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PEOPLES REPUBLIC OF BANGLADESH

GOVERNMENT OF NEPAL

ENVIRONMENTAL & SOCIAL MANAGEMENT FRAMEWORK

ADAPTABLE PROGRAM LOAN ON STRENGTHENING CROSS-REGIONAL COOPERATION FOR WILDLIFE PROTECTION IN ASIA

JANUARY 25, 2011

ACRONYMS AND ABBREVIATIONS

AAPA	Aquatic Animal Protection Act
APL	Adaptive Policy Lending
ASEAN-WEN	Association of South East Asian Nations – Wildlife Enforcement Network
BFD	Bangladesh Forest Department
CBD	Convention of Biological Diversity
CBO	Community Based Organization
CEPF	Critical Ecosystem partnership Fund
CFC	Compensation Fixation Committee
CHT	Chittagong Hill Tracts
CITES	Convention on International Trade in Endangered Species
DCCF	Deputy Chief Conservator of Forests
DNPWC	Department of National Parks and Wildlife Conservation
DOE	Department of Environment
DOF	Department of Forests
EA	Environmental Assessment
ECA	Environmental Conservation Act
ECR	Environmental Conservation Rules
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EPA	Environmental Protection Act
EPR	Environmental Protection Rules
ESMF	Environmental and Social Management Framework
FA	Forest Act
FD	Forest Department
FR	Forest Reserve
GAP	Gender Action Plan
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic Information System
GOB	Government of Bangladesh
GON	Government of Nepal
GRC	Grievance Resolution Committee
GTI	Global Tiger Initiative
HEC	Human-Elephant Conflict
HH	Household
ICT	Information Communication Technology
IEE	Initial Environmental Examination
IFC	International Finance Corporation
INR	Indian Rupee
INTERPOL	International Criminal Police Organization
IPP	Indigenous Peoples Plan
IUCN	International Union for the Conservation of Nattier
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
METT	Management Effectiveness Tracking Tool
MOEF	Ministry of Environment and Forests
MOEST	Ministry of Environment, Science and Technology
MOFSC	Ministry of Forest and Soil Conservation
NF	National Forest
NGO	Non-Governmental Organization
NPWCA	national Parks and Wildlife Conservation Act
NTNC	Nature Trust for Nature Conservation
OP	Operational Policy
PA	Protected Area
PAF	Project Affected Families
PAP	Project Affected Person
PDO	Project Development Objective
PI	Indigenous People
PIU	Project Implementation Unit
PMC	Project Management Committee
PMU	Project Management Unit
PSIA	Poverty and Social Impact Assessment
ROSC	Regional Operational Steering Committee
RP	Resettlement Plan
SAARC	South Asia Association for Regional Cooperation
SACEP	South Asia Cooperative Environment Programme

SA-WEN	South Asian Wildlife Enforcement Network
SAWTI	South Asia Wildlife Trade Initiative
SPAF	Serious Project Affected Families
STD	Sexually Transmitted Disease
TA	Technical Assistance
THC	Tiger-Human Conflict
TNC	The Nature Conservancy
TOR	Terms of Reference
TRAFFIC	Wildlife Trade Monitoring Network
UK	United Kingdom
UNEP	United Nations Environmental Programme
UNODC	UN Office of Drugs and Crime
US	United States
USFWS	United States Fish and Wildlife Service
VRCE	Virtual Regional Center of Excellence
WC	Wildlife Circle
WCCB	Wildlife Crime Control Bureau
WCCU	Wildlife Crime Control Unit
WCPA	World Commission on Protected Areas
World Bank	International Development Association
WWF	World Wildlife Fund

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1. INTRODUCTION

1.1 Project Background

Natural habitats are vital for assuring sustainable development. Wild habitats are the repositories of biological diversity (biodiversity) which are the raw material for natural selection and adaptation.[1] They provide myriad services that enrich and sustain human life with both tangible and intangible economic and social value – including watershed protection, biological control of pests, crop pollination – and life-sustaining environmental services, such as breathable air and usable water. Imbalances in natural environments have been implicated in floods, declining water availability and quality, soil fertility loss, erosion, silting of rivers, poverty, the spread of diseases such as ebola, malaria, and the proliferation of invasive species. Goal 7 of the Millennium Development Goals (MDGs) seeks to reduce biodiversity loss, recognizing the link between poverty and natural resource depletion. Although quantification of economic benefits is difficult, there is strong evidence that conserving natural ecosystems, and the species that sustain it, makes sound economic sense. Moreover, given the scale of destruction in recent decades there are high payoffs to conservation with often increasing returns to the investment.

Recognizing the importance of preserving biological diversity a number of global treaties have been established. They include the Convention on Biological Diversity (CBD, 1992), the Convention on International Trade in Endangered Species (CITES, 1981), the Convention on Wetlands (RAMSAR, 1971) and international institutions have formed around environmental issues such as the United Nations Environmental Program (UNEP), the International Union for the Conservation of Nature (IUCN), the Global Environmental Facility (GEF) and a myriad of national and international NGOs. Most countries of the world have recognized the importance of conservation of both terrestrial and aquatic habitats and have adopted legislation and created institutions for the protection of wildlife and their habitats.

Biodiversity is especially important to South Asia which is home to 13 – 15% of the world's biodiversity and hosts some of the most charismatic and endangered species on Earth. The forests of Gir in India are the last refuge of the world's remaining 250 – 300 Asiatic wild lions. Habitats across Bangladesh, Bhutan, India and Nepal are home to over 65% of the 3,000 or so remaining wild tigers and the Himalayas is the last redoubt of the critically endangered snow leopard, whose numbers are unknown. India is classified as a mega-diverse country and the Eastern Himalayas (encompassing numerous countries) a biodiversity hotspot.[2] Reflecting its rich natural heritage, a conservation ethos is deeply engrained in the culture and history of South Asia. The first recorded conservation edicts in South Asia date to the 4th century BC when the emperor Ashoka issued royal decrees to protect elephants from hunting and capture.

[1] Particularly important are the so-called "keystone" species that generate vital ecological services. Disappearance of a keystone can trigger cascading impacts through the habitat, with the loss of one species prompting the loss of still others. An example of keystone species are the top predators who play a vital role in maintaining balance and sustaining the interconnected web of life – vegetation (biomass), herbivores and their predators. They serve as "bellwethers" for the health of the ecosystem that harbor them and their decline is often a clear signal of grave imbalances. Habitats where they thrive are typically the high-value ecosystems that provide economic value through (un-priced but life sustaining) services such as carbon sequestration, maintenance of hydrological balance, crop pollination, protection from natural disasters and soil erosion and preservation of plant genetic diversity. Large predators are thus powerful symbols of all that is irreplaceable and biologically significant in nature.

[2] The mega-diverse countries are a group of countries in which less than the 10% of the global land surface has more than the 70% of the land's biodiversity. Most of these countries are located in the tropics. A biodiversity hotspot is a bio- region with a significant reservoir of diversity that is under threat from humans. It was first defined by Myers in 1988 - based on well described criteria.

The charismatic appeal of many species can generate additional economic benefits from conservation. Ecotourism is globally the fastest growing and most profitable segment of the tourist industry.[3] Estimates suggest that the tourism revenues from habitats rich in biodiversity – though still under-priced and far below potential – run into significant sums and contribute significantly to livelihoods of the poorest. A recent valuation study finds that, on average, each hectare of dense forest in India generates a net present value from ecotourism of about INR 65,192 (US$1,350). With an estimated 390,000 hectares of dense forest remaining in India, studies suggest that this constitutes a total economic contribution of approximately US$636 million.[4] This figure underestimates the potential value of undisturbed natural habitats because it excludes the myriad other benefits that forests bring – such as timber, fodder, traditional medicines, bio-prospectivity (e.g. new medicines), non-timber forest products and watershed benefits among others – as well as the non-use (preservation) values. The distributional impacts are, perhaps, even more significant. Aside from timber, most of the benefits from forest resources accrue to the poor and account for more than 50% of their (implied) consumption.[5] It is estimated that including these benefits would bring the economic benefits into the high billions of dollars, though more refined calculations are still in progress.[6]

Nepal's biodiversity is also extremely important for the country's economy as well as the well-being of its people. About 80 % of Nepal's population is rural, many of whom depend on a variety of forest products for their livelihoods. Forests contribute to about 10% of Nepal's GDP.[7] The total forest area of the country represents 29% of Nepal's land area and represents the daily source of fuel wood, food, fodder, timber, and medicinal plants for the rural population. Some rural populations help to sustain and manage forests in many parts of Nepal. Appropriate and sustainable forest management (including community management) has led to an increased supply of forest products with obvious livelihood benefits. Perhaps the best known example is the Terai Arc Landscape project in Nepal which has demonstrated considerable success in the past through approaches that harmonize livelihoods, sustainable development and conservation.

Bangladesh too is rich in floral and faunal biodiversity. Due to immense population pressures, over-exploitation of natural resources, deforestation, degradation, habitat loss, pollution, indiscriminate killing, hunting and poaching of wild animals, Bangladesh's environmental and ecological balance is under severe threat. Several studies indicated that 4 to 5% of faunal species and about 10% of floral diversity have become extinct in the last century. As an example, tigers once widespread in Bangladesh and in the 1930s reported in 11 out of 17 districts (Mitra, 1957) have dwindled in range and numbers. Today, the largest remaining population of tigers is in the Sundarbans. There is little known about the national demand for tiger parts, although a 1997 survey reported substantial trade in tiger skins, teeth and claws (Nowell 2000). What is known is that there is high regional demand and established international trade for tiger products (Nowell 2000; Nowell and Xu 2007), so it is unlikely that Bangladesh is overlooked as a source of tiger parts. The geographical position of Bangladesh between India and Myanmar – countries that experience widespread poaching – may further increase the vulnerability of the Sundarban tigers (Nowell and Xu 2007).

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[3] http://www.ecotourism.org/atf/cf/%7B82a87c8d-0b56-4149-8b0a-c4aaced1cd38%7D/TIES%20GLOBAL%20ECOTOURISM%20FACT%20SHEET.PDF

[4] Gundimenda H, S. Sanyal, R Sinha and P Sukhdev, 2009, *The Value of Biodiversity in India's Forests*, Deutsche Bank

[5] See for example Gundimenda *et al (op cit)* and also Gundimenda H, S. Sanyal, R Sinha and P Sukhdev, 2009, *The Value of Timber and Non Timber Forest Products in India's Forests*, Deutsche Bank

[6] These include livelihood benefits as well as the benefits that accrue from conservation (which is a pure public good). A pure public good is one that is non rival in consumption implying that the consumption by one person does not detract from its use by another. It is non-excludable in that its benefits cannot be restricted without cost (e.g. clean air, extinction are examples of a public good and a public bad respectively).

[7] Luintel, H. et al, 2009. *Community Forestry in Nepal: Promoting Livelihoods, Community Development and the Environment,* ForestAction. Kathmandu.

South East Asia also covers a remarkable portion of the world's biodiversity with the habitats in the region being among the most diverse in the world. Indonesia, for example, is the world's most biologically diverse country. Laos has a rich biodiversity, particularly in its wildlife, mainly due to the low population density, mountainous terrain, and thus, high remaining forest cover. In Laos, the rural poor are highly reliant on forest resources. The country's non-timber forest products (NTFPs) sustain livelihoods and act as a food security net for villagers (especially the lowest income ones) living in and near protected areas. South East Asia is also experiencing a major loss of biodiversity, with primary forest cover declining by 95% and individual countries losing 70-90% of their original wilderness. The key threats to wildlife are shifting cultivation within and on the edges of protected areas, overhunting of prey species to supply domestic trade, international illegal wildlife trade for food, medicines and ornaments smuggled through porous borders to neighboring markets (China, Vietnam), weak wildlife law enforcement capacity, etc.

Beyond Asia, examples abound of conservation generating benefits for the rural poor. Nearly three-quarters of the recorded protein consumption in Africa is derived from plant sources and food from the wild, particularly in times of stress, such as drought or floods. More importantly, new models demonstrate that sustainable and (relatively) high incomes are available to poor communities from conservation and profit sharing practices of eco-tourism that prevent excessive migration and over-development. Successful conservation examples include communal areas of Namibia where communities routinely earn in excess of US$0.5 million each year from eco–tourism. Under the Masai Porini (Kenya) project, the local community leases out land to a private wildlife conservancy. Benefits in the form of an annual income of about US $50,000 accrue to the formerly poverty stricken community. The project has helped to build schools for the community, sponsor local children through tertiary education systems, provide watering points for pastoral communities, vehicle transport and enable controllable grazing within the conservancy during times of great need.[8]

Governments in Asia are keenly aware of the benefits that biodiversity brings and the risks of biodiversity loss. The region's countries have been among the world's leaders in adopting legislation and ratifying international conventions for biodiversity conservation. South Asia – especially India – is a center of cutting-edge research on natural resource management and habitat conservation. Asia's countries have adopted legislation for protection of endangered species and their habitats. They have devoted substantial resources to habitat conservation and, more recently, to enforcement of anti-poaching legislation. For example, India has more than doubled the budget available for wildlife protection from about US$15.3 million in 2008-09 to about US$38 million in 2009-2010.[9] Laos increased its budget for protected area activities to US$300,000 in FY2009/2010 from a mere US$10,000 in earlier years. Despite the investments, Asia faces daunting challenges that are growing more severe. Habitat fragmentation and poaching for illegal wildlife trade are the most significant threats to biodiversity.

Habitat loss. Not only do many of the high profile endangered species (such as the top predators and elephants) require large amounts of land, but their habitats need to be connected as well to assure long-term genetic survival. Through much of South Asia, the forest frontier has largely stabilized as a result of past large scale conversions of habitats (though there are notable exceptions in the conflict-prone and forested mineral and plantation belts). Approximately 5% of land in the region has been granted Protected Area (PA) status which confers varying degrees of legal and actual sanctuary to wildlife.[10] But it is the forest corridors linking these PAs that are under constant and unrelenting pressure from intrusive structures, such as new roads and expanding settlements. As a result, many endangered species subsist in

[8] http://www.unep.org/GC/GCSS-IX/Documents/Kenya-2C.pdf

[9] India Today, July 6, 2009

[10] The level of protection accorded legally and in practice varies considerably. In Bhutan, large tracts of land in PAs contain farms, houses a growing number of roads, logging and small industry. In India, however, the land under PA management is small (about 4.8%) and most forms of anthropogenic interference and commerce are legally discouraged from these areas.

isolated population clusters. Small, fragmented breeding populations are especially fragile and at risk of genetic bottlenecks, a condition that reduces the capacity to adapt to changing conditions.[11]

Poaching. Though habitat fragmentation is a severe problem, it remains a medium-term threat. The most serious and immediate risk to many species is poaching for wildlife trade. Wildlife are killed for the flourishing illegal international trade in their skins, bones, flesh, fur, used for decoration, clothing, medicine, and unconventional exotic food. The primary market for many of these products is outside South Asia – often in East Asia for items of presumed pharmacological utility.

The wildlife trade is big business. But due to the clandestine nature of the enterprise, reliable estimates of the composition, volume and value of the trade remain elusive. The International Criminal Police Organization (INTERPOL) suggests that the global value of the illegal wildlife related trade exceeds US$20 billion per year and probably ranks third after narcotics and the illegal weapons trade.[12]

Illegal trade. South Asian countries account for 13 to 15% of the world's biodiversity and so remain a lucrative target of the trade. Victims of the trade include the iconic tiger and elephant, the snow leopard, the common leopard, the one-horn rhino, pangolin, brown bear, several species of deer and reptiles, seahorses, star tortoises, butterflies, peacocks, hornbills, parrots, parakeets and birds of prey, and corals. Poaching techniques can be extremely gruesome – the more egregious methods include skinning or de-horning live animals – and transportation of live creatures in inhumane conditions.

Particularly damaging is the banned trade in tiger parts much of which is used for its presumed pharmaceutical benefits. The World Chinese Medicine Society has declared that tiger parts are not necessary in traditional medicines and that alternatives are available and effective. Yet the illegal trade still flourishes. Poaching has become so intense that tigers have disappeared from many parks throughout Asia. Nowhere has the impact been greater than in India and Nepal which remain the bastions of tiger conservation. Nepal has emerged as the transit hub for the trade in illegal wildlife commodities destined for consumption in East China. Laos is recognized as both a source and transit country while Viet Nam is a transit hub for illegal wildlife trade.

The economic value of the illegal wildlife trade is determined primarily by cross-border factors. Wildlife are poached in one country, stockpiled in another, and then traded beyond the South Asia region. Lack of uniformity in enforcement can result in migration of the trade to other countries with less stringent enforcement. The trade is controlled by criminal organizations which have considerable power over the market and the prices paid to poachers and carriers, making control of the trade even more challenging.[13] The UN Office of Drugs and Crime (UNODC) suggest that wildlife traders have links to other organized criminal activities (e.g. narcotics), presumably a reflection of the increasing returns to cross-border criminal activities. By contrast, poaching is often carried out by local or forest dwelling populations who receive only a fraction of the final price of the product. The magnitude and complexity of the problems are such that they now frequently transcend national boundaries and call for knowledge sharing and compatible policies with renewed energy across the supply chain.

Responses. Commendable efforts have been made by all the countries in South Asia to protect their wildlife and great strides have been taken and important lessons learned. All the countries are signatories

[11] For as science suggests " It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one most adaptable to change." *The Origin of Species* Charles Darwin (1859)

[12] Sinha S. 2010. Handbook on Wildlife Law Enforcement in India. TRAFFIC India/WWF India, New Delhi. Natraj Publisher.

[13] Technically, this market structure is complex and poses regulatory challenges. The market resembles an inverted wine glass. A large number of potential poachers (forest dwellers) operate under quasi open access conditions. The poached commodity is then sold to traders – the organized gangs – who are few in number and thus operate under oligopolistic conditions (i.e. have market control) and the product is sold via retailers to a large number of consumers. Where controls are optimally applied to cause the greatest disruption is not obvious – given the imperfectly competitive "middle". See Bulte E. H. and R. Damania "The Wildlife Trade" *Ecological Economics*, 2006.

to CITES, which was set up to promote cooperative responses to the effects of trade on endangered species. A number of regional initiatives have also emerged and include SACEP (South Asia Cooperative Environment Programme), SAWTI (South Asia Wildlife Trade Initiative), and SAARC Convention on Cooperation on Environment, but have not been resourced adequately to implement activities. Most recently recognizing the grave threats posed to wildlife from the illegal trade, all countries in South Asia agreed at the First Meeting on Illegal Wildlife Trade in South Asia convened by the Government of Nepal and held in Kathmandu on May 17-19, 2010 to develop institutional mechanisms to promote harmonized and collaborative approaches to common threats. The modalities of this agreement and the ensuing legal structures are still under discussion. Despite investments in conservation and the efforts of stakeholders, illegally traded species are in fast decline.

It is clear that no one country – acting alone – can eliminate the perils to South Asia's wild resources. Improved and more effective patrolling of protected areas (PAs) is one approach for addressing the poaching threat. However, tackling the challenge calls for a regional approach. Close collaboration is needed among nations and regions along the trade route, as well as the centers of consumption (e.g., East Asia and North America).[14] In this context, an opportunity has emerged for East Asia to link or collaborate with its neighboring South Asia region in addressing common national and regional goals and strategies of wildlife protection.

Countries in South and Southeast Asia are committed to the pursuit of collaborative responses to the effects of trade on endangered species. A number of regional initiatives have emerged, such as the South Asia Cooperative Environment Programme (SACEP), South Asia Wildlife Trade Initiative (SAWTI), South Asian Association for Regional Cooperation (SAARC) Convention on Cooperation on Environment and the Association of South East Asian Nations Wildlife Enforcement Network (ASEAN-WEN). However, these organizations have not been resourced adequately to implement activities. Most recently, in recognition of the grave threats to wildlife from illegal trade, all countries in South Asia agreed at the First Meeting on Illegal Wildlife Trade in South Asia – convened by the Government of Nepal in Kathmandu in May 2010 – to develop institutional mechanisms for harmonizing and collaborating against common threats, including setting up the South Asia Wildlife Enforcement Network (SA-WEN).

[14] Numerous NGOs focus on demand side management and, through the GTI, the Bank is engaging on this issue. The communications component of this project offers an opportunity to address some of these complex issues.

1.2 Need for an Environmental and Social Management Framework

The Environmental and Social Management Framework (ESMF) provides general environmental and social policies, guidelines, codes of practice and procedures to be integrated into the implementation of the World Bank-supported APL on Strengthening Cross-Regional Cooperation for Wildlife Protection in Asia (referred as Wildlife Project from here onwards). The purpose of this document is to outline a Framework for Environmental and Social Management, giving brief details of potential environmental and social issues typically associated with the planning and implementation of the project activities envisaged under the Wildlife Project and provide guidelines on how to carry out Environmental Assessments (EAs), Poverty and Social Impact Assessments (PSIAs), prepare Environmental Management Plans (EMPs), Indigenous Peoples Plan (IPP), Gender Action Plan (GAP) and Resettlement Plans (RPs) where necessary to mitigate project induced negative environmental and social impacts and enhance positive environmental and social impacts of the project interventions.

An ESMF for the Wildlife Project is essential because sub-project specific environmental and social impacts cannot be precisely identified upfront before sites are selected, detailed site investigations are carried out as part of identifying specific project activities and related designs at the selected locations. The ESMF will provide the necessary background for environmental and social considerations, a checklist of potential environmental and social issues of the project activities to be considered and built into the design of the project so that environmentally and socially sustainable implementation can take place. The ESMF highlights review of relevant environmental and land acquisition legislation and operational guidelines, likely environmental and social issues due to potential activities under the project, strategies and measures to minimize or mitigate these issues, necessary institutional arrangements and mechanisms for monitoring and evaluation to be taken into consideration for integration of environmental and social aspects into the project design and implementation. Adhering to the principles and procedures and using the checklist of potential environmental and social issues laid out in this ESMF will help the implementing agencies to ensure compliance with the World Bank's environmental and social safeguard policies and the relevant provisions under the related policies of the participating countries, and associated rules, regulations and procedures. This ESMF will also serve as the guideline for the staff designated by the implementing agencies to oversee and monitor the environmental and social safeguards compliance of the respective project components coming under their implementation responsibility. Therefore this ESMF must be used as the template and guideline to ensure diligent environmental and social compliance of the planning and implementation of the activities envisaged under the SRCWPP.

Projects and programs financed with World Bank resources need to comply with the World Bank Operational Policies. Therefore, the project components eligible for funding under SRCWPP will be required to satisfy the World Bank's safeguard policies, in addition to conformity with environmental legislation of the Government of Bangladesh (GOB) and Government of Nepal (GON). Although project as a whole is geared towards better environmental and social management, on the basis that the project will develop various facilities within protected areas, the project is classified as Category "B".

The objective of the ESMF is to ensure that activities under the proposed operations will address the following issues:

- Minimize potential negative environmental and social impacts as a result of either individual subprojects or their cumulative effects;
- Enhance positive environmental and social outcomes;
- Provide a mechanism for consultation and disclosure of information;

- Ensure that environmental and related social issues are thoroughly evaluated and necessary interventions are incorporated in planning, decision making, and implementation of project activities ;

- Protect environmentally sensitive areas from additional disturbance from project interventions;

- Protect human health and rights of people if affected; and

- Ensure compliance and due diligence with World Bank environmental and social safeguard policies as well as with related Government policies, regulation, guidelines and procedures as applicable to the type of project activities financed by the project.

2. DESCRIPTION OF THE PROJECT

2.1 Project Development Objective

The long-term vision of the regional program is to stabilize and, if possible, increase the population and habitats of critically endangered animals in South Asia. Since wildlife and habitats cross administrative boundaries and because knowledge and capacity vary widely across and within countries, a regional approach is needed to address cross-border issues, build synergies, share skills, knowledge and experiences and build regional collaboration for the conservation of critical habitats and ecosystems. The proposed project sits squarely in GTI's framework and introduces mitigation measures for a regional public bad – illegal wildlife trade.

The project development objective (PDO) is **to assist the participating governments to build or enhance shared capacity, institutions, knowledge and incentives to collaborate in tackling illegal wildlife trade and other select regional conservation threats to habitats in border areas**. The project will focus on a selected set of country-specific initiatives as well as key mutually agreed regional activities that are crucial to attaining the regional strategic goals.

2.2 Project Descriptions

2.2.1 Landscape approach for regional cooperation in wildlife conservation and protection

The project applies a two-pronged approach: (i) capacity building to address the illegal wildlife trade through regional cooperation; and (ii) habitat protection and management to generate regional conservation benefits and address the human-wildlife conflict, thereby ensuring the conservation of flagship species such as the tiger, rhinoceros, snow leopard and elephant in increasingly fragmented habitats. The interventions would enhance the capacity of the relevant agencies in the participating countries to carry out conservation based on a landscape approach and also to address wildlife trafficking. The landscape approach would lead to improved management of the national PA networks[15] – that are essential to the long-term conservation of the tiger and other flagship species – and would control against the adverse impacts of the illegal trade. Although the ecological and behavioral traits of such species require vast habitats for effective, long-term conservation, many of them – including the tiger, rhinoceros, snow leopard and elephant – are confined to small, isolated and fragmented PAs with uncertain long-term viability.[16] Population and development pressures are the main causes of PA fragmentation and isolation that threaten the survival of flagship species. Therefore, it is critical that such species are managed not only in the designated PAs within the participating countries but also along the wildlife corridors in order to ensure connectivity between PAs and contiguous ecosystems that transcend national borders. Conservation of South Asia's flagship species would yield broader benefits in the form of improved natural habitats for all species within the PAs and corridors and, ultimately, healthy ecosystems for the entire region.

The implementation of specific project components or sub-components under the mentioned two-pronged approach would be carried out in a sequential manner. Specifically, the institutional building activities that comprise Components 1 and 3 as well as Sub-component 2.1 would be implemented soon after project effectiveness. Specifically, those activities would build capacity and strengthen institutions to combat illegal wildlife trade and crime, improve staff skills for better management of protected areas and forest reserves, develop and sustain knowledge sharing and partnerships across agencies and institutions in South Asia and enable them to act with common standards and communicate a shared message on the regional threats to wildlife conservation. As progress with institution building is proceeding, those activities would be followed and supported by investments in PAs and other wildlife habitats under Sub-component 2.2 that would lead to improved management of connected habitats. Those investments would address the human-wildlife conflict through engagement with the local communities and civil society, thereby fostering an enduring culture of wildlife stewardship and protection. Implementation of Sub-component 2.2 may commence approximately one year after effectiveness.

2.2.2 Project components

The program for Bangladesh would amount to US$36 million while that for Nepal is US$3 million. The project would have three main components and they are described in detail below. Where applicable, the sub-component descriptions would distinguish the details of the program for each country. That is, activities that would be implemented in one country under a specific sub-component may be distinct from those carried out in the other.

[15] National protected area (PA) networks consist of national parks and forests as well as forest reserves.

[16] Eric Wikramanayake, Anil Manandhar, Shyam Bajimaya, Santosh Nepal, Gokarna Thapa and Kanchana Thapa, 2009, "The Tarai Arc Landscape: A Tiger Conservation Success Story in a Human Dominated Landscape", *Tigers of the World*, Second Edition, Elsevier Inc.

Component 1: Capacity building for addressing the illegal trans-boundary wildlife trade (Total US$14.304 million, including contingencies, of which: Bangladesh US$13.304 million and Nepal US$ 1.0 million)

The Government of Bangladesh (GOB) has accorded high priority to biodiversity conservation. To that end, the Ministry of Environment and Forests (MOEF) received Cabinet approval to revise the Wildlife Conservation Act that grants more powers to the Wildlife Circle (WC) and creates a better enabling environment for wildlife management in Bangladesh. The legislation is being prepared currently for submission to Parliament. In anticipation of the legislation, the Bangladesh Forests Department (BFD) proposed institutional reforms for WC to enable it to better discharge its duties under the new Act. However, BFD is unable to deliver on its new mandate unless WC's capacity is enhanced significantly.

For Nepal, Component 1 would address the capacity constraints of the Department of National Parks and Wildlife Conservation (DNPWC) and Department of Forests (DOF) by improving their ability to conserve wildlife and to collaborate with neighboring countries in addressing trans-boundary illegal wildlife trade. With strengthened institutional capacity that includes wildlife crime control, among others, and enhanced opportunities for conservation, protection and management of the PA network, the project's PDO can be achieved.

TRAFFIC International based in Cambridge, United Kingdom and TRAFFIC South Asia contributed substantially to the design of Component 1. TRAFFIC, established in 1976, is a research-driven and action-oriented global network aimed at delivering innovative and practical conservation solutions based on the latest information. Among its many roles, TRAFFIC organizes and assists training and other capacity-building initiatives for officials involved in the regulation of wildlife trade. It provides technical advice and often mediates or facilitates multi-sector and inter-governmental consideration of solutions to trade-related conservation challenges.

Sub-component 1.1 Institutional strengthening in wildlife conservation and illegal wildlife trade control (Total US$7.408 million, including contingencies, of which: Bangladesh US$6.656 million and Nepal US$ 0.752 million)

(i) Bangladesh Wildlife Circle (WC)

WC's role within FD would be enhanced significantly with the appointment of a Deputy Chief Conservator of Forests (DCCF) responsible for wildlife conservation. The DCCF would oversee three units: (i) PA Management Unit consisting of four existing divisions split on a geographic basis and responsible for conservation and management of the PA network; (ii) Wildlife Center to be established to undertake training, research, education and awareness, information communication technology, applications and monitoring and evaluation (M&E); and (iii) Wildlife Crime Control Unit (WCCU) to be created with responsibility for carrying out forensics, quarantine, legal support and assisting Bangladesh in discharging its responsibilities as a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The project would support the upgrading and strengthening of all three units.

The project would support TA extended by technical and management consultants to enable WC to implement the new Wildlife Conservation Act. The consultants would examine the institutional needs, roles and responsibilities, staffing and training needs and provide recommendations on how WC could better discharge its mandate under the new Act. Since the existing PA management divisions are short staffed and unable to effectively discharge their duties, especially their responsibilities under the proposed Act, MOEF will formally request for an incremental staff increase in 2011 from the Government. The approval process for cadre enhancement is time consuming and bureaucratic and could take 2-3 years. Meanwhile, the project would fund critical staff positions for which approval for cadre enhancement has

been sought with agreement reached by the Government on absorbing those staff members into the regular DOF cadre prior to project closure.

Operational costs for these incremental staff for the Wildlife Circle would be borne by the project on a declining basis to ensure sustainability beyond the project period. While 100% of the agreed operational costs for activities supported under the project would be covered during the first three years of implementation, that proportion would be reduced to 2/3 in the fourth year and to 1/3 in the final year.

The project would support the establishment of the Wildlife Crime Control Unit (WCCU) within WC by providing TA to identify staffing and equipment needs, roles and responsibilities as well to prepare terms of reference (TOR) for WCCU staff. WCCU would be responsible for:

(a) collection and collating intelligence related to organized wildlife crime activities and disseminating such information to relevant agencies nationally and regionally to facilitate enforcement and apprehension

(b) establishment of a wildlife crime bank with a database of wildlife crime related information

(c) coordination of operations of various officers, national agencies, and other authorities in the enforcement of wildlife crime laws within the country or through regional cooperation

(d) ensuring implementation of obligations under various international conventions and protocols related to wildlife crime that are in force at present

(e) development of new protocols in areas of interest either nationally or in collaboration with regional wildlife crime control units

(f) assistance to concerned authorities in regional countries and concerned international organizations to coordinate action to facilitate coordination and universal action in wildlife crime control

(g) development of infrastructure and capacity for scientific investigation into wildlife crimes to facilitate prosecution

(h) creation of a forensics section to carry out identification and confirmation of wildlife body parts as well as a basic forensics laboratory

(i) establishing a legal support arm to investigate crimes, prepare for and take legal actions with regard to illegal wildlife trade and crime

(j) collaboration with the customs department in the issuance of export/import permits

Insofar as forensics is concerned, it may not be practical or sustainable for each participating country to develop a sophisticated forensics laboratory. The project could support an alternative: a regional forensics laboratory for conducting complex analysis in parallel with country-based basic laboratories.

GOB is a signatory to CITES. While the basic mechanism is in place for compliance with CITES, considerable support is needed in terms of financing staff and TA for Bangladesh to be fully compliant with CITES. The project would support the development of analytical and operational protocols toward meeting CITES requirements.

(ii) Nepal's regulatory framework and Wildlife Crime Control Bureau (WCCB)

Nepal has a long history of wildlife conservation having enacted various policies, legislation and regulations to enable conservation and management of wildlife. However, weak institutional capacity and

inadequate financial resources have resulted in lapses in enforcement of regulations and poor management of PAs. A 2006 assessment of the country's policy, legislative and regulatory framework identified critical gaps that thwart Nepal's effectiveness in conservation, protection and management of wildlife.[17] Since Nepal has porous boundaries with neighboring countries, an enhanced framework would facilitate regional cooperation in wildlife management and control of illegal trade. This sub-component would support a critical review and revision of Nepal's legislative framework and strengthen the capacity of institutions responsible for wildlife management and illegal wildlife trade control.

The Government of Nepal (GON) would establish the Wildlife Crime Control Bureau (WCCB). The project would support the creation of WCCB and assist the bureau in acquiring the specialization and developing the expertise to tackle national and cross-border wildlife crime. WCCB's functions would be identical to those of Bangladesh's WCCU listed above. Unlike WCCU, hiring of new staff is not envisaged for Nepal's WCCB. Staff from existing public agencies will be assigned to WCCB.

Nepal is also a signatory to CITES but lacks local laws and regulations to ensure effective compliance of its obligations under CITES. The project would support: (a) preparation of appropriate legislation; (b) establishment of a National CITES Secretariat under WCCB which will be responsible for ensuring Nepal's compliance with CITES responsibilities; and (c) development of analytical protocols, operational protocols and meeting CITES requirements.

In addition, TA, operational support and training would be provided for field-level rapid response cells responsible for controlling wildlife crime, carrying out anti-poaching operations and developing intelligence networks among officials, guards and communities. Effective communication is critical to undertaking the mentioned operations and the project would support information gathering and dissemination as well as intra- and inter-country sharing of crime data and information that would enable quick action on the ground. The project may support the establishment of secure real-time/live online interface for sharing crime data and information.

In view of the high priority conferred by GON to the control of illegal wildlife trade, with a particular focus on control of poaching of tigers and trade in tiger parts, a high level National Tiger Conservation Committee was established recently. It is chaired by the Prime Minister, with the Minister of MOFSC serving as the Member Secretary. The project would support the establishment of a Secretariat for the National Tiger Conservation Committee within MOFSC. The Secretariat would be responsible for the preparation of policy papers, notes on issues regarding tiger conservation and illegal trade control and other relevant matters for deliberation of the Committee.

Sub-component 1.2 Staff capacity building and training toward regional collaboration (Total US$6.896 million, including contingencies, of which: Bangladesh US$6.648 million and Nepal US$0.248 million)

With the absence of collaborative wildlife conservation and management among the countries in the region, a paradigm shift is needed to encourage regional collaboration. This sub-component would support staff training and re-orientation. Interaction with regional agencies responsible for wildlife conservation and control of illegal wildlife trade will be an important aspect of the re-orientation. Knowledge exchange tailored towards regional cooperation in PA management and illegal wildlife trade control would pave the way for cooperation among the countries participating in the project such that their collaboration would be consolidated with the future formalization of SA-WEN.

As mentioned above, the development of training, education and awareness programs for the public stakeholder agencies in Bangladesh and Nepal have benefited from recommendations provided by

[17] Winrock International, 2006, *Environmental Policy and Institutional Assessment*.

TRAFFIC (See Annex 8). Soon after project launch, more detailed assessments of the existing capacity in wildlife law enforcement and identification of the gaps in capacity and knowledge would be conducted. The results of those assessments would inform the structure of the capacity building program and highlight new ways to improve the ability of WCCU and WCCB to combat illegal wildlife trade and strengthen conservation. These may include the establishment of a focal point within each agency, setting up of national multi-agency task forces or conducting cross-country, multiple agency training which would encourage intra-agency cooperation. While the detailed assessments for specialized capacity building needs would proceed on an ongoing basis, the provision of basic training for the relevant agencies would commence at the time the project is launched.

(i) Bangladesh

BFD would create a unit within WC that would have a mandate for training, education and awareness, facilitating research in wildlife conservation and management, M&E and information communications technology (ICT) applications. The unit would be known as the Wildlife Center. Capacity will be built within the Center to conduct training, education and awareness programs relevant to wildlife conservation, PA management, development of nature based or ecotourism tourism, control of illegal wildlife trade and addressing the human-wildlife conflict through a "training of trainers". Eventually, the Center would assume long-term training and awareness raising for other units within WC as well as other relevant public institutions and key stakeholders. The Center would be located at the Gazipur site where GOB intends to establish a safari park under FD's management.

The project would support the construction of the Center's training facility, TA to develop training, education and awareness programs and materials, including a "training of trainers" curriculum. A priority area is knowledge improvement on all aspects of trade in wild fauna and flora and control of illegal trade. The beneficiaries of the programs would include officers and staff of BFD, law enforcement agencies, Customs and Excise Department and Department of Import and Export. The beneficiaries are expected to disseminate their knowledge as they rotate through positions in various parts of the government.

Bangladesh recognizes the judiciary's role in controlling illegal wildlife trade. The country has an Environmental Court at the national level and GOB proposes to establish environmental courts at the district level. Developing linkages with the environmental courts to provide training and awareness for the judiciary on wildlife trade and other crucial conservation issues could be undertaken by the Center's training unit. Finally, to build public support for wildlife conservation and management, awareness programs would be developed and conducted for local and national politicians, civil society, schools and the tourist industry.

WC would facilitate research in wildlife conservation that would lead to effective management of species and PAs. Research priorities would be identified in consultation with WC's other units and relevant technical specialists in the sector. Based on those needs, WC would call for research proposals on an annual basis from national research organizations, conservation organizations, academia and individual researchers to undertake research studies. The proposals would be evaluated by a Research Committee appointed by BFD that would include independent technical experts. To ensure transparency, the independent technical experts on the Research Committee would not be permitted to submit or be associated with research proposals.

The studies would be conducted in collaboration with WC. The studies would include establishment of baseline data on biodiversity status in the PA network, development of conservation action plans for individual endangered species (such as tiger, elephant, dolphin, turtle and birds), tracking trans-boundary movement of endangered species like the tiger and elephants, habitat identification, management research, taxonomy studies, population census for flagship species (tiger, elephant, black bear and

crocodile) and prey species (deer, wild boar and monkey), development of systems for real time field based monitoring and surveys to identify illegal wildlife trading/smuggling routes.

The Center would also be responsible for the operations of wildlife recovery and rehabilitation centers. Such centers would be responsible for wildlife health and rehabilitation of species recovered from illegal wildlife trade. Four centers would be established in Khulna, Sylhet, Dhaka and Chittagong. Their goal would be the release of recovered faunal species back into the wild after rehabilitation. As its contribution to the project, the Government would purchase land to build these four centers.

WC's activities on M&E are inadequate at present. They need to be strengthened at the PA level as well as at WC's head office. Staff at the PA level would be trained in M&E techniques and a small team of WC staff would be trained in M&E for collating PA level information and undertaking independent "audits" of project related activities initially but rapidly evolving into M&E of the investments from the national budget in WC.

ICT capacity within WC would be built and used for better management of the PA network through improved information gathering and dissemination. Since there is a growing concern that many PA are not achieving the objectives for which they were established, several available PA management effectiveness tools would be adopted. The World Commission of Protected Areas (WCPA) has developed a framework for assessment of PA management effectiveness. The Management Effectiveness Tracking Tool (METT) is one such tool that can be used for tracking PA management effectiveness under the project and its impacts on flagship species and habitats.

(ii) Nepal

As mentioned above, this sub-component would support staff training and re-orientation, regional interaction by agencies engaged in conservation and illegal trade control, study tours tailored towards regional cooperation.

Like in Bangladesh, training would be provided to staff in Nepal on habitat and wildlife population management, biodiversity monitoring, smart patrolling and more effective law enforcement techniques, forensics, legal literacy of frontline staff for better crime scene recording, making and building case profiles, knowledge management in areas such as forensic literacy and geographic information system (GIS) as well as CITES compliance, confiscated wildlife stock management, wildlife crime control and intelligence work related to wildlife crime control. A few opportunities would be provided for staff to pursue higher education in fields related to wildlife conservation and wildlife crime control. Transparent mechanisms will be introduced for the selection of staff for international study tours, exposure visits and higher education opportunities.

Component 2: Promoting wildlife conservation in South Asia (Total US$22.7 million, including contingencies, of which: Bangladesh US$20.925 million and Nepal US$1.775 million)

Sub-component 2.1 Virtual Regional Center of Excellence (VRCE) for wildlife conservation (Total US$1.823 million, including contingencies, of which: Bangladesh US$1.608 million and Nepal US$0.215 million)

An important objective of this project is to fill crucial knowledge and information gaps in addressing the many regional threats to conservation. With contiguous boundaries and similar habitats, problems are often shared. This component would support the creation of a virtual regional center of excellence (VRCE) for wildlife conservation. VRCE would include a network of scientists and practitioners in wildlife conservation whose mission would be to expand the scope and quality of research in wildlife conservation needed for more effective management of PAs and to develop a common response against illegal wildlife trade in and outside the region as well as to address other regional issues to be agreed by

the participating countries. The exclusive focus would be either on promoting a conservation-related regional public good or addressing a regional public bad. Given the existence of national institutions with expertise in this area already, it is critical for VRCE to bring value-added and not duplicate existing efforts.

VRCE would provide the first (and only) coordinated response for research and knowledge dissemination on wildlife conservation in South Asia. By playing the role of coordinator and facilitator of knowledge and expertise, VRCE could become a vehicle for promoting dialogue and good practices as well as disseminating knowledge. Because VRCE will be virtual and will not have a central physical facility, it will rely heavily on state-of-the-art ICT to conduct its business and attain its objectives. Specifically, it would combine face-to-face meetings, online presence through a website, social media to reach broad audiences and video-conferencing. VRCE would build on existing regional and global environmental initiatives and projects, such as SAARC, SACEP, SAWTI and CITES and benefit from established experience, mechanisms and protocols. It would also draw on strategic partnerships with renowned wildlife conservation institutions in the region and elsewhere. At a meeting in November 2010 among conservation officials from Bangladesh, Bhutan, India and Nepal – as the project's principal stakeholders – the participants discussed the project's regional issues and agreed to adopt specific mechanisms for collaboration in addressing the threats to wildlife and habitats. In recognition of the need to share and promote knowledge and research, the participants at the regional meeting expressed their commitment to the establishment of the VRCE.

Governance and management of VRCE. The Regional Operational Steering Committee (ROSC), described in Annex 3, would assist in the development of VRCE's overall program and objectives. VRCE would be managed by a director and this position is envisaged to rotate among the participating countries to assure appropriate ownership and representation. VRCE's director would be responsible for coordinating the development and implementation of the regional work program for the VRCE and developing, in conjunction with the national counterparts, the country programs that would give VRCE its added value at the local level. VRCE's directorate would be housed within the PMU of each participating country during its tenure in managing VRCE that would coincide with its turn to chair the ROSC.

Knowledge dissemination. VRCE would develop an active knowledge dissemination program that would include: (a) publication of research and pilot project results; (b) sponsorship of workshops, lectures and seminars; (c) special seminars aimed at decision makers in the participating governments (legislators, administrators and policy makers); (d) training modules and teaching materials for wildlife managers; and (e) development of protocols for informing policy and wildlife managers in the field. Knowledge generation or research within the VRCE would focus primarily on conservation and species management research. Better management of PAs and their species as well as stronger conservation measures would enable the establishment and maintenance of systems and mechanisms to address the threats to wildlife due to poaching and illegal trade.

VRCE could be used for coordination and collaboration at the country level in addition to the regional level. While Bangladesh has research bodies and universities undertaking wildlife research, there is little coordination and collaboration among the institutions due to the absence of a local networking forum. The Bangladesh Forest Research Institute, University of Dhaka, Jahangir Nagar University and Chittagong University are some of the institutions involved in wildlife conservation research. The need to strengthen the Forest Research Institute's ability to expand its research focus from forestry to wildlife conservation and PA management is essential. The Forest Research Institute and the universities involved in wildlife conservation and PA management research would be able to access research funds under the project which will be administered through the Wildlife Center. Assistance to upgrade the library facilities in BFD and WC, including provision of on-line access to technical journals would be useful for staff capacity building and could be supported under the project. For all participating countries to benefit from the mentioned efforts, VRCE could sponsor the creation of a local networking forum in

each country VRCE to facilitate exchange of research information, collaboration and coordination of country level institutions involved in wildlife conservation research. The coordination would be facilitated by the country-based Project Implementation and/or Project Management Units (PIU/PMUs).

South Asia Wildlife Enforcement Network (SA-WEN). During the first meeting of the South Asia Experts Group on Illegal Wildlife Trade in Kathmandu in May 2010, the participating countries agreed on the structure, functions, and operational parameters for SA-WEN along the lines of the Association of South East Asian Nations Wildlife Enforcement Network (ASEAN-WEN). SA-WEN would strengthen regional law enforcement activities through bilateral and multilateral arrangements. If requested by the participating countries, support would be provided under the project for the formal establishment of SA-WEN.

Sub-component 2.2 Competitive funding to support the management of protected areas (PAs), forest reserves (FRs) and national forests (NFs) with regional conservation benefits (Total component US$21.092 million, including contingencies, of which: Bangladesh US$19.317 million and Nepal US$1.775 million)

Geographically, the inter-connectedness of habitats and ecosystems between the countries in the region is well known – Nepal and India in the Tarai region; India and Bangladesh in the Sundarbans; and Bhutan and India in the Eastern Himalayas. The large mammals and flagship species are not confined by administrative and national boundaries. Furthermore, population and development pressures are threatening the connectivity and integrity of wildlife corridors and linkages between PAs. Wildlife management and habitat conservation efforts undertaken in countries sharing ecological boundaries, including patrolling or interdiction of illegal activity and anti-poaching/trafficking operations need to be coordinated among countries to ensure that no actions in one country are detrimental to its neighbors. Therefore, a landscape approach to conservation planning would enable regional countries to move beyond focusing on their national PAs and boundaries.

While the project would provide TA and training to strengthen institutions in the participating countries to better address wildlife conservation and control illegal wildlife trade under Component 1, actual conservation and protection of the country's wildlife in general and its charismatic flagship species, in particular, will not take place unless prudent investments are made in the landscapes consisting of PAs, FRs and NFs for conservation, protection and management of ecosystems. The focus of project support would be on investments that would result in regional conservation benefits. such as implementation of flagship species conservation and recovery plans and provide safe havens for wildlife in the region.

To foster ownership, efficiency and commitment on the part of the field based managers of the implementing agencies, a competitive demand-driven approach to interventions in PAs, FRs and NFs, would be applied. Funds would be allocated through an annual competitive call for: (i) proposals submitted from respective PAs, FRs and NFs that promote demand-driven and decentralized approaches to conservation and management of natural ecosystems and would bring about regional conservation benefits; and (ii) proposals submitted for innovative pilot projects with regional applicability that address endangered species conservation, innovative research in wildlife conservation, human wildlife conflict management and ecotourism development, by the implementing agencies of the participating countries either individually, or in collaboration with other stakeholders. Funds can be accessed through two funding windows in accordance with their respective objectives by the Bangladesh Forests Department and Department of National Parks and Wildlife Conservation and Department of Forests in Nepal.

Window 1: Conservation, protection and management of protected areas and forest reserves for regional conservation benefits (Total US$12.525 million, including contingencies, of which: Bangladesh US$12.525 million)

Priority PAs and FRs with interconnected habitats and ecosystems with regional countries will be eligible for accessing funds under this window for activities in conservation, protection and management with ensuing regional conservation benefits. Interventions will be based on existing management plans or new ones prepared under the project. Field-based PA, and FR managers are well acquainted with the challenges of management and conservation as well as the local needs and conditions. Often, PA, and FR managers are under-resourced and have limited incentives to meet centrally defined goals. To sharpen incentives, promote demand-driven interventions and encourage attention to regional conservation benefits, this window will provide funding for proposals submitted by field-based PA and FR managers on a competitive basis. In order to ensure collaboration and complementarity in the management of adjacent PAs, FRs and NFs within the conservation landscape, wherever possible, partnerships between PAs, FRs and NFs will be encouraged. Competition among the applicants is expected to improve efficiency and promote more cost-effective and relevant interventions.[18]

The project will support activities under both windows in Bangladesh. However, Window 1 will not be implemented in Nepal. The Government has decided to allocate funds from its national budget to support activities on conservation, protection and management of PAs and NFs for long-term, regional conservation benefits. The Government support and the specific activities will not be part of this project. The Government's commitment to wildlife conservation in general and tiger conservation in particular is demonstrated by their allocation of US$6 million over 5 years. Window 2, on the other hand, would be implemented in Nepal.

The implementing agencies of the participating countries reached agreement on the following criteria for selecting priority PAs and FRs for project interventions under Window 1.

- PAs and FRs with interconnected habitats and ecosystems with regional countries
- Areas with high levels of poaching and illegal wildlife trade
- Areas of high biodiversity significance
- Threatened ecosystems
- Locations with observed high presence of endemic species and/or flagship species
- Locations with potential for non-consumptive ecosystem services
- PAs, FRs and NFs at risk of succumbing to surrounding development pressures
- PAs, FRs and NFs with high nature based tourism activity and potential thus requiring intensive management

Typical activities that would be funded under this window include: (a) rehabilitation and development of water resources in PAs and FRs; (b) habitat management, such as control of invasive species; (c) rehabilitation of existing roads; (d) improvements in existing park infrastructure; (e) species monitoring and recovery programs; (f) protection of inviolate areas for species conservation; (g) preparation and implementation of endangered species recovery plans; (h) implementation of real-time field based monitoring systems; (i) development of landscape scale imaging platforms; and (j) strengthening law enforcement. All proposals will include a program for monitoring the impacts of the interventions on the flagships species and habitats. No major infrastructure that would have significant adverse environmental consequences within PAs, FRs and NFs will be supported under the project. Any activity implemented within the PA, FR and NF systems would be required to undertake an environmental and/or social analysis in accordance with the Environmental and Social Management Frameworks prepared for this project and prepare Environmental Management Plans to mitigate any adverse impacts.

[18] Such incentive-based approaches to conservation are being more widely used across the world (see, e.g., A. Arendodo, "Green Auctions", *Ecological Economics* (forthcoming), E Bulte and R Damania, 2002, "Modeling the Economics of Interdependent Species", *Natural Resource Modeling,* 16: 21-33*;* T. Cason and R Gangadharan, 2004, "A Laboratory Based Test of Conservation Auctions" *Journal of Environmental Economics and Management*, 46:446-57.

Window 2: Innovative pilot projects with a regional dimension (Total US$6.655million, including contingencies, of which: Bangladesh US$4.88 million and Nepal US$ 1.775 million)

Following the demand-driven approach for competitive funding, a second window would be established for innovative research projects in wildlife conservation, pilot programs in conservation of endangered flagship species, piloting human wildlife coexistence models and incentive schemes, such as payments for environmental services for those affected by human-wildlife conflict; development of ecotourism plans with regional conservation benefits; or implementation of priority activities under the ecotourism plans. The focus of Window 2 would be on activities that result in regional conservation benefits. In addressing conservation of endangered flagship species, human-wildlife conflict management and ecotourism development, a landscape approach is necessary and must be considered during the preparation of project proposals for funding under Window 2.

Innovative research projects in wildlife conservation. Effective wildlife conservation and management must be based on solid scientific information. While there is a reasonable amount wildlife research undertaken in South Asian countries, research efforts need to be accelerated and made more adaptive for use in wildlife conservation and management. Window 2 would provide opportunities for implementing agencies to identify critical research needs that would lead to better wildlife management and submit proposals in collaboration with universities, research organizations and individual researchers. Partnerships with regional and international researchers and organizations will be encouraged.

Pilot programs in conservation of endangered flagship species. Conservation and species recovery plans have been prepared for most of the endangered flagship species, such as tiger, rhinoceros, snow leopard and elephant. But in most cases, implementation of critical activities under these plans has not taken place due to lack of funding. Currently, there is no procedure or framework for the systematic assessment of priorities for endangered species management, development of management strategies, the linkages of in-situ and ex-situ conservation etc. Climate change has also resulted in reducing the habitat of the snow leopard and its prey species, severely endangering the future of the snow leopard in Nepal. Window 2 will provide an opportunity for the development of a framework for a systematic assessment of priorities for endangered flagship species management and funding for pilot programs in priority areas of conservation of endangered species. Implementing agencies are encouraged to propose pilot programs in partnership with other stakeholders to demonstrate the potential for scaling up conservation models.

Human-wildlife conflict management. With population growth and development demands of regional countries, PAs, FRs and NFs are no longer large contiguous habitats as in the past. Fragmentation of ecosystems has resulted in significant human wildlife conflict, which has become a key social, political and environmental concern. It has also become a leading threat to the long-term survival of endangered flagship species like the tiger, elephant and rhinoceros. The need for undertaking innovative pilot projects to address the human-wildlife conflict issue is a priority for the participating countries. Tiger-human conflict (THC) is a serious concern in both countries given the increasing trend of buffer zone communities affected by THC. Pilot projects to address the conflict are urgently needed if the tiger population is to be protected. Community participation in implementing the pilot projects is critical for long-term success. This would involve raising the awareness of communities on the importance of tiger conservation, training on techniques of handling stray tiger intrusions to villages without harming the tiger, establishment of an effective communication system between the community and the response teams from Bangladesh's WC, for example, exploring the possibility of training select community members in basic immobilization techniques and containment until the tiger response teams arrive, training for the response teams on safe tranquilizing and capture methods, etc. With the experience gained from implementing the pilots, suitable replicable models can be developed to address the tiger-human conflict elsewhere in the country.

Human-elephant conflict (HEC) is another serious problem. HEC is escalating in both countries with serious repercussions for both humans and elephants. Current approaches have done little to address the problems effectively. Translocations and elephant drives used as a HEC management tool in many countries have proven to be a costly failure to both humans and elephants. They have largely failed because the approach neglects the root causes of the problem. Most PAs are already at or even beyond carrying capacity and hold the maximum number of elephants they can support. Additionally, PAs are generally primary or mature forests and they provide sub-optimal habitat for edge species, such as elephants. There is, therefore, a need to find a new approach to management of HEC by finding mechanisms that turn wild elephants from economic liabilities and the foes of local farmers to wild, living, communal and economic assets.

Through telemetry data on elephant movements and socio-economic assessments that can be supported under the project, human-elephant coexistence models will be developed. This will provide the governments of the participating countries with a tremendous opportunity to pioneer new science and observation-based adaptive management approaches with the potential to convert HEC to one of human-elephant coexistence. In Bangladesh, three areas of severe HEC problems have been identified: Lama in Chittagong Hill Tracts, Shepur and Jamaipur districts. Pilot proposals will most likely be submitted for support to these areas. The exact locations of the pilots would be determined during project implementation since telemetry data and socio-economic assessments need to be undertaken first to determine the most suitable pilot sites.

Population expansion and development have reduced the habitat of the rhinoceros, invariably leading to a conflict with humans in the non-forest areas of Nepal. With reduced habitat for the rhinoceros, destruction of farm crops and even human casualties are serious concerns in the Tarai region of Nepal. Understanding ranging patterns and community education and awareness could go a long way towards reducing the conflict.

Moreover, the project would provide TA to Bangladesh's WC to examine the current compensation schemes for those affected by THC and HEC and propose revisions or modifications, if required. Incentive mechanisms such as crop substitutions, payments for environmental services etc., may be explored under THC/HEC management pilot projects.

To minimize THC and HEC, community participation is crucial. Community consultations, education and awareness creation is of paramount importance to the success of the pilots. The pilots will be designed in consultation with the affected communities. Consultations will be an ongoing activity throughout the duration of the project.

Ecotourism development. Wildlife is often seen as an economic liability and a drain on development. Numerous examples from places as diverse as Namibia to Australia have demonstrated that ecotourism can be used as a tool for turning wildlife from a liability to an economic asset that creates a powerful constituency in support of conservation. South Asia with its immense endowment of rare and charismatic species and unique ecosystems has much to offer by way of ecotourism potential.

However, experience suggests that great caution must be exercised in the design of such systems to ensure that they contribute to conservation and do not degrade the habitats upon which they depend (e.g., highly intrusive and poorly planned structures). A further risk emerges from the familiar "resource curse" phenomenon – where tourism acts like an enclave industry with revenues being exported from the region and minimal benefits accruing to local populations. Communities need to be important beneficiaries for a sustainable and environmentally beneficial system. Well developed ecotourism can generate dual benefits in the form of improved conservation, a community of support for conservation and livelihood benefits,

but there are also many examples of tourism depleting local resources and contributing little to conservation.[19]

Countries in the region recognize the significance of developing regional, environmentally beneficial ecotourism. In view of the diversity of wildlife tourist assets, the typical pilot projects submitted to Window 2 could support assessments of the potential to develop ecotourism in ways that generate clear environmental benefits and create a pool of local support for conservation (through, for example, benefit sharing or employment and so on) in the areas identified. Good practices from elsewhere would inform the assessments. If the assessments indicate the potential for regional conservation benefits, the project could invest in the development of identified potential.[20] As it is, unplanned ecotourism is taking place in sites adjacent to PAs, FRs and NFs and pilot projects under Window 2 could assist in developing environmentally friendly ecotourism plans for those sites. Window 2 would support: (i) development of ecotourism plans with demonstrated regional environmental and conservation benefits; and (ii) implementation of priority activities under ecotourism plans with ensuing regional benefits for conservation.[21] Depending upon the tourist potential and local circumstances (e.g., security, NGO opposition), not all countries and sub-regions within countries may participate in submitting pilot project proposals for funding under Window 2.

A transparent and independent process would be established for reviewing and approving proposals submitted to both windows for funding which is described in Annex 3. The specific eligibility criteria (including a negative list of activities) under each funding window will be stated explicitly in the operational manuals that will be finalized within three months of project effectiveness.

Component 3: Project coordination and communications (Total US$4.996 million, including contingencies, of which: Bangladesh US$4.771 million and Nepal US$0.225 million)

Sub-component 3.1: National and regional project coordination (Total US$1.197million, including contingencies, of which Bangladesh US$0.972 million and Nepal US$0.225 million)

In Bangladesh, the Government would appoint a National Project Steering Committee for overall oversight at the country level, chaired by the Secretary, Ministry of Environment and Forests. A Project Implementation Unit (PIU) headed by a Project Director would oversee project operations.

For its part, Nepal would appoint a National Project Steering Committee chaired by Secretary, MOFSC to provide policy guidance and review project progress. GON and the implementing agencies have determined that project management would be undertaken by the National Trust for Nature Conservation (NTNC). NTNC has prior experience in managing projects on behalf of DNPWC and DOF. The implementation responsibility will remain with the two implementing agencies – DNPWC and DOF – while NTNC will have responsibilities on fiduciary, overall coordination, monitoring, evaluation and reporting functions. NTNC would be guided by a Project Management Committee (PMC) responsible for

[19] Through the Critical Ecosystem Partnership Fund (CEPF, currently in its 10th year) and the Save Our Species program, the World Bank has identified the types of enabling conditions and articulated meaningful M&E structures that foster successful biodiversity sub-projects in large landscapes. In fact CEPF is currently engaged in the Indo-Burma hotspot (Eastern Himalayas). The consensus-driven and participatory ecosystem profile that CEPF led to drive its investments and decision-making about priorities for conservation could provide guidance.

[20] This may include the creation of regional wildlife networks or "trails" i.e., NOT roads (pathways or other built intrusive structures) but information about opportunities and wildlife viewing towers across national boundaries that may include: a mammal trail (in a range of habitats across the countries to include tiger, rhino, elephant, red panda, leopard); bird-watching trails; botanical trails with a focus on the wild flowers of the Himalayan ranges.

[21] Such activities are likely to include small-scale ecotourism pilot programs and support for better regulation and management of existing facilities.

ensuring coordination among participating agencies and routine decision making. PMC will be comprised by MOFSC's Joint Secretary and heads of the two implementing agencies.

The project would need funding for coordination because of the participation of several countries and the regional activities would have to be closely coordinated.

At the November 2010 meeting among conservation officials from Bangladesh, Bhutan, India and Nepal (as the project's primary stakeholders), the participants discussed the project's regional issues and agreed to adopt specific mechanisms for collaboration in addressing the threats to wildlife and habitats. The officials from Bhutan and India have committed to join the proposed Regional Policy Steering Committee aimed at ensuring regional coordination as soon as the Committee is established during the implementation of the first APL.

Sub-component 3.2: National and regional project communications (Total US$0.713 million, including contingencies, of which Bangladesh US$0.713 million)

The project envisages a multi-pronged approach to communication to meet regional and local challenges. To achieve close communication and collaboration among the implementing agencies, the plan proposes to set up separate communications units within the PIU/PMUs that will implement coordinated strategies of regional and national communications. A wide range of consultations with various stakeholder groups will be conducted at the national and local levels. It is expected that rolling consultations will continue throughout the project cycle. To ensure that all stakeholders have a clear understanding about this project, mass communication tools will be used to simplify and explain the basic concept and principles. The tools will include multimedia audio/video products, dramas in local languages, brochures, and website(s). These products will be tailored to meet local conditions and languages. The plan will be finalized and be ready for implementation by project effectiveness. The plan will be monitored and fine tuned during implementation on the basis of periodic evaluations. This component will also harmonize with GTI which has a broader geographic mandate and can engage in demand side management.

Sub-component 3.3: Salaries of existing project staff, overheads and purchase of land (Bangladesh US$3.086 million, including contingencies)

The Government of Bangladesh has committed to cover the salaries of existing government staff who will work on the project and their overheads and to purchase land to build the four wildlife recovery and rehabilitation centers. For practical purposes, the Government's contributions are consolidated into one sub-component.

3. RELEVANT SAFEGUARDS POLICIES AND REGULATIONS

3.1 Government of Bangladesh's Applicable Policies and Regulations

Legislative bases for Environment Assessment (EA) in Bangladesh are the Environmental Conservation Act (ECA) 1995, Environmental Conservation Rules (ECR) 1997 and Acquisition and Requisition of Immovable Property Ordinance, 1982. Department of Environment (DOE), under the Ministry of Environment and Forest (MOEF), is the regulatory body responsible for enforcing the ECA and ECR. According to the ECA and ECR, conservation-oriented projects do not require environmental clearance unless there are certain infrastructure developments such as over six storey buildings, bridges, etc. which will require necessary clearances from DOE. However, the project does not envisage such scale of activities. In case of "green" infrastructures no EIA is required under existing laws, but according to GoB's EIA guidelines, it is suggested that an environmental screening can be done by the organizations involved. In addition to the key policies and legislature there are number of other important policies and regulations that provides guidance to undertake activities within protected areas. While the project do not envisage any types of land acquisition at this point of time, in order to avoid any possible scenarios, Acquisition and Requisition of Immovable Property Ordinance has been quoted and described below to guide the process if land acquisition occurs during project implementation.

3.1.1 Environmental Policy (1992) and Environmental Action Plan (1992)

The concept of environmental protection through national efforts was first recognized and declared with the adoption of the Environment Policy of 1992 and the Environment Action Plan of 1992. The importance of policies in support of environmental protection, management and sustainable development is recognized in a number of international instruments including the World Conservation Strategy in 1980, the Brundtland Commission Report, 1987 and Agenda 21. The major objectives of the Environmental policy are to (i) maintain ecological balance and overall development through protection and improvement of the environment; (ii) protect the country against natural disaster; (iii) identify and regulate activities, which pollute and degrade the environment; (iv) ensure environmentally sound development in all sectors; (v) ensure a sustainable, long term and environmentally sound base of natural resources; and (vi) actively remain associate with all international environmental initiatives to the maximum possible extent.

3.1.2 National Environmental Management Plan (1995)

The National Environment Management Action Plan (1995), based on a nationwide consultation program identified the main national environmental issues, including those related to the water sector which Environmental Assessment (EA) practitioners should note. The main related national concerns included flood damage, riverbank erosion, environmental degradation of water bodies, increased water pollution, shortage of irrigation water and drainage congestion; various specific regional concerns were also identified.

3.1.3 Bangladesh Environmental Conservation Act No. 1 of 1995

The Environmental Conservation Act (ECA) of 1995 is the main legislative framework document relating to environmental protection in Bangladesh. This umbrella Act includes laws for conservation of the environment, improvement of environmental standards, and control and mitigation of environmental pollution. This Act established the DOE, and empowers its Director General to take measures as he considers necessary which includes conducting inquiries, preventing probable accidents, advising the

Government, coordinating with other authorities or agencies, and collecting & publishing information about environmental pollution.

According to this Act (Section 5 – Declaration of ecologically critical areas), (1) *If the Government is satisfied that an area is an environmentally critical situation or is threatened to be in such situation, the Government may, by notification in the official Gazette, declare such are as an ecologically critical areas*; and (2) *The Government shall, in the notification published under sub-section (1) or in a separate notification, specify the activities or processes that cannot be initiated or continued in an ecologically critical area*. The Section 7 – Remedial measures for injury to ecosystems indicates "*If it appears to the Director General that any act or omission of a person is causing or has caused, directly or indirectly, injury to the ecosystem…, the Director General may determine the compensation and direct the firstly mentioned person to pay it and in an appropriate case also direct him to take corrective measures, …; and that person shall be bound to comply with the direction*". The act also provides directions on the formulation of environmental guidelines (Section 13) for conservation among others, penalties (Section 15) for violation of a provision or for non-compliance of a direction, as well provisions to confiscate material and equipment (Section 15A) involved in an office through a court order. In addition, the act also provides the Government power to make rules (Section 20) such as procedures for protection of the environment and ecosystem through notification in the official Gazette.

3.1.4 Bangladesh Environmental Conservation Rules (1997)

The Environment Conservation Rules, 1997 were issued by the Government of Bangladesh in exercise of the power conferred under the Environment Conservation Act (Section 20), 1995. Under these Rules, the following aspects, among others, are covered:

(i) Declaration of ecologically critical areas
(ii) Classification of industries and projects into 4 categories
(iii) Procedures for issuing the Environmental Clearance Certificate
(iv) Determination of environmental standards

Rule 3 re-emphasizes the Section 5 of ECA, 1995 – Declaration of ecologically critical areas.

3.1.5 Environmental Courts Act (2000)

The Environment Courts Act, 2000 has been enacted in order to establish environmental courts in each administrative division of Bangladesh. Under this Act, the court has concurrent jurisdiction i.e. to try both civil and criminal cases. The basis for instituting a case is a violation of the "environmental law", meaning the Bangladesh Environment Conservation Act, 1995 and Rules made there under. In particular the environment court is empowered to:

(i) Impose penalties for violating court orders;
(ii) Confiscate any article, equipment and transport used for the commission of the offence2;
(iii) Pass any order or decree for compensation;
(iv) Issue directions to the offender or any person (a) not to repeat or continue the offence; (b) to take preventive or remedial measures with relation to any injury, specifying the time limit and reporting to the DOE regarding the implementation of the directions.

3.1.6 Forest Policy, Ordinance and Acts

National Forest Policy of 1994 is mainly focused on bringing about 20% of land under the afforestation programs of the government and private sector by year 2015. It provides directions for conservation, forest use and community participation.

Forest Act (FA) of 1927 provides the regulatory guidelines for forest protection and implementing the National Forest Policy. It does not regulate activities carried out by the Bangladesh Forest Department (BFD) as the custodian of the forest land in Bangladesh.

Bangladesh Wildlife (Preservation) Order of 1973 and subsequent amendments provide for the constitution of Bangladesh Wildlife Advisory Board, Sanctuaries, National Parks and Game Reserves; penalties and punishments of offences; import and export of wild animals; set up of mobile court, duties and responsibilities of government officers; and rules and regulations to e made under this law. The schedules provide a list of animals which can be hunted on permit; indicate the animals, trophies and meat, for the possession, transfer and trade of which a certificate of lawful possession is needed, a list the protected animals which shall not be hunted, killed or captured. It defines wildlife sanctuaries as "areas closed to hunting, shooting or trapping of wild animals" which are to remain as "undisturbed breeding ground primarily for the protection of wildlife inclusive of all natural resources, such as vegetation, soil and water". Similar to the Forest Act, this Order also does not regulate the BFD activities within Sanctuaries, National Parks or Game Reserves.

The 1974 Act is going to be superseded by the Bangladesh Wildlife Conservation Act 2010 soon. The new Act has been cleared by the Cabinet on 19 July 2010 and is awaiting approval by the Parliament. Once the Act takes effect, the old Act will not remain valid. However, the old Act forms the basis of the new Act, which has new additions to it (in view of current country context) and some reconstruction of the old one. Both the old and the new Acts declare any wildlife, its body parts or products to be the property of the state. Any trade involving wildlife or its body parts or products, either for export or import, must have a valid license from the government. Any killing of wildlife without a valid permit, or any encroachment in protected areas or sanctuaries and cultivation, damage to natural vegetation, causing fire, pollution of water bodies, or introduction of alien species of plants and animals have been made punishable under the law and forest officials are authorized to enforce the law.

In addition, the new Act of 2010 has introduced core zone (protected), buffer zone, community conservation area, landscape zone, in-situ and ex-situ conservation, national parks and gardens, eco-tourism, safari park, bird and elephant sanctuaries, marine protected area, co-management of sanctuary with local people, and protection of rare and endangered species. The new Act also includes having national museums, herbariums and zoos as part of awareness raising and plans for research, prevention of cruelty to animals, legal proceedings against illegal trafficking, and wildlife recovery centres among other things.

There are large number of laws and rules of general nature which have a strong bearing on forest resources and forest administration, and they have their origin much before the formation of Bangladesh. Some of the important ones are Penal Code, 1860 (Central Act No. XLV of 1860); Cattle Trespass Act, 1871 (Central Act No. I of 1871); Evidence Act, 1871 (Central Act No. I of 1872); Contract Act, 1872; Limitation act, 1877 (Central Act No. XV of 1977); Land Acquisition Act, 1894 (Central Act No. I of 1894); criminal Procedure Code, 1898 (Central Act No. V of 1898); Civil Procedure Code, 1908 (Central Act No. V of 1908); Registration Act, 1908; Sale of Goods Act, 1930; and East Bengal Government Land (Recovery and Possession) and Building Act, 1952.

3.1.7 Acquisition and Requisition of Immovable Property Ordinance

Currently the only legal framework that governs land acquisition in Bangladesh is the Acquisition and Requisition of Immovable Property Ordinance, 1982. However, its provisions are not adequate to address adverse impacts associated with land acquisition and involuntary displacement and do not fully satisfy the requirements of the Bank's Operational Policy (OP 4.12) on Involuntary Resettlement or that of the international practices. In essence, the law is largely indifferent to the landowners' present socio-economic conditions, or the long-term adverse impacts on incomes and livelihood that the acquisition and

displacement may cause on the affected people. Also, there are no other policies that complement the acquisition ordinance in ways to assess, mitigate and monitor adverse impacts that the affected people may suffer. Some of the salient gaps in the existing legal framework are summarized below:

- Avoiding/Minimizing Land Acquisition: The law only implicitly discourages unnecessary acquisition, as lands acquired for one purpose cannot be used for a different purpose, and lands that remain unused be returned to the original owners. However, there are no mechanisms to monitor if these conditions are actually adhered to.

- Eligibility for Compensation: The law stipulates compensation only for the persons who appears in the land administration records as the owners. It does not recognize the rights of those, such as squatters, who do not possess legal title to the lands they live in or make a living from. There is thus no provision to mitigate the adverse impacts they suffer.

- People who are impacted through loss of income are not recognized. The Land Acquisition Act provides for compensation for lands and other fixed assets built and grown on them (structures, trees and orchards, crops and any other developments like ponds, built amenities, etc.). However there is no provision to assess the impacts on peoples' incomes, livelihood, loss of employment and businesses for mitigation measures to restore loss of incomes and livelihood.

- Compensation Standards: Although the law stipulates payment of compensation at 'market prices' for acquired lands as the just compensation, the legal assessment procedures used almost always results in prices that are far below the actual market prices.

- Relocation of Displaced Persons. There is no provision in the existing laws for relocation of displaced families who are affected by the loss of their assets: land and/or structures.

- Ensuring Payment/Receipt of Compensation. The legal process to determine entitlements are too cumbersome and time consuming and do not ensure payment of compensation prior to their displacement. Lands are legally acquired and handed over to the project execution agency as soon as the authority identifies the owners (or 'awardees'), by examining the records, and sends a legal notice advising them to claim the compensation (or 'awards'). The onus is left on the affected land owners to prove, by producing an array of documents, that the acquired lands legally belong to them. As gathering these documents is a long, expensive and cumbersome process, many landowners may be unable to claim their awards. The project has meanwhile started to use the lands.

3.1.8 Socio-economic Rehabilitation

Existing legal framework does not have any provisions to mitigate long-term impacts on peoples' livelihood caused by their displacement. Except for the compensation at the 'market price' for the loss of land, there are no other provisions, in the acquisition or other laws that require the government to mitigate the resultant adverse impacts caused by the acquisition. Socioeconomic rehabilitation of the involuntarily displaced persons is totally absent in the legal regime of the country.

3.2 Nepal's Applicable Policies and Regulations

Inspired by the international conventions, treaties and planned Environmental Impact Assessment (EIA) process internationally; Nepal government has established EIA system for developmental projects with the formulation of Environmental Protection Rules 1997 as well as sectoral policy, laws and guidelines. Based on the formulated Act, regulations, and guidelines, criteria for Initial Environmental Examination (IEE)/EIA has established that the development projects certainly require environmental assessment study as per the nature of the projects unless they cross the given threshold for the disruption of the environmentally sensitive areas and their natural environment**.** Some of the sectoral laws also provide opportunity to conduct environmental assessment studies. Socially, Land Acquisition Act 1977, Land Acquisition Rules of 1969 and Buffer Zone Management Rules 1996 provides direction to guarantee the right to property of Nepalese citizens, although this project do not envisage any type of land acquisition due to project activities.

3.2.1 Environmental Protection Act, 2053 (1997)

Environmental Protection Act (EPA) has been enacted and enforced to provide for the protection of environment and to prevent or minimize adverse environmental impacts likely to be caused by development activities. According to the EPA, all development projects should first be screened using criteria that are based on project type, size and cost, stipulated in the regulation to determine the level of environmental assessment required. Projects that could result in some environmental impacts are required to conduct IEE and large projects that can result in major environmental impacts are required to go through an EIA process. Section 10 of the Act provides provision to maintain any place within Nepal containing natural heritage or aesthetic, rare wildlife, biological diversity, plant and places of historical and cultural importance, which are considered extremely important from viewpoint of environmental protection, as an Environmental Protection Area and the activities of any act prescribed may be prohibited in these areas.

3.2.2 Environmental Protection Rules, 2054 (1997) and Subsequent Amendments

Environmental Protection Rules (EPR) makes the application of IEEs and EIAs legally binding for the prescribed projects. Proposals requiring IEE and EIA have been included in Schedule (1) and (2) of the EPR (Amendments, 1999) respectively. In addition, the Ministry of Environment, Science and Technology has issued an additional notice in the Nepal Gazette on August 23, 1999, stating that proposals not listed in Schedule (1) and with investment of Rs. 10 million to 100 million may require an IEE study, and those not listed in Schedule (2) with investment of over Rs. 100 million should undergo an EIA process.

The Chapter – 5 of EPR provides the guidance in managing conservation of national heritages and environmental conservation zones including defining the action prohibited inside environment conservation zone.

According to Schedule1 (pertaining to Rule 3) the following that maybe relevant to the proposed project will be required to conduct an IEE:

Forestry Sector

- Establishment or expansion of national parks, wildlife sanctuaries and conservation areas or environmental conservation zones
- Preparation of management plans of national parks, wildlife sanctuaries. Conservation areas and their buffer zones or launching of development and construction activities specified in such plans
- Construction of forest paths up to 5 kilometers long and of fire protection lines up to 10 kilometers long

- Collection of boulders, gravel and sand and extraction of coal and other minerals from forest areas

Tourism Sector

- Operation of rafting activities on any river having fish or other aquatic life

As per Schedule 2 in tourism sector (1) rafting arrangements for more than 2000 persons per year on a single year, and (2) dispatch of more than 2000 tourists and their assistants per year for trekking in a single area will require to conduct EIAs. If any proposal is to be implemented in (1) historical, cultural and archaeological sites, (2) environmentally weak and wet areas, (3) national parks, wildlife sanctuaries and conservation areas, and (4) semi-arid, mountainous and Himalayan regions

3.2.3 National Parks and Wildlife Conservation Act, 2029 (1973) and subsequent amendments

National Parks and Wildlife Conservation Act (NPWCA) has been enacted to make arrangements for the management of national parks, conservation of wildlife and their habitats, regulate hunting and to conserve, promote, develop and make appropriate arrangements for and the use of places which are of special importance from the point of view of natural beauty and to maintain good manners and welfare of general public. It provides provision for the GON to declare national parks, reserves or conservation areas, declare peripheral areas of a national park or reserve as buffer zones, management and conservation of the buffer zone without affecting the owners and number of other provisions that guides the conservation efforts.

3.2.4 Forest Act (1993) and Forest Regulation (1995)

Forest Act (FA) provides provisions to meet the basic needs of the public in general, to attain social and economic development and to promote a healthy environment and to ensure the development and conservation of forest and the proper utilization of forest products and extend co-operation in the conservation and development of private forest by managing the national forest in the form of government managed forest, protected forest, community forest, leasehold forest and religious forest. It calls for carrying out EIA of the development proposals if they are to be implemented in the forest areas and/or passes through the forest area. Section (68) of the Act empowers government to give consent to use any part or the any category of forest areas, in case of absence of alternative, for the implementation of the national priority proposal with the assurance that it does not pose any significant adverse effect in the environment.

3.2.5 Aquatic Animal Protection Act (1961) and First Amendment (1998)

Aquatic Animal Protection Act (AAPA) promulgated for protecting aquatic animals in natural water bodies like rivers, reservoirs and lakes has remained virtually defunct due to lack of related bylaws/regulations. Its first amendment in 1998 section 5a states for use of safe pesticides use for catching aquatic life. Section 4a, 4b and 5 empower the government to prohibit catching, killing and harming certain kind of aquatic animals in different scenarios. However, no agency has been designated the responsibility for administering and enforcing the AAPA.

3.2.6 Land Acquisition Act 2034 and Land Acquisition Regulations 2026

The Constitution of the Kingdom of Nepal, 2047 (1990 Article 17 (3) provides for compensation to be paid to the individual if the state takes land for development purposes. The Land Acquisition Act of 1977 and the Land Acquisition Rules of 1969 are the two main legal instruments that specify procedural matters of lad acquisition and compensation. The land acquisition rules were set up under the Land Acquisition Act 2018 (1962) that was replaced by the 1977 Act, but the rules published in 1963 were

never updated. The rules are therefore older than the relevant Act and the Constitution that enshrines the principle.

The Land Acquisition Act of 1977 empowers the GON to acquire any land, on the payment of compensation, for public purposes, in addition to Land Acquisition Guidelines of 1989. These guidelines specify two categories of affected families, Project Affected Families (PAF) and Seriously Project Affected Families (SPAF). A PAF consists of the members of a household including elderly dependents and minor children (under 18 years of age) residing under one roof and operating as a single economic unit, who are adversely affected by the project. SPAF is defined as a family who loses over 25% of its total land holdings or whose land is reduced to an uneconomic holding (less than 5.0 katha) or who is being displaced. Under these guidelines the concerned officials, with the assistance of the project team, are to carry out assessments of project affected families to identify their standard of living and types of assets. Valuation of land and asset lost were to be based on comparative market values of similar assets in the vicinity. The guidelines also included arrangements for rehabilitation of project affected families. For PAF's, the compensation package includes cash for assets acquired or damaged by the project and a rehabilitation grant to cover any suffering and hardship. For SPAF's, the compensation additionally include employment for one family member and provision of skill training.

The Guidelines specify the establishment of an Acquisition and Rehabilitation Committee (also known as Compensation Fixation Committee, "CFC") consisting of the concerned Chief District Officer (Chair), Land Revenue Officer, representative of the District Panchayat (now DDC) and the Project Manager and others as deemed necessary. The Committee is responsible for acquiring land and paying compensation. In 1993, a second set of guidelines reduced the Acquisition and Rehabilitation Committee to a four-member Compensation Fixation and Rehabilitation Management Committee by dropping the Land Revenue Officer and other appointees by GON. The functions and powers of the committee were clarified as were methods of payment and means of ensuring fair valuation of land quality.

3.2.7 Policy on Indigenous Peoples

Nepal does not have a standalone policy on Indigenous Peoples, However in the Tenth Plan significant emphasis has been placed on delivering basic services to the disadvantaged and indigenous people, *Dalits*, women, disabled and other vulnerable groups including the *Adibasi/* Janajati indigenous people. One of the main thrusts of the Tenth Plan is the implementation of targeted programs for the uplift, employment and basic security of *Dalits*, indigenous people and disabled class. The policy provision also outlines that the government should pilot strong and separate package of program of basic security for vulnerable sections of society.

3.2.8 Buffer Zone Management Rules, 2052 (1996)

GON, while prescribing buffer zones of the peripheral areas of national parks or reserves by describing boundary under Section 3a of the National Parks and Wildlife Conservation Act of 1973, has developed rules to manage different types of buffers including Buffer Community Forest (handed over to users committee where users means all people living within the buffer zones to utilize forest resources), Buffer Religious Forest (means forest handed over to the religious body, group or community), Buffer Private Forest (forest planted in private land within the buffer zone) and Buffer Zone Forest (excluding buffer community forest, buffer religious forest and buffer private forest within the buffer zone).

Buffer Zone Management Rules further describes how the buffer zones should be managed including responsibilities and activities of various stakeholders, prohibited activities within the buffer zone and activities of community development within the buffer zone. The project will take these guidelines into consideration when interventions are identified under the project to be implemented within buffer ones.

3.3 World Bank OperationS Policies and Procedures Applicable to the Project

World Bank policies and guidelines, pertaining to environmental and social safeguards that may require consideration under this project are as follows:

- OP/BP/GP 4.01 Environmental Assessment
- OP/BP/GP 4.04 Natural Habitats
- OP/BP/GP 4.12 Involuntary Resettlement
- OP/BP/GP 4.10 Indigenous Peoples

The main environmental safeguard policy to be triggered under this project will be OP/BP/GP 4.01 on Environmental Assessment. The other environmental safeguard policy namely, OP/BP/GP 4.04 on natural habitats has been identified and will be considered to ensure minimal adverse environmental impacts due to the project. Application of social safeguards policies includes OP/BP/GP 4.12 and 4.10 on Involuntary Resettlement and Indigenous Peoples.

3.3.1 Compliance with OP 4.01 – Environmental Assessment

This policy is triggered if a project is likely to have potential (adverse) environmental risks and impacts in its area of influence. The policy requires environmental assessment (EA) of projects proposed for World Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making. The EA should take into account the natural environment, human health and safety and social aspects in an integrated way. It should also takes into account the variations in project and country conditions, the findings of country environmental studies, national environmental action plans, the country's overall policy framework and national legislation, the project sponsor's capabilities related to the environment and social aspects, and obligations of the country, pertaining to project activities, under relevant international environmental treaties and agreements.

When OP 4.01 is triggered, the World Bank classifies proposed projects into one of four categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts.

(1) A proposed project is classified as Category A if it is likely to have significant adverse environmental impacts that are sensitive, diverse or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works.
(2) A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas including wetlands, forests, grasslands and other natural habitats are less adverse than those of Category A projects. These impacts are site specific; few if any are irreversible; and in most cases mitigatory measures can be designed more readily than for Category A projects. The scope of an EA for Category B projects may vary from project to project, but it is narrower in scope when compared with Category A projects.
(3) A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. For example, technical assistance projects on institutional development, computerization, and training fall in Category C.
(4) A proposed project is classified as FI when the Bank provides funds to participating national banks, credit institutions and other financial intermediaries (FIs) for on lending at the FIs' risk to final borrowers. In the case of such projects, the FI screens each subproject proposed for financing, and classifies it into any one of three categories: A, B or C. FIs must prepare an Environmental and Social Management Framework, following the Bank's consultation and disclosure requirements as

in the case of other safeguards documents (e.g., EAs, RAPs, IPPs). The ESMF, including the screening process for categorization of subprojects, must be spelled out in the operational manual.

World Bank OP 4.01 is very clear that for all Category A projects and as appropriate for Category B projects during the EA process, the project sponsor should consult project-affected groups and local nongovernmental organizations (NGOs) about the project's environmental aspects and take their views into account. The project sponsor should initiate such consultations as early as possible. For Category A projects, the project sponsor should consult these groups at least twice (a) shortly after environmental screening and before the terms of reference for the EA are finalized, and (b) once a draft EA report is prepared. The EA should particularly incorporate such comments to improve the project's social acceptability and environmental sustainability. In addition, the project sponsor should consult with such groups throughout project implementation, as necessary to address EA related issues that affect them.

Strengthening Regional Cooperation for Wildlife Protection Project has been classified as a Safeguards **Category B.** Although project activities are expected to be environmentally beneficial in the long-term, implementation of certain activities will have the potential to trigger adverse environmental impacts which are not irreversible and are likely to be localized and can be mitigated. Since the project will operate in areas of high ecological sensitivity and vulnerability, great care will be taken to address environmental issues at the earliest stage possible in order to minimize their potential impacts.

This means that (a) all activities that fall under the prescribed categories stipulated in the national laws of each participating country (as mentioned earlier) environmental assessments will be done according to local regulations and applicable World Bank environmental safeguard policies and reviewed by the World Bank for clearance; and (b) all other sub-projects that do not require screening according to national regulations but where World Bank environmental safeguard policies are applicable and/or having some level of environmental impacts will be screened using appropriate methodology (as proposed in this framework), depending on the nature and scale of potential impacts, and mitigated. The GOB and GON are responsible for carrying out the EA/EMPs and for implementing the necessary safeguards.

3.3.2 Compliance with OP 4.01 Annex C Environmental Action Plans (or Environmental Management Plans)

According to Annex C of the World Bank OP 4.01 an Environmental Management Plan (EMP) is a recommended element of EA reports for Category B projects. The EMP should consists of a set of mitigation, management, monitoring, and institutional measures to be taken during implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. The plan should also include the actions needed to implement these measures. In preparation of an EMP, the EA consultant should:

(a) Identify the set of responses to potentially adverse impacts;
(b) Determine requirements for ensuring that those responses are made effectively and in a timely manner
(c) Describe the means for meeting those requirements.

More specifically, the EMP should include the following components:

- The EMP should identify feasible and cost-effective measures that may reduce potentially significant adverse environmental impacts to acceptable levels. The plan includes compensatory measures if mitigation measures are not feasible, cost-effective, or sufficient.

- The EMP should define monitoring objectives and specify the type of monitoring needed, with linkages to the impacts assessed in the EA report and the mitigation measures described in the EMP.

- To strengthen the project sponsor's environmental management capability, EMPs should mention any technical assistance that may be needed by the borrower.

- For all three aspects (mitigation, monitoring, and capacity development), the EMP should provide (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the EMP.

- The EMP must be integrated into the project's overall planning, design, budget, and implementation.

During project implementation, the project sponsor should report on compliance with:

(a) Measures agreed with World Bank on the basis of the findings and results of the EA, including implementation of any EMP, as set out in the project documents

(b) The status of mitigatory measures; and

(c) The findings of monitoring programs.

3.3.3 Compliance with OP 4.04 Natural Habitats

The World Bank's Operational Policy 4.04 recognizes that conservation of natural habitats and other measures that protect and enhance the environment is essential for long-term sustainable development. The Bank therefore supports the protection, maintenance, and rehabilitation of natural habitats and their functions. The Bank supports, and expects borrowers to apply, a precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development. The Bank does not support projects that, involve significant conversion or degradation of critical natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs. In projects with natural habitat components, project preparation, appraisal, and supervision arrangements include appropriate environmental expertise to ensure adequate design and implementation of mitigation measures. The Bank expects the borrower to take into account the views, roles, and rights of groups, including local nongovernmental organizations and local communities, affected by Bank-financed projects involving natural habitats, and to involve such people in planning, designing, implementing, monitoring, and evaluating such projects. Involvement may include identifying appropriate conservation measures, managing protected areas and other natural habitats, and monitoring and evaluating specific projects. The Bank encourages governments to provide such people with appropriate information and incentives to protect natural habitats.

The proposed project's objective is similar to that of OP 4.04 and it is highly unlikely that the policy will be triggered in its full force as the project will not directly affect natural areas in an adverse way. However, some sub-project activities inside natural areas, such as development of tourism facilities and infrastructure for conservation purposes inside PAs, may have some degree of negative bearing on the functions of natural areas and hence as a precautionary measure the protective measures recommended by this policy have been considered. Also, national laws of both countries make it mandatory to address issues in natural areas and therefore OP 4.04 will be complied with during project implementation.

Aside from EA documentation that may be required for sub-projects, there is no free-standing document that is automatically required by the trigger of OP 4.04 as it applies to SRCWP project.

3.3.4 Compliance with OP 4.12 Involuntary Resettlement

The proposed project will not permit any involuntary resettlement and involuntary land acquisition. Even though involuntary land acquisition and resettlement of individuals and/or families will not take place due to project activities, ecosystem restoration and conservation planning is likely to affect land use patterns of the communities. This will have an impact on their livelihoods. Hence, OP 4.12 will be triggered, and a Resettlement Policy Framework (as part of the Social Management Framework) establishes the process by which members of potentially affected communities will be consulted and participate in design of project and mitigatory/compensation measures.

The primary objective of the World Bank policy on 'Involuntary Resettlement' is to explore all alternatives to avoid or at least minimize involuntary resettlement. Where resettlement is unavoidable, the resettlement activities should be conceived and executed as sustainable development programs, providing sufficient resources to enable affected persons to share in project benefits and assisted in their efforts to improve their livelihood and standard of living, or at least to restore them to pre-project level. The policy also requires that affected people are meaningfully consulted and should have opportunities to participate in planning and implementing the programs. The policy applies to the taking of land and other assets when involuntary resettlement results in the loss of shelter (which is not applicable for this project), the loss of all or part of productive assets, or access to them, and the loss of income sources or means of livelihood, with or without physical displacement.

Measures required to ensure that resettlement has a positive outcome include:

- Providing Project-affected persons with options;
- Permitting their participation in planning and selecting these options;
- Prompt compensation at full replacement cost for losses;
- Choosing relocation sites that provide, at a minimum, the same benefits as the sites they replace;
- Providing allowances and other assistance to make a smooth transition after displacement;
- Identifying vulnerable groups and providing and special assistance to these groups; and,
- Implementing an institutional structure that supports the process to a successful end.

Bank's policy on Involuntary Resettlement requires income rehabilitation assistance to those affected severely due to the loss of their productive assets or loss of incomes and livelihood.

Absence of legal title does not exclude individuals from the eligibility to receive compensation and/or other assistance. The displaced or affected population eligible for compensation for losses include: those who have formal legal rights to land or other assets, and those who initially do not have formal legal rights to land or other assets but have a claim to legal rights based upon the laws of the country. The Policy also requires that those without legal title should be given assistance to meet the objectives of the policy. The genesis of these rights may come from continued possession of public land where the government has not sought their eviction. Bank's policy also recognizes that stakeholders who illegally occupy project-affected areas after established cut-off-date for any components are not eligible for compensation and other assistance provided that adequate measures are taken for information dissemination to people.

3.3.5 Compliance with OP 4.10 Indigenous Peoples

Key objectives of the Indigenous Peoples policy are to: (i) ensure that indigenous people affected by World Bank funded projects have a voice in project design and implementation; (ii) ensure that adverse impacts on indigenous peoples are avoided, minimized or mitigated; and (iii) ensure that benefits intended for indigenous peoples are culturally appropriate. The policy is triggered when there are indigenous peoples in the project area, if there is a potential of adverse impacts on indigenous peoples, and if indigenous peoples are the intended beneficiaries. When the policy is triggered a culturally appropriate Indigenous Peoples Plan (IPP) will be prepared following meaningful consultation with the affected IPs.

3.3.6 Adequacy of National Environmental and Social Clearances of GOB and GON

The composite GOB and GON environmental clearance processes, in principle, are consistent with World Bank environmental and public disclosure requirements. The exception being the screening criteria adopted in the GOB process, where project thresholds are used to determine the type of clearance required and the content of public consultation, whereas GON processes are much aligned to World Bank requirements. However, all activities with an impact on the environment under the proposed project irrespective of the country where the activity will be taking place will be subjected to environmental analysis regardless of the project threshold, prior to disbursement of funds. The extent of the analyses will depend on a given activity; the site selected and will be decided in consultation with the World Bank.

Although the GOB's clearance procedure is adequate and fairly reliable, World Bank will still review all EAs and EMPs as well as environmental checklists, as appropriately used, prepared under the project and provide necessary concurrence for the approval of disbursements of funds.

In case of Nepal, any activity defined in this framework, which does not fall within the GON IEE/EIA review processes will be required to develop appropriate environmental analyses and planning and will be reviewed by World Bank and provide necessary concurrence for the approval of disbursements of funds.

The gaps in the existing social safeguards legal framework of Bangladesh and Nepal and the objectives and requirements of the World Bank and other multilateral agencies are well recognized. Therefore, project specific guidelines are presented in this framework to address these gaps and to meet the World Bank Social safeguards requirements.

4. ENVIRONMENTAL MANAGEMENT TOOLS

This section describes some of the key environmental management tools that would likely to be used in this project. Based on the regulations of the participating countries and World Bank environmental safeguards policies, decisions will be made by each country with the concurrence of the World Bank on the best tool(s) to be used for a given activity that may have environmental impacts due to its implementation.

4.1 Initial Environmental Examination and Environmental Impact Assessment

Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) are effective tools for evaluating the environmental risks and opportunities of project proposals and improving the quality of outcomes. Ideally the EIA/IEE should be carried out at the end of the preliminary design phase so that the impacts of each planned activity can be evaluated and alternatives can be worked out for activities that have major impacts. The outcomes of the EIA/IEE should then be used to finalize the project design which should ensure that the impacts of the given project are minimal. During the sub-project preparation, for example EIA/IEE can provide preliminary information about siting implications, potential impacts of alternatives, and opportunities to incorporate mitigation and enhancement measures into project concepts and designs. This will also provide the possibilities for cumulative impacts induced due to multiple activities within the same area or similar interventions in large areas in order to provide guidance in possible replication of activities and/or avoidance of supporting certain interventions.

The importance of this management tool as means of foreseeing potential environmental impacts caused by proposed projects and its use in making projects more suitable to the environment has been highly effective. Since its introduction in 1969 in the US, many countries and international organizations have accepted EIA as an important planning and environmental management tool. As a decision making tool, EIA has its strengths and weaknesses. It plays a crucial role at the project level decision making. However, in the entire development process application of EIA as a tool to bring in environmental sustainability comes fairly at a late stage. At this point, it may be too late to change certain policy decisions and the choices are limited.

In the preparation phase, the IEE/EIA shall achieve the following objectives:

- To establish the environmental baseline in the study area, and to identify any significant environmental issues;
- To assess these impacts and provide for measures to address the adverse impacts by the provision of the requisite avoidance, mitigation and compensation measures;
- To integrate the environmental issues in the project planning and design;
- To develop appropriate management plans for implementing, monitoring and reporting of the environmental mitigation and enhancement measures suggested.

4.1.1 Environmental Screening

The purpose of environmental screening is to minimize the resources used to assess interventions with minimal environmental implications, conserving them for the assessment of interventions having:

- Known potentially significant adverse impacts requiring additional assessment
- Potential impacts that require additional assessment to determine the level of significance
- Known management measures requiring additional development or customization
- A need to consider, conceptualize and design novel management measures

All project activities involving infrastructure development and changes to natural habitats including activities related to habitat management beneficial to wildlife, invasive species removal, etc. will be screened using the checklist provided in Annex 1. The responses provided to the screening checklist for a given activity will indicate the requirement of undertaking an IEE or EIA or just development of an EMP or use of code of practice. However, if the participating government law mandates IEE or EIA for a subproject, screening serves no purpose and therefore will not be necessary.

4.1.2 IEE and EIA

Reporting Information

An IEE/EIA report will provide the following:

- A summary description of the intervention (minimally a location, map, list of infrastructure / non-infrastructure elements, summary costs, and intended benefits, plus additional information as appropriate)
- Characterize the relevant features of the current ("baseline") state of the receiving environment
- Analyze and describes the potential interactions between the intervention and the receiving environment (the "impacts"), both (i) adverse and beneficial, (ii) direct and indirect or "knock-on" and (iii) cumulative impacts induced due to multiple activities in same site (PAs/FRs) or similar interventions in large areas
- Set forth management measures to avoid, mitigate, compensate and monitor any potentially significant adverse impacts and cost of management measures
- Clearly summarizes significant concerns and recommend needed actions to address each concern
- Present conclusions – (i) In an IEE, a statement that either (a) the IEE is the completed environmental assessment for the intervention, (b) further detailed study is required and will be incorporated in a revised IEE, or (c) EIA is required; (ii) In an EIA, statement that either (a) the EIA is the completed environmental assessment for the intervention or (b) further assessment work is requires and will be incorporated in a revised EIA.

Scope

IEE is limited in scope (pre-feasibility level) and relies on existing (secondary) information, plus limited or no primary data collection to assess potential impacts and plan measures to reduce harms and enhance benefits. If an IEE determines that an intervention has potential significant impacts that may not be managed sufficiently by reasonable simple or standard measures, the IEE identifies those aspects of environment-intervention that requires further investigation and recommends further (EIA) study to address them.

EIA incorporates all the activities described above for IEE, plus other activities/sections needed to understand and manage project impacts, such as collection and analysis of primary data, extended field, numerical or other studies and in-depth collaboration with stakeholders.

Documentation

In keeping with the abbreviated nature of IEE investigations and analyses, report sections and subsections maybe very short or omitted entirely if non-relevant. In particular, adequate baseline characterization of

environmental components relevant to the intervention should be provided, but maybe omitted entirely for other environmental components.

An IEA report follows the same outline as IEE, but discussion of significant potential impacts may be extensive and sections may be sub-divided to several levels.

Technical Process

IEE/EIA objectives and reporting topics appear, and are, straight forward, but the IEE/EIA technical process to address them adequately is considerably more complex, even for moderately simple infrastructure projects. Thus IEE/EIA generally includes the following considerations, activities and corresponding report sections/subsection.

- Establish/characterize the scope of IEE/EIA study, including resources available, activities and report sections to be included/excluded, primary and secondary information availability. This may require (iterative) discussions among clients, regulators and EA professionals. IEE/EIA scope is a key input to the preparation of terms of reference (TOR) for an IEE/EIA.
- Characterize the project interventions (location, amounts, activities, schedules, designs, etc.), including the temporal boundaries of project stages (pre-construction, construction-implementation, operation-maintenance-benefit realization)
- Consider the implication of project siting and siting alternatives
- Make preliminary identification of likely interactions between the project and the environment
- Determine the special boundaries of the area potentially subject to project-on-environment impacts
- Establish an effective stakeholder participation program
- Characterize baseline environment within the area that is subject to project's impacts
- Characterize baseline sources of potential environment-on-project impacts (e.g. erosive characteristics of river embankments where camp sites may be planned)
- Identify key environmental issues and assess range and potential severity if the (adverse and beneficial, direct and indirect) impacts if project activities on the receiving environment, (i) by project phase. (iii) technologies to be used and (ii) by ecological component, community and other sub-units of the study area
- Assess the risks and implications of improper operation, failures, disasters and other (lower-probability) events
- Characterize the future-without-project scenario- typically this involves projecting the baseline environment forward to the project operational timeframe, that is, incorporating changes that will occur with or without the intervention such as population growth and diversification, changes in demand for resources, etc.
- Assess the environmental impacts of each development alternative, including the project as proposed (future-with-project) and each alternative project conceptualization and design (e.g. discarded or superseded), compared with the future-without-project scenario (i.e. rather than baseline environment). These comparisons should consider benefits, adverse effects, and trade-offs, including issues of equity, gender, biodiversity and long-term sustainability.
- Prepare an EMP, which is implementable program of measures to avoid, mitigate, manage and monitor adverse impacts and enhance benefits.
- Assess the residual impacts remaining after implementation of EMP measures

Environmental components, impacts, risks, etc. must be characterized quantitatively where feasible and appropriate. As noted above in the description of the scoping activity, some of the listed activities are included in the IEE/EIA study only if deemed necessary and relevant. Also, activities and sections other than those listed here may be required by the client, funding agency or the circumstances, such as

assessment of regional resources and past intervention effects, cumulative impact assessment, sustainability considerations, climate change implications, etc.

IEE/EIA report recommended table of contents

The following is the recommended table of contents of IEE/EIA:

- Executive summary
- Policy, legal and institutional framework
- Project description
- Status of the environment (baseline data)
- Environmental impacts
- Analysis of alternatives
- Environmental management plan
- Stakeholder consultations
- Summary and recommendations
- Conclusions
- Annexes

The model outline does not explicitly provide section/subsection headings for many of IEE/EIA activities and report sections listed earlier. IEE/EIA authors should create their own customized outline from this model that provides sections/subsections for each IEE/EIA activity undertaken for the project under consideration

4.2 Environmental Management Plan

Certain activities will have explicit impacts on the natural environment and thus require a specific plan to institute and monitor mitigation measures and take desired actions as timely as possible. An Environmental Management Plan (EMP) must be kept as simple as possible, clearly describing adverse impacts and mitigation actions that are easy to implement. The scale of the subproject will determine the length of the EMP. A small-scale subproject's EMP can be elaborated in a few paragraphs or in tabular format, keeping it as simple as possible with concrete mitigation actions, timelines and responsible persons.

An EMP generally addresses the following:

- Mitigation, enhancement, protection and compensation measures in each project development phase including design (for infrastructure activities this involved pre-construction, construction, operation and maintenance /benefit realization, and abandonment if applicable)
- Mitigation performance monitoring (i.e. monitoring the operation and maintenance of mitigation measures and their targeted impacts)
- Beneficiary/affectee participation arrangements by project development phase
- Disaster management contingency plan where applicable
- Institutional arrangements for implementation, monitoring and reporting
- Cost estimates for all EMP activities
- Standard construction environmental safeguards clauses for interventions involving works

It is essential to involve local communities during the development of the EMP since they are likely to be the most affected parties due to the proposed development. Further, most of the local knowledge is important in identifying, designing and planning the implementation. In addition, the success of the implementation of the EMP will depend on community support and action.

Ideally, all EIAs and IEEs which identifies adverse environmental impacts should prepare an EMP as part of the report. In World Bank funded projects, a standalone EMP is considered appropriate in situations where a detailed environmental analysis is not required (as in the case of rehabilitation of an existing jeep track within a PA). Implementation of the EMP should be regularly monitored.

4.2.1 Guidelines for Developing EMPs

Having identified the potential impacts of the relevant sub-component, the next step of the EA process involves the identification and development of measures aimed at eliminating, offsetting and/or reducing impacts to levels that are environmentally acceptable during implementation and operation of the project (EMP). EMPs provide an essential link between the impacts predicted and mitigation measures specified within the EA and implementation and operation activities. World Bank guidelines state that detailed EMP's are essential elements for Category A projects, but for many Category B projects, a simple EMP alone will suffice. While there are no standard formats for EMPs, it is recognized that the format needs to fit the circumstances in which the EMP is being developed and the requirements, which it is, designed to meet. EMPs should be prepared after taking into account comments from the PAA and World Bank as well as any clearance conditions. Annex C of OP 4.01 of the World Bank safeguards outlines the important elements of the EMP and guides its preparation. Given below are the important elements that

constitute an EMP. Other elements as described earlier to be incorporated based on the circumstances and needs.

a. Identification of impacts and description of mitigation measures: Firstly, Impacts arising out of the project activities need to be clearly identified. Secondly, feasible and cost effective measures to minimize impacts to acceptable levels should be specified with reference to each impact identified. Further, it should provide details on the conditions under which the mitigatory measure should be implemented (ex; routine or in the event of contingencies) The EMP also should distinguish between type of solution proposed (structural & non structural) and the phase in which it should become operable (design, construction and/or operational).

b. Enhancement plans: Positive impacts or opportunities arising out of the project need to be identified during the EA process. Some of these opportunities can be further developed to draw environmental and social benefits to the local area. The EMP should identify such opportunities and develop a plan to systematically harness any such benefit.

c. Monitoring programme: In order to ensure that the proposed mitigatory measures have the intended results and complies with national standards and donor requirements, an environmental performance monitoring programme should be included in the EMP. The monitoring programme should give details of the following;

- Monitoring indicators to be measured for evaluating the performance of each mitigatory measure (for example national standards, engineering structures, extent of area replanted, etc).
- Monitoring mechanisms and methodologies
- Monitoring frequency
- Monitoring locations

d. Institutional arrangements: Institutions/parties responsible for implementing mitigatory measures and for monitoring their performance should be clearly identified as well as the legal instruments that will define their obligations. Where necessary, mechanisms for institutional co-ordination should be identified as often monitoring tends to involve more than one institution.

e. Implementing schedules: Timing, frequency and duration of mitigation measures with links to overall implementation schedule of the project should be specified.

f. Reporting procedures: Feedback mechanisms to inform the relevant parties on the progress and effectiveness of the mitigatory measures and monitoring itself should be specified. Guidelines on the type of information wanted and the presentation of feedback information should also be highlighted.

g. Cost estimates and sources of funds: Implementation of mitigatory measures mentioned in the EMP will involve an initial investment cost as well as recurrent costs. The EMP should include costs estimates for each measure and also identify sources of funding.

h. Contract clauses: This is an important section of the EMP that would ensure recommendations carried in the EMP will be translated into action on the ground. Contract documents will need to be incorporated with clauses directly linked to the implementation of mitigatory measures. Mechanisms such as linking the payment schedules to implementation of the said clauses could be explored and implemented, as appropriate.

Consultation with affected people and NGOs in preparing the EMP is recommended for Category B projects.

4.3 Environmental Audits

Most of the development projects go through the EIA process and develop EMPs that are not implemented at the end which will render the entire process an exercise in futility. Therefore, monitoring of the project during the construction and implementation phase is a must to ensure environmental compliance of a project. This could be achieved through regular environmental audits.

The purpose of the environmental audit is to

- Collect, analyze and interpret monitoring results to detect changes related to implementation and operation of specific activities
- To verify the monitoring parameters are in compliance with national set standards
- To compare the predicted impacts with actual impacts and evaluate the accuracy of predictions
- To evaluate the effectiveness of implementation of the EMP
- To identify shortcomings in the EMP if any and incorporate it into the EMP if deemed necessary
- To identify and report if there is non-compliance with the EMP

The auditors must first develop a structured questionnaire based on the EMP for the purpose of conducting the audit. Then during the site visit data can be collected using this questionnaire through interview surveys of officers responsible for implementation of the EMP and site records, logs etc., The audits can be carried out at regular intervals or on a *ad hoc* basis or when mitigation is not carried out as defined by the EMP leading to public concern.

Expected outcomes of the Environment Audit are

- Ensure that EMP is implemented properly
- Ensure that the mitigation measures are effectively minimizing the identified impacts as well as identify new impacts that may have been excluded in the EMP that require mitigation. Then make necessary adaptive changes to the EMP to ensure that the all significant impacts are effectively mitigated.
- Identify non compliance with EMP if any and provide recommendations as to how to deal with such non compliance

4.4 Environmental checklists

Environmental Checklists are forms containing a series of questions on environmental aspects, designed to screen potential environmental impacts of the proposed project. Environmental checklists can be used for an initial screening of impacts which is to be followed by a more detail analysis or in projects where the level of activity (as in the example of constructing a small to medium scale building in an already built up area) is not meant to cause much harm a checklist only would suffice.

4.5 Environmental Codes and Best Management Practices

In addition to the above tools following environmental codes and best practices may be sufficient where impacts of a particular activity are very minor, easily mitigatable and can adopt generic codes/practices developed elsewhere. The project will develop a manual on environmental codes and best management practices that will be replicable within the project and elsewhere as the implementation progresses.

5. SOCIAL MANAGEMENT FRAMEWORK

5.1 Framework

Subproject interventions proposed under this project are expected to be small and cause minimal negative social impacts. Land acquisition and resettlement are unlikely and discouraged under the project. However, as a precautionary measure, a Social Management Framework has been prepared to address unavoidable impacts that may arise from: (i) loss of structures; (ii) loss of livelihood systems/income opportunity (due to the lost of productive land or impact to a structure where a livelihood activity is being carried out); and (iii) loss of community property resources (religious structures, grazing land). The framework guides the compensation for lost assets, livelihoods, community property, and resettlement and rehabilitation of project affected people in accordance with the World Bank's Operational Policy 4.12 on Involuntary Resettlement and GOB and GON guidelines and legislation for similar circumstances. Stakeholder consultations and social screening during the feasibility stage of each activity will identify and categorize the level of impacts and what modalities need to be followed for defined losses to the project.

5.2 Definitions

5.2.1 General Definitions

For purposes of this framework, the following definitions will be applicable:

Project Affected Persons (PAP) includes any person or persons, households, a firm, or private or public institution who, in the context of acquisition of assets and change in land usage, as of the cut-off date, on account of the execution of the project, or any of its subcomponents or part, would have their:

- Standard of living adversely affected;
- Right, title, or interest in any house, land (including residential, commercial, agricultural and grazing land) or any other moveable or fixed assets acquired or possessed, in full or in part, permanently or temporarily adversely affected; or
- Business, occupation, places of work or residence or habitat adversely affected, with or without displacement provided such occupation is legal under applicable law.

PAP means persons or affected household and consists of all members of a household residing under one roof and/or operating as a single economic unit, who are adversely affected by a project or any of its components.

Household (HH) is a group of persons who commonly live together and would take their meals from a common kitchen.

Replacement Cost means and includes an amount needed to replace an asset at current value including depreciation and overhead expenses of the transaction, including stamp duty and registration charges, as follows:

- Agricultural land based on its productive potential;
- Residential land based on market value;
- Houses and other related structures based on current market prices of building materials and labor, without depreciation and deductions for salvaged building materials, plus transaction costs (such as administrative charges, registration and titling costs), etc.;
- Trees, crops and plants on current market value; and;
- Other productive assets like shops and commercial assets based on market value of similar location attribute, i.e. premium, etc.

Cut-off date is the date prior to which the occupation or use of the project area makes residents/users of the project area eligible to be categorized as affected persons. In many projects, the cut-off date coincides with the commencement of the census of affected persons within the project area boundaries. Persons not covered in the census will not be eligible for compensation and other entitlements. *For PAPs with legal titles the cut-off date would be the date of issue of legal notice under the Land acquisition act. For those without titles, the cut-off-date will be the date of commencement of census.*

Land: The term land refers to land acquired under the land acquisition act of the given country or through private transactions.

Squatters are persons who occupy / possess an asset without legal title.

Encroachers are those owners of land adjacent to public property, who have illegally extended their land holdings or structures into the public land.

Vulnerable groups: These are distinct groups of people who might suffer disproportionately or face the risk of being marginalized from the effects of the project and include: (i) female headed households with dependents, (ii) disabled household heads, (iii) households falling under the generally accepted indicator for poverty, (iv) elderly households with no means of support and landlessness, and (v) indigenous people or ethnic minorities.

Severely Affected households: These are households that will be affected by any one of the following : (i) Significant loss of income (> 50%) and (ii) Loss of accesses to common property resources for those whose livelihoods depends on these.

5.2.2 Categories of Impacts

Following basic categories of issues/impacts may take place under this project, though land acquisition and large scale loss of livelihood are highly unlikely:

a) Loss of structure;
b) Loss of source of livelihood;
c) Loss of access to common resources and facilities;
d) Loss of standing crops, trees and perennial trees; and
e) Loss of public infrastructure.

5.2.3 Impacts and Entitlement Framework

Entitlements for compensation and rehabilitation assistance to different categories of PAPs that are likely to be applicable for this project are described in the following sub-sections of this section:

I. PAPs losing Agricultural Land

(a) When the portion of the land to be lost represents 20% or less of the total area of the land-holding, cash compensation at full replacement value, will be provided to the PAP except where the portion of a landholding is critical to livelihoods such as alluvial plains. Where significantly large or entire land holding is affected by the project, the general mechanism for compensation of lost agricultural land will be through provision of "land for land" arrangements of equivalent productivity and at location acceptable to the PAP. In case suitable replacement land is not available, at the PAPs request cash compensation at replacement cost will be provided. Because many rural dwellers and poor people may be unaccustomed to managing large sums of cash, compensation payments would be made with supervision by appropriate personnel to assure that the beneficiary makes good use of the compensation received. In cases where only partial land is affected but the remaining land becomes economically unviable, the PAP will be entitled to compensation for entire holding at full replacement value or land-for-land option.
(b) The replacement agricultural land will be provided to the PAP free of any tax, transfer costs, registration fee or charges.
(c) PAPs whose land is temporarily taken by the works under the Project will be compensated at replacement cost for their net loss of income, damaged assets, crops and trees, as the case may be and their landholding will be restored at least to its original condition or improved.
(d) Affected tenants and leaseholders on the agricultural land will be compensated for the market value of the gross harvest for one year's production or the remaining period of the tenancy agreement/lease, whichever is greater.
(e) Affected agriculture labor will be compensated for the loss of income and will be paid compensation equivalent to the six months wages and assisted in getting alternative employment.
(f) Squatters and encroachers will not be entitled to compensation for affected land.

II. PAPs losing Structures

(a) The mechanism for compensating loss of other structures if established legally or is considered as a right as per the country regulations (example: benefits defined for indigenous peoples) will be cash compensation reflecting full replacement cost of the structures, without depreciation.
(b) Affected households will also be entitled to a transfer/shifting allowance and a transition allowance for three months. Vulnerable squatters will also be provided with relocation assistance through viable options and assistance packages to choose from.

III. Loss of Income or employment

Alternatively, income rehabilitation package would be provided to the PAPs for re-employment, training in other trades and skills, agricultural inputs and extension services support, or for starting a new business depending upon their needs and priorities. The type and level of assistance required will be decided in consultation with the PAPs. Furthermore, parties that will be temporarily affected will not be eligible for cash compensation but will be consulted to have a minimization of impacts.

IV. Loss of standing crops and trees

(a) PAPs will be entitled to cash compensation equivalent to market value of crops and trees *based on the type, age and productive value of affected trees.*
(b) Compensation for all types of affected assets will be provided at replacement cost.
(c) PAPs will be provided with compensation at full replacement cost, without depreciation for any other fixed assets affected in part or in full by the project.
(d) All PAPs severely affected by the project due to the loss of productive assets, incomes and employment will be entitled to the income rehabilitation assistance including income restoration programs, training to improve skills or other assistance for self-employment depending upon the needs and priority of the affected PAPs. These rehabilitation measures would specifically focus severely affected PAPs, vulnerable groups and those who are either below the poverty line or those severely affected by the project due to the loss of productive assets or are likely to fall below the poverty line.
(e) In cases where community infrastructure such as religious facilities, water resources, roads, etc. is affected, project implementing agencies will ensure that alternatives will be provided at no cost to the community. Furthermore alternative routes will be identified if necessary.
(f) PAPs without any legal title or ownership right to the land they occupy will be compensated for all their lost assets such as structures, fixed assets, etc. at full replacement cost and provided assistance in finding suitable relocation site. The relocation site would, as for as possible, contain the access to facilities and services better than or at least equivalent to the one lost and provided with tenure security.
(g) In case of other unforeseen impacts not covered above, appropriate measures would be determined keeping in mind the overall objective of this policy.

5.2.4 Social Implications to be taken into Consideration

Mitigating adverse impacts: Before taking possession of structures and before start of activities, PAPs will be paid compensation and other assistance in full. Where PAPs are entitled to relocation, the relocation site will be fully developed before the PAPs are displaced. The project will ensure that the standard of living of all affected persons is restored to the level enjoyed before the commencement of the project, and, if possible, improved.

Compensation at Replacement Cost: Market surveys are required to establish fair rates for assets lost by squatters, so that they may replace those at current prices and for crops and trees lost by share-croppers, tenant farmers and lease-holders.

Entitlements to affected people without legal rights to land: Lack of ownership does not imply ineligibility for compensation rights. The lack of legal tenure to land or assets will not be regarded as a criterion for withholding financial compensation or assistance in relocation in the project. The affected squatters will be carefully screened to ensure that resettlement and rehabilitation assistance is provided only to vulnerable families who are screened out.

Measures to avoid illegal occupation of land identified for project activities. The preparation of a Resettlement Plan will require that an early cut-off date, preferably at the time of the baseline survey, is established. The implementing agency will ensure that the information on cut-off date and eligibility are provided to the people with the clear understanding that anyone illegally occupying the land after the cut-off date will not be entitled to any compensation and/or assistance. The implementing agencies will also take appropriate measure to ensure that all lands that is identified for project activities remains clear of squatters. Experience shows that the most effective means of preventing reoccupation of cleared land is to enlist local communities in the prevention and reporting of such occupations.

Relocation of displaced squatters: Affected households will be provided with viable options for relocation to choose from that may include, among others: self-relocation; special package for transfer to the place of origin; and relocation to a suitable resettlement site on other public lands in the vicinity. Where attempts to find suitable relocation sites are not successful or the locations of identified sites are not acceptable to the PAPs, other options will be considered in consultation with the World Bank.

Social Networks: Planning must take into account existing social networks such as families, clans, religious groups, cooperative labor arrangements and the like. The goal of any dislocation or land acquisition should be to minimize disruption of existing social networks.

Entitlements: Compensation amounts will be based on the principle of replacement value. The exact value of compensation and replacement cost will be different for each activity and will be based on an economic and social survey of the area of the activity and of affected persons. Entitlement matrix is provided in Annex 6.

5.3 Assessments and Documentation

5.3.1 Preliminary Screening

During the identification and preliminary stages of any activity preparation, the implementing agency will employ the screening check-lists designed for the project. If displacement of people such as squatters is expected a preliminary Assessment to identify the types, degree and scale of potential social impacts of the activity will be undertaken via the check-list (attached in Annex-4). In cases where the preliminary assessment indicates that the potential adverse impact of the proposed project will be significant, appropriate preparation will be done for further surveys and consultation with key stakeholders.

5.3.2 Activity Preparation

It is understood that given the short time allowed between the identification and the actual implementation of those activities with social implications, the preparation time for activities will be minimal. Given the above time constraints, there will not be enough time to conduct a full scale Poverty and Social Impact Assessment (PSIA) for each activity. However where the check-lists demonstrate that displacement of squatters is expected (on public lands, or on private lands) the implementation agency will be responsible for the production of a Resettlement Plan (RP.) The census and the inventory of affected assets will cover all PAPs, regardless of entitlement or land ownership. Criteria for vulnerability of PAPs should be paid particular attention in order to provide additional assistance. All data should be maintained on computerized data management system to facilitate analysis and M&E.

Displacement of squatters may induce the loss of business income, on either a temporary or permanent basis. The Inventory of Losses must record these impacts and, and these must be mitigated in accordance with the Entitlements to ensure that livelihoods are restored.

5.3.3 Poverty and Social Impact Assessment (PSIA)

When the sites for specific activities are identified and if, according to the substantive social effects are anticipated a brief PSIA (based on PRA techniques) will be undertaken to identify project beneficiaries, particularly focusing on poor, impacted people and other relevant stakeholders. The PSIAs will utilize a well planned and all-inclusive communication and consultation strategy and include a baseline survey covering the prevailing status of income, employment, education, age, skills and other socio-economic aspects along with cultural and community aspects in the areas. The assessment will feed into the individual RPs created for each location and will be incorporated, along with consultation feedback from those identified in the PAP census and all other relevant stakeholders, in the development of mitigation measures, especially livelihood strategies. Generic guidelines for PSIA are provided in Annex 5.

5.3.4 Resettlement Plan (RP)

Abbreviated (Summary) Resettlement Plan: In cases where the impacts of the activities are without any large scale displacement due to squatters, or where the impacts are minor an abbreviated and simplified RP should be prepared. It should briefly document consultation with PAPs, provide a census survey of displaced persons and/or valuation of assets (according to current market prices determined via a market survey), demonstrate the establishment of a cut-off date via the distribution of identity cards to those entitled; description of compensation and other resettlement assistance to be provided, institutional responsibility for implementation and procedures for grievance redress, arrangements for monitoring and implementation, and a timetable and budget. In acknowledgement of the fact that that project preparation time will be very brief, these documents can be allowed to be simplified and concise, as long as the key points mentioned above are documented.

For projects that only affect small numbers of squatters on public or private land (e.g. less than 50 families), the implementing agencies will be responsible to ensure compliance with the Bank policies including keeping records of actions undertaken (the simplified and abbreviated RP) demonstrating that appropriate mitigation actions and compensation took place before physical displacement of PAPs. It is expected that the vast majority of activities will fall in this category. The implementing agencies will be responsible for overall compliance with the requirements of this framework including applying the check-lists to all activities and for producing RPs and SIAs where necessary. Random audits will be performed on this batch of activities to ensure compliance.

5.3.5 Social Safeguards Monitoring and Evaluation Appraoch

No private land acquisition is expected to take place under the project. Since most activities will be carried out in rural settings where squatters are not widely found, no major displacement is expected. Due to nature of activities and the approach taken, as well as the exact sites of intervention are not known, the implementing agencies will use the screening procedures outlined earlier to identify, assess, evaluate, mitigate and monitor social impacts of each activity/sub-project. These procedures include the following key points.

- The Project implementing agencies will be responsible to screen all of their sub-projects using a check-list to identify possible social impacts related to either land acquisition resettlement or the presence of IPs in the project areas;
- No involuntary land acquisition is anticipated under the project. If small quantities of land are at all required for some sub-projects (though this is unlikely), it may be acquired on a voluntary basis on willing buyer-willing seller terms where permissible. All land transactions will be recorded. The RPF provides guidelines to comply with World Bank and respective government requirements.
- Although no land acquisition or displacement of squatters is anticipated under this project, if the activities/sub-projects trigger land acquisition and/or are expected to impact squatters or economically displace less than fifty families, an Abbreviated Resettlement Plan (RP) will be prepared by the implementing agency using the procedures and guidelines outlined in this chapter. For activities/sub-projects that trigger the displacement of more than fifty families, a brief Social Impact Assessment will also be carried out, based on which a more detailed RP will be produced. The implementing agency may hire specialist consultants in preparing the RP.
- For projects that only affect small numbers of squatters on public land (e.g. less than 50 families), the implementing agencies will be responsible to ensure compliance with the Bank policies (incorporated in the Resettlement Policy Framework) including producing the RP and keeping records of actions undertaken. It is expected that the vast majority of sub-projects will fall in this category. The Bank will sponsor an independent verification and validation study by a third party monitoring agency via a random audit based on a sample of activities/sub-projects to ensure that adequate safeguards were in place, in line with the provisions of the SMF.
- In addition to the above, for activities/sub-projects that are expected to economically or physically displace more than 50 families a brief SIA will be carried out based on which the RP will be produced. For this batch of activities/sub-projects as well as those involving impacts on Indigenous People a third-Party audit will be undertaken to assess compliance with the requirements. The implementing agencies will be responsible for carrying out implementation of the RPF. The Bank will review the results of the audits and conduct an independent validation and verification via a third party monitoring agency, on a sample basis.
- Potential monitoring indicator identified in Annex 7 will provide the basis to undertake audits.

5.4 Grievance Redressal Mechanism

Despite best efforts to arrive at fair rewards in a project involving possible livelihood compensation and moving of squatters, there are always a few unsatisfied citizens. The implementing agency will make efforts at project level to resolve grievances through negotiations *involving community leaders and PAP's representatives.* In case dispute is not resolved at local level, the matter will be placed before a Grievance Resolution Committee to be established at the regional level.

The Grievance Resolution Committee (GRC) shall be constitute a panel of at least four Members, one of whom shall be the field-based project staff (at the respective sites), to be selected by the implementing agency. S/He will be responsible to provide secretarial support to the panel. It will include a representative from the residents of the project area, who would be publicly known to be a person of integrity, good judgment and commands respect, who can be considered independent and will chair the GRC. Other persons would be at least one representative from local Government bodies or NGO/CBOs and a representative from the PAPs in the area.

The designated project staff shall:

- Convene meetings of the committee as necessary at such place or places in the project area as s/he considers appropriate; and
- Provide all necessary secretarial support to the committee including recording of the committee meeting discussions and dissemination of deliberations and decisions taken to all concerned parties.

The chair of the GRC shall:

- Conduct the proceedings in an informal manner as s/he considers appropriate with the object to bring an amicable settlement between the parties;

The report of the members shall be recorded in writing and attested copies thereof shall be provided to the parties. In case of continuing differences and notwithstanding the provisions of nationally applicable legislation, the GRC can take a decision regarding entitlement and compensation. The decision taken during negotiations and GRC meetings shall be formally recorded for future reference and presentation in the court, if necessary.

If the matter cannot be resolved at the regional level, complaints will be referred to the Project Director, who will head a committee that includes the Social Management Specialist, the respective PAP representative and members of well-known national level NGO/Community-Based Organization (CBOs). All expenses incurred in arranging grievance negotiations and meetings of GRC as well as logistics required, shall be arranged by project-executing agency. These will be part of the project's administrative expenses.

The aggrieved PAP, if not satisfied with the decision of Grievance Resolution Committee, has the right to refer his / her petition to court of law.

5.5 Public Consultation and Participation

Public consultation is the cornerstone of all project activities. As such, the PAPs will receive prior information of the compensation, relocation and other assistance available to them where applicable; planning and implementation for the acquisition of land and other assets will be carried out in consultation with the PAPs.

The implementing agency will be responsible to carry out continued consultation with and information dissemination to the key stakeholders regarding:

- The relevant details of the project;
- The resettlement plan and various degrees of project impact;
- Details of entitlements under the resettlement plan and what is required of PAPs in order to claim their entitlements (a copy of the entitlement matrix will be provided to the PAPs);
- Compensation process and compensation rates;
- Relocation and resettlement site development operation in order to obtain agreement and support of affected people in participating in these operations;
- Implementation schedule with a timetable for the delivery of entitlements, and
- Detailed explanation of the grievance process.

The implementing agencies shall enlist the help of community leaders and other influential community officials in encouraging the participation of the PAPs in resettlement activities. Finally, they shall attempt to ensure that all vulnerable groups and indigenous peoples/ethnic minorities understand the process and that their needs are specifically taken into consideration.

Public participation will be performed and information will be made available during preparation and implementation of the resettlement plan and at the minimum includes community meetings and focus-group discussions. Public consultation must be appropriately documented.

6. INDIGENOUS PEOPLES PLANNING FRAMEWORK

6.1 Indigenous Peoples

Since the exact locations of the activities within each participating country cannot be determined at this time, the possibility that the project may impact Indigenous Peoples (IPs) cannot be discounted.

6.1.1 Objectives

The main objectives of the Indigenous Peoples Plan (IPP) are to ensure that the activities funded under project do not adversely affect IPs if present, and that they receive culturally compatible social and economic benefits. This will require the institutes to carefully screen all proposed activities to determine presence of IPs in the locality and ensure informed direct participation of the IPs in the activities.

6.1.2 Identifying the Indigenous Peoples

In Bangladesh, the largest proportion of the country's indigenous population lives in Bandarban, Rangamati and Khagrachari in the Chittagong Hill Tracts (CHT). In varying proportions, indigenous peoples (IPs) also live in almost all districts outside of CHT, most notably in those in the north-west and north-eastern regions. However, the various activities that will be undertaken with the project funds should have the same beneficial impacts on IPs and non-IPs.

The IPs of Nepal are the native or original inhabitants of the Himalayas, and they constitute more than two-third of the total population of Nepal. They speak more than 60 different languages, and they practice diverse cultures, and are largely Buddhists. The IPs look distinct in their physical features, costumes and cultural practice from the non-indigenous or Khas people. The major IPs of Nepal include Magar, Tharu, Tamang, Newar, Gurung, Rai, Limbu, Sherpa and Thakali. The IPs of Nepal had sovereign nations prior to the establishment of current Nepali nation-state around 1770s (AD).

The Khas or Caste peoples (non-indigenous peoples) are the settlers who migrated to Nepal in the late 1600s as refugees from the low land, what is currently known as India. The Khas people are a monolithic group (one language, one religion, one culture, one race) who practice Hinduism and caste system. Khas group are divided into four caste categories- Brahmin, Chetri, Baisya and Suddra. On the top of this caste hierarchy is the Brahmin or the priest group, and at the bottom of the hierarchy is Sudra or untouchables. They all speak one language- the Khas language. They are homogenous group in their physical features and cultural practices; and one cannot identify their caste from their look alone. The only way to identify their caste is by their last names or by asking them directly of their caste.

Although the IPs of Bangladesh and Nepal are well recognized locally, the project implementing agencies will examine the following characteristics to make formal identification:

- Self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;
- Collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories;
- Customary cultural, economic, social or political institutions that are separate from those of the dominant society and culture; and
- An indigenous language, often different from the official language of the country or region.

6.2 Process to Follow

6.2.1 Basic Principles

To avoid or minimize adverse impacts and, at the same time, ensure benefits for IPs, the implementing agencies will apply the following basic principles in selection and design of particular activity:

- Ensure that IP communities in general and their organizations are not excluded by any means in activities selection, design and implementation processes.
- Together with IPs, carefully screen the activities for a preliminary understanding of the nature and magnitude of potential impacts, and explore alternatives to avoid or minimize any adverse impacts.
- Where alternatives are infeasible and adverse impacts on IPs are unavoidable, the projects together with IPs and others knowledgeable of IP culture and concerns, will immediately make an assessment of the key impact issues.
- The project will undertake the necessary tasks in order to adopt appropriate mitigation measures. The most important in this respect is intensive consultation with the IP communities, community elders/leaders, and formal and informal IP organizations, civil society organizations like NGOs, and others who are interested in and have knowledge of IP issues.

6.2.2 Identifying IP Social Concerns

Impacts on IPs will vary in terms activities and their scopes, presence and size of IP population in the locales, as well as the magnitude of potential adverse impacts and social risks. To the extent applicable for a particular activity, information on the cultural and socioeconomic characteristics and potential vulnerability will be used to identify the IP social concerns and adopt alternative mitigation measures.

6.2.3 Impact Mitigation & Development Measures

The project will explore, together with the IP communities, the possibilities of reinforcing any existing and promoting new culturally compatible development activities/measures that will benefit the IPs. Such measures may include providing credits where IPs are found to engage in production of marketable goods; basic water supply and sanitation facilities; and those, such as schools, that could also be used by the communities as a whole.

6.2.4 IP Consultation Strategy

As required for informed consultation, concerned institutes will provide IPs with all activity-related information, including that on potential adverse impacts in a language familiar to and understandable by the IPs. To facilitate consultation the institution will,

- Prepare a time-table for dialogues during activity selection, design and implementation processes, and consult them in manners so that they can express their views and preferences freely.
- In addition to the communities in general, consult IP organizations, community elders/leaders and others with adequate gender and generational representation; and civil society organizations like NGOs and groups knowledgeable of IP issues.

Consultation will include the activity objectives and scope; the likely key adverse impacts on (and benefits for) IPs; IPs' own perception of the impacts and feedback; and a preliminary assessment of

economic opportunities which the implementing agency could promote – in addition to mitigation of the adverse impacts.

Consultation will in general concentrate on the adverse impacts perceived by the IPs and the probable (and feasible) mitigation measures, as well as exploring additional development activities that could be promoted under the project. The institutes will keep Minutes of these consultation meetings in the activity files and make them available for inspection by World Bank, respective government officials and other interested groups and persons.

If the presence of IP is identified in the sub-project area, then an Indigenous Peoples Plan (IPP) will be prepared based on free, prior, informed consultation. This will serve as the basis for sub-project implementation and monitoring.

6.3 Major Impact Areas and Indicators

The following major impact areas and indicators are suggested for assessment of IP concerns and social risks.

a) Cultural Characteristics

- Relationships with areas where they live -- relating to religious/cultural affinity with the ancestral lands, existence of livelihood opportunities, etc.
- Presence of customary social and political organizations – characteristics indicating internal organization and cohesion of the communities, and their interaction with those of the non-indigenous population.
- Interactions and relationships with other indigenous peoples' groups in the same and other areas.
- Presence of IP organizations, like NGOs and CBOs, working with IP development issues, and their relationships with mainstream organizations engaged in community development activities.
- Identification of any cultural aspects likely to be affected or made vulnerable because of the proposed development works.

b) Settlement Pattern

- The extent to which the indigenous settlements are physically separated from those of the non-indigenous peoples, indicating interactions and mutual tolerance between the groups.
- Characteristics indicating physical organization of homesteads, and the existing community facilities, such as schools, water supply, etc.
- Present distance between the settlements and the participating institute.

c) Economic Characteristics

- Prevailing land tenure -- indicating legal ownership and other arrangements that allow them to reside in and/or cultivate the lands in their areas.
- Access to common property resources -- prevailing conditions under which they may have been using natural resources like forests, water bodies, and others that are considered important sources of livelihood.
- Occupational structure -- indicating relative importance of household's present economic activities, and the extent to which they might be affected or benefited because of the proposed activity.
- Level of market participation -- engagement in activities that produce marketable goods and services, and how and to what extent market participation would be affected or enhanced.

7 GENDER DEVELOPMENT FRAMEWORK

7.1 Gender Terminology

The following provides definitions of commonly used gender terms in order to increase the utility of the gender assessment for project staff and counterparts and to support a better understanding of the framework underlying the gender assessment

Gender refers to the social, economic, political, cultural roles and relations between women and men. These roles and relations are learned, practiced, and over time they change and develop. In much of the world today, men and women are socialized differently, with different expectations of and attitudes to their roles and responsibilities. Given this reality, any development intervention may affect women and men differently, and can result in discrimination if gender roles are ignored.

Gender and Development) approach focuses on the socially constructed basis of differences between men and women and emphasizes the need to challenge existing gender roles and relations. Focusing on how development impacts both women and men, given their different roles and responsibilities, helps to identify and address the power dynamics and stereotypes that result in discrimination against either sex. Some of the terms in general usage are:

- **Gender Analysis:** The process of gender analysis encompasses a set of qualitative and quantitative social science methodologies used to identify the specific gender differences present in a given society. For example, it may involve a review of data, policies, procedures, plans, budgets, and/or activities, to identify obstacles to opportunities and resources that face either sex. If the findings of gender analysis reveal discrimination against women (or men), specific programs can be designed to address that discrimination, e.g. to increase access to credit or decrease female unemployment. Often the goal of a gender analysis is women's empowerment, discussed below.

- **Women's Empowerment:** Women's empowerment encompasses strengthened capacity of women to equally access resources, opportunities and rights – political, civil, economic, social, and cultural. The term "women's empowerment" has been included because much of the gender analysis that is done reveals a backlog of discrimination again women that must be addressed. However, it is important to avoid the tendency to automatically include "women's projects" or "women's components" in development interventions. Programs must respond in two ways: a) ensure that women and men benefit equally, and b) target resources where necessary to enable one or the other to catch up.

- **Gender Equality:** This term refers to equal access by women and men to opportunities, resources, benefits and rights and responsibilities in all spheres - economic, social, cultural, civil, and political. This is the outcome of projects that have ensured that both women and men benefit equally.

- **Gender Equity:** In order to achieve equality, groups that have been previously disadvantaged may require more investment than those that have had greater access to resources. For example, if men have traditionally enjoyed more access to credit than women, a development project would target women for special and additional access to credit.

- **Gender Integration**: The process of gender integration requires incorporating the data generated through the gender analysis process to support program design, planning, implementation, monitoring, and evaluation of impacts. It contributes to strengthening the project's life cycle by

taking into account the structure of relations between men and women and their relationship to inequality. As a result, it becomes an important factor in managing for sustainable program impact.

- **Gender Mainstreaming**: Gender mainstreaming, particularly defined by the United Nations Economic and Social[22] committee as guidance for bilateral and multilateral assistance and government policies, calls for employing methods, processes and institutional structures for achieving gender equality. Gender mainstreaming goes beyond gender integration as it requires the consideration of gender as a critical element that needs to be taken into consideration in all policies, approaches and decision-making processes while, at the same time, it confronts traditional institutional arrangements in order to generate social equality and change. It is predicated on norms of justice and equality, but also on expectations that women's empowerment and gender equality will improve the lives of families and communities and nations – for more effective and sustainable social, economic and political change.

- **Gender Sensitivity**: This term refers to the understanding that any development intervention may have different implications for women and men, and the determination to factor such differences into development programs. It should be noted that being female is not a guarantee of gender sensitivity: women and men can be equally gender blind and some men may be more gender sensitive than some women.

[22] http://www.un.org/documents/ecosoc/docs/1997/e1997-66.htm

7.2 Process to Follow

Focusing on gender leads to benefits that go beyond the good project performance. Women have primary roles in the collection, transport, use, and management of fuel, fodder, water and other household activities and yet are hardly involved in decision making in the sector. Gender should be addressed through an approach that is participatory and responsive to the needs of the poor, particularly when it involves natural resources management.

The participation of beneficiaries and focus on poverty reduction are two other key determinants of the effectiveness and sustainability of any project. Any project must address the constraints on women's participation in project design, implementation and monitoring and evaluation. The project must also focus on the linkage between gender and poverty, by identifying, for example, households headed by females and those households' special needs. An adaptive, learning, and process-oriented approach works better than a blue print approach. Project beneficiaries are likely to have a stronger sense of ownership when the project gives them enough time, design flexibility, and authority to take corrective action. In this way, they find it easier to incorporate their earlier learning and negotiate with project staff and service providers. Therefore, a mechanism must be built into the project to allow such two-way interactions between the beneficiaries and the service providers.

Three major tools are used to identify and deal with gender issues in the project cycle: gender analysis, project design, and policy dialogue.

Gender analysis should be an integral part of the initial social assessment at the screening stage itself. The issues identified can be scaled up during the feasibility and detailed analysis can be carried out during the specific sub-project identification stage.

The *project designs should be gender responsive* based on the gender analysis, and should be included in the design documents. The findings and recommendations from the gender analysis during sub-project planning and feedback from beneficiaries during implementation must be discussed thoroughly to determine the need for further action. Listed below are the key action points:

General Checklist

- Identify key gender and women's participation issues.
- Identify the role of gender in the project objectives.
- Prepare terms of reference (TOR) for the gender specialist or social development specialist of the client
- Conduct gender analysis as part of overall Social Assessment.
- Draw up a socioeconomic profile of key stakeholder groups in the target population and disaggregate data by gender.
- Examine gender differences in knowledge, attitudes, practices, roles, status, wellbeing, constraints, needs, and priorities, and the factors that affect those differences.
- Assess men's and women's capacity to participate and the factors affecting that capacity.
- Assess the potential gender-differentiated impact of the project and options to maximize benefits and minimize adverse effects.
- Identify government agencies and nongovernment organizations (NGOs), community-based organizations (CBOs), and women's groups that can be used during project implementation. Assess their capacity.
- Review the gender related policies and laws, as necessary.
- Identify information gaps related to the above issues.

- Involve men and women in project design.
- Incorporate gender findings in the project design.
- Ensure that gender concerns are addressed in the relevant sections (including project objectives, scope, poverty and social measures, cost estimates, institutional arrangements, social appendix, and consultant's TOR for implementation and M&E support).
- List out major gender actions.
- Develop gender-disaggregated indicators and monitoring plan.

7.2.1 Specific Checklists to be covered during various stages of sub-project cycles

Methodology

Desk review

- Review available information (e.g., statistics, gender analysis, documents of previous projects) in the project area and the socioeconomic profile of the target population.
- Review the relevant legal (e.g., inheritance law), policy (e.g., R&R policy), and institutional framework (e.g., current administrative system for land acquisition, compensation disbursement) and their gender implications.

Household surveys

- Draw up gender-disaggregated socioeconomic and cultural profiles and identify the constraints, and needs of the target population.
- Collect quantitative information.

Participatory methodologies (e.g., participatory rapid appraisal, focus group discussions, random interviews, walking tours)

- Collect qualitative information which cannot be collected through surveys.
- Define ways in which men and women beneficiaries and other stakeholders, especially poor women can participate in the project.
- Map out the target areas. Which are the most disadvantaged areas in terms of access to services and poverty level?
- Identify major stakeholder groups and their stake.

Staffing

- Ensure adequate gender balance in field teams.
- Select field team members with gender awareness, local knowledge, cultural understanding, and willingness to listen.

Data to Be Collected

Macro institutional framework

- Gender impact of sector policy; legal and institutional framework.
- Executing agency's capacity and commitment to participatory approaches and gender focus.

Socioeconomic profile

Demographic

- Composition by gender, ethnicity/caste, age, etc.
- In and out migration trend (male and female)

- Percentage of households headed by females
- Household size
- Age at marriage, by gender

Economic

- Income level and sources, by gender
- Expenditure patterns and decision making, by gender
- Land tenure and use, by gender

Health

- Population growth rate
- Infant and maternal mortality rates
- Service availability
- Fertility level and decision making
- Food allocation and nutrition level within households, by gender
- Incidence of domestic violence

Education

- Literacy and school enrollment ratios, by gender
- School dropout ratio, by gender
- Child labor, by gender

Status of women

- Political representation and awareness
- Socio - cultural perceptions and practices of men and women
- Gender-discriminatory policies and laws
- Gender roles and responsibilities
- Broad gender division of labor in productive (e.g., agriculture, income-generating activities) and reproductive (e.g., household chores, child care) responsibilities, and time allocation for each responsibility

Access, control, constraints

- How do men and women differ in their access to and control of land, agricultural inputs, extension, markets, employment opportunities, and credit?
- Is external assistance provided to improve access/control? By whom?

Participation

- What factors affect the level of men's and women's participation?
- What are the incentives and constraints?
- During which season is the demand for labor highest?
- Which modes of participation do men and women favor (e.g., decision making in planning, cash contribution, labor contribution for construction, training, financial management, organizational management)?

Project impact

- Do men and women perceive positive and negative impacts of the project differently?
- Are the benefits likely to be distributed equitably?
- How can negative effects be mitigated?
- Are there any disadvantaged or vulnerable groups?
- Who are they? Where do they live? What are their socioeconomic characteristics?
- How will the project affect these groups?
- *Land acquisition/Resettlement*: Extent of land to be acquired
- What are the gender-specific implications?

Organization

- What is the current level of women's representation in other community decision- making bodies?
- Are there local organizations (e.g., local governments, national NGOs, CBOs, mass organizations) that address women's constraints and needs? How can the project link up with them?
- What mechanisms can be used to ensure women's active participation in project activities?
- What organizations can be used to mobilize and train women in the project activities and livelihood options?
- Incorporate the preferences of community men and women on issues such as: number and location of assets and sharing vs. individual arrangement of assets;
- Highlight women's strengths in mobilizing savings and resources.
- Incorporate the preferences of men and women in the community on:
    - financing arrangement
    - possible preferential treatment for very poor, female-headed and other disadvantaged families
    - credit or community-based revolving funds for women Self-Help Groups (SHGs)

Community participation mechanism

- Develop a *participation strategy* for men and women during project implementation and M & E.
- Avoid overly high expectation of women's participation and develop a practical schedule, as women often have time and financial constraints. The strategy should incorporate the following:
- *Planning:* Conduct women specific consultation to take their views and suggestions on the design. Any mechanism established during the project design such as grievance mechanisms should have adequate representation from women.
- *Construction*: Ensure work conditions that are conducive to women's participation (e.g., gender-equal wage rates, construction season, toilet and child-care facilities).
- *Monitoring and evaluation (M & E)*: Develop a feedback mechanism in which both male and female have a voice. Identify organizations that could facilitate women's participation during implementation and M & E.

Training options

- Identify ways to link up with income-generation, literacy, and other activities to support an integrated approach to poverty reduction and women empowerment
- Support a decentralized structure to allow linkages between the village and local government.
- Include financial and technical capacity building for relevant local government bodies to enable them to effectively support women SHGs.

Staffing, scheduling, procurement, and budgeting

- Hire female project staff.
- Consider seasonal labor demand in scheduling civil works.
- If appropriate, set a minimum percentage of female laborers and prohibit the use of child laborers in the civil works contract.
- Ensure adequate and flexible budgeting to allow a "learning" approach (e.g., training budget, consulting service budget for women's organizations).

Monitoring and evaluation

- Develop M & E arrangements: (i) internal M & E by project staff; (ii) external M & E by NGOs or consultants, as necessary; and (iii) participatory monitoring by beneficiary men and women.

- Disaggregate all relevant indicators by gender such as number of women gaining access to credit, increase in women's income, and career prospects for project trained women.

Documentation

- Document the gender-responsive design features in the sub-project proposals

8 PRELIMINARY ASSESSMENT OF ENVIRONMENTAL & SOCIAL IMPACTS & MITIGATION MEASURES

8.1 Overview

While the project is classified as environmental category B, the overall project outcome is expected to be overwhelmingly beneficial from environmental and social perspectives. However, the risks associated with implementation of project activities inside protected areas, which are areas of ecological sensitivity and of high conservation value, both nationally and internationally, could be high requiring extra diligence. Past experience has shown that when protected area and forest reserve improvement/development activities which may have adverse environmental impacts are undertaken by responsible national agencies, the need to carry out environmental assessments has been overlooked.

This ESMF has been designed to achieve sound environmental and social practice in SRCWPP. The ESMF provides the mechanism to allow program implementation by screening out or enhancing acceptability of sub-project proposals on the basis of environmental criteria. By a simple process of elimination, the first step in the screening process is to identify subproject activities not suitable for funding. All processes described in the ESMF can be adjusted based on implementation experience. The ESMF will be a living document and will be reviewed and updated periodically as needed. It is recommended that the following types of subprojects are not financed and therefore should be considered as a "Negative List":

- Sub-projects that involve the significant conversion or degradation of critical natural habitats such as sensitive ecosystems
- Activities that could lead to invasion or spread of weeds and feral animals or the use of toxic chemicals
- Activities that could dangerously lead to the exposure of sensitive/critical/vulnerable habitats
- Construction of large new infrastructure within protected areas
- Illegal Activities as defined specifically under the Forest Act and Wildlife (preservation) Order of Bangladesh and National Parks and Wildlife Conservation Act, Forest Act and Aquatic Animal Protection Act of Nepal
- Resettlement of people

The following sections of the framework try to identify the possible environmental and social impacts that could arise in each component and how best they could be assessed and addressed during project implementation. Summarized potential environmental and social impact matrix is provided in Annex 8.

8.2 Potential Environmental and Social Impacts and Mitigation Measures - Bangladesh Program

Component 1: Capacity building for addressing the illegal trans-boundary wildlife trade

Sub-component 1.1 Institutional strengthening in wildlife conservation and illegal wildlife trade control: This sub-component has provisions for technical assistance to establish and functionalize the WCCU by providing training, identifying staffing and equipment needs, roles and responsibilities as well as preparing Terms of Reference for staff in WCCU, development of analytical protocols, establishment of operational protocols and the requirements for full CITIES compliance. There is also a possibility of setting up of a basic forensic laboratory as part of WCCU. In addition, as part of the Wildlife Center, four regional Wildlife Recovery and Rehabilitation Centers will be established in Khulna, Sylhet, Dhaka and Chittagong regions with the objective to release recovered species back into the wild after the rehabilitation process.

Environmental & Social Impacts: One of the main adverse environmental impact that is likely to arise due to the siting of the laboratory. In addition, issues related health and safety of staff and surrounding and generation of solid and liquid waste are possible with the establishment of the laboratory. Environmental issues that could arise due to Wildlife Recovery and Rehabilitation Centers include siting and management of such centers where disease outbreaks are possible due to poor sanitary conditions. The implementing agencies will ensure that sites without squatters and encroachers that identified for the purpose in order to avoid any possible involuntary resettlement.

Mitigation Measures: A full-scale EIA should be conducted before establishment of the laboratory, which should be endorsed by the DOE and World Bank. It is recommended that the laboratory is sited away from residential areas, close to surface water/ shallow ground water table and set up in a land with considerable space. The space will allow for the laboratory to run its own waste management system within the grounds avoiding potential contamination while transporting. A robust and efficient solid and liquid waste management system is very crucial to mange on-site contamination, as well as to address other potential issues such as ground water contamination through leaching. A good planning and maintaining system should be developed that assure safety in the laboratory based on occupational health and safety guidelines of IFC[23] and provide adequate safety equipment in handing biological samples and waste. Such system should also include maintenance of records of injuries, process to follow in an event of an injury or contamination and routine safety inspections. It is also recommended that once established the laboratory should obtain nationally/internationally recognized laboratory accreditation with objective standards by which the quality of work produced in forensic laboratories are judged. Participation in such a program is important to demonstrate to the public and to users of laboratory services the laboratory's concern for and commitment to quality.

Prior to identifying specific sites to establish the Wildlife Recovery and Rehabilitation Centers in each region, it is recommended undertake EIAs and obtain approval from the DOE and World Bank. Similar to the laboratory, these centers should be also established away from residential areas. While it is logistically practical to locate the centers closer to the areas of release of recovered animals, precautions should be taken to ensure that there is limited exposure to existing wildlife during recovery and rehabilitation period. There should be adequate land for the movement of animals that will be in the recovery and rehabilitation process and simulation of their natural habitat would benefit and speed-up the rehabilitation period. Proper quarantine protocols should be established in managing the centers including maintenance of hygiene and sanitary conditions and responding to disease outbreaks. There should be

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http://www.ifc.org/ifcext/sustainability.nsf/AttachmentsByTitle/gui_EHSGuidelines2007_GeneralEHS_2/$FILE/2+Occupational+Health+and+Safety.pdf

adequate veterinary facilities within the centers with qualified staff in areas of veterinary and wildlife biology and ecology. Since the animals in the centers would be needed to be provided with their natural diets, a process should be established to plan and extract material from the wild that ensures minimal disruption to the natural ecosystems from where the extractions will take place including to other wildlife that depends upon the same pot of food. Protocols and methodologies should be established on the release of animals back to the wild to reduce any possible harm to the releasing animals and already existing animals in the wild.

If sites with squatters and encroachers are identified the implementing agency will follow the resettlement framework provided in this document.

Sub-component 1.2 Staff capacity building and training toward regional collaboration: This sub-component will facilitate staff capacity building, training and research on wildlife conservation and will not trigger any adverse environmental impacts. In fact, this sub-component will bring about environmentally positive impacts where staff would be adequately skilled to ensure facilities such as forensic laboratory and wildlife recovery and rehabilitation centers are properly managed. Likely social impacts will mainly relate potential project benefits in terms of opportunities for employment and skills enhancement within participating agencies and training opportunities.

Mitigation Measures: The implementing agency should ensure that a transparent process in selecting candidates for new employment and training opportunities will be adopted.

Component 2: Promoting wildlife conservation in South Asia

Sub-component 2.1 Virtual Regional Center of Excellence (VRCE) for wildlife conservation: This component would support the creation of a virtual regional center of excellence (VRCE) for wildlife conservation. The center will be virtual and will have no central location or physical facility. In addition, this sub-component will provide upgrade of library facilities in the Forest Department and the Wildlife Circle and to develop an active knowledge dissemination program. Assessing the nature of activities proposed under this sub-component no negative environmental impacts are envisaged. The Regional Operational Steering Committee will ensure governance of VRCE and with the rotational directorship among participating countries will assure ownership and representation.

Sub-component 2.2 Competitive funding to support the management of protected areas (PAs), forest reserves (FRs) and national forests (NFs) with regional conservation benefits:

Window 1: Conservation, protection and management of protected areas for regional conservation benefits - Priority PAs with interconnected habitats and ecosystems with regional countries will be eligible for accessing funds under this window for activities in conservation, protection and management with regional conservation benefits. Typical activities that would be included in PA management plans and are likely to be included in proposals to Window 1 are: (i) rehabilitation and development of water resources in PAs; (ii) habitat management including control of invasive species; (iii) rehabilitation of existing roads and trails; (iv) improvements in existing park infrastructure; (v) species monitoring and recovery programs; (vi) strengthening enforcement; and (vii) logistical support such as communications equipment, solar PV lighting, water supply and disinfection systems for remote beat offices, forestry and wildlife management equipment, animal handling equipment and supplies, basic office equipment, camping equipment and supplies, four wheel drive pick-ups and motor cycles, and motorized and non motorized boats. Negative environmental impacts are anticipated in activities (i) to (vi) and following are details of the issues and proposed mitigatory measures.

Rehabilitation and development of water resources in PAs

Environmental& Social Impacts: Availability of water inside PAs plays a crucial role in maintaining the balance of plant and animal life in these sensitive ecological zones. Water is generally available in tanks, waterholes or flowing streams/rivers. During the dry season, especially in the dry and arid zones of the countries, water scarcity becomes a huge problem for sustaining life inside PAs. Some tanks/waterholes could dry up completely and as a result large herbivores move out of park boundaries into human territory (especially elephants) in search of food and water, often ending up in the escalation of the human-wildlife conflict. Where water scarcity is a problem during the dry season, PA management plans identify that improvement to water sources is a vital factor for conservation. Hence, some of the activities such as rehabilitation of existing tanks and waterholes, rehabilitation of abandoned tanks and waterholes and development artificial waterholes in places where water shortages become acute may be considered.

A decision to improve/develop water resources within a PA will be based on the respective management plan and a sound technical assessment of the need for such intervention. In the long run, increased water availability will be extremely beneficial in terms of increasing diversity and visitor satisfaction inside PAs and reducing the potential for human-wildlife conflicts outside the PA. Hence, this will have positive impacts on conservation. However, the implementation phase will be associated with certain adverse environmental impacts as improving water sources would involve desilting, excavation and expansion of water bodies requiring both human power and machinery. Environmental impacts may include disturbance to habitats and wildlife populations of conservation importance in the surrounding area due to use of machinery and earth work, noise and dust pollution due to frequent movement of vehicles as well as use of machinery, spread of invasive species from vehicles and material brought into the park from outside, disposal of dredged silt/soil, etc. Other risks may include technical defects that would end up with dry tanks and drawing domestic cattle herds to the site causing other problems.

The development of water resources will be beneficial such as access to water particularly in water scarce areas as well as may pose physical threats due to concentration of wildlife to the communities that may live within PAs/FRs such as IPs. The construction of water bodies may also provide employment opportunities for villagers living in the vicinity.

Mitigation Measures: It is proposed that any new water resource development activities within PAs should be assessed for environmental impacts with an EIA/IEE while rehabilitation of existing water resources such as water holes, lakes etc., will require a site-specific EMP, prior to commencement of implementation. The EIAs (which includes an EMP) and site specific EMPs should include details for mitigating identified adverse environmental impacts and a comprehensive monitoring plan to observe the changes to habitat/species diversity around the water body. Minimal disturbance to the sites should be maintained at all times. The contractors should be supervised adequately either through the BFD staff or through supervisory consultant to ensure the EMPs are implemented in all stages of the works.

All attempts should be made for equal distributions of employment opportunities among interested parties in the community in relation to construction work. Providing wide publicity to these opportunities in order to inform all interested parties to apply for such positions would be useful for ensuring equal opportunities. Adequate protection to the villages if located within PAs/FRs should be provided to reduce any potential long-term impacts due to regular convergence of animals in water holes closer to villagers.

Habitat management including control of invasive species

Environmental Impacts: While habitat management is beneficial to the wildlife, particularly when area covering PAs is limited, it also can become detrimental to certain species that are dependent on the existing habitats. Biological invasions come about when a species is introduced to an area (or ecosystem) to which it is not native and when it establishes there, spreads and causes damage to biodiversity. The

species causing the problem is then called an invasive species (or invasive alien species). Existence of invasive species is an indication of degraded habitat. However, control of invasive species, particularly invasive flora has always being a challenge and requires careful planning, implementation and long-term management in order to avoid spread in other areas and to benefit from any removal activities.

Mitigation Measures: Habitat management activities should be undertaken with some understanding of the ecological functions of a given habitat. If there are degraded habitats and restoration is needed, restoration measures should attempt to re-establish the dynamics of habitat forming processes that naturally create and maintain habitats, rather than implanting habitat structures at in appropriate or unsustainable locations. Restoration/habitat management tasks should initiate or accelerate natural processes. Areas that require minor alterations and maximize ecosystem functions and processes offer a high certainty of outcomes and may be more cost-effective and self-sustaining. Where some artificial manipulation maybe required, the best ecological practices should be applied using all available ecological knowledge and which shall promote the acceleration of natural processes. Management should be related to agreed objectives of the protected area – such as removal of all alien species, restoration of damaged habitats or ecosystems, or careful observation of alien species for possible invasive traits. Management of invading species is possible through mechanical means, chemical means (if allowable in the PA concerned) or biological control – or a combination of these three main methods, termed "integrated management". Details of methods of management for particular species or types of invasions are readily available once the species has been identified. Following are some links that would be useful in planning these types of activities:

- The IUCN World Commission on Protected Areas (WCPA) has been promoting the concept of management effectiveness as a way of ensuring good practice in protected areas to achieve the results intended by a PA management plan. One of the resolutions of the World Parks Congress in 2003 was to include invasive species issues in management effectiveness as a matter of course and to assess and manage this threat to biodiversity. To date WCPA has been preparing details of how this will work and to support this with guidelines and information – which should be available soon.
- The Nature Conservancy (TNC) has prepared a set of guidelines for addressing biological invasions in protected areas: "Assessing and Managing Invasive Species within Protected Areas. A Quick Guide for Protected Area Practitioners" available at http://www.cbd.int/invasive/doc/ias-tnc-guide-2009-en.pdf as well as on http://www.gisp.org/
- Much useful information is available on the website of the Global Invasive Species Programme http://www.gisp.org/ and detailed information on many potentially invasive species on the Global Invasive Species Database to be found on http://ww.issg.org/

An EIA with a comprehensive management and monitoring plan (for long-term monitoring) will be needed to ensure that great care is exercised when undertaking habitat management and dealing with invasive species within the PAs. Maintaining habitat quality subsequent to the removal of invasive species from a particular area is of utmost importance. Removal of invasive species within the country and the region and successes/failures recorded from these experiences should be well taken into account.

If a given PA has a potential to attract invasive species, it would be beneficial to develop an invasive species management program that take the following solutions into account:

- Awareness –the first requirement is to be aware of the likelihood of biological invasion in any protected areas. This is significant and has been shown to be amongst the greatest threats to the integrity of biodiversity in protected areas, if not the greatest threat. Awareness can be spread to all who work in a protected area so that any staff (or even visitors) may contribute to the noting of "new or unusual" species. Awareness can be enhanced by the availability of guides for recognition of alien species, those that can become invasive and their management.

- Recognition – this requires some capacity for "seeing" species that are not part of the resident vegetation or fauna and then access to information to take this further to identification. Many protected areas have resident biologists or ecologists or they occur with a PA network. Following identification is the need for an assessment of the risk that any new species may pose to the biodiversity of the area. This is possible with general information that is available in the literature and on the internet but still need to develop local inventories and guides for particular ecosystems and country.
- Prevention, pathways – It is likely that alien species will enter (or be introduced to) a protected area along the pathways mentioned above – or through others that are special to a particular PA. Prevention related to pathways is carried out by preventing any new species, or species judged to be unwanted (see below), from establishing in the PA. If the species is a plant, it can be removed on first recording by uprooting all individuals and destroying them, preferably before the species flowers or sets seed that may develop into a seed bank that will germinate later and enhance spread. If the new species is an animal, some means of preventing its establishment should be carried out a soon as possible – again, to prevent its possibility of reproducing and becoming too numerous to prevent invasion.
- Prevention, unwanted species and known invasive pests and weeds – a list of likely invasive species that are already present nearby or in the country or region can be prepared – including known pests and weeds that are considered a risk to the protected area. Then any species detected that is on that list can be eliminated from the protected area as soon as it is detected without need for further identification or risk assessment.
- Rapid responses – if prevention has not been possible and an alien species judged to be a risk to biodiversity has established in the area, the next most effective procedure is to move as quickly as possible to prevent its continued reproduction and later spread. Action at this stage to eradicate or remove a risky species is far less expensive than "waiting to see" if it becomes a problem – by which time expensive management may be needed. Rapid response is the capacity to act quickly based on correct technical information and risk assessment – action that can prevent invasion.
- Containment – if the rapid response has not been possible and a foreign species begins to spread, it may be possible to curtail that spread through some form of containment – to reduce the likelihood of the spread of propagules (seeds, plant parts, bulbs, corms, eggs, larvae, other immature stages of animals or those stages of the new plant or animal most likely to move to other places).
- Management in response to desired objectives – if prevention, rapid response or containment have not been possible or were not effective and a biological invasion has become established, then management is required to remove the threat to biodiversity. This has been discussed in detail in earlier part of this section.
- Capacity building – an essential part of invasive species prevention and management in protected areas is the capacity to understand the issue, to recognize non-native species or unusual growths of native (but unexpected) species, to be able to respond by quick action or eventual management to retain the integrity of the biodiversity of a protected area. Capacity building in this area is possible through projects devoted to that end and through training courses offered by such organizations as the Global Invasive Species Programme. Self training is also possible through many internet websites and familiarity with species likely to cause biological invasions can be developed through the many databases of invasive species information on the web.

Improvements in existing park infrastructure

Environmental & Social Impacts: Improvement in existing park infrastructure may include improvements to the road network and construction of small buildings such as guard posts, range offices, staff quarters, visitor facilities, etc. Possible interventions on road network could include road widening, clearing and resurfacing with gravel, or in some cases developing new tracks. While better accessibility within the

park will serve well in the long run for monitoring, patrolling and visitor satisfaction, care has to be exercised during implementation not to cause any ecological damage. Transportation of material and vehicles from outside the park may pose the threat of introducing invasive species, noise and pollution associated with road work and the resultant disturbance to animals, loss of plants including ones that are of conservation value, burning of uprooted vegetation are some of the factors that will need to be carefully considered. Extraction of raw material for construction such as gravel, sand, etc. within the PA could also take place creating further disturbance to the ecosystem including contributing to habitat degradation. Also, most importantly, one of the major risks would be the possibility of increased wildlife poaching during construction. The siting of ranger offices, staff quarters, visitor facilities, etc. is crucial and has potential to disturb wildlife if the site selection is not done properly. For example, there would be certain species of wild animals that migrate within or among PAs for foraging and establishing building in such migratory paths may affect the wildlife. Issues that may arise during the construction of the buildings are similar to road network improvements related issues discussed earlier. With improvement of park infrastructure, likelihood of increase in visitation would be high. Studies should be undertaken to ascertain the carrying capacity of PAs and PAs should be zoned to include areas open to visitation and areas closed to unsupervised visitation. Unmanaged visitation beyond the carrying capacity of the park will be also detrimental to these sensitive ecosystems.

Improvements to park infrastructure are likely to improve visitations to the parks by local and foreign tourists. This will undoubtedly have positive and negative impacts on local communities. A positive impact would be an improved market for the villagers' products. For example, cultivated 'fresh' vegetables and fruits are a popular item bought by local tourists. Likewise, small boutiques for the sale of refreshments for tourists or handicrafts would also improve income generation for community members. A negative impact of improved visitations by tourists will be the impact it can have on local culture. Some of these potential impacts can be subtle impacts such as those on local attitudes, consumption patterns and fashion. Others may be the more obvious and serious impacts such as the abuse of drugs, changes in relationship patterns that may pose threats of STDs such as HIV/AIDS and the use of child labor to improve profits.

Mitigation measures: All activities within a PA should be undertaken with adequate measures to reduce disturbance to the ecosystem. New infrastructure should be located in areas that are least sensitive to the wildlife and the land. The type of environmental assessment to be done will depend on the type of road development intervention proposed. While new roads within parks will need a thorough assessment such as an EIA/IEE, an EMP would suffice for rehabilitation of existing roads. For construction of small buildings such as range offices, staff quarters, visitor facilities, etc. (1) A simple checklist or an EMP, as necessary, would be sufficient to initially screen and assess the sites and on-site environmental impacts. Based on the findings of the Checklist, a decision will be made by IDA whether further detailed environmental assessments is needed or not; (2) If any land filling is required for site preparation such as filling of low lying lands in sensitive sites such as wetlands, a full EIA or a detailed EMP will be a condition for IDA financing, depending on the nature of the site and expected impacts; and (3) In addition, all building constructions and renovations should adhere to existing building and other applicable codes in Bangladesh. Borrow pits and quarries if directly managed by the implementing agency or contractors, should not be established within PAs/RFs and even if located outside should be screened for appropriateness and necessary licenses should be sought. If purchasing from commercial sources, those sources should be also have required licenses. It is recommended that green infrastructure guidelines to be used and the structures blend within the environment they are established. In order to ensure that the contractor is responsible for adherence to the Codes of Practice, the relevant codes (specifications) as well as any safeguard measures highlighted in the checklist should be included in the contract documents.

Mitigations measures on social impacts identified are provided under the section on ecotourism.

Strengthening enforcement

Environmental & Social Impacts: Strengthening enforcement will include improved facilities for increased patrolling to control poaching, logging and illegal fishing and training of staff on enforcement. For such undertakings no adverse impacts are foreseen. Although communities tend to use PA/FR land for cattle grazing, timber felling, extraction of non-timber forest products and poaching, all such activities are prohibited by the legislation governing such land, except in places identified and released for such activities. With likely proposals to strengthen enforcement in PAs and FRs, there is a good chance that strengthened enforcement and management will result in curbing such activities that will result in livelihood impacts on communities involved in such illegal activities.

Mitigation measures: Prior to developing specific interventions, the implementing agencies should identify any livelihood impacts and propose possible alternatives for affected parties in consultation with them and conduct a SIA. Enforcement activities may involve provision of roads for proper patrolling, fire prevention, anti-poaching activities. Care should be taken to restrict access to such roads to authorized personnel only.

Logistical support such as communications equipment, solar PV lighting, water supply and disinfection systems for remote beat offices, forestry and wildlife management equipment, animal handling equipment and supplies, basic office equipment, camping equipment and supplies, four wheel drive pick-ups and motor cycles, and motorized and non motorized boats would not have any adverse impacts.

Window 2: Innovative pilot projects with a regional dimensions – This window has been established for supporting innovative pilot projects with a regional dimension focusing on human wildlife conflict management and ecotourism.

Species monitoring and recovery programs

Environmental Impacts: Species monitoring and recovery programs will be environmentally extremely beneficial. However, there is potential to create issues both within species and different species such as increased completion for space and food if recovery efforts are not managed properly.

Mitigation measures: Species do not live in a vacuum. They interact with, depend upon, or affect other species and their environments. Understanding the interactions between species and their ecosystems is fundamental to recovery planning. Following are some key elements that should be incorporated within recovery planning:

(1) an assessment of the status of the species or stock and its essential habitat;
(2) a description of the nature, magnitude, and causes of any population declines or loss of essential habitat;
(3) an assessment of existing and possible threats to the species and its habitat; (4) a discussion of critical information gaps;
(4) a description and discussion of research and management that could be undertaken to meet the objectives of the plan; and
(5) a schedule for implementing the research and management actions identified in the plan.

An understanding of recovery needs should be based on a "rapid assessment" of the current status of the species, including *range-wide* assessments of the (1) biological, (2) threats, and (3) conservation information contained in the listing package *from a recovery perspective*. Rather than repeating the listing information, these assessments should *interpret* this information with respect to recovery, and assumptions should be made explicit.

Human-wildlife conflict management

Environmental & Social Impacts: It is proposed that pilot projects will be developed to address Tiger-Human Conflict (THC) and Human-Elephant Conflict (HEC) and developing and adopting incentives mechanisms. At this point of time, the types of interventions in terms of pilots are not known. Failure of the pilots is unlikely to lead to any adverse environmental impacts that are not already present. The areas suggested for the pilots are to be implemented are areas with very high THC/HEC at present and any intervention can only improve the situation. Potential social impacts of activities that may take place to manage human-wildlife conflicts are likely to be on livelihood patterns of community members as the pilots on human-elephant conflict may attempt to changes to land use practices of local communities. Whereas, in managing tiger human conflict, the likely issues that may arise are due to safety of community members selected to participate in immobilization and containment during tiger attacks.

Mitigation Measures: Based on the proposed pilots using the checklist, presence or absence of negative environmental impacts will be identified. For example, traditional approaches to management of particularly HEC have been translocations, drives and electric fences on administrative boundaries of PAs. This approach has led to exceeding the elephant carrying capacity of PAs resulting in damage to the vegetation in PAs. Whereas the pilots may involve electric fencing on the ecological boundaries, boundaries of villages and permanent agriculture, creating larger habitats for the elephants would reduce the stresses on elephants and pressure on the environment. Project funds, however, would not be used to fund translocations and elephant drives which have had limited success in terms of sustainability and are ethically controversial as well as have adverse impacts on elephant populations. Therefore no significant or irreversible adverse environmental impacts are likely under this component, as the only physical intervention will be the construction of electric fences with concrete fence posts. There will be no clearing of forests for erection of these fences.

The Resettlement Policy Framework outlines the process whereby stakeholder consultations with communities, who are affected by HEC and THC, should be an integral part of developing pilot projects. Stakeholder consultations can reduce or eliminate any disparities that may exist between research findings and real-life experiences – and research into IPs supposedly more harmonious coexistence with wildlife would also be very valuable for developing suitable pilots. Since the local communities are the major stakeholder (and victim) in the THC and HEC, their views and perceptions on resolving the issues are essential. Consultations with community members must also discuss the impacts the project is likely to have on their land use patterns and livelihoods derived from the PAs. The community can also be given the opportunity to suggest solutions for their problems as well. Land acquisition or forced resettlement of individuals will not be approved or supported under the project because this is contrary to the basic premise of the human-wildlife co-existence models piloted under the project. An independent committee inclusive of representatives of affected communities should be responsible of managing the compensation program. The establishment of local-level GRCs to handle any grievances is also necessary to ensure equitable opportunities and benefits from the project to the affected communities.

Ecotourism development

Environmental & Social Impacts: Numerous examples from places as diverse as Namibia to Australia have demonstrated that ecotourism can be used as a tool for turning wildlife from a liability to an economic asset that creates a powerful constituency in support of conservation. South Asia with its immense endowment of rare and charismatic species and unique ecosystems has much to offer by way of ecotourism potential. Structural development within PAs and their buffer zones if highly intrusive and poorly planned could cause damage to the ecosystem and scenic landscape. As highlighted under the park infrastructure development, ecotourism development could increase visitation to PAs beyond their carrying capacities contributing towards degrading natural habitats and disturbing the wildlife. Examples

of issues include air and noise pollution due to vehicles, solid waste and littering, trampling, tourism leisure activities, etc. For example, wildlife viewing can bring about stress for the animals and alter their natural behavior when tourists come too close. Safaris and wildlife watching activities have a degrading effect on habitat as they often are accompanied by the noise and commotion created by tourists as they chase wild animals in their vehicles. This puts high pressure on animal habits and behaviors and tends to bring about behavioral changes. In some cases, as in Kenya, it has led to animals becoming so disturbed that at times they neglect their young or fail to mate

Attractive landscape sites, such as sandy beaches, lakes, riversides, and mountain tops and slopes, are often transitional zones, characterized by species-rich ecosystems. Physical impacts are caused not only by tourism-related land clearing and construction, but by continuing tourist activities and long-term changes in local economies and ecologies.

The development of tourism facilities such as accommodation, water supplies, restaurants and recreation facilities can involve sand mining, beach and sand dune erosion, soil erosion and extensive paving. In addition, improper siting can lead to land degradation and loss of wildlife habitats and deterioration of scenery. Wetlands are often drained and filled due to lack of more suitable sites for construction of tourism facilities and infrastructure. These activities can cause severe disturbance and erosion of the local ecosystem, even destruction in the long term. Furthermore, extraction of building materials such as sand affects hinterland forests, leading to erosion and destruction of habitats.

One of the likely social impacts of this component will mainly relate to access to potential project benefits in terms of opportunities for skills enhancement in tourism related employment to stakeholders. Tourist visitations to some PAs/FRs appear to have exceeded the carrying capacity of the PA/FR and if so, this is detrimental to the ecosystem in the PA/FR. The project is expected to support studies that would be useful for figuring out the optimum number of visitors to identified PAs/FRs and help implementing agencies implement such programs. Just as over visitation may cause damage to the ecosystem, limited visitations would inhibit individuals' full capacity to generate an income through tourism-related employment. Striking a balance between these two is imperative in order to sustain tourism opportunities and to attract locals towards such employment possibilities.

Tourists, especially foreigners, may be perceived to possess lack of respect for local cultures and practices if they are not made aware of these aspects of local communities. Harassment of foreign tourists is also a possibility in a situation where the influx of tourists increases to an area.

At the same time, the local community needs to be made aware of the sexual risks that are usually associated with tourism. Risks of pedophilia and STDs such as HIV/AIDS in areas where tourism is currently a flourishing industry are some examples. Provision of sexual services to foreigners is currently an industry engaged in by poor and marginalized individuals living in areas where tourism is a major attraction. Communities must be made aware of these possibilities in order to protect themselves against such threats.

Drug addiction through associations with tourists may also be of concern for communities. Although the abuse of drugs such as marijuana may be high among adults in the communities the introduction of foreign drugs, particularly to the young, may pose a threat to the communities. The proposed project must pay careful attention to these possibilities because the negative impacts involved here can cause long term social problems that can affect people in general.

Mitigation Measures: Experience suggests that great caution must be exercised in the design of ecotourism development to ensure that they contribute to conservation and do not degrade the habitats upon which they depend. While at this point of time, the type of activities that will be put forward for

funding are not known, some of the likely developments within PAs that require environmental due diligence are listed below:

- New visitor centers - an IEE or a detailed EMP to be prepared, depending on the location of the center, type and extent of work involved, prior to construction taking construction material sourcing and issues that arise at operational phases (discussed in an earlier section) and completion of works into consideration.
- Renovation of existing visitor centers and visitor accommodation – a simple EMP to be completed prior to civil works focused mainly on operation and completion phases
- Development of nature trails, picnic/camp, sites tree-top canopy walks, construction of observatory for bird watching - an EMP will be prepared for these activities prior to commencement of construction. Site selection for such activities should be done with great care particularly ensuring minimal disturbance to wildlife and their habitats. Development of water sports in water bodies within PAs such as boating, rafting and kayak safari may have little impact if done adhering to good practices. Non-motorized transportation should be promoted as much as possible. Hence, for such interventions specific guidelines of environmental best practices will be written and strictly implemented.
- Establishment of recreation zones – EIA or EMP, as appropriate, depending on the nature of proposed intervention.

All constructions within PAs should be aesthetically pleasing and environmentally benign as much as possible. Based on the findings of assessments mentioned above, a decision would be taken whether further analysis is needed or not. In addition, the country would also benefit to develop green infrastructure guidelines for locating and developing ecotourism that should be used by the tourist industries.

The implementing agencies should develop a priority list of who should be given ecotourism-related training opportunities based on the roles and responsibilities of staff and also their existing capacities. The employment opportunities for communities must have an in-built mechanism of compensating for the limitations such as the approval to sell goods and services at a higher price and to engage in mobile sales, etc. The project can support such awareness creation among the tourism operators and park visitors. Likewise, the mobile sale of goods and services, for example taking cut fruits for sale to visitors, near the park entrance may be encouraged, with proper authorization from the respective departments. However, authorization should be based on a transparent and competitive basis. Such vendors should be regulated and monitored in order to secure the interests of tourists. For example, mobile sale of goods and services must be restricted to certain areas and should not be allowed in areas where tourists relax.

The tourists may need to be made aware of proper attire, traditional village beliefs about forests and wild life in order to avail such difficult situations which may even put them at risk. In such situations of harassments the harassed individuals can call up the tourism hotline based in the site or the nearest police station. Details of relevant authorities and their contact details to respond to such events should be readily available at all times.

It is also recommended that awareness campaigns be organized for the communities in order to inform them of the likely positive and negative impacts of tourism and ways in which they can prevent the negative impacts. These awareness campaigns must use local school principals, teachers and religious leaders as resource persons to get a strong message across to the children and youth in the area. These individuals can also be encouraged to conduct similar awareness programs for the community in schools and during religious activities. This would ensure sustainability of knowledge passed through the awareness programs. CBOs can also play a useful role in organizing these awareness programs. Professional groups such as lawyers and doctors can also be used as resource persons in these campaigns.

Awareness campaigns should be conducted in the main medium of communication in the respective areas with leaflets containing the same information printed in other languages (including English).

Component 3: Project coordination and communications

This involves a national and regional coordination of project activities and a communication plan to meet local challenges while respecting the overall regional nature of the project. No adverse environmental and social impacts are anticipated through this component.

8.3 Potential Environmental Impacts and Mitigation Measures - Nepal Program

Component 1: Capacity building and cooperation for addressing the illegal trans-boundary wildlife trade

Sub-component 1.1 Institutional strengthening in wildlife conservation and illegal wildlife trade control: The project will support a critical review and revision of the legislative framework and strengthening crucial aspects of institutions responsible for wildlife management and illegal wildlife trade control under this sub-component and following are some of the key activities proposed: (1) the establishment of WCCB and assist in obtaining the required specialization and develop expertise in management of national and cross border wildlife crime; (2) technical assistance for dedicated wildlife crime units to be established in the Customs Department; (3) establishment of a Forensics Section and basic forensic laboratory under the WCCB; and (4) renovation and securing of the building where the wildlife stockpiles are presently located including provision of preservation material and equipment for ensuring the safe storage of the stockpiles.

Environmental Impacts: Similar to the Bangladesh program negative environmental impacts are envisaged in setting up of and managing the forensic laboratory. In addition, the renovation and securing of the building for wildlife stockpiles could have some minor implications in managing the storage facility.

Mitigation Measures: As proposed for the Bangladesh program an EIA may needed to be conducted before establishment of the laboratory, which should be endorsed by the Ministry of Forest and Soil Conservation and World Bank. All mitigation measures presented in section 5.2, sub-component 1.1 related to the forensic laboratory will be applicable for the forensic laboratory in Nepal.

While an EMP is sufficient for the renovation and securing of the building where the wildlife stockpiles are presently located, guidelines should be developed to manage the storage facility including handling preservation material and equipment avoiding safety and security issues. Mechanism should be also in place to manage solid and liquid waste and such waste are not disposed in a manner that could pollute and contaminate the surrounding environment.

Sub-component 1.2 Staff capacity building and training toward regional collaboration: By the nature of activities proposed under this sub-component, there will be no environmental impacts foreseen. However, issues may also arise based on how potential project benefits in terms of opportunities for employment and skills enhancement within participating agencies and training opportunities.

Mitigation Measures: The implementing agency should ensure that a transparent process in selecting candidates for new employment and training opportunities will be adopted.

Component 2: Promoting wildlife conservation in South Asia

Sub-component 2.1 Virtual Regional Center of Excellence (VRCE) for wildlife conservation: This sub-component is also similar to Sub-component 2.1 of Bangladesh program and activities proposed will not lead to any negative or social environmental impacts.

Sub-component 2.2: PA, Forest Reserve (FR) and National Forest (NF) management with regional conservation benefits

Window 2: Innovative pilot projects with a regional dimension – This window also propose similar activities as highlighted in the Bangladesh program and will adopt the same mitigations measure to address all negative environmental and social impacts that would arise during implementation.

Component 3: Project coordination and communication

Similar to Bangladesh Component 3, this involves a national and regional coordination of project activities and possibly a communication plan to meet local challenges while respecting the overall regional nature of the project. No adverse environmental and social impacts are anticipated through this component.

9. PLANNING, IMPLEMENTATION & MONITORING ARRAGEMENTS FOR ENVIRONMENTAL AND SOCIAL SAFEGUARDS MANAGEMENT

9.1 Planning, Implementation and Monitoring Arrangements for ESMF

9.1.1 Bangladesh Program

The Wildlife Circle, supported by the PIU, will be responsible for implementing the ESMF, conducting the overall monitoring of the Project's environmental safeguard activities and ensuring the proposed activities are in compliance with the ESMF. Wildlife Circle will ensure that their team has at least two members assigned to supervising, developing necessary documentation (i.e. IEEs, EAs, PSIAs, EMPs, etc.), monitoring and reporting on environmental and social safeguards.

All activities that involve physical interventions on the ground will be screened using environmental and social checklists (Annexes 1 and 5). The division/circle of the Bangladesh Forests Department proposing the activity will prepare the checklists. The Wildlife Center environment specialists will recommend the type of EA needed upon review of the checklist. Given that one of the goals of this project is building the capacity of Bangladesh institutions for wildlife conservation, a consultant will work with a Forest Department staff member (training them) to review the screening checklists and EA or IEE of proposed sub-projects.

Establishing the forensic laboratory and four Wildlife Recovery and Rehabilitation Centers that may be located outside PAs are required to follow environmental regulations of Bangladesh and also have to comply with OP 4.01 of the World Bank Safeguard Policies. All other activities under each component, sub-component and window that will require environmental analysis should comply with OP 4.01 of the World Bank Safeguard Policies. Any activity that will fall within PAs, undeclared natural habitat will also strictly follow the OP 4.04 World Bank Safeguard Policy.

The Department of Environment (DOE) will review and approve the ESMF as a whole. Since sub-projects are not likely to fall in any ECR 1997 category, sub-projects do not require individual DOE clearance, however the World Bank and the Regional Technical Committee will review sub-project proposals.

Any new interventions in PAs will require Environmental Assessment and EMP. In contrast, any minor rehabilitation or repairs on existing facilities (like water reservoir, walkway, etc.) in PAs will only require screening and EMPs. However, all interventions in PAs will require environmental review and clearance from the World Bank because of the ecological sensitivity of PAs. In addition, the PIU/FD will consult with the DOE on any proposed activities in Ecologically Critical Areas (i.e. buffer zones for PAs) as soon as they are known well before such activities begin.

Any civil works must include construction guidelines or other pertinent environmental guidance in bidding documents for contractors such as those contained in Annex 4 of this document. New physical interventions, such as the Wildlife Center training facility construction under sub-component 1.1, will require EA. Environmental impacts from small-scale construction, upgrading or refurbishing activities outside of PAs can be managed through screening, application of construction guidelines and the development and application of an EMP.

In order to ensure potential social issues including possible resettlements, impacts on IPs and effects on livelihoods will be managed through Bank's OP 4.12 and 4.10. Based on the information generated through the social checklist and the guidance of the framework, Wildlife Circle will make the decision, with the concurrence of the Bank, on what actions are to be taken to ensure social safeguards compliance. The PIU will be responsible for preparing the TORs for EA and EMP and for carrying out the assessments (with or without public consultation as the need may be) with World Bank concurrence. The PIU will formally submit the IEE/EA and EMP for the Regional Committee's concurrence and then the World Bank's no objection through Wildlife Circle. The EAs, EMPs or checklists will be formally approved by the World Bank prior to disbursements for the specific activities. Component 2.2 proposals will all need to submit an environmental screening (i.e. the checklist) form, IEE and EMP. If a proposal requires a full-scale assessment, this can be conducted if and when the proposal is accepted into the Project. Similarly the Wildlife Center training facility construction (under sub-component 1.1) will require an IEE. Once the project is approved and implemented, monitoring of implementation progress of each sub-project will be carried out periodically by the Wildlife Circle, and World Bank. The PIU will monitor the project and submit monitoring reports to the World Bank.

9.2 Stakeholder Consultation and Disclosure

Stakeholders for this project include communities in the buffer areas of PAs, government department staff, entities such as Wildlife Circle and NTNC, an active environmental conservation NGO lobby, wildlife enthusiasts and private sector involved with ecotourism. In keeping with consultation requirements with Category B projects, the project will require to conduct extensive consultations with the stakeholder groups as part of project implementation in order to obtain a wide spectrum of views, ideas and concerns about conservation priorities in the participating country. In addition, during implementation the relevant agencies will need to consult with such groups as necessary to address mandatory EA-related issues that affect them.

As this is a category B project, the ESMF has to be disclosed to the public. A soft copy of the framework has been posted on the websites of the key implementing agencies, Wildlife Circle and NTNC. Hard copies have been made available in the two agencies for review by interested sections of the public and will be placed at appropriate localities once specific sites are identified for project interventions. The framework will also be made available at World Bank's public information centre in accordance with the BP 17.50 requirements of disclosure. The implementing agencies, will organize special workshops, if needed, to evince feedback, and these should be incorporated into the project implementation. All EIAs/IEEs/PSIAs/RPs/IPPs that will be prepared by the project once it is effective shall also adhere to this disclosure policy.

9.3 Capacity Building and Training

9.3.1 Capacity Assessment of Bangladesh Institutions to Implement ESMF

In Bangladesh, the concept of EIA in the country is about 10 years old. Even now with stringent laws in place regarding compliance on EIA, it is not widely practiced and the tendency is to circumvent it in any kind of infrastructure development although it is mandatory for certain categories of constructions, particularly industries. The FD has traditionally not conducted any EIA so far. However, as per law of the land certain categories of infrastructures would definitely require EIA and environmental clearance from the DOE irrespective of whether the land is private or public. Lack of prior experience means, that the capacity to undertake EAs for project activities as mandated in this ESMF will be very limited in FD. This same analysis will be also applicable for Wildlife Circle. However, the capacity to implement social safeguards requirements is limited within the FD and Wildlife Circle.

9.3.2 Capacity Assessment of Nepal Institutions to Implement EAMF

According to a recent assessment conducted by ADB, neither MOEST nor the other sector agencies including MOFSC are staffed to monitor and enforce current EIA rules and regulations[24]. Most government agencies lack adequate resources to effectively address environmental risks and environmental protection. There are multiple agencies and institutions at the central level that have a role in environmental management, but there is no single authority to ensure implementation and enforcement of environmental rules and regulations. MOEST focuses on setting standards and does not have an entity or line agency to enforce environmental rules and regulations, implement policy, coordinate among the various sectors, develop public awareness, and collaborate with other line ministries and stakeholders at all levels. Part of the systemic problem is the lack of an environmental professional group or track within the civil service system. In addition, the capacity to implement social safeguards requirements of this framework is limited within MOEST, although there may be some capacity to manage social requirements of buffer zone stakeholders.

9.3.3 Capacity Building and Training

Based on the above assessment, the implementing agencies of the project may need assistance in terms of training to comply with the EA/SIA requirements according to the ESMF with dedicated staffing for environmental safeguards and social safeguards. The project will provide the required training and technical assistance, if needed to ensure that the safeguards of the project are effectively undertaken. Attention will be paid to strengthen EA/SIA monitoring within the implementing agencies of Bangladesh and Nepal, Wildlife Circle and NTNC. Wildlife Circle and NTNC in consultation with relevant implementing agencies should conduct a capacity needs assessment (process is provided in Annex 9) and make arrangements to provide training on ESMF requirements and conducting, managing and monitoring EAs/SIA during year 1 of project implementation. In addition, Annex 10 (a) and (b) provide the TOR for social development officer and environmental officer, if additional staffing is required to be included within the implementing agencies based on the capacity needs assessment.

[24] ADB, 2008. Federal Democratic Republic of Nepal: Strengthening Capacity for Managing Climate Change and the Environment. Technical Assistance Report, Project No. 40545. Capacity Development Technical Assistance. Manila.

Annex 1 - Environmental Checklist

Title of sub-project/activity:
Brief description of the sub-project/activity:
Location:

INTRODUCTION				
1	Does the site /project require any;	**Yes**	**No**	**If yes, give the extent in ha**
	Reclamation of land/wetland	☐	☐	
	Clearing of forest	☐	☐	
	Felling of trees	☐	☐	
2	Distance from coastline (m) (high water mark)			
3	Minimum land area required for the proposed development (based on urban guidelines) (ha)			
4	Available total land area within the identified location (ha)			
5	Expected construction period (for infrastructure projects)			
6	Anticipated Date of Completion			
7	Present Land Ownership	State ☐	Private ☐	Other (specify)
8	Total approximate Cost of the Project			

DESCRIPTION OF THE ENVIRONMENT					
PHYSICAL					
9	Topography & Landforms (map): Attach an extract from relevant 1: 50,000 topographic sheet/ if detailed maps are available provide them. If this information is unavailable, please describe the location.				
10	Relief (difference in elevation)	Low <20m ☐	Medium 20-40m ☐	High 40-60 ☐	>60m ☐
11	Slope	Low <30% ☐	Medium 30-40 % ☐	High 40-60 % ☐	Very High > 60% ☐
12	Position on Slope	Bottom ☐	Mid-slope ☐	Upper-slope ☐	
13	Soil Type				
14	Depth of top soil	Shallow < 20cm ☐	Moderate 20 – 100 cm ☐	Deep >100cm ☐	
15	Soil Erosion (this information will be based on the site and surrounding environment)	Low ☐	Medium ☐	High ☐	
16	Climate	Wet ☐	Dry ☐	Arid ☐	
17	Annual dry period				

DESCRIPTION OF THE ENVIRONMENT						
PHYSICAL						
18	Source of fresh Surface Water	Spring/ canal ☐	Tank/Reservoir ☐	Perennial Stream ☐	Seasonal Stream ☐	None ☐
19	Surface Water Use (at the site and/or surrounding environment)	Domestic ☐	Washing/Bathing ☐	Irrigation ☐	Animal use ☐	Other ☐
20	Surface Water Quality	Poor ☐	Moderate ☐	Good ☐		
21	Ground Water Availability	Dug Well ☐	Tube Well ☐	Other (specify) ☐		
22	Ground Water Use	Domestic ☐	Washing/Bathing ☐	Irrigation ☐	Animal use ☐	Other ☐
23	Ground Water Quality	Poor ☐	Moderate ☐	Good ☐		
24	Incidence of Natural Disasters	Floods ☐	Prolonged droughts ☐	Cyclones/ tidal waves ☐	Other (specify) ☐	
25	Geological Hazards	Landslides ☐	Rock falls ☐	Subsidence ☐	Other (specify) ☐	

ECOLOGICAL						
26	Habitat Types in the Project Site (indicate the approximate % of each habitat type)	Natural forest	degraded forest	natural scrubland	riverine forest	abandoned agricultural land
		marsh	lagoon	estuary	coastal scrub	mangrove
		salt marsh	home-gardens	grassland	degraded scrubland	Other (list)
27	Habitat types within 500m radius from the site periphery (indicate the approximate % of each habitat type)	Natural forest	degraded forest	natural scrubland	riverine forest	abandoned agricultural land
		marsh	lagoon	estuary	coastal scrub	mangrove
		salt marsh	home-gardens	grassland	degraded scrubland	Other (list)

Screening Questions	Yes	No	Scale of impacts			Remarks
			High	Medium	Low	
A. Siting of the Activity / Sub-project						
Are there any environmentally and culturally sensitive areas within the project site and 500 meters from the project boundary?						
• Protected Areas / Forest Reserve	☐	☐	☐	☐	☐	
• Migratory pathways of animals	☐	☐	☐	☐	☐	
• Archeological sites	☐	☐	☐	☐	☐	

Screening Questions	Yes	No	Scale of impacts			Remarks
			High	Medium	Low	
• Wetlands	☐	☐	☐	☐	☐	
• Mangroves strands	☐	☐	☐	☐	☐	
• Estuarine	☐	☐	☐	☐	☐	
• Bufferzone of PAs/FRs	☐	☐	☐	☐	☐	
• Special area for protecting biodiversity	☐	☐	☐	☐	☐	
Are there any plants (endemic and threatened species) of conservation importance within the project site and 500 meters from the project boundary?	☐	☐	☐	☐	☐	
Are there any animals (endemic and threatened species) of conservation importance within the project site and 500 meters from the project boundary?	☐	☐	☐	☐	☐	
B. Potential Environmental Impacts						
Will the activity / sub-project cause						
▪ land disturbance or site clearance?	☐	☐	☐	☐	☐	
▪ negative effects on rare (vulnerable), threatened or endangered species of flora or fauna or their habitat?	☐	☐	☐	☐	☐	
▪ negative effects on designated wetlands?	☐	☐	☐	☐	☐	
▪ spread of invasive plants or animals?	☐	☐	☐	☐	☐	
▪ negative effects on wildlife habitat, populations, corridors or movement?	☐	☐	☐	☐	☐	
▪ negative effects on locally important or valued ecosystems or vegetations?	☐	☐	☐	☐	☐	
▪ destruction of trees and vegetation?	☐	☐	☐	☐	☐	
▪ impact on fish migration and navigation?	☐	☐	☐	☐	☐	
▪ obstruction of natural connection between river and wetlands inside project area or natural drainage	☐	☐	☐	☐	☐	

Screening Questions	Yes	No	Scale of impacts			Remarks
			High	Medium	Low	
system?						
▪ water logging due to inadequate drainage?	☐	☐	☐	☐	☐	
▪ insufficient drainage leading to salinity intrusion?	☐	☐	☐	☐	☐	
▪ negative effects on surface water quality, quantities or flow?	☐	☐	☐	☐	☐	
▪ negative effects on groundwater quality, quantity or movement?	☐	☐	☐	☐	☐	
▪ increased demand of water requirements leading to reduction of water supply for competing uses?	☐	☐	☐	☐	☐	
▪ increase probability of spread of diseases and parasites?	☐	☐	☐	☐	☐	
▪ significant sedimentation or soil erosion or shoreline or riverbank erosion on or off site?	☐	☐	☐	☐	☐	
▪ loss of existing buildings, property, economic livelihood?	☐	☐	☐	☐	☐	
▪ negative impact on soil stability and compactness?	☐	☐	☐	☐	☐	
▪ impacts on sustainability of associated construction waste disposal?	☐	☐	☐	☐	☐	
▪ changes to the land due to material extraction?	☐	☐	☐	☐	☐	
▪ traffic disturbances due to construction material transport and wastes?	☐	☐	☐	☐	☐	
▪ increased noise due to transportation of equipment and construction materials?	☐	☐	☐	☐	☐	
▪ increased noise due to day-to-day construction activities?	☐	☐	☐	☐	☐	

Screening Questions	Yes	No	Scale of impacts			Remarks
			High	Medium	Low	
▪ increased wind-blown dust from material (e.g. fine aggregate) storage areas?	☐	☐	☐	☐	☐	
▪ degradation or disturbance of historical or culturally important sites?	☐	☐	☐	☐	☐	
▪ health and safety issues?	☐	☐	☐	☐	☐	
Will the activity / sub-project require						
▪ setting up of ancillary production facilities?	☐	☐	☐	☐	☐	
▪ significant demands on utilities and services?	☐	☐	☐	☐	☐	
▪ accommodation or service amenities to support the workforce during construction	☐	☐	☐	☐	☐	

Note: Please add any other screening questions relevant to the proposed activity / sub-project. Also provide additional explanation of the responses and/or positive impacts in the remarks column.

Name of the officer completed the form (project proponent)
Designation and contact Information
Overall observation and recommendation
Signature and date

FINAL OBSERVATIONS & RECOMMENDATIONS		
(a)	Does this site require an Initial Environmental Examination/Environmental Impact Assessment (IEE/EIA) or any other Environmental Assessments (EA) under the national regulations and please state the reasons?	
(b)	Although national regulations may not require IEE/EIA at this Site, are there environmental issues which need to be addressed through further environmental investigations and/or EA based on the guidance provided in ESMF? If the answer is "Yes" briefly describe the issues and type of investigations that need to be undertaken.	
(c)	Will this site be abandoned based on the current observations? If yes, please state the reasons.	

FINAL OBSERVATIONS & RECOMMENDATIONS		
(d)	Does the proposed site meet the national urban planning requirements (only applicable for activities outside PAs)? If the answer is "No", what needs to be done to meet these requirements; if the answer is "Yes", has the project site obtained the necessary approvals?	
(e)	In addition to the above issues, please indicate any additional observations, recommendations if any	

Name and Contact Information of the officer who made the final observations and recommendations (PMU)
Signature and Date

Annex 2 – Format of Model IEE

In undertaking IEE study, following are key important activities:

1. Describing Environmental Condition of the Project Area

Collection of baseline information on biophysical, social and economic aspects of the project area is the most important reference for conducting IEE study. The description of environmental settings includes the characteristic of area in which the activity of proposed project would occur and it should cover area affected by all impacts including potential compensation area, and potential area affected by its alternatives. Normally, information is obtained from secondary sources when there is a facility of maintaining database, or other existing documentation, and through field sampling. Collection of baseline data should be designed to satisfy information requirements and should focus on relevant aspects that are likely to be affected by the proposed project. Therefore, the level of detail in this description of study area should be sufficient to convey to readers nature of environmental and social resources condition of the affected areas.

2. Assessing Potential Impact

The "technical heart" of the environmental assessment process involves the prediction of changes over time in various environmental aspects as a result of a proposed project. The prediction of the nature, extent, and magnitude of environmental changes likely to result from a proposed project is aided by various tools and techniques, the choice of which depends upon the impacts of concern, data availability or lack thereof, and the appropriate specificity of quantitative models. However, the choice of the appropriate method for conducting an environmental assessment can only be guided by certain criteria, but no single method will meet all the necessary criteria.

3. Formulating Mitigation Measures

Once the impacts have been analyzed, their significance will be determined, i.e. whether they are acceptable, require mitigation, or are unacceptable. Subsequently, measures will be devised to mitigate anticipated environmental changes and consequential impacts during project implementation and operation, or further reduce the residual environmental changes inherent in the selected project design. They normally include technical, social, and institutional measures to be implemented as integral elements of the project. Examples are sound operating rules of a laboratory to ensure minimum contamination, and installation of dust barriers around a construction project, and adequate drainage system in rehabilitating a small tank.

4. Preparing the Institutional Requirements and Environmental

Monitoring Plan

Environmental management involves the implementation of environmental protection and mitigation measures and monitoring for significant environmental impacts. Environmental protection measures are taken to: (i) mitigate environmental impacts, (ii) provide in-kind compensation for lost environmental resources, or (iii) enhance environmental resources. These measures are usually set out in a plan, which covers all phases of the project from preconstruction through decommissioning, and outlines mitigation and other measures that will be undertaken to ensure compliance with environmental regulations and reduce or eliminate adverse impacts. The basic implementation arrangements should be presented – taking account of the local conditions. Responsibilities for mitigation and monitoring shall be defined

along with arrangements for information flow, and for coordination between agencies responsible for mitigation A plan should specifies who/which agency is responsible for undertaking the mitigating and monitoring measures, e.g., for enforcement of remedial actions, monitoring, training, and financing. A third party may be contracted in case the local authorities' capacity is limited. Institutional strengthening activities may be proposed, including establishment of appropriate organization arrangements; appointment of key staff and consultants; and arrangements for counterpart funding.

Environmental monitoring involves: (i) planning a survey and sampling program for systematic collection of data/information relevant to environmental assessment and project environmental management; (ii) conduct of the survey and sampling program; (iii) analysis of samples and data/information collected, and interpretation of data and information; and (iv) preparation of reports to support environmental management. Environmental monitoring is normally carried out before and during planning to establish baseline data needed for Environmental assessment and evaluating environmental impacts during project implementation. It continues through project operation to detect changes in the key environmental quality parameters, which can be attributed to the project. The results of the monitoring program are used to evaluate the following: (i) extent and severity of the environmental impacts against the predicted impacts; (ii) performance of the environmental protection measures or compliance with pertinent rules and regulations; (iii) trends in impacts; and (iv) overall effectiveness of the project environmental protection measures.

Environmental monitoring should have clear objectives, and the survey and sampling program custom-designed to focus on data/information actually required to meet the objectives. In addition, the design of the monitoring program has to take into account its practicability considering the technical, financial, and management capability of the institutions that will carry out the program and period of monitoring that will be needed to achieve the objectives. The monitoring program should include action or emergency plans so that appropriate action can be taken in the event of adverse monitoring results or trends. It should also be constantly reviewed to make sure that it is effective, and determine when it can be stopped.

Features of an Effective Environmental Monitoring Plan

- Realistic sampling program (temporal and spatial)
- Sampling methods relevant to source
- Collection of quality data
- Comparable new data with other relevant data used in environmental assessment
- Cost-effective data collection
- Quality control in measurement and analysis
- Innovations (e.g., in tracing contaminants and automated stations)
- Appropriate databases
- Multidisciplinary data interpretation to provide useful information
- Reporting for internal management and external checks
- Allowance for, and response to, input from third parties
- Presentation in the public arena (external assessment)

Both the environmental management and monitoring plans need to include who will implement them, when, and where. The capacity of the executing agency, local government, and community organization should be reviewed to identify feasible approach for implementing the plans. The project lifecycle should be taken into account in setting the timing of implementation. For example, plans should environmental mitigation measures should be implemented in the engineering design for the contract documents, and materials to be avoided in procurement, among others. On the other hand, the location for monitoring should be selected based on where the impacts would occur, and the areas to be affected. To ensure that the environmental management and monitoring plans will be implemented, it is necessary to identify the

key management issues to be included as a requirement either as a loan covenant or conditions for implementing the project.

5. Documenting IEE Study

Outline of an IEE Report

- Introduction
- Description of the Project
- Description of the Environment
- Screening of Potential Environmental Impacts and Mitigation Measures
- Institutional Requirements and Environmental Monitoring Plan
- Public Consultation and Information Disclosure
- Findings and Recommendation
- Conclusions

a. Introduction

This section usually includes: (i) purpose of the report, including (a) identification of the project and project proponent; (b) brief description of the nature, size, and location of the project and of its importance to the country; and (c) any other pertinent background information; and (ii) Extent of the IEE study: scope of study, magnitude of effort, person or agency performing the study, and acknowledgement.

b. Description of the Project

Furnish sufficient details to give a brief but clear picture of the following (include only applicable items): (i) type of project; (ii) category of Project; (iii) need for project; (iii) location (use maps showing general location, specific location, and project site); (iv) size or magnitude of operation; (v) proposed schedule for implementation; and (vi) descriptions of the project, including drawings showing project layout, and project components. This information should be of the same type and extent as is included in feasibility reports for proposed projects to give a clear picture of the project and its operations.

c. Description of the Environment

Furnish sufficient information to give a brief but clear picture of the existing environmental resources in the area affected by the project, including the following (to the extent applicable for the specific project):

(i) **Physical Resources***:* atmosphere (e.g. air quality and climate); topography and soils; surface water; groundwater; geology/seismology.

(ii) **Ecological Resources***:* fisheries; aquatic biology; wildlife; forests; rare or endangered species; protected areas; important/sensitive habitats; coastal resources

(iii) **Economic Development:** industries; infrastructure facilities (e.g. water supply, sewerage, flood control); transportation (roads, harbors, airports, and navigation); land use (e.g. dedicated area uses); power sources and transmission; agricultural development, mineral development, and tourism facilities

(iv) **Social and Cultural Resources:** population and communities (e.g. numbers, locations, composition, employment); health facilities; education facilities; socio-economic conditions (e.g. community structure, family structure, social well being); physical or cultural heritage; current use of lands and resources for traditional purposes by Indigenous Peoples; structures or sites that are of historical, archaeological, paleontological, or architectural significance.

d. Potential Environmental Impacts and Mitigation Measures

This section will screen out "no significant impacts" from those with significant adverse impact by reviewing each relevant parameter according to the following factors or operational stages. Mitigation measures, where appropriate, will also be recommended environmental problems due to project location, and related to project design, construction, and operations. Potential environmental enhancement measures and additional considerations will also be covered.

e. Institutional Requirements and Environmental Monitoring Plan

This section should state the impacts to be mitigated, and activities to implement the mitigation measures, including how, when, and where they will be implemented. Institutional arrangements for implementation should be described. The environmental monitoring plan will describe the impacts to be monitored, and when and where monitoring activities will be carried out, and who will carry them out. The environmental management and monitoring costs should also be described.

f. Public Consultation and Information Disclosure

This section will describe the process undertaken to involve the public in project design and recommended measures for continuing public participation; summarize major comments received from beneficiaries, local officials, community leaders, NGOs, and others, and describe how these comments were addressed; list milestones in public involvement such as dates, attendance, and topics of public meetings; list recipients of this document and other project related documents; describe compliance with relevant regulatory requirements for public participation; and summarize other related materials or activities, such as press releases and notifications. This section will provide of summary of information disclosed to date and procedures for future disclosure.

g. Findings and Recommendations

This section will include an evaluation of the screening process and recommendation will be provided whether significant environmental impacts needing further detailed study or EIA. If there is no need for further study, the IEE itself, which at times may need to be supplemented by a special study in view of limited but significant impacts, becomes the completed environmental assessment for the project and no follow-up EIA will be needed. If an EIA is needed, then this section will include a brief terms of reference (TOR) for the needed follow-up EIA, including approximate descriptions of work tasks, professional skills required, time required, and estimated costs.

h. Conclusions

This section will discuss the result of the IEE and justification, if any, of the need for additional study or EIA. If an IEE, or an IEE supplemented by a special study, is sufficient for the project, then the IEE with the recommended institutional and monitoring program becomes the completed EIA.

Annex 3 - Model Terms of Reference for EIA

For each EIA that is required based on the environmental checklist/IEE findings and national EIA procedures, Wildlife Center and NTNC should customize the model TOR.

Introduction

[Insert short description of project, component/sub-component, activity/subproject]

Objective

The overall objective of this exercise is the production of an Environmental Impact Assessment (EIA) report including Environmental Management Plan (EMP) for the *[activity/subproject]* to be submitted to *[name of national EIA regulator – if applicable]* and World Bank as part of the application for environmental clearance for the proposed activity/subproject.

The EIA preparation and report must comply with the relevant regulatory requirements of GOB/GON, World Bank Operational Policy (OP) 4.01 and with Environmental Assessment and Management Framework.

Scope of Work

[Insert text based on the findings of the environmental checklist or from IEE recommendations indicating which specific potential adverse environmental impacts, cumulative impacts, sustainability issues, management measures, etc. need to be addressed in the EIA]

Required Activities & Report Sections

1. Sub-project/activity description
   a. Nature and scope of sub-project/activity
   b. Need for sub-project/activity
   c. Location and site description, with maps showing site / location, noting salient environmental attributes
   d. Technical descriptions of key project components, including materials, equipment, machinery and maps or drawings showing their specific locations at the site
   e. Description of pre-construction, construction, post-construction and operation and maintenance and benefit realization activities, including technical details of earthworks, fuel and water use, discharges, wastes, and pollution prevention equipment
   f. Proposed sub-project/activity implementation schedule
   g. Maps as needed to illustrate the general setting of the sub-project/activity and of surrounding areas potentially affected by it. These maps should convey a sense of the basic administrative and bio-social-physical landscape relevant to the sub-project/activity – for example: administrative boundaries, topographical contours, location of surface water bodies, sources of pollution, access, location of habitations and other development, land use, ecologically significant protected areas/forest reserves
2. Relevant Institutional Framework
   a. Document the implications for the sub-project/activity of relevant GOB/BON clearance and permission requirements
   b. Document implications for the sub-project/activity of relevant World bank environmental safeguards

c. Document sub-project/activity-relevant environmental quality standards and regulations (air-water ambient and discharge, health and safety, sensitive area and endangered species protection, land use control, national and World Bank)

3. Environmental baseline description
   a. Determine appropriate boundaries for the potentially impacted area, and for the source area of any potential environment-on-project impacts
   b. Determine environmental components and parameters to be characterized , focusing on those relevant to e.g.
      - Sub-project/activity siting, design, construction, operation, decommissioning and abandonment
      - Sources of effects of potential impacts
      - Existing and proposed infrastructure
      - Quality of life
   c. Ensure that the components/parameters chosen allow characterization of the environment with respect to the following general areas:
      - Physical environment (topography, geology, soil type, seismology, weather, climate, gradients and discharge patterns, ambient noise, hydrology, etc.)
      - Resource quality and exploitation (air/water quality, land use, water abstraction and discharge, fisheries, agriculture, mineral resources and exploitation, etc.)
      - Biological (biodiversity, habitats species, threats, etc.)
4. Assess future without project scenario reflecting expected changes in the baseline environment over sub-project/activity life such as urbanization, infrastructure development, etc.
   a. Develop methodologies to obtain adequate characterization information for each of the identified items within the bounded areas. Methodologies can include secondary data and primary (field) data collection as appropriate
   b. Assemble and analyze information
   c. Prepare written characterization of the baseline environment, likely potential changes during sub-project/activity life
5. Assess the future with project scenario
   a. Screen each preconstruction, construction, operation-phase and abandonment / decommissioning sub-project/activity and each unplanned, accidental, disaster and future event, for its potential beneficial and adverse impacts to each identified environmental component / parameter. Impact significance should be categorized as low, medium or high and beneficial, adverse or neutral/mixed/unknown.
   b. Consider secondary (knock-on) impacts. E.g. if one of sub-project/activity impacts is increased visitation what are the impacts of increased visitation?
   c. Discuss for each potentially significant identified impact whether the impacts is reversible or irreversible, its scale and duration, and any synergy or cumulative effects with other sub-project/activity impacts
6. Identify, devise and describe mitigation measures to
   a. Reduce, offset or compensate to insignificant levels where impacts identified as significant and adverse
   b. Enhance sub-project/activity benefits and other valued environmental components
7. Characterize residual impacts (impacts remaining after implementation of all mitigation measures)
8. Determine cumulative impacts of the sub-project/activity with other current and future activities developments and trends affecting the areas
9. Describe and assess impacts of alternatives to sub-project/activity implementation
   a. Future without project
   b. Alternatives involving e.g. alternative sites, technologies, designs, operation and maintenance practices and/or decommissioning/abandonment activities

c. State the reason(s) for selecting the s sub-project/activity over the alternatives

10. Prepare EMP. For each mitigation measure, EMP must fully document the exact location, schedule, implementation responsibility, methodology, mitigation implementation and operation monitoring and costs.
11. Prepare text for inclusion in bid documents that provide specifications for each mitigation measure to be implemented by contractors during each sub-project/activity stage (pre-construction, construction, operation and abandonment)
12. As an integral part of EMP, prepare a monitoring plan that specifies monitoring activities, through the life of the sub-project/activity to track the impacts of the sub-project/activity including its mitigation measures. Provide monitoring parameters and frequency and monitoring plan cost and institutional arrangements.
13. Indicate the monitoring reporting arrangements and reporting formats, and procedures for corrective action if monitoring shows environmental problems.
14. Public consultation – Include adequate consultation with potentially affected people and other relevant stakeholders in the beginning and at the end in the EIA process, to provide opportunity for them to communicate their views and concerns to the sub-project/activity design. Document the public views and concerns and responses to them as part of the EIA report.

Annex 4 – Social Screening Format

A. General Information

Title of the Subproject:

Site Locality:

Screening Date:

B. Project Related Information

B1 Activities includes: **(described in brief regarding subproject activities)**

B2. Describe existing land use/occupancy of site and surroundings in brief and accordingly draw a free-hand map **(Please use separate sheet)**

C. Socio-economic Information

C1 What are the asset(s) that would be affected due to Subproject Interventions? **Yes or No**

- Land …….
- Physical Structure (dwelling or commercial)……..
- Trees/crops…….
- Natural Resources (Water bodies/ Forest/ Public Pond)….
- Community Resource Property…..
- Others (please specify)….

C2 <u>Land</u>

C.2.1 Ownership of Land: Public/Private……..

C.2.2 Type of Land: Agricultural/ Homestead/ Low Land /Fallow/ Pond/Others
Please specify…….

- Does the subproject require additional land permanently or on a temporary basis?

- Sometimes as part of road/canal/community resource property upgrading interventions, subprojects may require small parcels of land permanently to meet engineering design requirements. In such case what would be the land procurement policy?
  Direct Purchase…Yes/no……; voluntary donation……yes/no…; acquisition …….. Yes/no……?
- To except voluntarily donated land what would be the legal procedure?
- In case of land acquisition, will there be physical and/or economic displacement of people?

C2.3 Is there any **squatter/ encroacher/ leaseholder** residing on public lands? **Yes/ No** and specify type

If yes.

- What would be the total numbers of Affected Families?

- Is there any possibility of physical displacement?

- How will their livelihoods be affected? (example: due to loss of shelter and housing structure, loss of income source, loss of grazing field/ social network/ family bondage etc) Do the affected families have school going children? Yes/no
  If yes,……..how many such children are there?

- Among the affected household, is there any person holding long term lease? Yes/no…… if yes, Land uses for what purpose?....., Till how many years remains out of total leasing period?.....

C3 **Structure (Housing/Commercial)**

C 3.1 Type and total number of Housing structure that would be affected:
C 3.2 Is there any commercial/ business structure that would be affected?
C 3.3 Ownership types of the affected structures: Private/ Leaseholder/squatter/encroacher
Please specify
C 3.4 Is there any tenant identified using the affected structure? Yes/No

C 4. **Trees and Crops**

C 4.1 Is there any tree/plant that might be affected? Yes/no…… Total estimated number by size……?

C 4.2 Is there any social forestry /plantation project that would be affected? Yes/no…….

C 4.3 Is there any common fruit bearing tree that would be affected? Yes/no……
Species……..

C 4.4 Any agricultural land included within the subproject footprint? Yes/no……

If yes, please provide necessary information regarding productivity of land, type and quantity of Crop that might be affected and market value
……
……..

C 5. Is there any **Community Resource Property** that would be affected?
Yes/No..... Please Specify…….. Who are the beneficiaries of the affected Community Resource? What is their reaction- Positive/negative?.....
Did they support the project?. Yes/No.....What are the reasons to support/ stand against the project?

C6. Is there any **Natural Resource** that might be affected? Yes/No……

If yes, please describe regarding dependency on the Affected Resources
C7. **Indigenous Peoples**

C 7.1 Is there any community of Indigenous Peoples residing within or adjacent the project site? Yes/No……..For how long .....?

C 7.2 Any Households of Indigenous Peoples would be affected? Yes/No……
If yes, how many families would be affected?.....

C 7.2 Is there any way that proposed project may pose any threat to cultural tradition and way of life of indigenous Peoples? Yes/No……

C 8 **Beneficiaries**

C 8.1 Who are the Beneficiaries? How they would be benefited by the subproject?

- Access to health facilities/services? Yes/No.....
- Better access to schools, education and communication? Yes/No.....
- Project activities would provide income generating source. Yes/No..... Please describe
- Subproject shall promote marketing opportunities of the local products? Yes/No…… If yes, how would that happen? Please elaborate
- Are people ready to co-operate with the project? Yes/No.....
  Please elaborate the reasons

C 9 How will the subproject create opportunities for Beneficiaries?

Annex 5 – Generic Guidelines/ TOR for Poverty and Social Impact Assessment[25]

Poverty and Social Impact Assessment (PSIA) involves the collection of data related to measurable change in human population, communities, and social relationships resulting from a development project or policy change; in this case an eco-systems conservation and management tourism project. The SIA must gather data on the following variables prior to the implementation of the project (planning/ policy development stage).

1. Population Characteristics- present population and expected change, ethnic and racial diversity etc.
2. Establish Socio-economic baseline: Household survey including a description of production systems, labor, and household organization; and baseline information on livelihoods (including, as relevant, production levels and income derived from both formal and informal economic activities) and standards of living (including health status) of the affected population;
3. Assess the magnitude and nature of the expected livelihood impact of proposed sub-project, and basic data on vulnerable groups or persons for whom special provisions may have to be made
4. Community and Institutional Structures- the size, structure, and level of organization of local government including linkages to the larger political systems. They also include historical and present patterns of employment and industrial diversification, the size and level of activity of voluntary associations, religious organizations and interests groups, and finally, how these institutions relate to each other.
5. Political and Social Resources- the distribution of power authority, the interested and affected publics, and the leadership capability and capacity within the community or region. Potential impact of project interventions on inter-community relations and local minorities in the wider locality.
6. Individual and Family Changes- factors which influence the daily life of the individuals and families, including attitudes, perceptions, family characteristics and friendship networks.
7. Community Resources- patterns of natural resource and land use; the availability of housing and community services to include health, police and fire protection and sanitation facilities. A key to the continuity and survival of human communities are their historical and cultural resources. Possible changes for indigenous people and religious sub-cultures also fall here.

Scope of work:

1. Gather data on all variables and during all the stages specified above. Mobilization of research assistants in this venture.
2. Use participatory tools in data gathering.
3. Public involvement- Develop an effective public plan to involve all potentially affected publics.
4. Identification of alternatives- Describe the proposed action or policy change and reasonable alternatives.
5. Baseline conditions- Describe the relevant human environment/area of influence and baseline conditions: The baseline conditions are the existing conditions and past trends associated with the human environment in which the proposed activity is to take place.

[25] These guidelines are based on the international SIA guidelines/ principles put forward by IAIA (International Association for Impact Assessment- USA) (2003) and on the guidelines by the Interorganizational Committee on Guidelines and Principles for Social Impact Assessment, USA (1994). The consultant/s undertaking each SIA must be encouraged, as much as possible, to follow the international guidelines specified by these organizations. However, certain adaptations may be required to suit the local social, economic and cultural scenario.

6. Scoping- After obtaining a technical understanding of the proposal, identify the full range of probable social impacts that will be addressed based on discussion or interviews with numbers of all potentially affected.
7. Projection of estimated effects.
8. Predicting community responses to impacts- Determine the significance to the identified social impacts.
9. Indirect and cumulative impacts- Estimate subsequent impacts and cumulative impacts. Indirect impacts are those caused by the direct impacts; they often occur later than the direct impact, or farther away. Cumulative impacts are those impacts which result from the incremental impacts of an action added to other past, present, and reasonably foreseeable future actions regardless of which agency or person undertakes them.
10. Changes in alternatives- Recommend new/ changed alternatives and estimate/ project their consequences: Each new alternative or recommended change should be assessed separately.
11. Mitigation- Develop a mitigation plan.
12. Monitoring– Develop a monitoring program.

Expertise required:
This may vary according to the components.
It is recommended that individuals with at least a Master's Degree in social science with experience in applied research techniques be recruited as chief researchers.
Several assistants who possess at least a BA degree should be recruited to support the chief researcher.

Deliverable:
1. Interim reports to be submitted one month after the SIA for comments by the implementing agencies.
2. Final report to be submitted two weeks after receiving comments.

Annex 6 - Entitlement Matrix

No	Type of Loss	Application	Entitled Person	Compensation
1.	Arable land	Less than 20 percent of land holding[26] lost, the remaining land economically viable	Title holder	▪ Cash compensation for lost land at replacement cost.
		More than 20 percent of land holding lost OR where less than 20% holding lost but the remaining land becomes economically unviable	Title holder	▪ Land for land or compensation in cash. Compensation by receiving a new parcel of land of equivalent size and crop productivity and free of taxes, registration and transfer cost; at location acceptable to PAP; and with long-term security of tenure of better or equivalent nature to that affected. ▪ Compensation for preparation of replacement land ▪ Transition allowance for three months ▪ Transfer/shifting allowance ▪ PAPs will be entitled to income rehabilitation assistance
			Tenant/lease holder	▪ Cash compensation equivalent to the replacement value of gross harvest for one year or for the remaining period of tenancy agreement, whichever is greater.
			Agricultural labor	▪ Cash compensation equivalent to 6 months salary and assistance in getting alternative employment.
			Squatters	▪ Any squatters/encroachers affected by taking of agricultural land will not be entitled to compensation for land. Affected vulnerable squatters will however, be provided with relocation assistance.
2.	Residential / commercial land	Less than 20% of land holding lost and remaining land viable for present use	Title holder	▪ Compensation in cash at market value. ▪ Any squatters/encroachers affected by taking of residential land will not be entitled to compensation for land. For vulnerable squatters see entitlements for affected structures.
		More than 20% holding affected OR where less than 20% holding affected but the remaining area becomes smaller than minimally accepted under the zoning laws and unviable for continued use	Title holder	▪ Land for land or cash compensation. Replacement land of minimum plot of acceptable size under the zoning laws or a plot of equivalent size**,** whichever is larger, in an area with adequate physical and social infrastructure. In the case of loss of commercial land the replacement land of sufficient size for business continuation in

[26] Land holding refers to the land plot directly impacted by the project and does not include any other land holdings that a PAP may own at other locations.

				market are or at location comparable to previous site. ▪ Replacement land to be free from taxes, registration and transfer costs. ▪ Transition Allowance for three months ▪ Transfer/shifting allowance. ▪ Any squatters/encroachers affected by taking of residential land will not be entitled to compensation for land. Vulnerable squatters will however, be provided with relocation assistance.
			Tenant/Leaseholders	▪ Cash compensation equivalent to the three months of rent or for the remaining period of tenancy/lease agreement, whichever is greater.
3.	Structures	Structures partially affected but the remaining structure viable for continued use.	Owner including those without title to land	▪ Compensation in cash for affected portion of the structure and other fixed assets at replacement cost, and ▪ Assistance in restoration of the remaining structure (Repair Allowance, minimum 20% of compensation)
		Entire structure affected OR where structures partially affected such that the remaining structure is unviable for continued use.	Owner with valid title to land	▪ Compensation in cash for entire affected structure and other fixed assets (wells, electric and water connections etc.) at replacement cost, without depreciation. ▪ Transfer/shifting allowance. ▪ Transition allowance for three months.
			Tenant	▪ Cash compensation equivalent to 3 months' rental allowance ▪ Transfer/shifting allowance ▪ Assistance in alternate rental accommodation.
			Squatters	▪ All affected squatters will be entitled to: - Compensation in cash for affected structure - Transfer/Shifting allowance - Transition allowance for three months - Additionally, vulnerable squatters will be provided with relocation assistance and offered viable options to choose from.
4.	Loss of business / incomes or employment	Temporary or permanent loss of business/ incomes/ employment	Affected individuals	▪ Employment in reconstructed enterprise or package for re-employment or starting a business ▪ Transition allowance for the permanent loss of business, incomes & wages equivalent to the loss of income/wages for a period of 6 months for each affected members of households. ▪ In case of temporary loss of business of incomes/businesses, compensation will be wages equivalent to closure period. Compensation rates will be agreed with the business owners and daily laborers and calculated on the basis of local surveys.

				▪ Priority will be given to PAPs when staff would be hired for the project
5.	Standing crops	Crops affected by land acquisition or temporary acquisition/easement	Owner of affected crops	▪ Compensation in cash at market value.
6.	Trees	Trees lost	Owner of affected trees	▪ Compensation in cash calculated on the basis of type, age and productive value of affected trees.
7.	Loss of public infrastructure	Infrastructure (electric water supply, sewerage & telephone lines; public health center; public water tanks)	Relevant agencies.	▪ Compensation in cash at replacement cost to respective agencies or restoration of affected assets.
8.	Unforeseen Losses	As identified	As identified	▪ Appropriate mitigation measures as determined to meet the objectives of this policy framework

Annex 7 - Social Monitoring Indicators

Monitoring Issues	Monitoring Indicators
Budget and Timeframe	▪ Have all resettlement staff been appointed and mobilized for field and office work on schedule? ▪ Have capacity building and training activities been completed on schedule? ▪ Are resettlement implementation activities being achieved against agreed implementation plan? ▪ Are funds for resettlement being allocated to resettlement agencies on time? ▪ Have resettlement offices received the scheduled funds? ▪ Have funds been disbursed according to RAP? ▪ Have the affected HHs been relocated in Resettlement Site? ▪ Has the land made incumbrance free and handed over to the contractor in time for project implementation?
Delivery of AP Entitlements	▪ Have all PAPs received entitlements according to numbers and categories of loss set out in the entitlement matrix? ▪ How many affected households relocated and built their new structure at new location? ▪ Are income and livelihood restoration activities being implemented as planned? ▪ Have affected fishing grounds received entitlements? ▪ Have the non-titled PAPs been compensated as per RAP? ▪ Have the community structures are compensated and rebuilt at new site?
Consultation, Grievances and Special Issues	▪ Have resettlement information brochures/leaflets been prepared and distributed? ▪ Have consultations taken place as scheduled including meetings, groups, community activities? ▪ Have any PAPs used the grievance redress procedures? What were the outcomes? ▪ Have conflicts been resolved?
Benefit Monitoring	▪ What changes have occurred in patterns of occupation compared to the pre-project situation? ▪ What changes have occurred in income and expenditure patterns compared to pre-project situation? ▪ Have PAPs income kept pace with these changes? ▪ What changes have occurred for vulnerable groups?

Annex 8 - Potential Environmental and Social Impact Matrix[27]

Component / Activities	General Environmental Impacts	Impacts to Natural Habitats	General Social Impacts	Land Acquisition	Livelihood Impacts
Component 1: Capacity building and cooperation for addressing the illegal trans-boundary wildlife trade					
Sub-component 1.1 Institutional strengthening in wildlife conservation and illegal wildlife trade control					
Setting up of a forensic laboratory	Inappropriate siting (L) Health & safety of staff (M) Generation of liquid and solid waste (H)	-	Health & safety issues arising from disposal of solid/liquid waste near settlements (L)	Presence of squatters & encroachers (L)	-
Wildlife recovery & rehabilitation centers	Inappropriate siting (L) Health & safety of staff (M) Generation of liquid and solid waste (H) Disease outbreaks (L) Poor sanitary conditions (L)	Release of diseased animals to wild (L)	Health & safety issues arising from disposal of solid/liquid waste near settlements (L)	Presence of squatters & encroachers (L)	Disease outbreaks spreading to livestock (l)
Sub-component 1.2 Staff capacity building and training toward regional collaboration					
Staff capacity building & training	Skilled staff to ensure facilities such as forensic laboratory and wildlife recovery and rehabilitation centers are properly managed (H)	-	Opportunities for employment and skills enhancement and training opportunities (H)	-	-
Component 2: Promoting wildlife conservation in South Asia					
Sub-component 2.1 Virtual Regional Center of Excellence (VRCE) for wildlife conservation					
Creation of virtual regional center of excellence	-	-	Governance issues such as non-representation and lack of ownership (M)	-	-

[27] Only direct and significant potential impacts (both positive & negative) are listed here. As the actual sites of interventions and the scope of each intervention are unknown, it is not possible to provide specific impact level category for the impacts identified here although a preliminary identification based on likelihood has been done. Impact categorization: H – High; M – Medium; and L - Low

Component / Activities	General Environmental Impacts	Impacts to Natural Habitats	General Social Impacts	Land Acquisition	Livelihood Impacts
Sub-component 2.2 **Competitive funding to support the management of protected areas (PAs), forest reserves (FRs) and national forests (NFs) with regional conservation benefits**					
Window 1: Conservation, protection and management of protected areas for regional conservation benefits					
Rehabilitation and development of water resources in PAs	Inappropriate disposal of dredged silt/soil, etc. (L) Poor site management during construction work (L) Technical defects that will dry up tanks (L)	Increasing diversity in PAs (M) Disturbance to habitats and wildlife populations in the surrounding area due to use of machinery and earth work, noise and dust pollution due to frequent movement of vehicles and use of machinery (M) Spread of invasive species from vehicles and material brought into the park from outside (L) Attracting domestic cattle herds to the PAs opening up for genetic contamination and disease (L/M)	Visitor satisfaction inside PAs (H) Reducing the potential for human-wildlife conflicts outside the PA (H) Access to water particularly in water scarce areas (M) Physical threats due to concentration of wildlife (M)	-	Employment opportunities for villagers living in the vicinity (M)
Habitat management including control of invasive species	Spread of invasives due to improper planning and management (H)	Increase of habitats for species (M) Loss of habitats of species (M)	-	-	-
Rehabilitation of existing roads and trails	Inappropriate disposal of soil, debris, etc. (L) Poor site management during construction work (L) Noise and pollution associated with road work and the resultant disturbance to animals	Removal of plants of conservation value (L) Spread of invasive species from vehicles and material brought into the park from outside (L) Burning of uprooted vegetation and spread of	Visitor satisfaction inside PAs (H)	-	Employment opportunities for villagers living in the vicinity (M)

Component / Activities	General Environmental Impacts	Impacts to Natural Habitats	General Social Impacts	Land Acquisition	Livelihood Impacts
	(M) Increased wildlife poaching during construction (L) Better accessibility for monitoring and patrolling (H)	forest fires (L) Extraction of raw material for construction such as gravel, sand, etc. within the PA degrading habitats (L)			
Improvements in existing park infrastructure	Improper siting of ranger offices, staff quarters, visitor facilities, etc. (L) Inappropriate disposal of soil, debris, etc. (L) Poor site management during construction work (L) Noise and pollution associated with road work and the resultant disturbance to animals (M) Increased wildlife poaching during construction (L) Better monitoring and patrolling (H) Increased visitation beyond the carrying capacity of the PA (M)	Removal of plants of conservation value (L) Spread of invasive species from vehicles and material brought into the park from outside (L) Burning of uprooted vegetation and spread of forest fires (L) Extraction of raw material for construction such as gravel, sand, etc. within the PA degrading habitats (L)	Increased visitation contributing to economy (M) Increased visitation affecting the local culture (local attitudes, consumption patterns and fashion) (M) Increased visitation affecting abuse of drugs, changes in relationship patterns that may pose threats of STDs such as HIV/AIDS and the use of child labor to improve profits (M)	-	Employment opportunities for villagers living in the vicinity (H) Improved market for the villagers' products (M)
Strengthening enforcement	Reduction of poaching, logging, illegal fishing, etc. (H)	-	-	-	Livelihood impacts due to curtailing for cattle grazing, timber felling, extraction of non-timber forest products and poaching (H)
Logistical support such as communications	Improved health & safety of staff to carry	-	-	-	-

Component / Activities	General Environmental Impacts	Impacts to Natural Habitats	General Social Impacts	Land Acquisition	Livelihood Impacts
equipment, solar PV lighting, water supply and disinfection systems for remote beat offices, forestry and wildlife management equipment, animal handling equipment and supplies, basic office equipment, camping equipment and supplies, four wheel drive pick-ups and motor cycles, and motorized and non motorized boats	out their responsibilities effectively (H)				
Window 2: Innovative pilot projects with a regional dimension					
Human-wildlife conflict management	Improvement of wildlife populations (M)	-	Safety of community members participating in THC management activities such as tiger immobilization and containment (L) Restrictions to movement of communities (M)	Change of land-use practices (H)	Changes to livelihood patterns (H)
Species monitoring and recovery programs	Opportunities for threatened and vulnerable species to recover (M) Increased competition for space and food due to inadequately planned and managed recovery efforts (M)	-	-	-	-
Ecotourism development	Increased visitation beyond the carrying capacity of the PA (L)	Habitat degradation with air and noise pollution due to	Increased tourism contributing to socio-economics	-	Employment opportunities for villagers living in the

Component / Activities	General Environmental Impacts	Impacts to Natural Habitats	General Social Impacts	Land Acquisition	Livelihood Impacts
	Physical impacts caused by tourism-related land clearing and construction, continuing tourist activities and long-term changes in local economies and ecologies. (L) Development of tourism facilities such as accommodation, water supplies, restaurants and recreation facilities can involve sand mining, beach and sand dune erosion, soil erosion and extensive paving (L)	vehicles, solid waste and littering, trampling, tourism leisure activities, etc. (M) Increased visitation putting pressure on animal habits and behaviors (M) Improper siting can lead to land degradation and loss of wildlife habitats and deterioration of scenery (L)	Increased visitation affecting the local culture (local attitudes, consumption patterns and fashion.) (M) Increased visitation affecting abuse of drugs, changes in relationship patterns that may pose threats of STDs such as HIV/AIDS and the use of child labor to improve profits (M) Lack of respect for local cultures and practices (M) Harassment of foreign tourists (M)		vicinity for construction work (M) Improved market for the villagers' products (M) Access to potential project benefits in terms of opportunities for skills enhancement in tourism related employment to stakeholders (M)

Annex 9 - Safeguards Capacity Assessment Process

Introduction

To support the capacity development process effectively requires identifying what key capacities already exist and what additional capacities may be needed to reach objectives. This is the purpose of a capacity assessment. A capacity assessment is an analysis of desired capacities against existing capacities which generates an understanding of capacity assets and needs that can serve as input for formulating a capacity development response that addresses those capacities that could be strengthened and optimizes existing capacities that are already strong and well founded. It can also set the baseline for continuous monitoring and evaluation of progress against relevant indicators and help create a solid foundation for long-term planning, implementation and sustainable results.

In the present requirement, it is necessary to assess the level of capacity to ensure environmental and social safeguards requirements of the participating countries, as well as the World Bank are adequate. If it is not adequate, the assessment will identify the type of capacity needs in terms of specialized staffing and/or training of existing staff in order to fulfill the requirements.

Framework for capacity assessment

These are the four capacity issues that to be the most commonly encountered: 1) institutional arrangements; 2) leadership; 3) knowledge; and 4) accountability. The capacity assessment team should at least consider all of them as it defines the scope of an assessment. They can be amended based on the needs of the client and the situation. In addition to functional capacities necessary to manage the Environmental and Social Management Framework will need to be assessed.

The process for conducting a capacity assessment

It is suggested that the team follows a three-step process to conduct a capacity assessment. The activities in each step aim at deepening engagement of implementing team and promoting dialogue among key staff around the capacity assessment process.

- Mobilize and design: Engaged team and a clear design are key to a successful capacity assessment. The design is driven by three guiding questions: 1) capacity for why?; 2) capacity for whom?; and 3) capacity for what?.
- Conduct the capacity assessment: During the capacity assessment data and information are collected on desired and existing capacity. This data and information can be gathered by a variety of means, including self-assessment, interviews and focus groups;
- Summarize and interpret results: The comparison of desired capacities against existing capacities determines the level of effort required to bridge the gap between them and informs the formulation of a capacity development response including terms of reference for new expertise if needed..

Annex 10 - TORs for Social Development and Environmental Officers

(a) Social Development Officer

Specific responsibilities of the Social Development Specialist at the project implementation level will include the following:

- Ensure that social issues and social management activities identified as part of Environmental and Social Management Framework including Indigenous Peoples Plan and Gender Development Plan are mainstreamed into the design and plan at the subproject level. In conjunction with the implementing agency, Social Development officer would conduct the social appraisal for the work plan of each sub-project and for providing the final social clearance to the workplans.
- Undertake field visits to the selected sub-projects to assess, how social issues related to the project activities are addressed at the subproject level.
- As part of the field visits, hold discussions with the PAPs and other relevant stakeholders and guide them in addressing social issues with particular reference to resettlement and impacts on livelihood, indigenous and gender development.
- Assess the completeness and appropriateness of the Poverty and Social Impact Assessments / Resettlement Plans (RPs) based on the field visit observations.
- Determine compliance of the safeguard management plans prepared at the sub-project level with the agreed the Social and Environmental Management Framework including policy frameworks and strategies on resettlement, indigenous and gender development, etc.
- Interact and coordinate within the implementing agency and other related departments/agencies particularly those dealing with development schemes for rural families, tribal and women to ensure dovetailing their programs for the benefit of these vulnerable sections.
- Develop monitoring formats to be used at the subproject level.
- Ensure that participatory monitoring is carried out by stakeholders and that the lessons learnt are reflected in activities of the subsequent irrigation schemes covered under the project.
- Review the monitoring reports prepared by the field staff and consultants on the preparation of assessments and implementation of plans. Based on these reviews (i) identify deviations, if any, in implementing social measures, (ii) identify positive measures taken at the sub-project level, (iii) suggest improvement in the social management plans and implementation at the sub-project level and (iv) disseminate good practices to the project functionaries.
- Prepare 'case studies' based on the reviews of monitoring reports and sample survey of the selected sub-projects and document procedures adopted, problems faced and good practices in planning and implementing social management plans.
- In order to review the actions taken by the project field officers, organize periodic meetings.
- Prepare and implement, as an on-going activity, plan for training and capacity building of the project functionaries to address social issues associated with the project.
- Have regular interactions with the Social Development Specialist of the World Bank on social and environmental management activities of the project.
- Any other responsibility assigned by the head of the project team

Qualification and Experience: Post Graduate in Sociology / Social Science / Anthropology / Community Development with suitable experience in community development, participatory natural resource management, community mobilization, gender and rural development. The candidate should be conversant with the Participatory Rural Appraisal techniques and other participatory approaches with aptitude for participative monitoring and evaluation in water resources sector and irrigation sub-sector.

The candidate should be well versed with the socio-economic conditions of the project area and be well conversant with the local language.

(b) Environmental Officer

The Environment Officer of the project will be the central resource person for planning, formulation and coordination of the environmental management activities concerning all the environmental aspects of the sub-projects. The Environment Officer will be based in the implementing agency and will report directly to the head of the project team. Specifically, the responsibilities of the Environment Officer will include the following:

- The Environment Specialist will be the primary person responsible for ensuring that the environmental components of the Environmental and Social Management Framework are properly integrated into the Project Operations. In conjunction with the Social Development Officer, he/she would conduct the social and environmental appraisal for the work plan of each sub-project and for providing the final social/environmental clearance to the work-plans.
- Field visits to the selected sub-projects to assess, how environmental issues have been addressed on the ground. Field visits should include discussions with the project stakeholders.
- Assessment of the completeness and appropriateness of the environmental components of the framework and associated strategies and action plans, based on the field visit observations.
- Determination of compliance of sub-projects to National, State and World Bank safeguard requirements based on the field visit observations.
- Ensuring that regular monitoring reports are prepared for the environmental safeguards.
- In conjunction with the Social Development Officer, organizing and supervising the consultancy for social and environmental audits of the Project.
- In conjunction with the Social Development Officer, preparation of half-yearly reports on the status of social and environmental aspects of the sub-projects under implementation, including (i) the deviations in implementing environmental measures, if any, (ii) positive measures taken at the sub-project level, if any, (iii) reconciliation of the findings of the external and internal audit reports, and (iv) suggestions for further improvement of environmental management practices at the sub-project level.
- Ensuring that environment-related modules are incorporated in the training and capacity building programs designed for the Project at all the levels.
- Interactions with the External Consultants and World Bank Mission on Environmental aspects.
- Any other responsibility assigned by the head of the project team

Qualification and Experience: Post Graduate in Environmental Sciences/ Engineering or a related field with suitable experience in environmental management and monitoring with special emphasis on natural resources management and conservation. The candidate should be well versed with preparation of environmental management and action plans. He should be conversant with environmental monitoring tools and techniques. Familiarity with procedures and practices of the government and the World Bank is a must