

THE GOVERNMENT OF SRI LANKA

Environmental Management Framework

Ecosystems Management and Conservation Project

Ministry of Environment and Natural Resources

May 2010

[Prepared by the Department of Wildlife Conservation and the Forest Department.]

Environmental Management Framework for the ESCAMP

Table of Contents

1. Introduction	1
Background	1
Eco-system management and conservation project	2
Project Location	8
Objectives of the framework	8
2. Environmental laws, Regulations and institutions in Sri Lanka	10
National Environmental (Amendment) Act No. 53 of 2000	10
Coast Conservation Act (CCA) No. 57 of 1981	12
Fauna and Flora Protection Ordinance (FFPO) Amended Act No. 49 of 1993	12
The North Western Provincial Environmental Statute No. 12 of 1990	13
Key Institutions in Environmental Management and Governance	13
Compliance with World Bank Operational Policies	15
Compliance with OP 4.01 on Environmental Assessment	15
Compliance with OP 4.01 Annex C Environmental Action Plans	15
Compliance with OP 4.04 Natural Habitats	17
Compliance with OP 4.36 Forestry	17
Compliance with OP 4.09 Pest Management	18
Adequacy of GOSL Environmental Clearance	18
3. Environmental Management Tools	19
Environmental Impact Assessment	19
Strategic Environment Assessment	19
Environment Management Plan	20
Environment Audits	21
Environment Checklists	22
Environmental Codes and Best Management Practices	22
4. Environmental Management Framework	23
Preliminary Assessment Environmental Issues Relevant to the Project	23
5. Institutional Arrangement for Implementation	29
Institutional Arrangement for Implementation of EMF	29
Stakeholders and Disclosure	29
6. Capacity Building and Training	30
Central Environmental Authority	30
Department of Wildlife Conservation	30
Department of Forest Conservation	30
Provincial Councils	31
Capacity Building Requirements	31
Annex 1 : Policy Framework for Environmental Assessment and Impact Mitigation in SL	32
Annex 2 : Basic Information Questionnaire for the CEA	38
Annex 3 : Guidelines for developing EMPs	42

Environmental Management Framework

1. Introduction

The Government of Sri Lanka (GOSL) has requested financing from the World Bank to strengthen environmental protection by enhancing environmental governance, safeguarding natural habitats and biodiversity and restoring critically damaged ecosystems so as to contribute to conservation, poverty alleviation and sustainable development. GOSL also identified nature-based tourism as an instrument for effective conservation that can simultaneously promote more inclusive growth. With growing land scarcity, Sri Lanka's natural forests and PAs are under constant and unrelenting pressure. Conventional command and control approaches are proving to be less effective in addressing these problems since they do little to tackle the fundamental causes of environmental degradation. Therefore, an Ecosystems Conservation and Management Project (ESCAMP) has been proposed. The proposed project seeks to create the appropriate incentives to enhance conservation outcomes; thereby contributing to the country's over-riding development objectives. Accordingly, the higher level objective to which this project contributes is the long-term environmental sustainability of growth and development in the environmentally sensitive parts of rural Sri Lanka. This would be achieved through a range of complementary measures that would create incentives and a mechanism for a landscape approach to conservation, improve management effectiveness and efficiency of PAs and corridors as well as an environment for human elephant co-existence (HECOEX) by enhancing the revenue potential of nature-based tourism.

This document is the Environmental Management and Assessment Framework for ESCAMP prepared in keeping with World Bank's safeguard policies and submitted in lieu of a specific project environmental assessment for appraising the environmental aspects of the project.

1.1 Background

The history of wildlife conservation and environmental protection in Sri Lanka dates back more than 2000 years in recorded history when Mihintale was declared a sanctuary by ancient Kings for the benefits of plants, animals and people. Fostered by the Buddhist philosophy of respect for all forms of life, the subsequent rulers upheld this noble tradition and took various initiatives to protect the forests and its wildlife resources for future generations. Then came the colonial era, where exploitation of forests and its resources became the order of the day as opposed to the royal tradition of sustainable utilization. This is evident by some of the earlier government ordinances which promoted and paved the way for logging, hunting and conversion of natural areas to large plantations for economic gain. During this time and later, much of the wet zone forests, where the bio-diversity is highest, were lost. In the post-independence era, some of these exploitative trends continued, even accelerated with land settlements, large scale irrigation and agriculture, energy generation etc becoming key priorities of successive governments. As such, today, Sri Lanka's natural resources are faced with many threats and require deliberate interventions by the state to protect and conserve whatever is left for the well-being of its present and future generations.

Conservation of bio-diversity is of special significance to SL. The country, although small in land area, has a varied climate and topography resulting in rich biodiversity distributed in a number of different eco-systems. With the highest bio-diversity per unit area, SL is ranked as a global bio-diversity hot spot. Yet, at present, the country is faced with a serious erosion of its eco-systems and the bio-diversity they host. The country's high population density, high levels of poverty and unemployment and widespread dependence on natural resources by some of the key economic sectors such as agriculture, mining, tourism has exerted considerable pressure on the country's precious natural resources. A recent survey has shown that 33% of the inland vertebrate fauna and 61% of its flora are nationally threatened. Around two thirds of the threatened bio-diversity is endemic to Sri Lanka. Twenty one species of endemic

amphibians have not been recorded for the last 100 years and these species are, for most purposes, considered extinct. One in every 12 species of inland indigenous vertebrates of Sri Lanka is currently facing an immediate and extremely high of extinction in the wild. This trend will continue, and even worsen, unless more stringent and corrective measures are not taken.

1.2 The Eco-system Conservation and Management Project

1.2.1 Project objective

ESCAMP's project development objective (PDO) is to improve the management and stewardship of Sri Lanka's terrestrial, marine and wetland ecosystems in select locations within and outside PAs through: (i) improved management of natural habitats; (ii) strengthening of the institutional capacity and investment capability of PA conservation agencies; (iii) initiation of innovative programs to reduce HEC through co-existence; and (iv) enhancement of the revenue earning opportunities of PAs and affected communities through improved nature-based tourism and community forestry. (*Ref: ISDS Appraisal Stage – ESCAMP*)

1.2.2 Project description

The project will consists of 4 main components. They are described in the section below.

Component 1: Promotion of Ecosystem Conservation and Management (US\$9.695 million)

In order to achieve development outcomes that are environmentally sustainable, the Government needs to ensure that its development programs located in conservation landscapes include green infrastructure that would be compatible with the surrounding ecosystems. To that end, this component would support the preparation of strategic conservation plans in the four landscapes and the use of project funds to implement key aspects of those plans. A competitive demand-driven approach would be applied in selecting the activities within the landscape plans that would receive support under Component 1's three funding windows. Funds will be allocated through annual calls for proposals during the first three years of project implementation.

Sub-component 1.1: Preparation of Strategic Conservation Landscape Plans (US\$0.25 million)

The landscape approach would help the Government formulate environmentally sensitive decisions on development-related projects (such as roads, agricultural projects or other infrastructure) that would impact the conservation landscapes. Specifically, this sub-component would assist the preparation of strategic conservation landscape plans by the national planning agencies such as the Urban Development Authority and/or the National Physical Planning Department supported by DWC and FD that will be used to influence the development agencies and other stakeholders in constructing green infrastructure that would be compatible with the surrounding ecosystems.

Support under this sub-component would consist of TA and workshops carried out during the process of developing the strategic plans in the first six months of project implementation. Such plans will be based on the principles of the landscape level conservation framework developed by the World Wildlife Fund (WWF) and the World Conservation Union (IUCN) and will include guidelines for the construction or utilization of green infrastructure. Environmental service values of different ecosystems, particularly outside the PA network, will be determined so that Government would be able to make informed development planning decisions in the conservation landscapes. Workshops involving the participation of key stakeholders will be held in each landscape as input to the preparation of conservation landscape management plans.

Sub-component 1.2: Funding Windows 1, 2 and 3(US\$9.45 million)

The landscape plans will form the basis for the proposals to be submitted for financing under the three funding windows described below. Periodic impact evaluations of the funded activities would be carried out during project implementation. The review and approval process for the three funding windows is explained fully in Annex 4. *The formation of the Proposal Review Committee is a condition of project negotiations.*

Window 1: Implementation of the Landscape Level Conservation Plans with Emphasis on Programs for Conservation and Management of Critical Ecosystems Outside the PA Network (US\$2.75 million)

Conservation and management of the critical ecosystems outside the PAs where population and development pressures are threatening the connectivity and integrity of wildlife corridors and linkages between PAs which are essential to the long-term survival of flagship species is a key priority. Window 1 will encourage coordinated interventions in the selected conservation landscapes – recognizing the integrity of ecological boundaries – and will focus on conservation and management activities *outside* the PA network but within the landscape. FD and DWC would take the lead in submitting proposals for funding – preferably jointly but also individually – along with the stakeholders in the conservation landscape, such as development planning agencies, local government authorities, divisional secretariats (DS), other national or provincial government agencies, national or local NGOs, universities and research institutions, the private sector and community groups.

The activities in the proposals for Window I funding would need to be an integral part of the respective landscape plans. Window 1 would finance activities that entail or lead to the following: (i) improved sustainability of ecosystems under multiple uses through planning, regulations and physical interventions; (ii) ecosystem restoration and conservation planning by explicitly identifying ecosystem services, including valuation of such services; (iii) enhanced protection of sensitive ecosystems, wildlife corridors and conservation of ecosystem services; and (iv) development of regulations and guidelines for green infrastructure to be located within the conservation landscapes.

Window 2: Improving the Management of Selected Protected Areas within the Conservation Landscape (US\$4 million)

Window 2 will finance proposals submitted on a competitive basis by field-based PA managers from DWC and FD. Like those in Window 1, the proposals will be required to be part of the respective strategic conservation landscape plans. In order to ensure collaboration and complementarity in the management of adjacent PAs within the conservation landscape, wherever possible, partnerships between DWC and FD will be encouraged, with preference for joint management of PAs. Window 2 aims to reward innovation, performance and accountability in PA conservation and management.

Window 2 is envisaged to finance activities related to PA conservation and management, such as: (i) rehabilitation and development of water resources in PAs; (ii) habitat management, including control of invasive species; (iii) rehabilitation of existing roads; (iv) improvements in existing park infrastructure; (v) species monitoring and implementation of species recovery plans; and (vi) strengthening enforcement in the PA system. No major infrastructure or activities that would have significant adverse environmental consequences within PAs will be supported under the project and Environmental Management Plans will be prepared for all project investments within PAs. DWC and FD have agreed on the criteria for selection of priority PAs located within the four conservation landscapes (see Annex 4).

Window 3: Community Participation in Reducing Deforestation and Forest Degradation (US\$2.695 million – financed by Australian Agency for International Development (AusAID))

The community approach under Window 3 would involve efforts to: (i) mobilize communities whose livelihoods depend on the forests under FD's purview; (ii) allow FD and the relevant communities to identify jointly conservation development priorities; and (iii) to prepare community action plans. Such plans would be submitted by FD for funding under Window 3. The objective of Window 3 proposals would be to promote the participation of communities in reducing deforestation and forest degradation within the conservation landscapes and buffer zones, while improving their socio-economic standing. The community-related activities must be linked directly to the specific landscape plans. The funding of the community action plans will entail a two-step process. First, the existing plans will be evaluated for funding while potential sites for development of community action plans would be approved. Once the potential sites are approved, the communities would receive funding for mobilization, capacity building and preparation of community action plans. Second, funding for implementation of the plans (including existing plans) would undergo a technical review process similar to that for Windows 1 and 2.

Component 2: Demonstrating Human Elephant Conflict (HEC) Management through Co-existence (US\$ 6 million)

HEC mitigation in Sri Lanka and in Asia, for that matter, has been based solely on attempts to restrict elephant movements by limiting them in national parks through ill conceived elephant drives, translocations and attempts to restrict movement by electric fences located on the boundaries of national parks. They have largely failed because they neglect the root causes of the problem, and do not consider management on a landscape level. With two-thirds of the elephant population living outside DWC PAs in Sri Lanka and with the inadequate carrying capacity of the DWC PA network to accommodate all elephants in the wild, there is no alternative but to explore options for Human Elephant Coexistence (HECOEX) on a landscape basis, utilizing FD forest reserves as well. This approach which is consistent with the National Policy on Conservation of Wild Elephants will be attempted under the project. Attitudinal surveys conducted in the HEC-affected South are supportive of the people's benevolent attitude towards elephants as communities have called for measures to reduce (not eliminate) elephant destruction rather than remove elephants from their areas.

Sub-component 2.1: Projects for Demonstrating Human Elephant Co-existence within High Conflict Areas in selected Conservation Landscapes (US\$5 million)

The public's benevolence toward elephants lays a sound foundation for attempting HECOEX models in HEC-affected areas by managing elephant populations according to natural ecosystem boundaries rather than artificial administrative boundaries of land which is the present practice. Besides, translocation and confinement has proven to be unviable and jeopardizes the long term survival of Sri Lanka's elephants both within and outside PAs. Therefore, a landscape conservation strategy aimed at HECOEX seems the only viable option available. This approach and the project's investments complement the Government of Sri Lanka's "Gaja Mithuro" program (National HEC Management Program) which invests in short term actions prescribed under the National Policy on Conservation of Wild Elephants while ESCAMP will invest in the long term actions. Four sites within the South Eastern conservation landscape have been identified by DWC and FD for implementing the HECOEX demonstration models. The selected sites are representative of the major HEC challenges and include *chena* (shifting) agriculture pilots, sedentary agriculture and a pilot for an area slated for heavy development, i.e., the area surrounding the proposed international airport in Mattala, which has a high density of elephants at present and a prime location for high human elephant conflict if not managed properly now.

This sub-component would support economic incentives in the HECOEX sites in the South East, such as: (i) community benefits from activities supported under Window 3 of Component 1; (ii) payments for environmental services (cash transfers); (iii) insurance schemes and compensation mechanisms to mitigate the impact of elephant destruction; and (iv) opportunities for community-managed nature-based tourism, such as elephant viewing, in order to demonstrate that coexistence with elephants has economic benefits to communities.

HEC is most severe in the North Western part of the country where unplanned development has resulted in the human population encroaching into elephant habitat in a haphazard manner, creating a landscape where human and elephant habitat is one and the same. Since the North West is largely in permanent agriculture unlike the South and East where agriculture is largely seasonal, HECOEX models appropriate for the local situation must be developed for landscapes where two crops are planted annually. However, elephant behavior and ranging data for developing models in the North West are limited. Hence, this sub-component would support: (i) systematic collection of data on elephant behavior and ranging that will be used in conjunction with radio telemetry data collected to date as well as additional data on habitat and land use to be collected in the first year of the project; and (ii) development of appropriate HECOEX models for investments in demonstration sites in areas of permanent agriculture and high human habitation. The demonstration projects in the North West conservation landscape will commence in Year two of the project.

With the breadth of stakeholder involvement in the elephant range – government agencies, donor organizations, local communities and the general public – and the novelty of the landscape approach (in contrast with the familiar approach of confining elephants within DWC PAs), the management of HEC would require education and awareness. Such activities are integral elements of the HECOEX pilots.

Sub-component 2.2: Developing a National Master Plan for Mitigation of the Human Elephant Conflict and Practical Models for Human Elephant Coexistence (US\$ 1million)

Successful models implemented under the project will be used to develop a national master plan for mitigation of HEC in Sri Lanka. If the economic incentives supported by the HECOEX models in the selected sites within the conservation landscapes are successful, sustainable funding mechanisms by the Government, generated from nature based tourism, could be developed to support HECOEX models beyond the project period.

While HEC is prevalent in the South East and North West, it is also a serious problem in most other parts of the country's dry zone and in the conflict-affected Northern Province. Data on elephant ranging patterns for developing models to mitigate HEC in the dry zone are limited while information for the North is non-existent. Information on elephant behavior, ranging patterns, ecology, demography, temporal and spatial use of the mosaic of protected and unprotected habitats and the response to management actions would allow DWC and the scientific community to gain a better understanding of human-elephant interactions in order to develop a national capacity for managing HEC more effectively. Under this sub-component, DWC will issue calls for proposals from research organizations, conservation organizations, academia and individual researchers to undertake studies aimed at gathering valuable information to enable DWC to better manage the HEC problem. These studies have to be conducted in collaboration with DWC and/or FD. Funds under this sub-component would be set aside for data collection in the Northern Province and development HECOEX models for the North.

Component 3: Enhancing the Quality of Nature-based Tourism in support of PA Conservation and Management (US\$4 million)

Sri Lanka is well placed to capitalize on and boost revenues from nature-based tourism. The proximity of national parks to cultural attractions and beaches presents opportunities for tapping a more lucrative segment of the tourist market attracted by the combination of “nature, culture and beaches.” Unlike its regional competitors, Sri Lanka has a uniquely high density of natural and cultural assets, including the renowned “cultural triangle” and a rich array of celebrated species such as elephants, leopards and sloth bears. Sri Lanka provides the best opportunity in the world for viewing wild Asian elephants and one of the country’s national parks has been documented as having the highest density of leopards per unit area in the world. Sri Lanka is also one of the very few countries where the world’s largest land and sea mammals—elephants and whales—can be observed in their natural environment. This has led GOSL to identify responsible nature-based tourism as an important area for diversifying the country’s tourism products. Moreover, nature-based tourism would promote conservation and environmental education.

Much needs to be done before the PA network can realize its full potential from nature-based tourism. While the PAs have attracted a sizeable number of domestic visitors, international tourist visitation has been less than 10% of all visitors to the country. These figures are low compared to those of other countries in the region largely due to the limited facilities and services for visitors to PAs and the poor quality of interpretation services. Without service improvements, there is little scope to extract further revenues from visitors. But with enhanced services, the willingness to pay rises dramatically (by about 30% on average). The development of nature-based tourism, if appropriately managed, provides opportunities for the local populations to benefit from the conservation of ecosystems, thereby engendering a culture of environmental protection and stewardship.

This component would focus on developing nature-based tourism opportunities within the priority PAs in the four conservation landscapes under the jurisdiction of DWC and FD. The following activities would be supported:

- Development and implementation of plans for nature-based tourism and visitor services for PAs that are identified as potential sites within the conservation landscapes on the basis of needs assessments that will be carried out
- Studies aimed at establishing the optimum number of visitors while simultaneously taking into account the carrying capacity limits of PAs since some PAs are experiencing over visitation already and this is detrimental to the ecosystem. Guidelines will be prepared for sustainable tourism management in protected areas.
- Preparation of funding requests for priority PAs within the four conservation landscapes based on their nature-based tourism and visitor services plans that typically would include:
 - (i) improvements in visitor facilities such as the construction of nature trails, wayside interpretation points, observation towers, wildlife hides, campgrounds
 - (ii) refurbishment of existing bungalows within PAs and training of staff to maintain such facilities
 - (iii) development of innovative services, such as night safaris, non-motorized boats for wildlife viewing, kayaking or canoeing down rivers flowing through PAs, etc., as long as these activities are permitted under the Fauna and Flora Protection Ordinance (FFPO) and the Forestry Ordinance (FO)
 - (iv) intensive training opportunities in interpretation services and language skills for game and volunteer guides

Component 4: Strengthening Knowledge and National Capacity for Ecosystem Conservation and Management (US\$ 5.39million)

Sub-component 4.1: Upgrading and Strengthening of the Capacity of the Wildlife Training Center and Sri Lanka Forestry Institute (US\$ 1.5 million)

The long-term sustainability of PA management, biodiversity conservation and environmental management in Sri Lanka depends, *inter alia*, upon the availability of specialized human resources in wildlife, forestry and environmental management. This sub-component would support: (i) upgrading of the technical capacity of the resource persons and the quality of the training programs of the Wildlife Training Center and Sri Lanka Forestry Institute, including curriculum revisions; (ii) basic improvements to the available infrastructure facilities which can be supported under this sub-component; (iii) implementation of training evaluation procedures; and (iv) twinning with international training institutions.

Sub-component 4.2: Improving Skills and Capacity of Conservation Agencies (US\$ 1.89 million)

This sub-component would strengthen DWC's and FD's strategic management capacity and staff skills, provide the required equipment and infrastructure, develop adaptive field management and enhance the agencies' competence in enforcement.

Sub-component 4.2.1: Building Capacity for Promoting Improved Conservation Management (US\$1 million)

This sub-component would explore opportunities for building international partnerships with institutions in other countries that have overcome challenges similar to the ones faced by DWC and FD (e.g., South African National Parks Authority and Smithsonian Institution). Such opportunities would allow DWC and FD to have direct access to global best practices in nature-based tourism as well as in decentralized and participatory PA management. Capacity development will be carried out through the provision of internal and external training courses, study tours and basic equipment. Short-term, task-oriented international and domestic consulting services may be provided, if needed.

Sub-component 4.2.2: Building Capacity for Improved Community Participation to Reduce Dependence on Forest Resources (US\$0.89 million – financed by Australian Agency for International Development (AusAID))

This sub-component would build the capacity of FD to implement participatory approaches aimed at reducing community dependence on forest resources. In particular, it would support: (i) the development and implementation of regulations on community approaches for reducing forest dependence based on the recently amended Forest Ordinance; (ii) FD staff training in community-related approaches; and (iii) regular monitoring and evaluation of community participatory activities.

Sub-component 4.3: Project Monitoring and Evaluation, Targeted Studies and Technical Assistance (US\$0.5 million)

This sub-component would support project monitoring and evaluation activities, specific studies aimed at effective project implementation and TA to MOE in natural resource management planning, policy making and environmental performance monitoring. For example, studies on the marginal costs of green and smart infrastructure vis-à-vis the benefits of eco-system conservation and on the revenue potential of eco-tourism could be undertaken. In addition, it would support monitoring of project performance and

evaluation of project outcomes by MOE and an independent consortium of national conservation NGOs. The consortium will conduct monitoring at the end of years 2 and 4 and evaluation at project closure.

Sub-component 4.4: Project Counterpart Funding and Incremental Expenses for Government Employees (US\$1.5 million - financed by the Government of Sri Lanka (GOSL))

Since this project is implemented by regular staff of the DWC and FD, GOSL stipulated allowances to top up their existing salaries will be paid by the GOSL financial contribution to the project. In addition, counterpart funding required for other investments will also be supported from GOSL funds under this sub-component.

1.2.3 Project location

The project will concentrate its investments and activities in four priority conservation landscapes that are formed by contiguous areas with unique ecological, cultural and socio-economic characteristics. The selected conservation landscapes are dominated by PAs belonging to both DWC and FD. The four landscapes also contain ecologically sensitive sites and wildlife corridors outside the designated PA network which were identified in a Protected Area Gap Analysis Study¹ as needing strategic conservation interventions. The four landscapes comprise: (i) the biodiversity rich landscape ranging from the Kanneliya-Dediyagal-Nakiyadeniya (KDN) forest to Galways Land Sanctuary (SA) in the South West and Central wet zone; (ii) from the South Eastern dry and arid zone, the forest ecosystem ranging from Bundala National Park (NP) to Maduru Oya NP, which is the landscape with the largest PA network in the country; (iii) from the mixed climatic zone, the landscape ranging from Victoria-Randenigala-Rantambe to the integrated land-seascape of Pigeon Island Marine NP; and (iv) the integrated land-seascape of Bar Reef SA-Wilpattu NP to Giant's Tank SA in the North and Kahala Pallekelle SA, also from the mixed climatic zone. Specific sites of intervention within these conservation landscapes will be identified during project implementation.

1.2 Objective of the Environmental Assessment and Management Framework

Projects and Programs financed with IDA resources need to comply with World Bank Operational Policies. Therefore, sub-projects and components eligible for funding under this project will be required to satisfy the World Bank's safeguard policies, in addition to conformity with environmental legislation of the Government of Sri Lanka (GOSL).

However, since details of specific sub-projects or investments of the project are not available at this stage, site-specific Environmental Assessments (EA) cannot be conducted. What is possible at this stage would be to carry out an identification of generic issues that are typically associated with the sub-project activities that would potentially be funded by the project and apply the information to site specific environmental assessments, as and when the need arises.

Therefore, the purpose of this document is to outline a framework for environmental assessment and management, giving details of potential environmental issues and guidelines on what type of environmental assessment tools to be applied for various sub-project activities prior to commencement of activities. This will serve as the basis in the preparation of, sub-project specific Environmental Assessments and/or Environmental Management Plans (EMPs). As stated earlier, it is being submitted in

¹ Portfolio of Strategic Conservation Sites/Protected Area Gap Analysis in Sri Lanka, Department of Wildlife Conservation, May 2006. The Gap Analysis in Sri Lanka was conducted in May 2006 for DWC in order to assemble a portfolio of strategic conservation sites that represents the biological diversity and ecological systems and identifies sites outside the PA system that need added protection in terms of biodiversity conservation.

lieu of a project EA and has formed the basis for appraising the environmental aspects of the project. It has been made available for public review and comment in appropriate locations in Sri Lanka and in IDA's Public Information Center in accordance with BP 17.50 requirements of disclosure.

It is expected that detailed environmental assessments (EAs and EMPs) for individual sub-projects will be carried out (in accordance with this Framework) by the implementing agencies and will be reviewed and cleared by the Central Environmental Authority or designated Project Approving Agency (PAA), as applicable, under prevailing national environmental legislation in Sri Lanka for nationally prescribed projects (refer sections 2.1 to 2.4) and by IDA for all sub-projects prior to the approval of disbursement of funds.

The objectives of this Environmental Assessment and Management Framework are:

- a. To establish clear procedures and methodologies for the environmental planning, review, approval and implementation of subprojects to be financed under the Project
- b. To specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social concerns related to subprojects
- c. To determine the training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF
- d. To provide practical resources for implementing the ESMF

2. Environmental laws, regulations and institutions in Sri Lanka

In Sri Lanka, there are over 80 legislative enactments that directly or indirectly relates to protecting and conserving the natural environment and human health. While most of these laws address specific issues pertaining to environment in the respective sector, it was the introduction and enactment of the National Environmental Act (NEA) that provided the overarching legal basis for regulation of pollution and protection of the environment from all sources in a comprehensive manner. The following section outlines the broad legal and institutional framework in Sri Lanka for environmental management, which will be relevant to the proposed project.

2.1 National Environmental (Amendment) Act No. 53 of 2000

As mentioned earlier, a law to incorporate and cover all aspects of environment was made for the first time in 1980. This is the National Environmental Act (NEA) No. 47 of 1980, the basic national decree for protection and management of the environment. The NEA has seen several amendments in the past in a bid to continually make improvements and to respond to the challenging needs of the time. There are two main regulatory provisions in the NEA implemented by the Central Environmental Authority (CEA) through which impacts on the environment from the process of development is assessed, mitigated and managed.

- The Environmental Impact Assessment (EIA) procedure for major development projects. Regulations pertaining to this process have been published in 1993 and are available with the CEA.
- The Environmental Protection License (EPL) procedure for the control of pollution. Regulations pertaining to this process have been published in 1990 and are available with the CEA.

Environmental Impact Assessment

Sri Lankan Government recognizes EIA as an effective tool for the purpose of integrating environmental considerations with development planning. The application of this technique is considered as a means of ensuring that the likely effects of new development projects on the environment are fully understood and taken into account before development is allowed to proceed. The importance of this management tool to foresee potential environmental impacts and problems caused by proposed projects and its use as a means to make projects more suitable to the environment are highly appreciated.

The legal provision for EIA in Sri Lanka was first included in the Coast Conservation Act No. 57 of 1981 (see below). These provisions were restricted to the Coastal Zone as defined by this Act. The broader legal framework for the EIA process in Sri Lanka was laid down by the amendments made to NEA in 1988 through National Environmental (Amendment) Act No. 56 of 1988. The provision relating to EIA is contained in Part IV C of the National Environmental Act. The procedure stipulated in the Act for the approval of projects provides for the submission of two types of reports Initial Environmental Examination (IEE) report and Environmental Impact Assessment (EIA) report. Such reports are required in respect of “prescribed projects” included in a Schedule in an Order published by the Minister of Environment in terms of section 23 Z of the act in the Gazette Extra Ordinary No. 772/22 dated 24th June 1993. This amendment makes EIA mandatory for whole of Sri Lanka and transformed Central Environment Authority (CEA) into enforcement and implementing agency.

Further, any developmental activity of any description whatsoever proposed to be established within one mile of the boundary of any National Reserve, should receive the prior written approval of the Director of Wildlife Conservation. The Fauna and Flora (Protection) Ordinance mandates that the project proponent should furnish an IEE of EIA report in terms of the National Environmental Act for this purpose. In order

for a project to be approved the project proponent should submit either an Initial Environmental Examination (IEE) report or an Environmental Impact Assessment (EIA) report. If it's an EIA report that has been submitted there is mandatory period of 30 days during which the public can inspect the document and comment on the report. Further, a public hearing may be held to provide an opportunity to any member of the public to voice their concerns. A decision whether to approve the project will be made only after public consultation is done and necessary major issues are resolved.

The EIA process is implemented through designated Project Approving Agencies (PAAs). PAA's are those organizations that are directly connected with such a prescribed project. At present, 23 state agencies have been recognized by the Minister as PAAs which include the DWLC, FD and CEA. A given organization cannot act both as the PAA as well as the project proponent. In such cases the CEA will designate an appropriate PAA. Similarly when there are more than one PAA the CEA must determine the appropriate PAA. In the event of doubt or difficulty in identifying the appropriate PAA, CEA itself will function as the PAA.

Application to ESCAMP – The EIA/IEE regulations will apply to those sub-project activities proposed for the buffer zone of PAs or any other sensitive eco-system outside the PA system if initial screening reveals they have potential to trigger adverse environmental impact.

Environmental Protection License

The Environmental Protection License (EPL) is a regulatory/legal tool under the provisions of the National Environmental Act. The EPL procedure has been introduced to prevent or minimize the release of discharges and emissions into the environment from industrial activities in compliance with national discharge and emission standards, to provide guidance on pollution control for polluting processes and to encourage the use of pollution abatement technology such as cleaner production, waste minimization etc. Here the industries are classified into three lists named A, B and C. List A comprise of 80 potentially high polluting industries, List B comprise of 33 medium polluting industries and List C comprise of 25 low polluting industrial activities.

For List A and List B industries the project proponent must submit a duly filled application (can be obtained from CEA headquarters, provincial and district offices or downloaded from www.cea.lk) for each prescribed activity to provincial or district office of CEA who will evaluate the application and determine the relevancy of issuing an EPL and the adequacy of the details furnished and determine and appropriate inspection fee. Then the project proponent must pay the prescribed fee to CEA headquarters, provincial or district office of CEA and submit the receipt to the relevant provincial or district office of the CEA. Then a team of officers will carry out an inspection and submit a report based on the site visit and the information provided. If the Issue of EPL is recommended the project proponent can obtain the EPL upon payment of license fee.

For List C industries issue of EPL is delegated to local authorities (Municipal councils, Urban councils or Pradeshiya Sabha). The procedure to be followed is the same except the Local Authority will appoint a Technical Evaluation Committee (TEC) that will make the final decision regarding the issue of EPL based on the field assessment report and information furnished by the industrialist. The EPL can be renewed by submitting a renewal application three months prior to the date of expiry to the relevant authority who will conduct an inspection and determine whether the EPL should be renewed.

Application to ESCAMP – It is unlikely that EPL regulations will apply to sub-project activities under ESCAMP.

Strategic Environment Assessments

Although project level EIA is an effective tool in addressing environmental impacts at project level, it often fails to take into account cumulative impacts of several projects. Under such circumstance Strategic Environment Assessment (SEA) is a more effective tool in identifying cumulative impacts on the environment of a specific policy or programme of works. At present SEA is still not a mandatory requirement in Sri Lanka. However, the Cabinet of Ministers has approved implementation of SEA for policies, programs and plans in Sri Lanka. Therefore, all Ministries, Departments and Authorities who are responsible for implementing a new policy, plan or programme should carry out a SEA for the new policy, plan or programme prior to its implementation and submit a copy of the SEA report to the Central Environmental Authority for review and comments.

Application to ESCAMP – Not applicable to ESCAMP.

2.2 Coast Conservation Act (CCA) No.57 of 1981

The projects located wholly or partly within the coastal zone (the area lying within a limit of three hundred meters landwards of the Mean High Water line and a limit of two kilometers seawards of the Mean Low Water line) must undergo the approval process that is laid down in the Coast Conservation Act irrespective of its size. Only those projects located totally outside the Coastal Zone will be subject to the approval process laid down in the National Environmental Act. Therefore, any development work taking place within this zone falls under the jurisdiction of CCD. According to the CCA, Director of the CCD has the discretion to request for an EIA/IEE from the project proponent if the initial screening reveals significant impacts in the coastal areas by the project. The process is very much similar to the NEA excepting that the Director of the CCD reserves the right to request for an EIA/IEE and also to make a final decision.

Application to ESCAMP – Since most sub-project activities are likely to take place inside terrestrial or marine PAs under the DWLC and FD or in the buffer zones, application of CCA is unlikely. However, since marine areas are included in the selected bio-geographical regions, any activity with potential to cause negative impacts on the coastal environment (that do not fall within DWLC or FD jurisdiction) need to comply with the EIA/IEE regulations of the CCA in addition to the coastal laws.

2.3 Fauna and Flora Protection Ordinance (FFPO) Amended Act No. 49 of 1993

EIA provisions are also included in the Fauna and Flora (Amended) Act No. 49 of 1993. According to this Act, any development activity of any description what so ever proposed to be established within a national reserve or within one mile from the boundary of any national reserve, is required to be subjected to EIA/IEE, and written approval should be obtained from the Director General, Department of Wildlife Conservation prior to implementation of such projects. The FFPO follows a similar process as the NEA in conducting scoping, setting the ToR, preparation of EA, review of EA and public consultation and disclosure. The decision of project approval or disapproval is finally granted by the Director of the Department of Wildlife Conservation.

Application to ESCAMP – Sub-projects will be implemented inside and within the buffer areas of wildlife reserves and hence this legislation will have important implications to the project activities.

2.4 The North Western Provincial Environmental Statute No. 12 of 1990

Provincial Environmental Act (PEA) of 1991 implemented by the North Western Provincial Council applies for areas coming under the North Western Province. Environmental Assessments are required for prescribed projects that have been gazetted in Gazette Extraordinary 1020/21 of 27th March, 1998. It specifies two lists of project types (a) where EIA/IEE is mandatory and (b) where the EA can be requested if the PAA decides so. The process is similar to that of the NEA and will be headed by one of the two listed PAAs; (a) Provincial Environmental Authority or (b) Provincial Ministry of Fisheries and Aquaculture.

(A detailed account of the EIA/IEE procedure under each of these acts are provided in annex 2)

Application to ESCAMP – Similar to IEE/EIA regulations applicable under the NEA. In areas of the North Western Province (NWP), NWPEA will supersede the NEA if it is not an area under the DWLC or CCD. This legislation will apply to activities in the buffer zones of Pas in the NWP.

2.5 Key Institutions in Environmental Management and Governance

2.5.1 Ministry of Environment and Natural Resources (MENR)

Established in 1990, is responsible for providing ‘leadership to manage the environment and natural resources in order to ensure national commitment for sustainable development for the benefit of the present and future generations’. The ministry formulated the National Environmental Policy in 2003, and the Caring for the Environment in 2003 followed up by Greening Lanka in 2008 as action plans towards the implementation of the National Environment Policy. Department of Forest Conservation, Department of Wildlife Conservation, Marine Environment Protection Authority, Central Environmental Authority and the Geological Surveys and Mines Bureau are some of the key agencies coming under the Ministry of Environment and Natural Resources. The MENR will have the overall implementation responsibility for ESCAMP and was entrusted with the task of co-ordinating project preparation with the DWLC, FD and CEA.

2.5.2 Central Environmental Authority (CEA)

The Central Environment Authority established under the National Environment Act is primarily responsible for enforcing the National Environment Act as well as formulating and implementing other environmental policies. In order to achieve this objective the CEA is empowered adequately through the provisions of the NEA. The CEA operates provincial, regional and sub-regional offices that handle most of the compliance and enforcement functions. In the head office, the Environmental Impact Assessment (EIA) unit and the Environment Pollution Control Unit take care of the EIA and EPL processes respectively. All development activities in areas which come under the jurisdiction of the NEA have to fill in Basic information Questionnaire (see Annex 3) based on which the CEA carries out its initial screening of impacts and decides on the next steps.

2.5.3 Department of Wildlife Conservation (DWLC), Coast Conservation Department (CCD) and Forest Department (FD)

These three agencies respectively, as the titles imply, are responsible for managing designated wildlife areas, coastal zone and all forest areas of the country. Any activity within the wildlife areas will require

prior consent of the DWLC. The DWLC will generally not allow any land-use changes or extractive uses within protected wildlife areas and similarly, the Forest Department has its restrictions on usage of forest land depending on the category of protection. All building activities within the coastal zone will need to apply for a permit from the CCD and will also need to adhere to the set-back zones determined by the Department for each coastal stretch. All three departments operate through a decentralized administrative structure. However, all important decisions are generally made in the head offices located in Colombo. The DWLC and the FD will be the two key implementing agencies for the ESCAMP.

2.5.4 Provincial Councils

Within this unitary system, considerable powers were devolved from the center to the provinces through the thirteenth amendment to the Constitution in 1987. The provincial councils [PCs] were established to devolve powers and administrative authority to the sub-national level. The responsibilities assigned to the PCs were categorized as “devolved” and “concurrent” subjects. For the former, both legislative and executive powers were transferred to the PCs. Thus, each PC has the power to pass statutes regarding devolved subjects that will then override existing national laws within that province. A PC may also pass legislation regarding concurrent subjects, but only after “consultation” with the central government. As such, environment is a subject on the concurrent list. However, only the North Western Provincial Council has passed a statute for environmental management (refer section above) and in its area of jurisdiction the aforementioned statute supersedes the NEA. While all the other PCS have the same right to do so, only the North Western PC has implemented a separate environmental statute. Most PCs have Environmental Officers who assist in environmental planning and monitoring. They may also implement their own environmental programs if they have the administrative, technical, and financial capacity to do so.

2.5.5 The Local Authorities (LA)

Local authorities consist of Municipal Councils, Urban Councils and Pradeshiya Sabhas and constitute the third level of governance. Because environmental management is a devolved responsibility under 13th amendment of the constitution, LAs are expected to play a major role in protecting the environment. Activities related to environmental management in the LA are generally coordinated by an environmental officer attached to the LA. All complaints from the public concerning environmental issues in the LA are received by the EO. This may lead to investigation of complaints and recommendations to responsible authorities for further action. In some LAs the environmental officers are not available either because the position is not filled or is not approved. In such instances environmental management activities may be carried out as a collateral duty by the development assistant, or by an Environmental Officer attached to the Divisional Secretariat office

Industries/Organizations proposing to undertake activities of low polluting nature must obtain an Environmental Protection License (EPL) from the LA where the activity will be undertaken, an authority delegated to the LAs through the NEA. The LAs are empowered to issue EPLs for 25 types of low polluting activities. However, in general, the knowledge of staff members in the LAs regarding environmental issues and industrial pollution is quite limited, and LAs mostly rely on the CEA for technical guidance. The inspection committees set up to review the EPL will seldom reject applications or revoke existing EPLs unless they are encouraged by an environmental NGO, or advised by a government expert, to do so. Therefore, the environmental planning and management skills in the LAs are rather limited.

The role of PCs and LAs in ESCAMP may become important in sub-components 1.2 activities supported under window 1 and sub-component 2.1 with regard to HECOEX model implementation.

2.6 Compliance with World Bank Operational Policies

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

- OP/BP/GP 4.01 Environmental Assessment
- OP/BP/GP 4.36 Forestry
- OP/BP/GP 4.04 Natural Habitats
- OP/BP/GP 4.09 Pest Management

The main environmental safeguard policy to be triggered under this project will be OP/BP/GP 4.01 on Environmental Assessment. The other three environmental safeguard policies namely, OP/BP/GP 4.36, 4.04 and 4.09 on forestry, natural habitats and pest management respectively, have been identified and will be considered to ensure minimal adverse environmental impacts due to the project. Application of social safeguards policies will be addressed separately in the Social Safeguards Framework.

2.7 Compliance with OP 4.01 on 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 take 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 non governmental 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.

The Eco-system Conservation and Management 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 NEA and other local laws (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. (b) all other sub-projects that do not require screening according to local 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 manual), depending on the nature and scale of potential impacts, and mitigated. The borrower is responsible for carrying out the EA/EMPs and for implementing the necessary safeguards.

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

According to Annex C of the World Bank OP4.01 an Environmental Management Plan (EMP) is an essential element of EA reports for Category A projects. The EMP should consist 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 EAP, as set out in the project documents
- (b) The status of mitigatory measures; and
- (c) The findings of monitoring programs.

2.9 Compliance with OP 4.04 Natural Habitats

The World Bank's Operational Policy OP 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 project 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 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, as National laws make it mandatory to address issues in natural areas OP 4.04 will be complied with during project implementation.

2.10 Compliance with OP 4.36 Forestry

The policy is triggered whenever any Bank-financed investment project (i) has the potential to have impacts on the health and quality of forests or the rights and welfare of people and their level of

dependence upon or interaction with forests; or (ii) aims to bring about changes in the management, protection or utilization of natural forests or plantations. The proposed project may finance some eco-tourism activities in protected such as camping sites, wildlife hides, canopy walks etc., but it is highly unlikely that this policy will be triggered in full force. However, as a precautionary measure the policy has been considered so that safeguard measures can be built into the design and implementation of the project. The project will not fund any logging activities or forest conversions. All activities inside PAs will be based on strategic PA management plans.

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 and 4.36 as it applies to ESCAMP.

2.11 Compliance with OP 4.09 Pest Management

This policy is triggered when any Bank financed project operation involves agriculture or public health where management of pests becomes an integral aspect of the project. In such instances, the Bank supports a strategy that promotes the use of biological or environmental control methods and reduces reliance on synthetic chemical pesticides. While this project does not support agriculture per se, the HEC pilots deal with *chena* farmers. Generally *chena* cultivation does not use fertilizers, insecticides and pesticides. The traditional methods of pest control in *chena* cultivations are integrated pest management. However, as a precaution the project will trigger OP 4.09 on Pest Management. EAs/EMPs for the relevant sub-projects would need to include measures for promoting safe pesticide management as well as integrated pest management (IPM) in case there is relevance.

2.11 Adequacy of GOSL Environmental Clearance

The composite GOSL environmental clearance process, in principle, is consistent with World Bank environmental and public disclosure requirements. The exception being the screening criteria adopted in the GOSL process under the NEA, where project thresholds are used to determine the type of clearance required and the content of public consultation. However, all activities with an impact on the environment under the proposed project will be subjected to environmental analysis regardless of the project threshold, prior to disbursement of funds. The CEA's regulated EA procedure is more than a decade old and substantial experience has been made by the CEA in evaluation of EIAs/IEEs. Hence, there will be no need for the project to provide technical assistance to the CEA and other PAAs to provide support to the project on environmental matters. Although the GOSL's clearance procedure is adequate fairly reliable, IDA will still review **all EIAs 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.

3. Environmental Management Tools

3.1 Environmental Impact Assessment (EIA)

EIA and IEE 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. 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. With SEA, environmental decisions can be moved further upstream where better alternatives to environmentally unsustainable policies and programs can be sought at a broader strategic level. See the section below for a comparison between SEA and EIA.

If a specific subproject requires environmental assessment the first step will be to provide CEA the preliminary information on the proposed project, in order for the process to be initiated (See annex 2 for the description of major steps of the environmental assessment process with responsibilities and time frames). The best time for a project proponent to submit the preliminary information on the proposed project is as soon as the project concept is finalized and the location of the project is decided.

3.2 Strategic Environment Assessment (SEA)

Development agencies have years of experience in using environmental impact assessment (EIA) to integrate environmental concerns into their funding programmes. EIA procedures, methods and techniques, used to address environmental impacts of development projects, will continue to be applied. However, EIA has limited utility when applied to the more strategic levels of development assistance such as policies, plans and programmes, as these are also influenced by political bargaining in addition to technical criteria. Further, significant indirect or secondary environmental effects can arise as a result of changes in people's behaviour induced by policy reforms. But these changes, and their environmental consequences, are extremely difficult to predict. For these reasons, SEA has been developed and is being increasingly used as a tool to be applied at the level of policies, plans and programs.

A comparison between SEA and EIA

EIA	SEA
Applied to specific and relatively short-term (life-cycle) projects and their specifications	Applied to policies, plans and programmes with a broad and long-term strategic perspective
Takes place at early stage of project planning once parameters are set	Ideally, takes place at an early stage in strategic planning
Considers limited range of project	Considers a broad range of alternative

alternatives.	scenarios
Usually prepared and/or funded by the project proponents	Conducted independently of any specific project proponent
Focus on obtaining project permission, and rarely with feedback to policy, plan or programme consideration	Focus on decision on policy, plan and programme implications for future lower-level decisions
Well-defined, linear process with clear beginning and end (e.g. from feasibility to project approval)	Multi-stage, iterative process with feedback loops
Preparation of an EIA document with prescribed format and contents is usually mandatory. This document provides a baseline reference for monitoring	May not be formally documented
Emphasis on mitigating environmental and social impacts of a specific project, but with identification of some project opportunities, off-sets, etc	Emphasis on meeting balanced environmental, social and economic objectives in policies, plans and programmes. Includes identifying macro-level development outcomes
Limited review of cumulative impacts, often limited to phases of a specific project. Does not cover regional scale developments or multiple projects	Inherently incorporates consideration of cumulative impacts

An SEA is not an alternative to EIA and it does not replace the need to do project specific environmental assessment. A good SEA can reduce the scope of EIAs within its geographical scope and make it limited to specific project level issues. The SEA ideally will identify opportunities to minimize the range of environmental issues that will have to be dealt at the project level.

At present SEA is not mandatory in Sri Lanka. However, all Ministries, Departments and Authorities who are responsible for implementing a new policy, plan or programme should carry out a SEA for the new policy, plan or programme prior to its implementation and submit a copy of the SEA report to the CEA for review and comments. To facilitate this process a document has been developed by the CEA titled “**A SIMPLE GUIDE TO STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)**” that can be downloaded from the CEA website.

3.3 Environmental Management Plan (EMP)

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.

The basic elements of an EMP are;

- a. A description of all possible significant adverse impacts that are likely to arise due to the project that the EMP is intending to deal with;
- b. A description of planned mitigation measures, and how and when they will be implemented;

- c. A programme for monitoring with measurable indicators that will allow to determine the effectiveness of the mitigation actions
 - d. A description of who will be responsible for implementing the EMP
 - e. A cost estimate and source of funds
- (refer Annex 4 for guidelines for developing EMPs)

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.

The PAA will request the project proponent to prepare an Environmental Management Plan (EMP), to address any potential environmental and social issues as well as incorporate the PAA/CEA's approval conditions. Ideally, all EIAs and IEEs which identifies adverse environmental impacts should prepare an EMP as part of the report. In World Bank funded projects, an EMP only is considered appropriate in situations where a detailed environmental analysis is not required (as in the case of rehabilitation of a provincial/rural road). Implementation of the EMP should be regularly monitored.

3.4 Environment Audits

Most of the development projects go through the SEA and EIA process and develop EMP's 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

3.5 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.

3.6 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 is very minor and easily mitigatable.

4. Environmental Management Framework

4.3 Preliminary Assessment of Environmental Issues Relevant to the Project

The project is classified as category B. The overall project outcome is expected to be overwhelmingly beneficial from an environmental perspective. However, the risks associated with implementation of project activities inside PAs, 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 park improvement/development activities are undertaken by either DWC or FD, which may have adverse environmental impacts, the need to carry out environmental assessments have been overlooked.

This Environmental Assessment and Management Framework (EMF) has been designed to achieve sound environmental practice in ESCAMP. The EMF 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 EMF can be adjusted based on implementation experience. The EMF 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 under the FFPO and FO of Sri Lanka

As mentioned in section 1, the ESCAMP project comprises of 4 components. The following sections of the report try to identify the possible environmental impacts that could arise in each component and how best they could be assessed and addressed during project implementation.

Component 1 – Promotion of Ecosystem Conservation and Management

The first activity under this component is the preparation of conservation landscape management plans for the four identified landscapes. The preparation of these plans will provide information to the Government to make environmentally sensitive development decisions within the conservation landscapes, so has a positive environmental impact for activities outside the scope of the project, as well. Under sub-component 1.2 of the project there will be 3 funding windows with specific objectives for each window (see project description section). First grant window will entertain proposals that aim to promote ecosystem conservation at a landscape level with a particular emphasis on areas outside the PA network and the second grant window will focus on management interventions needed within declared protected areas, while the third grant window will fund projects on community participation to reduce forest degradation and deforestation.

Proposals funded under window 1: may include a broad range of activities needed to protect and conserve the identified critical eco-system. Every intervention under this grant facility will also be assessed for environmental impacts. Typical activities funded under this window are: (i) identification of wildlife corridors and making connectivity linkages for the long term survival of flagship species such as elephants. This may involve the construction of electric fences for isolating these corridors from developed and human habituated areas; (ii) restoration of degraded ecosystems; (iii) restoration of existing degraded or abandoned water bodies; (iv) valuation of environmental services within the landscape and restoration of degraded but potentially high ecosystem services; and (v) preparation of green infrastructure guidelines for use for infrastructure development projects (not funded by this project) within the conservation landscapes. Since these interventions will enhance the environmental and ecosystem quality of the conservation landscape it is not anticipated that there will be adverse or irreversible environmental impacts. Therefore a detailed EMP will be required for all activities supported under Window 1.

Proposal funded under window 2: While it is recognized that all activities proposed will eventually have significant conservation benefits, it is anticipated that some of the activities to be proposed will involve civil work and hence certain negative environmental impacts during the implementation phase. The specific activities that will be proposed will be known only when proposals are called for the three windows. However, typical activities undertaken in the course of management of conservation landscapes outside the PA network as well as within the PA network are well known. The following account is an assessment of the adverse impacts that can be triggered by typical interventions within conservation landscapes and within PAs undertaken in the course of conservation and management of such landscapes and how such impacts could be best managed. All project supported interventions will be based on a strategic management plan developed for the PA or from the conservation landscape management plan for the areas outside the PA. Prioritization of proposals for funding will be determined by a funding review process as detailed in the project description.

Rehabilitation of tanks and waterholes inside protected areas – Availability of water inside PAs play 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 zone of the country, water scarcity becomes a huge problem for sustaining life inside PAs. Some tanks/waterholes 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 following activities may be considered.

- Rehabilitation of existing tanks and waterholes
- Rehabilitation of abandoned tanks and waterholes
- Develop artificial waterholes in places where water shortages become acute.

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 waterbodies requiring both men 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.

Hence, 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 waterbody.

Improvement to road network within the PAs (for visitors as well as for patrolling) – In PAs such as Kumana, Wilpattu, some parts of Yala, Maduru Oya, Lahugala, Gal Oya etc where visitation has been very little in the past due to the security situation, the need for improvement of the road network will be high on the list of priorities. This is especially so in view of the improved security situation and visitors wanting to travel more to the unexplored PAs, given the opportunity. Possible interventions 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. Also, most importantly, one of the major risks would be the possibility of increased wildlife poaching during construction.

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.

Construction of small buildings such as range offices, staff quarters, research facilities etc –

- (1) **A simple checklist or an EMP**, as necessary, would be sufficient to initially screen and assess 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, a full **Environmental Impact Assessment or a detailed EMP** will be a condition for IDA financing, depending on the nature of the site and expected impacts.
- (3) In addition, all building constructions and renovations should adhere to existing building and other applicable codes in Sri Lanka (such as ICTAD). In order to ensure that the contractor is responsible for adherence to the Codes of Practice, the relevant codes (ICTAD specifications) as well as any safeguard measures highlighted in the checklist should be included in the contract documents:

Removal of invasive species – An **EIA** with a comprehensive **management and monitoring plan (for long-term monitoring)** will be needed to ensure that great care is exercised when 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 in the southern coastal belt was funded by the PAMWCP funded by the ADB and successes/failures recorded from this experience should be well taken into account.

Boundary survey and demarcation of PAs – this activity will have little or no adverse environmental impacts. In fact, establishment of protective fences will serve as a deterrent for most illegal activity as well as for large herds of cattle entering PAs which has become a major problem. It is recommended that best management practices are adhered to in establishing fences such as conservation of large trees etc.

Improved facilities for increased patrolling to control poaching, logging and illegal fishing – no adverse impacts are foreseen.

1. *Proposals funded under window 3:* is for community participation in activities that result in reducing forest degradation and deforestation. Specific site selection within the conservation landscapes and the buffer zones will be based on the range management plans prepared for the entire country by FD and prioritized on the basis of conservation issues faced by the respective forest reserves, including an analysis of the vulnerability of forests to deforestation and forest degradation within the identified conservation landscapes. The action plans would aim to: (i) reduce deforestation and forest degradation by reducing the dependency on extractive forest resources by providing alternative agricultural and non-agricultural income generating opportunities for local communities; (ii) enhance the productivity and environmental sustainability of agricultural lands within the selected conservation landscapes; (iii) reduce soil erosion; (iv) improve soil and water conservation in agricultural lands and home gardens; (v) increase the quality and quantity of timber produced from designated woodlots and home gardens and (vi) assisting the FD in management of selected forest reserves. Since these activities are small scale and undertaken by communities, it is not anticipated that there will be significant adverse environmental impacts. Therefore, environmental checklists and codes of practice typically used for CDD projects will be used to ensure that community forestry activities (which are on a very small scale, in any case) will do minimal harm to the environment. The codes of practice will ensure that the community adopts good environmental management practices in their villages and forest areas.

Component 2: Demonstrating Human Elephant Conflict (HEC) Management through Co-existence

Sub-component 2.1: Pilot Projects for Demonstrating Human Elephant Co-existence within High Conflict Areas in selected Conservation Landscapes

The second component under the project relates to the mitigation of human-elephant conflict (HEC). Addressing the HEC has become a national priority due to the alarming proportions it has reached causing the death of approximately 60 people and 150 elephants each year. In 2006 a national policy for conservation and management of wild elephants was ratified by the Cabinet of Ministers. The project hopes to support the policy by piloting an innovative approach where elephants will be managed according to ecological boundaries as opposed to administrative boundaries of land belonging to conservation agencies as is the present practice. In that, elephants will be managed in DWLC PAs, FD PAs and Managed Elephant Ranges (MER) which will comprise mainly is state land where seasonal agriculture is practiced. This approach will involve removal or relocation of electric fences in the pilot area to identified ecological boundaries and located at the boundaries of the developed areas such as village boundaries and around permanent agriculture. The project will also explore opportunities for the community to gain economic benefits from elephant conservation. As such, adverse environmental impact of this pilot project per say is minimal or none. The only risk associated is the risk of failure commonly associated with pilot projects. However, groundwork for this approach has been already completed with 10 years of extensive research in the southern region of Sri Lanka by the DWLC and conservation organizations. Hence, the pilot is based on solid scientific research data and evidence of successful management of the HEC. Such success will have far reaching impacts, not only for Sri Lanka but across the south and south-east Asian states that harbor the Asian elephant.

Failure of the HECOEX pilots will not lead to any adverse environmental impacts that are not already present. The areas where the HECOEX pilots are to be implemented are areas with very high HEC at present and any intervention can only improve the situation. Traditional approaches to management of 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 excessive damage by elephants to the vegetation in PAs, which results in adverse impacts on the environment and the elephant population. Whereas the pilots will involve electric fencing on the ecological boundaries, boundaries of villages and permanent agriculture, creating larger habitats for the elephants and reducing the stresses on both elephants and 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 the elephant population. 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.

Sub-component 2.2: Developing a National Master Plan for Mitigation of the Human Elephant Conflict and Practical Models for Human Elephant Coexistence

This component will focus on information gathering and data collection for developing country wide HECOEX models and a National Master Plan for Mitigation of the human elephant conflict. This will lead to greater understanding of human-elephant interaction and thereby develop greater capacity in SL to address the HEC more effectively in all parts of the island. There will be no adverse environmental impacts from this activity.

Component 3 - Enhancing the Quality of Nature-based Tourism in support of PA Conservation and Management

Environmental impacts of this component of the project will largely be related to civil works associated with developing nature based attractions, current and new, within protected areas under the jurisdiction of the DWLC and FD.

The potential for nature-based tourism within the country's PA system is immense while, at present, only a small fraction of it is tapped. Tapping this potential require the development of necessary tourism facilities such as visitor centres, visitor toilets and resting areas, park bungalows, picnic sites, camp sites, nature trails, facilities for water sports etc. While nature-based tourism within PAs will be developed according to a strategic plan, the project may select to fund one or a few activities only. Some typical negative impacts to be associated with such interventions include changes to landform, decrease in aesthetic value, erosion, disturbance to animal life etc. It is recommended to carry out the following for identifying and mitigating possible adverse environmental issues associated with such interventions.

- New visitor centres - an environmental assessment or a detailed EMP to be prepared, depending on the location of the center, type and extent of work involved, prior to construction.
- Renovation of existing visitor centres and park bungalows – a simple EMP to be completed prior to civil work
- Development of nature trails, picnic/camp, tree-top canopy walks, construction of observatory for bird watching - an EMP will be prepared for these activities prior to commencement of construction. Development of water sports in waterbodies within PAs such as boating, rafting and kayak safari may have little impact if done adhering to good practices, as these will be non-motorized transportation. 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.

Based on the findings of assessments mentioned above, a decision would be taken whether further analysis is needed or not.

Component 4 – Strengthening Knowledge and National Capacity for Ecosystem Conservation and Management

The component relates to capacity building of the DWLC and FD through strengthening their training capabilities and conservation management skills. Hence, there are no adverse environmental impacts to be managed during project implementation, except for the possible construction and renovation of buildings at the Sri Lanka Forestry Institute and the Wildlife Training Center. Since neither of these institutions are located within PAs, the use of checklists commonly used in Sri Lanka under World Bank projects for building construction will be adhered to.

5. Institutional Arrangement for Implementation of the project

5.1 Institutional arrangements for implementation of the EMF

The implementing agencies will be responsible for implementing the EMF. Activities selected under components 1 and 3 will fall into two categories for carrying out environmental assessments; (a) activities falling within EIA regulations of the country (b) activities that do not fall within the EIA regulation but still require environmental analysis in complying with OP 4.01 of the World Bank Safeguard Policies.

For those activities falling under category (a) above, operating procedures established for EIA/IEE clearance will apply (please see annex 2). Generally, upon IDA clearance of the TOR, the sub-project implementing agency will carry out the EA/EMP and submit the same to the technical evaluation committee appointed by the PAA for the purpose. At the same time the report will be submitted informally to IDA for review and comment so that revisions can be made prior to GOSL approval. As this is a category B project, EA report preparation will need to undergo public consultation at the stage of screening and once the draft EA is prepared. Upon receiving formal approval from the Technical Evaluation Committee (TEC) and formal clearance from the Government, the EA/EMP will be forwarded to IDA for formal concurrence, as IDA is unable to provide formal clearance until the required national clearances are obtained. IDA clearance of the EAs is a pre-requisite for disbursement of funds for the civil works. Once the project is approved and implemented, monitoring of implementation progress of each sub-project will be carried out periodically by the implementing agency, PAA and IDA. Monitoring progress will be fed back to IDA and PAA by the implementing agency through monitoring reports.

For those activities falling under category (b) above, the respective agency will be responsible in preparing the TOR with IDA concurrence and for carrying out the assessments, with or without public consultation as the need may be, and formally submit for IDA concurrence. The EAs, EMPs or checklists will be formally approved by IDA prior to fund disbursements for the specific activities.

5.2 Stakeholders and Disclosure

Stakeholders for this project include communities in the buffer areas of PAs, government department staff (at village, district and provincial levels), an active environmental conservation NGO lobby, wildlife enthusiasts and private sector involved with nature tourism. In keeping with consultation requirements with Category B projects, the project has had extensive consultations with the stakeholder groups as part of project preparation in order to obtain a wide spectrum of views, ideas and concerns about conservation priorities in the country. Consultations with the NGO sector and wildlife enthusiasts still continue to be held on a regular basis and will continue even during project implementation. 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 Environmental Framework has been disclosed to the public for a period of 30 days prior to appraisal. The public disclosure took place on June 4, 2010. A soft copy of the framework has been posted on the websites of the key implementing agencies. Hard copies have been made available at appropriate places in the project area for review by interested sections of the public. The framework will also be made available at IDA'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 designing. All EIAs/IEEs that will be prepared by the project once it is effective shall also adhere to this disclosure policy. The implementing agencies and IDA has had several workshops with the environmental conservation community to discuss the project design and safeguards.

6. Capacity Building and Training

Institutional Capacity Assessment

6.1 Central Environmental Authority (CEA)

Central Environmental Authority (CEA) has pioneered the effort of introducing and implementing the EIA process as a planning and decision making tool in the development activities of the country. Since its introduction almost two decade ago, the CEA has gathered considerable experience and expertise in managing the EIA process and has benefited from numerous capacity building and training projects supported by various donor agencies. The CEA has overseen the implementation of EIA procedures in many sectors and is currently engaged in formally introducing SEA to development programs. As of present, a separate division with technically qualified staff is engaged in EIA implementation on a full time basis. In a recent development the CEA has strengthened its presence in the regional areas by establishing regional and sub-regional offices. These offices often function as the focal points for EIA and EPL matters in its areas of jurisdiction. Although the CEA has achieved quite a lot in implementing EIA procedures, monitoring of post implementation impacts is a weak area that needs to be strengthened.

6.2 Department of Wildlife Conservation (DWC)

The Department of Wildlife Conservation is a designated PAA according to the provision of the NEA and is responsible for conducting EIAs for activities that fall within a national reserve or within 100m from the boundary of a national reserve. In addition, provisions within the FFPO empower the department to carry out EIA regulations within its area of jurisdiction. However, the FFPO does not specify regulations on how to conduct an EA and hence the NEA regulations are followed. Although the DWC has several years of experience acting as PAA the capacity within the department in effectively implementing EA procedures is rather limited. All EIAs/IEEs are handled in the head office but there is no specialized unit for this purpose and hence handling an EA becomes an additional task. As a result, operationally, the DWC often seeks the support of the CEA and other technical experts from the public and private sectors to assist in EIA evaluations. In instances where controversial projects fall within the purview of the DWC, it has requested CEA to take a lead role in EIA approval for such projects. Involvement of the DWC under the proposed project will be extensive as there will be activities funded in wildlife protected areas and its buffer zone of 100 meters. Hence, while there is capacity in DWC, it could do with strengthening for processing environmental assessments coming under its area of jurisdiction. It is unlikely that complex EIAs will be prepared under ESCAMP, but the project will strengthen DWCs capacity to be able to evaluate complex EIAs that may come to DWC for review in the future due to other activities, particularly large development projects of the Government.

6.4 Department of Forest Conservation (DFC)

Similar to the DWLC, the Forest Department is also a designated PAA responsible for handling EIAs in forest areas owned by the department. All EIAs are handled by the head office and is a responsibility that is not exclusively entrusted to any unit. Involvement of the FD under the project will be extensive as it is one of the key implementing agencies for the project. While the FD is able to manage EAs and EMPs etc., from project activities, it will be necessary to build capacity in FD in terms of training, for them to be able to review more complex EIAs that may arise from large development activities, especially by the Government.

6.5 Provincial Councils (PCs)

As stated earlier, of the 9 provinces in Sri Lanka, only the North Western Provincial Council (NWPC) has a separate statute for environment. None of the other PCs have adequate experience in handling environmental assessments for development projects. Even in the NWPC, where there is a separate Provincial Environmental Authority, capacity could be strengthened although they have the experience of undertaking complex EIAs like the first coal fired power plant in Sri Lanka. In the event there is any activity under ESCAMP requiring an EIA/IEE under the North Western Provincial Environmental Act the Provincial Environmental Authority (PEA) will have to provide environmental clearance. Since there are no complex and large infrastructure activities supported under ESCAMP, the available technical capacity in the North Western PEA is adequate.

6.7 Capacity Building requirements

The EIA cells within the FD and DWLC may need assistance in terms of training to comply with the EA requirements. The project will provide the required training and technical assistance, if needed to ensure that the environmental safeguards of the project is effectively carried out effectively at the implementing agencies. Attention will be paid to strengthen EA monitoring within the DWC and FD.

Annex 1: Policy Framework: Environmental Assessment and Impact Mitigation

The importance of the Environmental Impact Assessment as an effective tool for the purpose of integrating environmental considerations with development planning is highly recognized in Sri Lanka. The application of this technique is considered as a means of ensuring that the likely effects of new development projects on the environment are fully understood and taken into account before development is allowed to proceed. The importance of this management tool to foresee potential environmental impacts and problems caused by proposed projects and its use as a mean to make project more suitable to the environment are highly appreciated. The Environmental Impact Assessment (EIA) unit of the Central Environmental Authority (CEA) is involved in the implementation of the EIA procedure under the National Environmental Act.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

Realizing the need for integrating environment, economic and social considerations with the planning and decision making process in a more formal manner, the Government of Sri Lanka decided to introduce Environmental Impact Assessment for development projects. The importance of the Environmental Impact Assessment as an effective tool for the purpose of integrating environmental considerations with development planning is highly recognized in Sri Lanka.

The Environmental Impact Assessment (EIA) unit of the Central Environmental Authority (CEA) is involved in the implementation of the EIA procedure under the National Environmental Act. Administration of the EIA process, co-ordination between Project Approving Agencies (PAA's) that have been appointed for this purpose, preparation of manuals and guidelines on EIA and maintenance of a data base on EIA is done by the CEA.

EIA under the National Environmental Act (NEA)

EIA was mandated island wide by the 1988 amendments to the National Environmental Act. Part IV C of the Amendment Act No. 56 of 1988 mandated that CEA require “prescribed” development project proposals to be subjected to Environmental Impact Assessment, where adverse and beneficial impacts of the proposed projects on the environment would be identified together with measures to minimize such adverse impacts.

The procedure stipulated in the Act for the approval of projects provides for the submission of two types of reports Initial Environmental Examination (IEE) report and Environmental Impact Assessment (EIA) report. If the environmental impacts of the project are not very significant then the project proponent may be asked to do an Initial Environmental Examination (IEE), which is a relatively short and simple study. However, if the potential impacts appear to be more significant, the project proponent may be asked to do an Environmental Impact Assessment (EIA) which is a more detailed and comprehensive study of environmental impacts. Such reports are required in respect of “prescribed projects” included in a Schedule in an Order published by the Minister of Environment in terms of section 23 Z of the act in the Gazette Extra Ordinary No. 772/22 dated 24th June 1993 (ANNEX II). Once an EIA report is submitted NEA provides for a public inspection and comment on the report during a mandatory period of 30 days. A public hearing may be held to provide an opportunity to any member of the public (who has submitted his comments) to be heard in support of his comments if the PAA considers it to be in the public interest to do so. A decision whether to approve the project has to be arrived at thereafter. IEE reports have been exempted from this requirement. However, an Initial Environmental Examination report shall be deemed to be a public document for the purposes of sections 74 and 76 of the Evidence Ordinance (Chapter 21) and shall be open for inspection by the public.

The EIA process is implemented through designated Project Approving Agencies (PAAs) specified under Section 23 Y of the NEA. At present 23 state agencies, including Ceylon Tourist Board have been specified by the Minister as contained in Gazette Extra Ordinary No. 859/14 dated 23rd February 1995 and Gazette Extra Ordinary No. 1373/6 of 29th December 2004. The National Environmental Act stipulates that all “prescribed projects” must receive approval from the appropriate project approving agencies (PAAs), which must be those that are “concerned with or connected with such prescribed projects”. A PAA, which is also the project proponent, is disqualified from acting as the PAA for the project by NEA-EIA Regulation 2(1) of June 1993. When the PAA is also the project proponent, the CEA is required to designate an appropriate PAA. Again in cases where there are more than one PAA is involved, the CEA must determine the appropriate PAA. In the event of doubt or difficulty in identifying the appropriate PAA, it has been practice for the CEA to take on the role of PAA.

Prescribed projects

Prescribed projects are listed in two groups in Schedule included in the first ministerial order of June 24, 1993. Part I of the Schedule includes 31 projects and undertakings if located wholly or partly outside the Coastal Zone. The projects in this group irrespective of size if located wholly or partly within the coastal zone must undergo the approval process that is laid down in the Coast Conservation Act. In other words only those projects located totally outside the Coastal Zone will be subject to the approval process laid down in the NEA.

Item 19 in this list of 31 projects and undertakings is described as the “Development of Industrial Estates and Parks exceeding an area of 10 hectares”. Once an industrial estate or industrial park is approved under Part IV VC of the NEA, any individual project or undertaking located in it, even though prescribed, will be exempted from the approval process. Projects and undertakings, which are listed as Items 20 to 30, belong to the category of high polluting industries. They will be required to go through the EIA process only if they are located outside an approved industrial estate or industrial park.

Implementation of projects in environmentally sensitive areas that are listed in Part III of the Schedule is not prohibited, but regardless of their magnitude such projects and undertakings must go through the approval process. This itself acts as a disincentive to project proponents. Similarly, even though Part I of the Order exempts projects and undertakings proposed to be established within the Coastal Zone from the approval process set out in Part IV C of the NEA, the law requires that such projects must be subject to the NEA approval process if they are located in environmentally sensitive areas of the Coastal Zone. In short, the EIA process set out in the Coast Conservation Act applies to projects prescribed under the NEA only when they are located wholly within the Coastal Zone but not in any environmentally sensitive area therein.

Part II of the Schedule of prescribed projects includes Item 32 industries (Items 33 to 52). Item 32 is described as “All projects and undertakings listed in Part I irrespective of their magnitudes and irrespective of whether they are located in the coastal zone or not, if located wholly or partly within the areas specified in Part III of the Schedule”. The industries included as Items 33 to 52 are not described by magnitude and are subject to the approval process only if located within the environmental sensitive areas mentioned in Part III of the Schedule.

Operational Procedure for EIA/IEE

The Basic Information Questionnaire (BIQ) form prepared by the CEA (**Annex 2**) has to be filled by the project proponent and submitted to the CEA. On examination of the BIQ, the CEA decides on the need for an EIA/IEE. If its determined that an EIA/IEE is required, the CEA will decide a suitable Project Approving Agency (PAA).

The PAA in turn will appoint a technical committee (TC) to scope the project based on the preliminary information. If the PAA determines that the project would have no long-term adverse environmental impacts, an initial environmental examination (IEE) would be considered adequate. The project proponent must submit a detailed IEE for review and approval by the PAA. The IEE should identify potential environmental and social issues and the possible remedial actions. Upon reviewing the IEE, if the TC identifies any substantial environmental issues that may arise as a result of the proposed project, the proponent will be advised to undertake a detailed EIA and issue the Terms of Reference (TOR) for the EIA. In developing the TOR, the PAA will also consider the views of other state agencies and the public. If the PAA decided that no further environmental analysis is needed, the process ends with approval/rejection of the IEE.

If an EIA is a necessity, then the project proponent must conduct the EIA according to the TOR issued, prepare the report in all three languages and submit it to the PAA. The PAA will then declare open the EIA report for a period of 30 days for public comments and the comments received will be conveyed to the proponent. The project proponent can then prepare a response to the public comments and submit it to the PAA. The TC will then evaluate the report with respect to adherence to the TOR, quality of the report contents and adequacy of the responses to public comments.

Based on the recommendations of the TC, the PAA in concurrence with CEA would either grant approval for the implementation of the proposed project subject to specific conditions or refuse approval for implementation of the project, giving reasons for doing so. The PAA will also specify a period within which the approved project should be completed. If the project proponent is unable to complete the project within the specified period, written permission for an extension must be obtained from the PAA, 30 days prior to the expiration of the approved completion date.

EIA in the Coast Conservation Act

The Coast Conservation Act No. 57 of 1981 together with the Coast Conservation (Amendment) Act, No. 64 of 1988 governs the Coastal Zone. This Zone comprises mainly “the area lying within a limit of three hundred meters landwards of the Mean High Water line and a limit of two kilometers seawards of the Mean Low Water line”. The EIA process is part of the permit procedure mandated in Part II of the Coast Conservation Act (CCA) for the approval of prescribed development projects and undertakings within the Coastal Zone. The Act states that the Minister in charge of the subject of Coast Conservation “may, having regard to the effect of those development activities on the long term stability, productivity and environmental quality of the Coastal Zone, prescribe the categories of development activity, which may be engaged in within the Coastal Zone without a permit”. Such activity should not however include any development activity already prescribed under the NEA.

Section 16 of the Coast Conservation Act (CCA) confers on the Director of Coast Conservation the discretion to request a developer applying for a permit (to engage in a development activity within the Coastal Zone) to furnish an Environmental Impact Assessment relating to the proposed development activity. The CCA does not however specify how and when this discretion should be exercised. The Coast Conservation Department (CCD) interprets this provision as requiring an EIA when the impacts of the project are likely to be significant. The application from for a permit includes several questions, the answers to which would help determine whether the development activity is likely to have significant impacts on the environment.

The Act requires the Director of Coast Conservation, on receiving an EIA Report, to make it available for public inspection and to entertain comments on it. The Act also requires the Director of Coast Conservation to refer the EIA report to the Coast Conservation Advisory Council for comment. The

Council is an inter-department, inter-disciplinary advisory body. The Director of Coast Conservation may decide to.

(1) Grant approval for the implementation of the proposed project subject to specified conditions,

Or

(2) Refuse approval for the implementation of the project, giving reasons for doing so.

Part I of the Schedule (annex II) containing the list of projects prescribed under the NEA states that the CCA applies in the case of those projects, which lie wholly within the Coastal Zone. This indicates that the NEA expects the Coast Conservation Dept. to consider these projects as prescribed and that an Environmental Impact Assessment is required albeit under the provisions of the CCA.

In practice however the Coast Conservation Department is guided by their own rules and regulations in determining whether any of the prescribed projects under the NEA require an Environmental Impact Assessment.

Certain parts of the Coastal Zone, which are considered environmentally sensitive and declared as “no-build” areas automatically, rule out the need to consider development projects in such areas. Similarly, development projects proposed for location in environmentally sensitive areas within the Coastal Zone are required to be submitted to the approval process specified in the NEA. Many of these environmentally sensitive areas have already been identified and listed by the Coast Conservation Department as “set-back” areas comprising reservation areas and restricted areas in which development activities are prohibited or significantly restricted.

CCD Planning Division officers submit their recommendations regarding proposed development projects to the Planning Committee of the Coast Conservation Department. The three technical divisions of the Coast Conservation Department recommend the issue of a permit with or without an EIA. Where an EIA is recommended, scoping sessions are convened with representatives of concerned state agencies to determine the Terms of Reference for the EIA.

The long title of the Coast Conservation Act states that the Act is established to regulate and control development activities within the Coastal Zone. Therefore, the Coast Conservation Department is the final authority in determining whether to permit a development activity in terms of the CCA, even though such activity may be required go through the approval process laid down in the NEA.

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EIA in the Fauna and Flora (Protection) Ordinance

The Fauna and Flora (Protection) Ordinance No. 2 of 1937, as amended by the Fauna and Flora (Amendment) Act No. 49 of 1993, requires that any development activity of any description whatsoever proposed to be established within one mile of the boundary of any National Reserve, should receive the prior written approval of the Director of Wildlife Conservation. The Ordinance as amended mandates

that the project proponent should furnish an IEE or EIA report in terms of the National Environmental Act. The information that a project proponent applying for permission to establish a development project within one mile of any National Reserve has to submit is much more comprehensive than the information required for the approval process stipulated under the NEA. This is because every development project or activity to be established within one mile of any National Reserve is subject to the approval process of the Department of Wild Life Conservation regardless of its magnitude or category. Success in the implementation of this requirement will be tested to the extent that the term “development activity” is not defined in the Act. This procedure could also discourage any development activity however environmentally compatible it is, proposed to be established within any environmentally sensitive area.

EIA in the Provincial Administration

The Provincial Level environmental protection and management is introduced in Sri Lanka through the 13th amendments to the constitution certified in November 1987, which specifies three lists, the Reserved list, the Provincial Council list, and the Concurrent list. Provincial Councils have the exclusive right to legislate through statutes on matters specified in the provincial Council list. The subject of environmental protection is placed in the Concurrent list as well as on the Provincial Council list. Provincial councils and Parliament can both legislate on matters on the Concurrent list provides it is done in consultation with each other. Only the North Western Provincial Council (NWPC) enacted legislation on environmental protection by Statute No. 12 of 1990. The National Environmental Act remains suspended and inoperative within the North Western Province with effect from 10th January 1991.

Strategic Environment Assessment (SEA)

Although project level EIA is effective in addressing environmental impacts at project level, it often fails to take into account cumulative impacts of several projects. Under such circumstance SEA is a more effective tool in identifying cumulative impacts on the environment of a specific policy or programme of works. At present SEA is still not a mandatory requirement in Sri Lanka. However, the Cabinet of Ministers has approved implementation of SEA for policies, programs and plans in Sri Lanka. Therefore, all Ministries, Departments and Authorities who are responsible for implementing a new policy, plan or programme should carry out a SEA for the new policy, plan or programme prior to its implementation and submit a copy of the SEA report to the Central Environmental Authority for review and comments.

Operational Framework for Implementation of EIA under national regulations

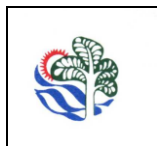
Activity	Agency	Duration
Submitting Preliminary information - A project proponent is required to provide the CEA with preliminary information on the proposed project, in order for the EIA process to be initiated. The best time for a project proponent to submit the preliminary information on the proposed project is as soon as the project concept is finalized and the location of the project is decided. The Basic Information Questionnaire (BIQ) form prepared by the CEA can be used for this purpose (Annex 3). When a prescribed project is referred to CEA, the CEA will decide a suitable Project Approving Agency (PAA).	CEA	2 months
Environmental Scoping - Then the PAA will carry out scoping and Terms of Reference (ToR) for the EIA/IEE will be issued to the project proponent	PAA	2 month
EIA/ IEE report preparation	Proponent	3 months
Public participation and evaluation - On receipt of an EIA report, it will be subjected to an adequacy check in order to ensure that the ToR issued by	PAA	3 months

<p>the PAA has been met. It will then be open for public inspection / comments for a period of 30 working days. If there are any public comments on the EIA report, they will be sent to the project proponent for response. Subsequent to the public commenting period the PAA will appoint a Technical Evaluation Committee (TEC) to evaluate the EIA report and make its recommendations. IEE reports are not required to be opened for public comments and are thus subjected to technical evaluation only.</p>		
<p>Decision making - Based on the recommendation of the TEC, the PAA makes it's decision on whether to grant approval for a project. If the PAA is not the CEA, it should obtain the concurrence of the CEA prior to granting approval</p>	<p>PAA</p>	<p>2 months</p>

Generally the approval is valid for 3 years. If the Project Proponent does not commence work within 3 years of the decision, renewal of the approval from the Project Approving Agencies is necessary. The validity period is usually stated in the letter of approval.

Annex 2 : Basic Information Questionnaire for the CEA

<i>APPLICATION NO</i>	
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CENTRAL ENVIRONMENTAL AUTHORITY

BASIC INFORMATION QUESTIONNAIRE

(Essential information to determine the environmental approval requirement of projects)

- 1 Name of the Project:
- 2 Name of the Developer:
(Company/firm/individual)

Postal Address:

Phone No: *Fax No:*

Contact person
Name
Designation:
Phone No: *Fax No:*
- 3 Brief description of the project (Use a separate sheet)
Attach copy (ies) of pre-feasibility / feasibility study report (s) if available
- 4 Scale / magnitude of the project:
(eg. For a road project: Length of the trace; Tourist hotel: No. of rooms; Agriculture project:
Extent of land, solid waste management projects : capacity per/day etc.)
- 5 Main objective(s) of the project:
- 6 Investment and Funding sources:
- 7 Location of the Project
 - i Pradeshiya Sabha:
 - ii Divisional Secretariat:
 - iii District
 - iv Provincial Council

Provide a location map indicating the project site, access to the site, surrounding development and infrastructure within 500 m of the site (1:50000 scale).
- 8 Extent of the project area (in ha):

A copy of the survey plan of the site

9 Does the project wholly or partly fall within any of the following areas?

Area	Y e s	N o	Unaware
100m from the boundaries of or within any area declared under the National Heritage Wilderness Act No 4 of 1988			
100m from the boundaries of or within any area declared under the Forest Ordinance (Chapter 451)			
Coastal zone as defined in the Coast Conservation Act No 57 of 1981			
Any erodable area declared under the Soil Conservation Act (Chapter 450)			
Any Flood Area declared under the Flood Protection Ordinance (Chapter 449)			
Any flood protection area declared under the Sri Lanka Land Reclamation and Development Corporation Act 15 of 1968 as amended by Act No 52 of 1982			
60 meters from the bank of a public stream as defined in the Crown Lands Ordinance (Chapter 454) and having width of more than 25 meters at any point of its course			
Any reservations beyond the full supply level of a reservoir			
Any archaeological reserve, ancient or protected monument as defined or declared under the Antiquities Ordinance (Chapter 188).			
Any area declared under the Botanic Gardens Ordinance (Chapter 446).			
Within 100 meters from the boundaries of, or within, any area declared as a Sanctuary under the Fauna and Flora Protection Ordinance (Chapter 469)			
100 meters from the high flood level contour of or within, a public lake as defined in the Crown Lands Ordinance (Chapter 454) including those declared under section 71 of the said Ordinance			
<i>Within a distance of one mile of the boundary of a <u>National Reserve</u> declared under the Fauna and Flora Protection Ordinance</i>			

10 Present ownership of the project site:

State	Private	Other-specify

If state owned, please submit a letter of consent of the release of land from the relevant state agency

11 Present land use:

12 Present land use : (Please tick the relevant cage/s)

Land use Type		Land use Type	
Paddy		Marsh / Mangrove	
Tea		Scrub / Forest	
Rubber		Grassland / Chena	
Coconut		Built-up area	
Other Plantations / Garden		Other (pl. specify)	

13 Does the site /project require any

	Yes	No	If yes give the extent (in ha)
Reclamation of land, wetlands			
Clearing of forest			
Felling of trees			

14 Does the project envisage any resettlement

Yes	No	If yes, give the number of families to be resettled

15 Does the project envisage laying of pipelines

Yes	No	If yes, give the length of the pipeline (km)

16 Does the project involve any tunneling activities

Yes	No

- 17 Proposed timing and schedule including phased development:
- 18 Applicable laws, regulations, standards and requirements covering the proposed project:
- 19 Clearances / permits obtained or should be obtained from relevant state agencies and / or local authorities. *(Attach required copies of the same)*

The above information is accurate and true to the best of my knowledge. I am aware that this information will be utilized in decision-making by the relevant state authorities.

.....
Date

.....
Signature of Applicant

Annex 3: 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 IDA as well as any clearance conditions. Annex C of OP 4.01 (see main report for annex C) 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.

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 minimise 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. 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 MP will be an integral part of all Category A projects and is recommended for Category B projects.

