that comprise the activity, then for each, identify impacts requiring further consideration, and for each impact describe the mitigation and monitoring measures that will be implemented to avoid or adequately minimize the impacts. All environment, health, and safety impacts requiring further consideration, which were identified in Section F., should be addressed)

1. Activity-specific environmental mitigation plan (Upon request, the MEO may be able to provide your project with example EMMPs that are specific to your activity.)

Processes	Identified Environmental Impacts	Do the Impacts Require Further Consideration?	Mitigation Measures	Monitoring Indicators
List all the processes that comprise the activity(s) (e.g. asbestos roof removal, installation of toilets, remove and replace flooring) A line should be included for each process.	A single process may have several potential impacts—provide a separate line for each.	For each impact, indicate Yes or No; if No, provide justification, e.g.,: (1) There are no applicable legal requirements including permits or reporting and (2) There is no relevant community concern and (3) Pollution prevention is not feasible or practical and (4) Does not pose a risk because of low severity, frequency, or duration	For each impact requiring further consideration, describe the mitigation measures that will avoid or adequately minimize the impact. (If mitigation measures are well-specified in the IEE, quote directly from IEE.)	Specify indicators to (1) determine if mitigation is in place and (2) successful. For example, visual inspections for seepage around pit latrine; sedimentation at stream crossings, etc.)

2. Activity-specific monitoring plan

Monitoring Indicators	Monitoring and Reporting Frequency	Responsible Parties	Records Generated
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Monitoring Indicators	Monitoring and Reporting Frequency	Responsible Parties	Records Generated
<i>Specify indicators to (1) determine if mitigation is in place and (2) successful (for example, visual inspections for seepage around pit latrine; sedimentation at stream crossings, etc.)</i>	<i>For example: "Monitor weekly, and report in quarterly reports. If XXX occurs, immediately inform USAID COR/AOR."</i>	<i>Separate parties responsible for mitigation from those responsible for reporting, whenever appropriate,</i>	<i>If appropriate, describe types of records generated by the mitigation, monitoring, and reporting process.</i>

I. Certification of No Adverse or Significant Effects on the Environment

I, the undersigned, certify that activity-specific baseline conditions and applicable environmental requirements have been properly assessed; environment, health, and safety impacts requiring further consideration have been comprehensively identified; and that adverse impacts will be effectively avoided or sufficiently minimized by proper implementation of the EMMP(s) in Section G. If new impacts requiring further consideration are identified or new mitigation measures are needed, I will be responsible for notifying the USAID COR/AOR, as soon as practicable.

Implementer Project Director/COP Name

Date

J. Approvals:

USAID AOR Name

Date

Distribution:

- Project Files
- Bureau Environmental Officer