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UN-REDD PROGRAMME

Sri Lanka REDD+ Readiness Preparation Proposal

UN-REDD PROGRAMME EIGHTH POLICY BOARD MEETING

25-26 March 2012
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Abbreviations

AD	Activity Data
ADB	Asia Development Bank
BCAP	Biodiversity Conservation Action Plan
CBD	Convention on Biodiversity
CBO	Community-based Organisation
CCD	Climate Change Division
CCS	Climate Change Secretariat
CCSP	Communication and Consultation Strategy and Plan
CDM	Clean Development Mechanism of the Kyoto Protocol
CEA	Central Environment Authority
CEPOM	Committees on Environment Policy and Management
CF	Conservation Forest
COP	Conference of the Parties
DFO	District Forest Officer
DFP	District Focal Point
DMC	Disaster Management Centre
DNA	Designated National Authority
DoM	Department of Meteorology
DWLC	Department of Wildlife Conservation
EF	Emission Factor
EIA	Environmental Impact Assessment
EPA	Environmental Protection Area
ESIA	Environmental and Social Impact Assessments
FCPF	Forest Carbon Partnership Facility
FD	Forest Department
FFPO	Fauna and Flora Protection Ordinance
FLEG	Forest Law Enforcement and Governance
FLEGT	Forest Law Enforcement, Governance and Trade
FO	Forest Ordinance
FPIC	Free, Prior and Informed Consent
FSMP	Forestry Sector Master Plan
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIS	Geographic Information Systems
FAO	Food and Agriculture Organisation of the United Nations
ILO	International Labour Organisation
INPE	National Institute for Space Research (Brazil)
IPCC	Intergovernmental Panel on Climate Change
LMS	Land Monitoring System
LRC	Land Reform Commission
MAB	Man and the Biosphere
MoA	Ministry of Agriculture
MoE	Ministry of Environment
MoENR	Ministry of Environment and Natural Resources
MRV	Measurement, Reporting and Verification for REDD+ (also called the REDD+ Monitoring System)
NC	National Communication (to the Conference of Parties)

NCCAS	National Climate Change Adaptation Strategy
NEA	National Environment Act
NEAP	National Environmental Action Plan
NFI	National Forest Inventory
NFP	National Focal Point
NGO	Non-Governmental Organisation
NPPP&P	National Physical Planning Policy and Plan
NRM	Natural Resource Management
NSF	National Science Foundation
NTFP	Non-Timber Forest Product
PA	Protected Area
PMU	Programme Management Unit
R-PP	Readiness Preparation Proposal
RECOFTC	Regional Community Forestry Training Center – Center for People and Forests
REDD	Reduced Emissions from Deforestation and forest Degradation
REDD+	REDD, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks
REL/RL	Reference Emission Level / Reference Level (also called the REDD+ Baseline or Reference Scenario)
RPMCC	REDD+ Programme Management Coordination Committee
RS	Remote Sensing
SES	Social and Environmental Standards
SESA	Strategic Environmental and Social Assessment
SIA	Social Impact Assessment
SFM	Sustainable Forest Management
STC	State Timber Corporation
tCO_2e	Tonnes of CO_2 equivalent (a measure of greenhouse gases)
TF	Task Force
TOR	Terms of Reference
TWGs	Technical Working Groups
UNDP	United Nations Development Programme
UNDRIP	United Nations Declaration on Rights of Indigenous People
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	United Nations REDD Programme
WCMC	UNEP World Conservation Monitoring Centre
WWF	World Wide Fund for Nature

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Executive Summary

As a signatory to the UN Framework Convention on Climate Change (UNFCCC), Sri Lanka is committed to addressing the threat of human-induced climate change through all sectors, both by increasing the resilience of its people and its ecosystems through adaptation measures, and by decreasing the intensity of climate change itself through mitigation measures.

Sri Lanka's forests, uniquely among its land-use sectors, can make a significant contribution to both adaptation and mitigation. The Government, under the leadership of the Ministry of Environment (MoE), seeks to maximize this contribution by developing a national strategy for Reducing Emissions from Deforestation and forest Degradation, plus conservation, sustainable management of forests and enhancement of forest carbon stocks (REDD+).

The nation's forests are of global significance, in social, environmental and historical terms. As an island, Sri Lanka's 2 million ha of forests are rich in endemic species of flora and fauna. They are also host to the remnants of a unique ancient civilization, in which power rested with those who controlled waterways and irrigation systems. The indigenous *Veddha*people, though newly-accustomed to settled village life, retain a wealth of knowledge and wisdom on the important products and services that these unique ecosystems provide.

Having emerged only recently from a debilitating 30-year internal conflict, many areas of the country were cut off from development and economic growth. Sri Lanka's forests are therefore particularly vulnerable as roads and other infrastructure expand. Moreover, home garden systems, known as 'forest analogues', cover 22% of the land area and contribute the majority of the country's timber and fuelwood supply. As the tea and rubber industries continue to grow, it is essential that this crucial aspect of the rural economy is preserved.

The unique value of Sri Lanka's forests, and the nature of the threat they face, makes the country a strong candidate for an effective National REDD+ Programme. To help prepare for such a Programme, the MoE submits this Readiness Preparation Proposal (R-PP) to the UN-REDD Policy Board. The R-PP sets out a comprehensive plan to steer the country through the first of the three phases of REDD+, the Readiness Phase.

Component 1 of the R-PP outlines plans to organize a management structure for the REDD+ Readiness process and to consult fully with all stakeholders with an interest in the development and implementation of a National REDD+ Programme. The Forest Department (FD) will be at the core of the management structure, with the Climate Change Secretariat and the Department of Wildlife Conservation (DWLC) also featuring prominently. A number of new bodies will be created, including a REDD+ Programme Management Coordination Committee (RPMCC) as the key decision-making authority and a REDD+ Programme Office to oversee implementation of activities under the R-PP. A Programme Management Unit of the UN-REDD National Programme will initially take on the task of the National REDD+ Office on an interim basis, until the Office has been set up and is fully functional. Task Forces with specific advisory capacities will operate under the direction of the RPMCC and the National REDD+ Office.

Building on the experience of past multi-stakeholder consultations on the national climate change adaptation strategy, the R-PP proposes that the FD will develop a REDD+ Roadmap and will subsequently co-ordinate a targeted Communication and Consultation Strategy and Plan (CCSP) for the National REDD+ Programme. Compliance with the principles of Free, Prior and Informed Consent (FPIC) will be central to the CCSP. To oversee the FPIC process, a Forum of Civil Society Organisations, Indigenous Peoples and other non-government stakeholders will be instituted, which will have a key advisory role within the REDD+ management structure.

Through **Component 2**, the bodies within the REDD+ management structure will prepare a strategy of policies and measures to be implemented under a National REDD+ Programme. To begin with, a comprehensive assessment of relevant policies and legislation will be conducted. The

Forestry Sector Master Plan (FSMP), which runs until the year 2020, numerous studies on forest biodiversity since 2006, and consultations carried out during the preparation of this R-PP will be the prime sources of information in this regard. Patterns of forest land tenure and use rights, as well as prior experience with community participation in forest management, will also be examined closely.

The underlying causes of deforestation and forest degradation have been tentatively identified and will be verified in order for appropriate REDD+ strategies to be developed. Data used for FSMP formulation in 1995 showed that deforestation rates were at their highest during the 1980s, but slowed after a moratorium on logging in natural forests after 1990 and during the long internal conflict throughout the next two decades. However, over-exploitation of remaining forests continues, and consultations during the R-PP preparation indicate that most drivers are either economic (e.g. demand for plantation crops such as tea and rubber, as well as a general rise in rural living standards) and governance-related (e.g. a mismatch between long-term sustainability goals of central government and the short-term development priorities of local politicians and decision-makers). More intensive studies of the trends in home garden systems and the role of private sector stakeholders and agribusiness will be required during the Readiness Phase in order to develop appropriate REDD+ strategies. The R-PP outlines a number of indicative strategy options to be examined under the Readiness Phase. These options will be subject to a consultation process and analysis, particularly regarding their respective costs and benefits.

Component 2 also outlines the frame conditions required for a viable National REDD+ Programme, in terms of institutional, legal and financial support structures. Under the R-PP, these aspects will be analysed and recommendations provided in order to determine the implementation framework for REDD+ in Sri Lanka. This will include the development of a comprehensive Capacity Building Action Plan (CBAP) for all stakeholders, in order to ensure that the appropriate knowledge, skills and competencies are present, at all levels, to formulate and implement REDD+ strategies. Task Forces within the REDD+ management structure will also develop a system of nationally-tailored social and environmental standards which must be maintained in order to comply with the safeguards set out in the Cancun Agreements. A multi-stakeholder consultation process will develop national indicators which will allow the National REDD+ Programme to be objectively monitored against these standards.

Component 3 of the R-PP describes the development of a national Reference Emission Level or Reference Level so that a future REDD+ Programme will have a base against which future emissions reductions and removals can be assessed, and performance verified. The emphasis under this component will be on the collection of data and information management systems, as well as the specific skills to continue these activities under a full National REDD+ Programme.

Component 4 outlines how Sri Lanka will develop improved forest monitoring systems as well as methodologies for Measurement, Reporting and Verification (MRV) of activities under REDD+. Key to the successful completion of activities under this component will be the identification of Activity Data (AD) which must be collected for each potential REDD+ strategy, as well as the corresponding Emission Factor (EF). By the completion of the Readiness Phase, the forest monitoring and MRV systems will be fully tested in pilot sites, including appropriate inclusion of participatory forest monitoring methodologies.

Component 5 comprises a results framework. It provides information on Outputs, Activities and budget estimates for the following five Outcomes:

OUTCOME 1: National consensus reached on the Sri Lanka REDD + programme
OUTCOME 2: Management Arrangements contributing to the National REDD+ Process
OUTCOME 3: Improved Stakeholder Awareness and Effective Engagement
OUTCOME 4: National REDD+ Strategy and Implementation Framework
OUTCOME 5: Monitoring and MRV Results for REDD+ Activities Provided

Finally, **Component 6** shows the Monitoring Framework for the three-year UN-REDD National Programme.

Introduction

Goals and objectives

Forests play a crucial role in mitigating theeffects of climate change, but emissions are caused when they are destroyed and/or degraded. The dualrole of forests as both carbon sinks and sources of greenhouse gases (GHG), and their potential importance inaddressing climate change, is now widely accepted worldwide.

Sri Lanka is a signatory to UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. The Ministry of Environment is the focal point to these conventions. The Forest Department has also taken an important role in seeking to combat climate change, through assisting with carbon abatement by conserving and sustainably managing its forest resources. Sri Lanka has made significant efforts during the recent past to formulate policies and strategies in order to adapt to climate change, and to mitigate its impacts on land use and forestry. All these efforts demonstrate the importance that the Government of Sri Lanka places on environmental and forestry issues. Such efforts have created the platform to specifically move towards adopting strategies for Reducing Emissions from Deforestation and Forest Degradation (REDD+).

Sri Lanka has a natural forest cover of around 2 million ha, which is about 30% ofits landarea, and which is almost entirely state-held. The remaining natural forestis rich in biodiversity, hasa high proportionof endemicspecies, and iscritical for soil conservation and flood control.[1]Some forests (e.g. Wet Zone natural forests [345 tC/ha] and agroforestry systems [90-100 tC/ha in one area]) hold substantial carbon stocks.[2]Sri Lanka also has forest plantations amounting to 1% of the land area. In addition, considerable tree cover is present outside natural and planted forests, in privately held coconut and rubber plantations and home gardens that are considered forest analogues.[3] Together they cover about 22% of the land area[4]and supply much of the timber (70%)[5] and fuelwood (>80%).[2]

Sri Lanka's motivation to engage in REDD+ is in large part due to the potential for re-invigorating efforts to conserve, protect and manage its forests sustainably.[6] Sri Lanka is thus also challenged to catalyse and influence REDD+ investments for better management of forests and forest resourcesthat are expected toresult in positive impacts on national development, local livelihoods and the economy. Moreover, these investments must be mobilised to further the development of aForest Information System (FIS) to measure deforestation and forest degradation,policies and measures to facilitate and support the implementation of REDD+, a fair and equitable system of benefit distribution,and adherence to safeguards against any social and environmental adverse effects from the REDD+ programme. To make the REDD+ programme fully functional, these elements should be backed up by enabling institutional arrangements and political will (See **Annex 1a-1**for details).

General overview of the country

[1]IUCN/FAO/FD (1997). Designing an optimum protected areas system for Sri Lanka's natural forests (I). IUCN, Sri Lanka (unpubl.).

[2]Chokkalingam, U. and Vanniarachchy, S. A. (2011). Sri Lanka's REDD+ Potential: Myth or Reality? Forest Carbon Asia Country Profile Report No. 1: Sri Lanka.

[3]MoENR (2009).Fourth Country Report to the Convention on Biological Diversity. Compiled by J D S Dela (unpublished).

[4]FAO and FD (2009). Asia Pacific Forestry Sector Outlook Study II Working Paper Series: Sri Lanka Forestry Sector Outlook Study. Working Paper No.APFSOS II/WP/2009/29., Forest Department, Government of Sri Lanka.

[5]MALF (1995).Sri Lanka Forestry Sector Master Plan. Forestry Planning Unit, Ministry of Agriculture, Lands and Forestry.

[6]UN-REDD (2010).Monitoring for REDD+: carbon stock change and multiple benefits, Multiple Benefits Series 3.

Sri Lanka is an island in the Indian Ocean, with several small islands off the northern coast. It is located about 80 km southeast to the Indian sub-continent between 5◦ 54' and 9◦ 52' North Latitude and 79◦ 39' and 81◦ 53' East Longitude,[7]and covers a total area of 65,625 sq km. The country has a tropical climate characterized by two major monsoon periods; the southwest monsoon from May to September and the northeast monsoon from December to February.

Population

Sri Lanka has a population of about 20.7 million people and a population density of 329 persons per sq km.[8] Sri Lanka's population increased steadily since 1946. Therate of population growth hasdropped since the 1960s, and stood at 1.0% per year in 2010.[8]The population is expected to stabilize by 2030.[9]The population density is unevenly distributed, with Sri Lanka's Dry Zone having 170 persons/sq km, compared to 650/sq km in the biodiversity-rich south-western Wet Zone.[9]

Sri Lanka is a multi-ethnic, multi-religious secular state. In terms of ethnic representation, 73.9% are Sinhalese; 18.2%are Tamils and 7.1% are Muslims. Sinhala and Tamil are both recognised as national languages. The remaining0.8% are made up of Burghers of Dutch and Portuguese origin,whose first language is English[8,] and between 200,000 to 400,000 indigenous peoples, known as '*Veddhas*'.

Social indicators

There has been remarkable progress in health and social welfare due to a large share of public expenditure allocated to free educationand free health services, coupled with food subsidies and subsidized credit to improve living standards.However, malnutrition remains a problem for poor and vulnerable groups. The Human Development Index (HDI) was 0.658 in 2010. The adult literacy rate is high at 91.4% with comparable literacy rates for men and women. The net enrolment ratio for primary education exceeds 90%, and secondary education is free of charge to all students in state schools (numbering 9,675 in 2010). University education in 15 state universities is also provided free of charge.[10]

Average life expectancy at birth is70 for males and 78 for females. The Government provides free health care services through an extensive network of health care institutions – dispensing both western and traditional medicines. There are presently over 20,000 traditional Ayurvedic physicians in the country[14]who depend almost entirely on biological resources for their medicines, and many of those who live near forests collect their raw materials from natural forests.

Gender related issues

Sri Lanka's constitution grants equal status tomen and women.In general women – includingthose in the rural areas –are not undervalued by their families. In South Asia,Sri Lanka ranks first in the gender related development index which was 0.735 in 2007, although the Gender Empowerment Measure (GEM) was only 0.369.[11]There has been a perceptible upward social mobility in the status of women since gaining independence in 1948, mainly due to increased access to free education, employment opportunities in the industrial sector and domestic employment overseas. It has been noted that during many community development projects carried out near forests, women have been in the forefront with regard to organization of CBOs.

Economic development and industrial growth

[7]MOFE (1999). *Biodiversity conservation in Sri Lanka: a framework for action.* Colombo, Sri Lanka.
[8]CB (2011).Central Bank of Sri Lanka, Annual Report.
[9]MoENR (2009).Fourth Country Report to the Convention on Biological Diversity. Compiled by J D S Dela (unpublished)
[10]CB (2011). Central Bank of Sri Lanka, Annual Report
[11]UNDP(2007). Human Development Report 2007/2008:Climate Change Human Solidarity in a Divided World. Palgrave Macmillan Houndmills, USA.

Although the per capita income in Sri Lanka exceeded US$ 2,000 in 2009, very high regional disparities remain, and 8.9% of Sri Lankans live below the official poverty line[14] of Rs3,249 permonth.[12] The poverty head count for 2009/2010 was 7.6%.[14]The country's pro-growth and pro-poormacroeconomic policies are designed to alleviate poverty. Overall, monetary and fiscal policies are geared towards improving macroeconomic stability by enhancing development and increasing investment.Open market operations prevail with considerable individual freedom. These policies have to some degree had a positive impact on the environment, according to a biodiversity assessment conducted in 2007 for the Ministry of Environment and Natural Resources (MoENR).[13]

Over the past few decades, the importance of the agricultural sector has declined. At present,agriculture, forestry and fishing contribute only 11.9% to the country's GDP, against28.7%from industry and 59.3% from the service sector.[14]Economic development policies are promoting the development of private sector-led, export-oriented industries with sufficient diversification in relation to both products and geographical location. Post-conflict optimism has lifted economic growth to around 8%in 2010, the highest since economic liberalisation in 1977[18]. This was due to growth in all sectors, and earnings from exports increased by 17.3%. The government has plans to turn Sri Lanka into an important economic hub. The government is also committed to increase trade, external competitiveness, create an enabling environment for private sector investment, and to facilitate infrastructure and reconstruction development projects that are considered vital to sustain the momentum for economic growth. It has plans to expand tourism infrastructure to build capacity for 2.5 million visitors per year by 2016. All of these factors are also expected to influence the state of forests in the country.

National Circumstances for Development

Upgrading rural settlements

Sri Lanka's development framework targets upgrading rural areas through programmes such as the *Gama Naguma*, which is the main rural development programme in the National Development agenda. Through such programmes, it is envisaged that all villages in the country will emerge as micro-centres of growth, with implementation of specific programmes focused on livelihood development and poverty reduction. About 300,000 houses are also slated for development by 2016, under the *Gama Neguma* scheme.

Developing transport infrastructure

Sri Lanka's land transport system predominantly operates via road transport. The country has a very intensive road network and a road density of 1.5 km per square kilometre, but much of the main road network is centred on access to Colombo,due to historic reasons. The overall national road network consists of 11,921 km of A and B class roads, which are maintained and operated by the Road Development Authority (RDA). Over 1,583 km of Class A and B roads are in the Western Province. The total investment in the road sector has risen from Rs 52 billion in 2008 to Rs 82 billion in 2009.

Sri Lanka's rail network has been relatively static since independence, but due to recognition of its importance for transportation and economic advancement, development of the railway is now being accelerated. Future railway development work will involve extension and rehabilitation of existing railway lines, development of new lines, and better maintenance of both new and existing lines. Many new railroads were initiated by 2009 and others are planned for the future. They include the new linefrom Matara to Kataragama and the northern railway line which is to be reconstructed in 5 phases, including the railway stretch between Omanthai and Pallai, Pallai to Kankasanturai, Madawachchiya to Madu, and Madu to Talaimannar.[15]

Presently, Sri Lanka has one international airport and 12 domestic airports.The MahindaChintana Ten year Horizon Development Framework for 2006-2016 aims to make Sri Lanka a prime aviation and shipping hub in the region.[3,10]With the development of a second international airport at Mattala and a port at HambantotaSri Lanka aims to cater to the rapidly growing Asia-Pacific market in aviation, and capture the benefits of future growth in the travel and tourism industry.

Tourism development

The *MahindaChintana*ten year Horizon Development Framework recognizes tourism as a high priority area capable of effectively driving the country's economic development, with the vision of making Sri Lanka the most sought after tourist

[12]Department of Census and Statistics (2011) http://www.statistics.gov.lk/

[13]MoENR (2007). Thematic Assessment Report on Biodiversity, prepared for the National Capacity Needs Self-Assessment for Global Environmental Management.

[14]CB (2011).Central Bank of Sri Lanka, Annual Report.

[15]Source: CB, 2010 and data from the Ministry of Transport

destination in South Asia, targeting 2.5 million tourists per year by 2016. It is also expected to become the third largest foreign exchange earner for the country. The *Randora* Infrastructure Development Programme identifies an investment of Rs 24,917 million between 2006-2016 for development of the tourismsector.

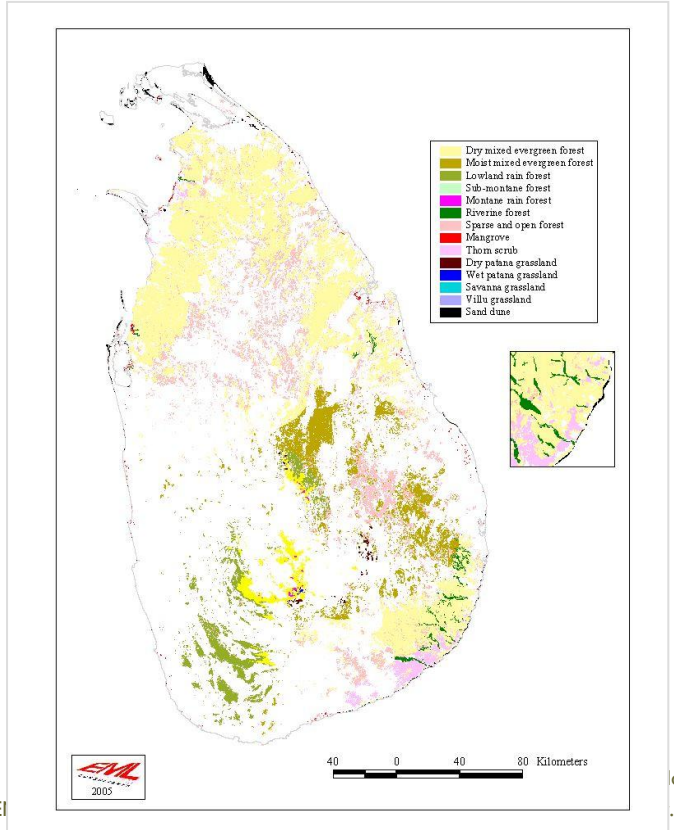
Energy sector development

Expanding the energy sector to provide electricity for all is a major objective of the National Physical Planning Policy & Plan as well as the *MahindaChintana*. The power sub-sector (within the energy sector) is also critically important for national development. While electricity has been provided for 85.4% of households, aggressive development is planned to achieve 100% coverage by the end of 2012. Among the plans for the future are the 150 MW generating Upper Kotmale Hydropower Station to be completed in 2012, the 120 MW generating *Uma Oya* Hydropower Station, the 35 MW Broadlands Hydropower Station, 27 MW *Moragolla* Hydropower Station and the 49 MW Gin Ganga Hydropower Station. Further, substantial expansion in generation capacity through coal-fired power plants is being planned.

Source: Sector Vulnerability Profile for Sector Vulnerability Profile:: Urban Development, Human Settlements and Economic Infrastructure, Ministry of Environment 2010 prepared as a backup documentation for preparation of the Strategy for Adaptation for Climate Change with wide stakeholder participation from relevant state sector institutions and NGOs. Other sources are mentioned in the text

Sri Lanka's biodiversity and forest resources

Despite its small size, the island exhibits a wide array of ecosystems with a remarkable diversity of species: considered to be the richest per unit area in the Asian region.[16]Sri Lanka has several distinct climatic zones, each with characteristic forests and wildlife. Sri Lanka's wetlands are also diverse, comprising 103 major rivers with their associated marshes and over 10,000 irrigation tanks that harbour wetland species. The country has rich marine and coastal biodiversity along its 1,620 km coastline, including coral reefs, mangroves, sea grass beds, salt marsh vegetation, sand dunes and beaches. The high biodiversity has been influenced by a complex geological history, altitudinal variation, climate determined mainly by the distribution of rainfall both spatially and temporally, and the island's placement in the Indian Ocean. Isolation for over 20 million years has resulted in an exceptional degree of endemism, including a large number of geographic relicts and many point endemics that are restricted to extremely small areas within a single forest. Due to a long history of agriculture that stems from a unique hydraulic civilization (in which the exercise of authority was linked to the control of water sources and distribution using advanced technology) that flourished for many centuries, Sri Lanka also has rich agro-biodiversity, resulting from selection by farmers and adaptation to varied ecological conditions.[17]



Source: MoENR, 2006[22]

FIGURE 1.1: Natural vegetation types in Sri Lanka

Forests

Due to its geo-evolutionary history and marked differences in spatial distribution of rainfall, altitude and soil, Sri Lanka, exhibits a multitude of different forest types (Figure 1.1). Each major climatic zone has characteristic vegetation and forest types, with most of the endemics being concentrated in the Wet Zone forests.The temperature and altitudinal differences in the Wet Zone have in turn contributed to the presence of certain

[17]MoEl ombo, Sri Lanka.
. Compiled J D S Dela (unpublished)..
› Analysis in Sri Lanka (Unpublished).

species that are characteristic of the Low, Mid and Montane Zones. The lowland forests occurring at 0-1,000 m are characterised by a dense canopy of trees, dominated by dipterocarps,reaching heights of up to 45 m. In addition to timber species, these forests contain many Non Timber Forest Products (NTFPs) and serve important watershed functions. Thecloud forests of the Montane Zone are critically important for fog interception and the maintenance of hydrological cycles.The lowland Intermediate Zone contains the distinct tropical moist evergreen forests. The Dry Zone has characteristic tropical dry mixed evergreen forests, which are more open than Wet Zone rainforests. Due to historical factors (see **Annex 2a-1**), the Dry Zone forests are secondary, although climax vegetation can be found in small isolated hills ofthis region. These forests change into the characteristic thorny scrub in the very dry north-western and south-eastern regions of the country.[19]

The importance of Sri Lanka's forests at the global level is apparent by the presenceof four International Biosphere Reserves (i.e. the Sinharaja forest, Hurulu Forest Reserve, Kanneliya-Dediyagala-Nakiyadeniya Forest Reserve Complex and the Bundala National Park) and two Natural World Heritage Sites (Sinharaja forest and the Central Highlands Serial World Heritage Site comprising, Knuckles Conservation Forest (KCF), Peak Wilderness Protected Area (PWPA), and Horton Plains National Park (HPNP).High biodiversity and endemism of the Wet Zone forests,[20]is also partly why Sri Lanka (together with the Western Ghats of India) is ranked among the world's 34 biodiversity hotspots.[21]

- **Current status of forest cover**

The total dense and open forest cover of the island (excluding forest plantations and other forms of vegetation) was estimated at 1.9 millionha in 2010.[22] This includes 16,037 ha of mangroves.[23] In addition, there are 79,941ha of forest plantations.[26]The demand for wood and wood products is mainly met from home gardens, rubber, coconut and tea plantations, and privately held woodlots, considerably reducing the pressure on natural forests (see details in Component 2a).

Forest Management

Two institutions bear principal responsibility for managing the country's forest and wildlife resources.The Forest Department (FD), established in 1887is the main state institution responsible for the management, protection and the development of forest resources, including plantations. The FDmanages all existing and proposed Forest Reserves, one National Heritage and Wilderness Area (the Sinharaja forest) and 65 forests (including 15 mangrove areas) that have been gazetted asConservation Forests (CFs) (Table 1.1).This classification system is however due to be revised and the numbers of CFs will increase.The Department of Wildlife Conservation (DWLC) is responsible for the management of Strict Natural Reserves, National Parks, NatureReserves, Jungle Corridors and Sanctuaries.

The country has taken significant steps to halt deforestation and forest degradation since the mid 1990s. Among these is a substantial system of protected areas, covering more than 14% of the land area. In 1990, a logging ban was imposed in all natural forests.Introduction and testing of participatory approaches in forest management and conservation of wildlife reserves have also been a significant feature of forest management during the past two decades.In addition, about 1,000 ha of new plantation forests (Teak and Eucalyptus) are established each year in degraded areas. Under the hill top forestation programme, 343 ha and 445 ha of forest plantationswere established in 2010 and 2011 respectively, to be maintained as permanent cover.[23] Under the participatory forestation project 205 ha have been brought under the Farmers' Woodlot programme, and a further existing

[19]MoE (2010).Sector Vulnerability Profile: Biodiversity and Ecosystem Services. Ministry of Environment, Sri Lanka.

[20]GOSL (2008). Nomination of the Central Highlands of Sri Lanka: its cultural and natural heritage for inscription in the world heritage list. Submitted to UNESCO by the Government of the Democratic Socialist Republic of Sri Lanka.

[21]Mittermeier RA, Valladares-Pádua CB, Rylands AB, Eudey AA, Butynski TM, GanzhornJ ,Kormos, R , Aguiar, J , Walker, S. 2006. Most Endangered Primates 2004-2006. Conservation International 20:1-28.

[22]FD unpublished provisional data from the recent forest cover mapping exercise.

[23]FD unpublished provisional data from the recent forest cover mapping exercise.

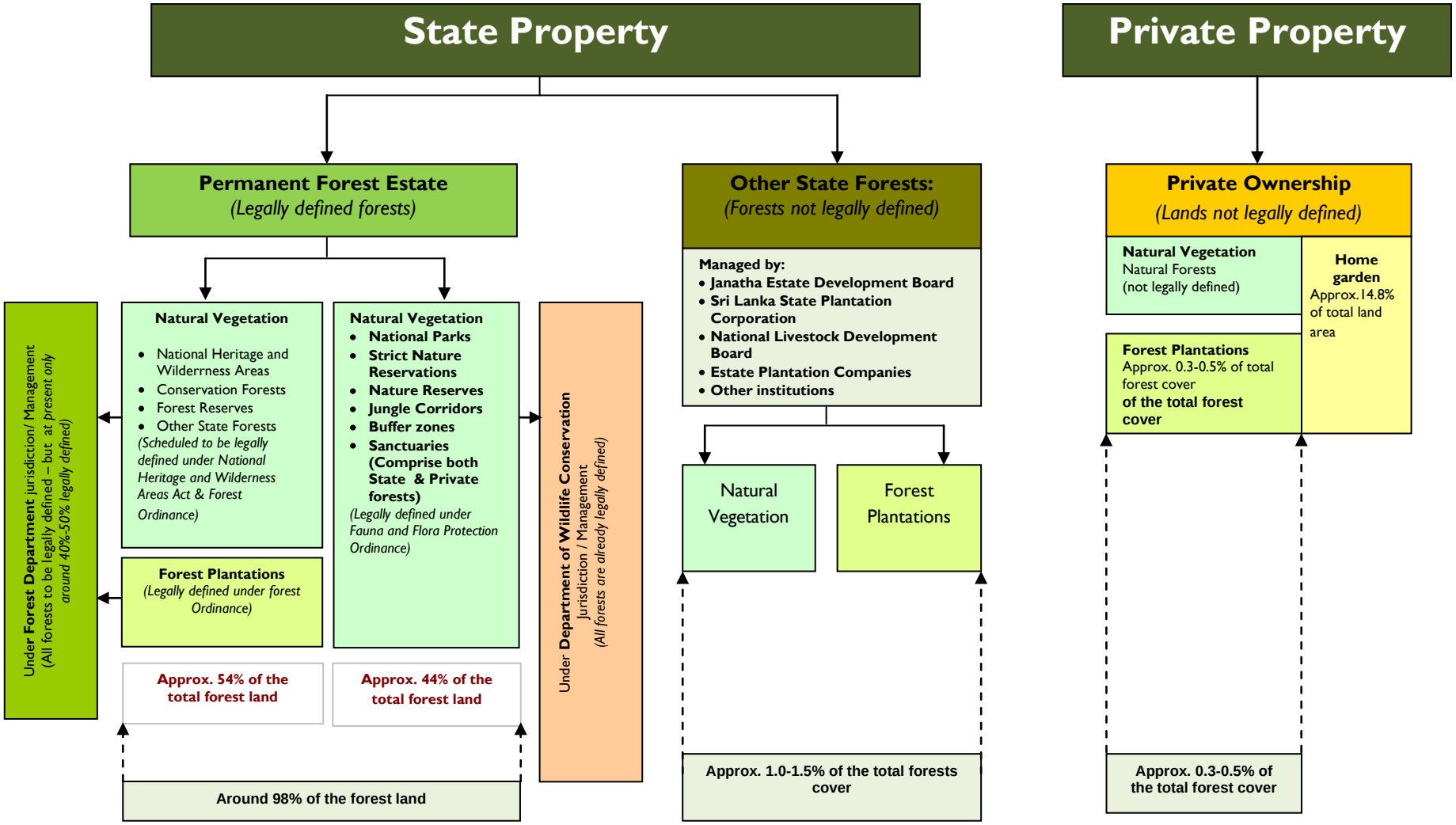
761 ha of woodlots were maintained in 2010. Reforestation, conservation and protection activities have included important elements of community participation. These participatory approaches for tree planting, as well as an ongoing major nationwide tree planting campaign (*Deyatasevana*), and the potential for timber production in forest analogue home gardens, auger well for a National REDD+ Programme.

Forest use for livelihoods varies in the different climatic regions, and this has given rise to challenges in long-term participatory forest management in the Wet Zone where communities near forests find it more lucrative to grow cash crops (such as tea and vegetables) outside forests, rather than become involved in managing forests or gathering forest products for income generation.

TABLE 1.1: Extent of Protected Areas (PAs) administered by the Forest Department and the Department of Wildlife Conservation*

Protected Area category	Area under each category (ha) in 2010
Forests under the ForestDepartment (FD)*	
National Heritage Wilderness Area (also a World Heritage Area) [N=1]	11,127
Conservation Forests* [N=65]	96,249
Other Reserved Forests [N =366]	630,701
Forest Plantations	79,941
Total areas under the FD	818,018
Forests under theDepartment of Wildlife Conservation (DWLC)*	
National Parks	526,156
Nature Reserves	57,056
Sanctuaries	349,105
Strict Natural Reserves	31,575
Jungle Corridors (Kaudulla- Minneriya)	8,777
Total areas under the DWLC	972,669

**Some areas are declared under both FD and DWLC, all areas under the DWLC are not forests as sanctuaries contain private non- forest lands*



Note: Mangroves are included under "forest category" of the FD, DWLC and Private Ownership

FIGURE 1.2: Forest land and forest analogue (home garden)ownership

Cultural factors influencing forest conservation

Human impacts and cultural features have served to fashion the island's unique forest biodiversity. The conservation of forests, watersheds and fauna were deeply ingrained in the culture of ancient Sri Lanka due to the influence of Buddhism, which promotes respect for all forms of life.Not surprisingly, wildlife `sanctuaries' had been set up for the protection of fauna and flora as far back as the third century BC, and stone edicts of the twelfth century AD show the prevalence of concepts akin to 'urban nature reserves'.[24,25]These values are less evident today due to modernization, but with localised exceptions, they continue to be upheld to a fair extent.[29,26]

Contribution of forests to the national economy

Although plantation development, firewood and forestry together contribute only 0.9 % to GDP at present,[27] the island's forest resourcessupport a range of economic activities and subsistence needs. A conservative estimate made in 1952 on the contribution of the forestry sector to the national economy of Sri Lanka stood at 6%, mainly from the production of timber, sawn wood and firewood.[28]In terms of employment, the public forestry sector employs nearly 4,800 people, while approximately 550,000 people are involved in informal forestry sector activities across the country[29].

Meanwhile, the collection of NTFPs including medicinal plants and food items - yams, mushrooms, bee honey and wild fruits – is an important source of rural livelihood. Nearly 18,000 rural people are totallydependent on such ecosystem services. In addition, the bamboo and rattan industry as well as tourism in and around national parks provide significant sources of income to local communities. Forest biodiversity also has the potential to expand nature- and culture-based tourism.

Factors affecting forest conservation

Despite forest conservation effortsdeforestation and forest degradation are continuing. The annual rate of deforestation accelerated to 54,000 ha per year after 1983, from an annual rate of 42,000 ha per year between 1956 and 1983 (Wijesinghe et al, 1993; Jewel and Legg, 1994). Among the major drivers of both are forest clearance for multi-purpose development, human settlements and agriculture without due consultation and coordination with forest managers; small-scaleillicit clearing and encroachment for agriculture and expansion of land holdings for housing and small-scale tourist facilities; illicit timber felling, forest fires (intentional or accidental),spread of invasive species, and destructive mining practices. This is compounded by the fact that about 80% of the land in the country is owned by the State, leaving very little privately held undeveloped land for expansion of development. Among the most pressing socio-economic challenges are the increasing demand for land for major development projects, and inducements for local people to engage in illegal encroachment for cash crops. Among the major problems that have precluded effective management measures to stem encroachment is incomplete boundary demarcation and lack of boundary maintenance in many forest reserves, the high economic returns from illicit land conversions, and lack of alternative livelihoods opportunities to move away from slash and burn agriculture. The lack of appreciation of the value of forests by planners and policy makers, particularly at the regional and local levels, weak implementation of the land-use policy and poverty in the Dry Zone are other key problems. They are compounded by the ground reality of the need for post-war accelerated development. There are pressing development needs for the northern and eastern provinces which can have significant impacts on forest cover[30].

[24]MoFE (1999).*Biodiversity conservation in Sri Lanka: a framework for action.* Colombo, Sri Lanka.
[25]MoENR (2009).Fourth Country Report to the Convention on Biological Diversity. Compiled J D S Dela (unpublished).
[26]MoENR (2006). Portfolio of Strategic Conservation Sites/Protected Area Gap Analysis in Sri Lanka (Unpublished).
[27]CB (2011).Central Bank of Sri Lanka, Annual Report.
[28]FAO and FD(2009).Sri Lanka Forestry Outlook Study, Working Paper No.APFSOS II/WP/2009/29. Asia Pacific Forestry Sector Study II. Working Paper Series.Food and Agriculture Organization of the United Nations Regional Office for Asia and the Pacific, Bangkok.
[29]FD (1995), Forestry Sector master plan
[30]Details of the direct and indirect drivers of deforestation and forest degradation, arrived at through an intense consultative process, are given in Component 2a. The nature of the consultative process is provided in Component 1b.

The Relevance of REDD+ for Sri Lanka

Although a relatively small country, Sri Lanka has the potential to contribute significantly to the efforts to reduce atmospheric GHG concentrations, and generate multiple social and environmental benefits in support of broader national goals such as sustainable development, biodiversity conservation and poverty alleviation. Now that the 30-year conflict has ended, economic and infrastructure development in some parts of the country will have to catch up.Much of the land available for multi-purpose development is state-held, so particular attention should be made to environmental considerations and the potential detrimental impacts of a "no-return" reduction in forest cover. As the legal and policy framework for this is already in place, it is the implementationof these laws and policiesthat needs to be strengthened. Effective communication is therefore an essential element in the process to reduce deforestation and forest degradation.Stakeholders at alllevels, such as communities living near forests, civil society, the private sector and state institutions, should be actively involved in technical, policy making, planning and administrative aspects,. Furthermore, good governance, environmentally friendly economic incentives, and a good understanding of policy and legal gaps are prerequisites for conserving the nation's forest cover.

The REDD+ Readiness Preparation Proposal (R-PP) in Sri Lanka

A UN-REDD National Programmefor Sri Lanka will effectively prepare the country to reduce deforestation and forest degradation, gain concrete economic incentives for enhancement and maintenance of forest carbon stocks, and provide multiplebenefits by the conservation of the island's forest resources.

Through the UN-REDDProgramme, countries are provided the opportunity to address drivers of deforestation by re-orienting the development of the forest sector. REDD+ Readiness will allow them to evaluate the potential costs and benefits of REDD+ against current practices, andthus ascertain whether it will ultimately be in the national interest to proceed with such a programme. It will facilitate the development of supporting policies through studies (e.g. study of post conflict development needs in Sri Lanka and their impacts on forests) that will help to formulate strategies to overcome conflicts between development activities and conservation interests; enhance cross-sectoral coordination; develop social relationships; build capacity through skills and knowledge development; assess economic incentives that can help wean people away from harmful forest-related practices; and promote governance reforms. It is significant that maintaining natural carbon stocks under the REDD+ will also generate multiple benefits that are additional to climate change mitigation effects. These include ecosystem services, including biodiversity conservation, which derive directly from retaining forests. Social benefits include greater awareness about the value of forests among policy makers, land-use planners, communities and other stakeholders, and clarification of land tenure and enhanced participation in decision-making.

This Readiness Preparation Proposal (R-PP) has been prepared for submission to the UN-REDD Policy Board. The R-PP is a first step to develop a full REDD+ programme. It will describe the activities which Sri Lanka needs to carry out in order to begin Phase I (Readiness) of a country programme. During R-PP implementation Sri Lanka will lay the foundation for good forest governance, build technical and other necessary capacity, carry out the necessary studies for policy support and decision making, facilitate effective communication and coordination, develop a system to identify the candidate REDD+ strategies to help reduce deforestation and forest degradation, and build a set of standards for ensuring compliance with social and environmental safeguards against possible negative impacts of REDD+ activities.

Sri Lanka's R-PP is submitted with the objective of developing a sustainable national approach to promote equitable outcomes through emission reductions by the use of investigations that enable

reliable methods coupled with broad stakeholder engagement. It was developed based on version 6 of the R-PP template, and stakeholder consultations. This R-PP provides information on:

- Drivers of deforestation and forest degradation (Component 2a), potential strategic directions for formulating a REDD+ strategy to help address these drivers (Component 2b), the manner in which REDD+ preparatory work will be organized and managed in Sri Lanka, including institutional arrangementsand safeguards (Component 1a, 2c), procedures for communication, information sharing, networking, and consultations for participation by various stakeholder groups (Component 1c); establishing a system for monitoring, reporting and verification (MRV) and Reference Emission Levels for this purpose (Components 3 and 4a) and multiple benefits to be gained under REDD+ (Component 4b).
- Capacity building and financial resource needs.
- A plan and schedule for the identified Outcomes, Outputs and Activities (Component 5), including proposed funding for such activities through the UN-REDD National Programme.
- UN-REDD National Programme monitoring framework (Component 6).

In the event of anticipated funding received for the REDD+ readiness preparation phase, an outcome would be a REDD Readiness Package (R-Package), to be prepared after the execution of the studies and activities proposed in this R-PP during implementation of Phase 1.

Definition of key terms:

National REDD+ Programme:
All policies, measures, activities and projects, by all stakeholders, that contribute to REDD+ (as defined in the Cancun Agreements) in Sri Lanka. Includes actions under all three Phases of REDD+.

UN-REDD National Programme:
The parts of the Sri Lanka National REDD+ Programme that are supported by UN-REDD. The UN-REDD National Programme may include actions under Phases 1 and 2 of REDD+, but not Phase 3 (full implementation, or performance-based payments).

REDD+ Readiness (Process):
All activities under Phase 1 of REDD+ in Sri Lanka.

R-PP Implementation:
The actions under the Sri Lanka REDD+ Readiness Process that are supported by UN-REDD, as set out in this document.

Component 1: Organize and Consult

1a. National Readiness Management Arrangements

Standard 1a the R-PP text needs to meet for this component:
National readiness management arrangements

The cross-cutting nature of the design and workings of the national readiness management arrangements on REDD, in terms of including relevant stakeholders and key government agencies in addition to the forestry department, commitment of other sectors in planning and implementation of REDD+ readiness. Capacity building activities are included in the work plan for each component where significant external technical expertise has been used in the R-PP development process.

Introduction

Global interest in climate change led to the establishment of the UNFCCC at the 1992 UN Conference on Development in Rio de Janeiro. Sri Lanka is among the countries that ratified this convention, and has since participated in many initiatives with regard to climate change mitigation and adaptation, including preparation of national inventories of greenhouse gases (GHGs).[31]Although Sri Lanka is not a major emitter of GHGs, continuing deforestation and forest degradation are of concern. As such, aNational REDD+Programme,which estimates in-country emission sources and sinks for GHG emissions and helps to address underlying drivers, assumes significant importance. Prerequisites for this are reliable estimates of the changes in biomass density of carbon stocks, and forest area and quality that may occur due to deforestation and forest degradation. Likewise, multiplebenefits possible under REDD+, financial, social and environmental, are of interest for a biodiversity and water resource-rich developing country with low CO_2 emissions such as Sri Lanka.However, to make REDD+ operational, the ability to catalyse and influence REDD+ investments to have a positive influence on forest conservation and management is essential. This requires considerable inter-institutional coordination and cross-sectoral linkages to obtain the necessary in-country support and commitment. These aspects are key elementsinfluencing the assessment of existing capacitiesto operationalise the REDD+ programme and the design of the national REDD+ Readiness Management Arrangements, which are described below in this component.

Objectives of Component 1a

The success of Sri Lanka's REDD+ Readiness National Management Arrangements will depend greatly on its practicality, knowledge of what is most appropriate based on past experiences, clarity of institutional roles and responsibilities, and its efficiency indecision-making.Accordingly, the objectives of this component are to provide a roadmap for:

a) Analysis of the current situation with regard to institutional arrangements and cross-sectoral coordination that are relevant for REDD+.
b) Setting up the necessary institutional structures and supporting arrangements to manage and co-ordinate the REDD+ Readiness process to result in the development and implementation of a coherent and successful REDD+ Strategy, an MRV system, and other attended components of the Sri Lanka REDD+ programme.

[31] The 2nd GHG inventory has been prepared and will be provided in the Second National Communication now being finalised.

c) Ensure that the REDD+ programme is supported by technical capacity, effective communication (including awareness raising and consultation), capacity building and human resource development (preceded by a comprehensive needs assessment).
d) Mainstreaming REDD+ into broader cross-sectoral plans and programmes, including national development goals, climate change goals and REDD+ goals.
e) Ensure that the National REDD+ Programme has the necessary decision-making authority, expertise, and wide-ranging stakeholder participation at varied societal levels to achieve overall goals for long-term sustainability of desired outcomes.

The institutional arrangements for the UN-REDD National Programme are based on consultations during formulation of this R-PP (as described here and in Component 1b) with diverse stakeholders (as described below). The key elements deemed essential for consideration when identifying the institutional mechanisms and arrangements to implement REDD+ in Sri Lanka under component 1a are provided in **Annex 1a-1**.

Existing institutional arrangements relevant to implement REDD+

In order to establish the institutional arrangements for REDD+, it is necessary to take stock of the existing arrangements that could support REDD+ (e.g. by way of policy, legal andfiscal planning, socio-economic and biophysical data format and managementof forest inventory, GHG and National Communication (NC) reporting, and institutional coordination and collaboration). Taking into consideration the support required from a large number of stakeholder groups to implement REDD+ successfully, it is important to assess the potential of existing institutions and sectoral and cross-sectoral coordination mechanisms to mainstream REDD+ activities across sectors and into the existing development framework.

Table 1a-1shows the results of a stakeholder mapping process and indicates the agencies that are expected play a key role in the UN-REDD National Programme.[32]The table includes outcomes of stakeholder mapping during the early stages of the R-PP preparation process as well as exercises with similar focus for the National Capacity Needs Self-Assessment for Global Environmental Management, preparation of the National Climate Change Adaptation Strategy (NCCAS), and validation of these stakeholder maps during the update of the 4th National Report on Biological Diversity to the CBD. The roles of stakeholders will be further analysed and validated prior to finalizing the management arrangements for the UN-REDD National Programme.

Some of the institutions in Table 1a-1are mandated to assist with the reduction of deforestation and forest degradation and to increase or maintain forest and tree cover; others are agencies that could more indirectly assist with this process, while yet others are development sector agencies that could potentially have an adverse impact on forest conservation and maintenance of forest cover, if adequate safeguards and coordination mechanisms are not in place.

The key agencies identified for implementing the UN-REDD National Programme are the Forest Department (FD) as the lead implementing agency, the Department of Wildlife Conservation (DWLC) as a manager of much of the forested lands(see Figure 1.2 of the introduction), the Ministry of Environment (MoE), which serves as the focal point for the UNFCCC via the Climate Change Secretariat (CCS), placed within the Climate Change Division (CCD) of the MoE, which is responsible for preparation of the GHG inventory and the National Communications to the UNFCCC.

TABLE 1a-1: Provisional stakeholder map for R-PP implementation in Sri Lanka

Ministries with a role	Main state agencies involved	Other agencies/groups that could lend support or have adverse impacts

[32] *The stakeholder mapping process is given in Component 1b*

Ministries with a role	Main state agencies involved	Other agencies/groups that could lend support or have adverse impacts
Key ministries • **Ministry of Environment** • **Ministry of Agrarian Services and Wildlife** • **Ministry of Irrigation and Water Resources Management** • **Ministry of Lands and Land Development** • **Ministry of Plantation Industries** ***Other ministries that need to support initiatives to half deforestation and forest degradation and increasing tree cover*** • **Ministry of Finance and Planning** • **Ministry of Economic Development (dealing with and tourism)** • **Ministry of Agriculture** • **Ministry of Industry and Commerce** • Ministry of Technology and Research • Ministry of Power & Energy • Ministry of Home Affairs, Provincial Councils and Local Government and • **Ministry of Education (and relevant institutions under it)** • Ministry of Defence (responsible for urban development) • Ministry of Foreign Affairs Ministry of Power and Energy	*Key agencies* • **Forest Department (FD)** • **Department of Wildlife Conservation (DWLC)** *Other agencies with mandate to assist* • **Central Environmental Authority (CEA),** • **Coast Conservation Department (CCD)** • Department of Agriculture (DOA) and associated research institutions plus other divisions under it including: Natural Resources Management Centre (NRMC), Horticultural Crops Research and Development Institute which deals with home gardens (HORDI). • **Department of Land Use Policy Planning** • Urban Development Authority (UDA) • **The Survey Department** • **Meteorological Department** • State Timber Cooperation (STC) • **Department of National Planning** • **Mahaweli Authority of Sri Lanka (MASL)** • **Department of External Resources** • Disaster Management Centre (DMC) • Universities offering forestry courses and land use mapping. *Regional/local level institutions:* • Provincial Councils (PCs) • **District/Divisional Secretariats** • Local Authorities (LAs) • Provincial Environmental Authority of the North-western Province • Provincial Environmental ministries	• **The National Science Foundation (NSF)** • Sri Lanka Land Reclamation Development Authority (SLRDA) • Institutions under the ministry dealing with education and higher education • Sri Lanka Tourism Promotion Bureau • **Sri Lanka Tourism Development Authority** • **Road Development Authority (RDA)** • **Land Reform Commission (LRC)** • **Electricity Board** • Presidential Secretariat • National Council for Sustainable Development *Other relevant groups & civil society* • **NGOs focusing on environmental conservation** • **Community Based Organisations (CBOs) adjacent to forests** • Media institutions -(press, TV, radio) • Journalists • Civil society represented by various organizations • Indigenous Peoples (e.g., the Veddhas) *Private sector* • Industries/business sector institutions • **The Chambers of Commerce** • **Agri-business companies** • **Woodbased Industrialists Association** • **Committee on lifestyle and gift products** • **Timber Plantation companies** • **Tea, rubber and coconut plantation owners** • **Sri Lanka Carbon Company** *Knowledge networks* • FD, DWLC, CEA, CARP, CCD, MEPA,NARA, PGRC, Universities, ITI, MoE-BDS

The most important agencies/groups for the REDD+ R-PP implementation programme are in bold

Other institutions such as the Central Environmental Authority (CEA), Coast Conservation Department, Urban Development Authority (UDA), Department of Agriculture (DoA) and associated research institutions, and the Department of Land Use Policy Planning would assume an important support role as they too are mandated with management of various aspects of forests, tree cover and land resources. The Department of Meteorology (DoM) and the Disaster Management Centre (DMC) that are important to predict and address climate change impacts are also important, while the Department of External Resources is vital to facilitate funding flows for REDD+. The State Timber Corporation (STC) and The National Science Foundation (NSF) are expected to have important roles to play under REDD+. Likewise, the Ministry of Finance and Planning, the Department of National Planning, the Ministry of Economic Development (dealing with and tourism expansion into new areas) are important for providing the necessary support with regard to economic, financial and land use aspects of REDD+ (see components 2a and 2b). Regional and local level institutions such as Provincial Councils, Divisional and District Secretariats, Local Authorities, private sector organisations, civil society, NGOs, communities and universities are also expected to be involved in the Programme(Table 1a-1). Details of several key institutions that will play a role in the REDD+ programme are given in **Annex 1a-2**).

Institutions currently dealing with aspects of climate change

A brief analysis of the institutions directly involved in climate change activities and potentially playing a major role during R-PP implementation are as follows:

• Ministry of Environment (MoE)

The MoE is the National Focal Point for the UNFCCC and the Kyoto Protocol. To address the cross-sectoral nature of major environmental challenges caused by climate change, and to fulfil the commitments under the UNFCCC and Kyoto Protocol, the MoE established the CCS.The MoE is responsible for implementation of policies, plans and programmes in respect of environment and natural resources, forests and forestry, prevention of marine pollution, environmental protection and management, protection and conservation of forests (but not the areas managed by the Department of Wildlife Conservation which is now under the Ministry of Agrarian Services and Wildlife). Forest management is the responsibility of the FD under theMoE.

The MoE carried out the UNDP-funded National Capacity-Needs Self Assessment on Climate Change in 2007 to identify gaps and build national capacity to respond to obligations under the UNFCCC.[33]The MoE, through the CCS, has also carried out the UNDP/GEF funded project for enabling activities for the preparation of the Second NC to the UNFCCC, the ADB-assisted preparation of a National Strategy for Climate Change Adaptation (published in 2011), and the JICA-funded project for Capacity Building on CDM Project Development. The MoE is also currently carrying out the UNEP/GEF funded project for Technology Needs Assessment for Climate Change in Sri Lanka.

• The Climate Change Secretariat (CCS)

The CCS was established within the Climate Change Division (CCD) of the MoEin 2008. Its mainresponsibilities include responding to commitments under the UNFCCC and the Kyoto Protocol including NCs and preparation of the GHG Inventory. The first GHG inventory was provided with the firstNC to the UNFCCC. The second GHG inventory has been prepared, and will be provided in the Second NC now being finalised. The CCS is the Designated National Authority (DNA) for approval of CDM projects and is the host of the Sri Lanka Carbon Fund Ltd, which is a registered company with a three-member board of directors chaired by the Secretary to the MoE.
The main objectives of CCS are to:

- provide a platform to address climate change issues at the national level;
- undertake climate change responses including policy and programme development;
- liaise with sectoral agencies at national and sub-national levels to identify priorities and develop policy implementation mechanisms;
- facilitate research and distribution of climate change-related research results to trigger policy reforms and actions;
- establish a mechanism to monitor impacts of national response to climate change;
- serve as the Secretariat for the DNA for the approval of CDM projects;
- prepare, coordinate and monitor implementation of Sri Lanka's policies, strategies, regulations, plans and programmes related to climate change;
- facilitate national reporting on climate change and GHG inventories to the UNFCCC; and
- address cross-sectoral environmental challenges caused by climate change.

The CCS is currently understaffed, has inadequate technical capacity, and is thus constrained in carrying out its mandated functions which include the vital role of coordinating the various actions necessary to implement UNFCCC obligations in the country. There is also no operational unit established with a clear mandate for the preparation of the forest GHG inventory or the NCs, which are usually prepared by consultants. While sectoral and cross-sectoral meetings are held to discuss such national documents and for reporting to the UNFCCC, there are no existing institutionalised

[33]MoE (2007). Thematic Assessment Report on Climate Change, prepared for the National Capacity Needs Self-Assessment for Global Environmental Management. Colombo. Sri Lanka.

multi-sector consultation and coordination mechanisms for the CCS at present. Therefore the CCS will need considerable capacity strengthening to participate meaningfully in the Programme for its vital role of preparing the GHG inventories and for reporting under the MRV system.

- **Capacity building institutions relevant for a national REDD+ Programme**
  - **CDM Centres**

The MoE has established two CDM centres at the University of Moratuwa and University of Peradeniya to get their assistance in promoting CDM activities in the country, especially in the two areas of energy and agriculture.

  - **The Centre for Climate Change Studies(CCCS)**

The CCCS has been established under the DoMby a Cabinet decision of 1999. It is mandated to engage in research and programmes for raising public awareness on various issues of climate change together with other relevant institutions such as the MoE,DoA, MoH, CEA, National Building Research Organization (NBRO), etc. It is also responsible for analysis of data collected by the DoM, making projections of climate change based on the findings of the Intergovernmental Panel on Climate Change (IPCC), and to assist scientists in other institutes to carry out climate change impact studies in their relevant sectors.

Integration of environmental concerns into development policy

Development policy does not run counter to environmental concerns or REDD+ objectives. The broad development planning for Sri Lanka as promoted by the *MahindaChintana* framework and the NPPP&P (Box 1a-2) are thus conducive for the REDD+ concept to reduce deforestation and forest degradation.

BOX 1a-2: Key National Development Policies that influence reducing deforestation and forest degradation

- ***MahindaChintana*: A vision for a new Sri Lanka**

The *MahindaChintana* 10 Year Horizon Development Framework 2006-2016 is the overarching vision for the country's development programme, the concepts of which are reflected in the National Physical Planning Policy & Plan and the *Randora* Infrastructure Development Programme. The framework considers actions for forests and wildlife, water and watersheds and biodiversity conservation. Amongst others, the *MahindaChintana*: envisages establishment of green villages (under the *Gama Naguma* Programme), the conservation of threatened species and promotion of environmental conservation (the latter projects are to be initiated from 2010). In particular, this policy framework has the development objectives of: sustainable management of forest resources to ensure forest conservation for the protection of the environment and biodiversity and for sustainable commercial and aesthetic utilisation to ensure maximum contribution to national income and wellbeing. The policy framework also seeks to: conserve forests for posterity; increase tree cover and productivity of the forests to ensure conservation of forests for the wellbeing of rural people, and to strengthen the national economy with special attention to equity in economic development. It also identifies as a strategy the involvement of state agencies, forest dependent communities and resource users, farmers, rural communities, local forest industries and NGOs to manage and protect the forest resource and for the development of private forests and tree resources.

- **The National Physical Planning Policy and Plan (NPPP&P)**

The NPPP&P was approved by the National Physical Planning Council chaired by H.E. the President, and formally adopted on 3rd July, 2007. It gives vision and direction for structural physical development in Sri Lanka up to 2030. It targets maximizing national economic development while taking into consideration the global economy. Being an integrated plan that takes into account all sectors of the country, it is significant that the underlying theme of the NPPP&P is to preserve equilibrium between conservation and production. For example, it encourages urban centre development while protecting environmentally sensitive areas such as forests, wildlife habitats, archaeological sites and areas prone to natural disasters. It acknowledges the need for Sri Lanka to carefully manage development activities and to avert (and in some cases reverse) the over-burdening of the island's natural systems with rapid and unplanned development. Under the NPPP&P, for the purposes of regulating development, the Protected Area Network has been further divided into two categories. Category I includes areas such as forests, wildlife habitats, areas of high biodiversity, water catchments and areas with historical, cultural, religious or aesthetic values. These areas will be protected from any new development. Category II includes areas where current development activities will be allowed to continue, but no expansion or new development will be discouraged.

Source:Ministry of Finance and Planning. MahindaChintana, vision for a new Sri Lanka. A ten year horizon Development Framework 2006-2016 and NPPD & MUDSAD (2006). Sri Lanka 2006-2030: National Physical Planning Policy and Plan

Both the *Mahindachintana*: a vision for a new Sri Lanka, and the NPPP&P,which gives direction for structural physical development up to 2030, give due consideration to environmental conservation in general and to conservation of forests and tree cover in particular.

Overall there is commitment by the State for environment conservation as demonstrated by the current Constitution, which states "The State shall protect, preserve and improve the environment for the benefit of the community." Article 28f states "The exercise and engagement of rights and freedom is inseparable from the performance of duties and obligations, and, accordingly, it is the duty of every person in Sri Lanka to protect nature and conserve its riches."As such,the constitution vests inalienable sovereignty in the people, and the Supreme Court can thus decline as unconstitutional any executive or legislative action that goes against the principle of safeguarding Sri Lanka's Natural Resources by its citizens. There are also over 80 Environmental related laws in Sri Lanka of which the most relevant are described in Component 2a. Among these the CEA is responsible for the enforcement of the National Environmental Act (NEA), and the FD, DWLC and CCD are mandated to enforce the Forest Ordinance, the Fauna and Flora Protection Ordinance and the Coast Conservation Act respectively.

Inter-agency/sectoral coordination and collaboration

Coordination at the national level

Ensuring cross-sectoral coordination of agencies involved in implementing the UN-REDD National Programmeis important, as are strong links between regional and local authorities.Institutional mechanisms are proposed in this component and described**in Annex 1a-3**. Under the coordination mechanisms it would also be productive for the Programme to coordinate with the *DeyataSevena* Tree planting programme of the MoE (See **Annex 1a-2** and **Component 1b**) and its provincial and local-level implementation mechanisms.

Currently, sectoral and cross-sectoral coordination for environmental management is the responsibility of the MoE which is mandated for: (a) preparation and periodic revision of the National Environmental Action Plan (NEAP); (b) facilitating sustainable development through the promotion of sound environmental management; and (c) formulation of national policies in relation to environmental protection and management. However, at present there is no holistic coordination mechanism within the environmental sector, unlike previously when there was a specific coordination arrangement for implementation of the National Environmental Action Plan(Box 1a-3).This is a constraint as the constitutional provisions have created a need to decentralise the responsibility for environmental management to provincial and local bodies which needs an adequate coordination mechanism between the central government and the regions for environment related action. Poor co-ordination has characterized environmental management(see Box 1a-3)due to the fragmented nature of responsibilities for environmental policy, planning, management and implementation.

Poor coordination is partly due to the large number of ministries and line agencies with conservation and landuse responsibilities, at both the national and provincial levels, and the large number of laws that govern the land resource and biodiversity, conservation. While much depended on the success of the Committees on Environment Policy and Management (CEPOMs, see Box 1a-3)to ensure that environmental management in Sri Lanka occurred in a holistic and integrated manner, this did not materialise for various reasons,including funding constraints. There is also a recognized need for formal and functional mechanisms and regular activities to maintain the interests of partner agencies

if conservation related actions are to be effectively integrated into cross-sectoral and corporate planning.[34]

At present, the MoEhas several Steering Committees and technical committees to facilitate coordination for various activities and programmes. There are alsocoordinating committees established by the various divisions of the MoE for various activities.These include taking actions on aspects of pollution control, biodiversity conservation and action to be taken as national obligationsunder international conventions.

Inter-institutional coordination by the FD is mainly through meetings for specific activities, programmes or projects. Inter-institutional coordination between the FD and DWLC is weak, particularly as the two departments are now under different ministries. TheDWLC uses the Wildlife Advisory Committee in which government departments, universities and NGOs are represented to help formulate major decisions at policy level. Overall, the most effective coordination actions at present are links between specific personnel in other state and non-state agencies, according to many officers. The absence of a definite coordination mechanism for environmental management is a major problem.

BOX 1a-3: Prior national coordination mechanisms for better environmental management:Coordination though the CEPOMs

In 1991, prior to the establishment of the Ministry of Environment, there was a National Environmental Steering Committee on the Environment established under the purview of the Ministry of Policy Planning and Implementation -- to ensure more efficient coordination between ministries and departments with regard to environmental issues. However this too was not sufficiently effective to ensure inter-agency coordination.

Once established and functional, the Ministry dealing with Environment monitored the implementation of the National Environmental Action Plan through an institutional framework for coordination and integration of environmental concerns with planning and development. This comprised Committees on Environment Policy and Management (CEPOMs). Originally established in 1998, the CEPOMs were reformulated and revamped under the 2003 revision of the NEAP to address six development sectors of the economy, namely (1) agriculture, plantations, land development and mining; (2) forestry and wildlife conservation; (3) fisheries and coastal and marine area development; (4) industry and tourism; (5) health, sanitation, and (6) urban development,energy and transport. They were expected to coordinate implementation of the National Environmental Policy of 2003 and the Caring for the Environment (i.e. the National Environmental Action Plan for 2003-2008). Each CEPOM was expected to meet once in two months and to become an important institutional mechanism to coordinate environmental activities among different agencies. The Department of National Planning was represented in each of the CEPOMs. Some of these CEPOMs worked well while some did not; this partly depended on the enthusiasm of those who were servicing them at the MoE.

These CEPOMs were linked to an apex Committee on Integrating Environment and Development (CIEDP) and to various sectoral agencies. The CIEDP was expected to address inter-sectoral environmental issues that arose through the CEPOMs, and to examine and provide policy directions on issues raised by them. As such, CIEDP members constituted Secretaries of line ministries that have an important bearing on the environment. The CIEDP was linked directly to the NEAP Steering Committee convened by the Ministry of Environment. The decisions taken could thus be effectively conveyed to the sectoral agencies, and through the MoE to the National Environmental Legislation Enforcement Committee, the Provincial Councils and the Local Authorities. Networking within the environmental sector was also expected to be facilitated through the Environmental Cells placed in other ministries and other institutions that were deemed to be connected directly, or indirectly, with environmental management.However, this entire structure became non-functional with time and changes in direction and policy within the MoE during the 2003-2008 period. Part of the problem was lack of resources for convening the meetings of the CEPOMs and the CIEDPs.

Source: MoENR, (2006). Baseline Appraisal Report for the National Capacity Needs Self-Assessment Project, for the thematic assessment on biodiversity. Compiled J D S Dela. (Unpubl.)

[34] MoE (2007). Thematic Assessment Report on Biodiversity, prepared for the National Capacity Needs Self-Assessment for Global Environmental Management. Colombo. Sri Lanka.

The gap in environmental coordination was expected to be filled by the recently initiated ***Haritha Lanka*** Programme. It has been designed to establishaninteractive process involving all key ministries to provide adequate collaboration on critical environmental issues for sustainable development as embodied in the strategies and proposed actions of its ten missions (Box 1a-4).While thisprogramme isnotyet being implemented, there are plans (with assistance from UNDP) to make it operational. The broad scope of this programme raises the question of its role in REDD+. However, as the President of Sri Lanka is chairing this committee, it lends itself as a platform for raising matters of environmental concern at the highest level.

BOX 1a-4: The Action Plan for the *Haritha Lanka Programme*

This programme has been developed through an interactive process involving all key ministries. Its mission is to focus on addressing critical issues which, if left unattended, would jeopardize the nation's economic development programme. Actions to address key issues that would enable sustainable development are embodied in the strategies and proposed actions set out under the ten missions of the *Haritha Lanka* Programme. The implementation of the programme is overseen by the ministry dealing with plan implementation, while the secretariat for the programme is located within the Ministry of Environment. The 10 missions of the Action Plan for the *Haritha Lanka* Programme are: 1. Clean air – everywhere; 2. Saving the fauna, flora and ecosystems; 3 Meeting the challenges of climate change; 4. Wise use of the coastal belt and the sea around; 5. Responsible use of the land resources; 6. Doing away with dumps; 7. Water for all and always; 8. Green cities for health and prosperity; 9. Greening the industries; 10. Knowledge for right choices Establishing a strong coordinating and monitoring mechanism and funds for implementation of the various programmes are considered a priority.

Building strong institutional links between agencies that have jurisdiction for much of the forest land (mainly the FD and the DWLC) and other lands (e.g. privately held home gardens) will be critical.The underlying causes that affect sectoral and cross-sectoral coordination of environmental activities at the national and local levels are summarised in Box 1a-5.

BOX 1a-5: Underlying causes that affect sectoral and cross-sectoral coordination of environmental activities at the national and local levels.

a. Poor competence and commitment of some Divisional Secretaries who have a key role to play in environmental/biodiversity maters at local levels.Capacity constraints among Divisional Secretaries severely hamper biodiversity conservation at the decentralised level.
b. Environmental officers (EOs) positioned in the Divisional Secretariat Offices to help the Divisional Secretaries (DS) address environmental matters at the local levels are constrained due to lack of authority to act on their own. Terms of reference for their functions are often not clear to the DSs who use them for other administrative work. These EOs require constant updating of knowledge on environmental policy and plans and skills training in letter and report writing and English language.
c. Inadequate capacity among administrative and law enforcement officials acting at the regional and local levels (i.e. *GramaNiladharis* (GNs), members of LAs and PCs, and the police) to promote biodiversity/environmental management.
d. Inadequate capacity and commitment of Local Authorities (Municipal Councils, Urban Councils and *PradeshiyaSabhas)* especially hampers environmental conservation in built (urban) environments.
e. Functional overlaps between government departments concerned with environmental conservation which need to be cleared as they cause problems of assigning responsibility.
f. Lack of capacity among public servants at the local level in all categories.
g. Political interference, which is compounded by lack of competence and skills among public servants in their subject areas, as well as communication skills, to guide policy makers towards correct policies and actions.
h. Lack of measures to effectively convince policy makers that correct action concerning biodiversity/environment is to their advantage in the long-term.

Adapted from the MoENR, (2006). Baseline Appraisal Report for the National Capacity Needs Self-Assessment Project, for the thematic assessment on biodiversity. Compiled J D S Dela. (Unpubl.) and subsequent discussions at environmental fora.

Coordination at sub-national level

At the district level, inter-institutional coordination with respect to forests occurs by the participation of the FD's District Forest Officers (DFOs) and the DWLC's field officers in the District Coordinating

Committees (DCCs) and District Agriculture Committees, which are also attended by other regional institutions. The FD also organises village-level coordination through Community Based Organisations (CBOs) around forests in high-profile areas such as International Biosphere Reserves and World Heritage Sites. Such coordination varies in quality, depending on interpersonal skills of field managers. The Central Environmental Authority(CEA) has also positioned Divisional Environmental Offices (DEOs) in the Divisional Secretariat Offices to better address environmental matters at the local level.

Existing arrangements for REDD+ In Sri Lanka

Interim REDD+ arrangements by the REDD+ National Focal Point (NFP).

Sri Lanka became a partner country of the UN-REDD Programme in 2009. After a review of Sri Lanka's position by the UNDP, and submission of a brief country paper to UN-REDD, the country was invited to prepare a proposal for a National UN-REDD Programme in July 2011. To facilitate this process the FD nominated asenior staff member as National Focal Point (NFP), who handles climate change affairs for the institution.In order to facilitate stakeholder consultations for preparation of the R-PP in the absence of formal REDD+ arrangements, the NFP engaged a large number of *ad hoc* groups representing varioustechnical capacities, and at national and sub–national levels, to provide inputs into the R-PP. Details of consultations are provided in Component 1b.

Proposed national readiness management arrangements[35]

As there are currently no existing institutional structures that can handle the breadth of activities and coordination required to operationalize a National REDD+ Programme, it is necessary to constitute several institutional structures and support arrangements.These structures are built on prior experience of successfully handling large-scale and multi-year projects such as the ADB-funded Forestry Resources Management Project (FRMP) with the FD as the Executing Agency, and the Protected Area and Wildlife Management Project (PAM&WC Project) with the DWLC as the Executing Agency and the MoE as the Implementing Agency. For the latter project the Director General DWLC functioned as the Project Director, while day-to-day administration of the project was carried out by a full-time Additional Project Director.

The proposed management arrangement of the UN-REDD National Programme has been designed to provide inter-agency and sectoral coordination(Figure 1a-1).These institutional structures and their TORs are described in detail in this component and in **Annex 1a-3.**It should be noted that the institutional structures, arrangements and roles and responsibilities provided are provisionaland subject to modifications developed and agreed upon during further consultation processes.

[35]The arrangements described under this section are only provisional and will be subject to further examination and appraisal before the programme inception.

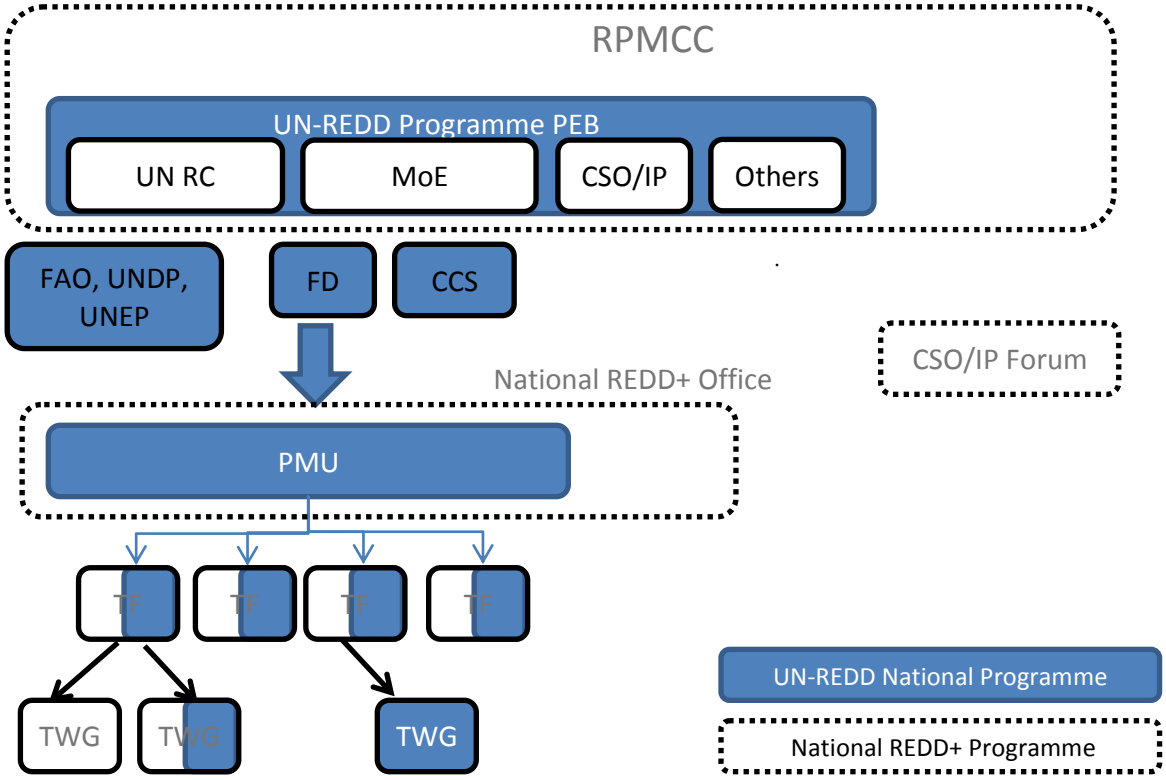


Figure 1a-1: Proposed Future Management Arrangements for the UN-REDD National Programme and National REDD+ Programme
Note: The National REDD+ Programme does not exist yet,the REDD+ Programme Management Coordinating Committee (RPMCC) as the advisory body to the National REDD+ Programme is also not functional yet.

- **REDD+ Programme Management Coordinating Committee (RPMCC) - for decision making and mainstreaming REDD+**

The decision-making authority for the National REDD+ Programme will be the REDD+ Programme Management and Coordinating Committee (RPMCC). The RPMCC will provide overallguidance and direction to the National REDD+ Readiness Process, including the development of the Roadmap and on matters related to cross-sectoral and inter-agency coordination and collaboration. The RPMCC, therefore, will ensure the overall coordination and collaboration between all REDD+ relevant initiatives, supported by various development partners and national institutions, including the UN-REDD Programme[36] in order for Sir Lanka to attain REDD+ Readiness in a cost-effective and coherent manner.

Due to the importance of cross-sectoral collaboration and wide ranging stakeholder participation at various levels for REDD+, it is vital to involve a large number of government agencies, high-level policy makers,civil society, private sector, communities and other stakeholders in a meaningful way

[36]A clear status of relevant development partner representatives such as the UN RC, representing the supplier side of the UN-REDD Programme in the RPMCC will be further examined and determined before the inception to ensure the most appropriate level of engagement in the RPMCC by external parties (i.e., development partners). For instance, the UN RC's active engagement in the RPMCC may be limited to the PEB meetings as a co-chair, while the UN RC together with other development partner representatives is considered an observer during the normal meetings of the RPMCC.

in the RPMCC. This coordination mechanism is essential as there is no other in-country mechanism at present that could be assigned this function.

Members of the RPMCC will be drawn from institutions listed in Table A1a-1,with additions to be effected during R-PP implementation. Candidate members for the RPMCC are provided in Box 1a-6.TheRPMCC is expected to provide accountability and transparency to the Sri Lanka REDD+ Programme due to its inclusion of NGOs and civil society. Itwillpromote a common understanding among the major stakeholders, which is crucialfor implementation of REDD+ activities.

BOX 1a-6: Potential candidate members of the RPMCC

Due to the importance of cross-sectoral collaboration for the REDD+ programme, the RPMCC will need to have balanced representation of all stakeholder groups, ministries and government institutions with responsibilities for forest conservation and management or have potential for impacts REDD+ implementation. Candidates for membership are MoE/CCS, MoF&P; FD, DWLC, DoA, DLUPP, CEA, CCD, UDA, SD, DoM, DoPP, DER, IrD, MASL, SLTDA, NSF, National Chamber of Commerce, Association of wood product manufacturers, ministry responsible for provincial administration, technical experts/academics, legal experts, members of universities, representative of civil society, NGOs and forest-dependent peoples, Indigenous Peoples' representatives and international agencies such as UNDP and FAO. The main agencies with definite roles expected in the National REDD+ Programme and the UN-REDD National Programme are described in Annex 1a-1. Members will be nominated on an ex-officio basis as well as on a personal expertise basis.

The RPMCC will initially meet monthly, and later at least quarterly. It will be chaired by the Secretary to the MoE. Initially, at its establishment, the National Programme Director of the UN-REDD National Programme will act as its Secretary, and theUN-REDD Programme Management Unit (PMU)will provide secretarial functions for the RPMCC and ensure that all documents including minutes relevant to meetings and reports are circulated in time to ensure informed advice and decisionsfrom the RPMCC.

- **UN-REDD Programme Executive Board (PEB)**

The Programme Executive Board (PEB) is a coordination body, which provides overall guidance and direction to the UN-REDD Programme in Sri Lanka. The PEB will appraise and approvethe Programme's key documents, including plans, budgets and reports, to ensure the delivery of the intended results and address critical issues and risks that cannot be addressed by the PMU alone. It will be chaired by the Secretary of the MoE and co-chaired by the UN Resident Coordinator (UNRC), and the PEB meetings will be attended by representatives of CBOs and Indigenous Peoples. As the PEB is located within the RPMCC, the PEB will consult with a wider range of stakeholders including the CCS, DWLC, the Ministry of Finance and Planning (MoF&P), the Ministry of Lands and Land Development, and the private sector to make informed decision. The PEB together with the RPMCC will establish several Task Forces composed of Government and non-Government representatives to develop recommendations on particular technical issues related to REDD+ Readiness. The Programme Director of the UN-REDD National Programme will act as its Secretary. The PEB will meet quarterly and minutes of its decisions will be posted on a website (yet to be established) and circulated by other means.

- **UN-REDD Programme Management Unit (PMU)**[37]

Implementing the UN-REDD National Programme and assisting Sri Lanka in developing its National REDD+ Programme will demand considerable human resources, effort and management flexibility. The UN-REDD National Programme will be headed by a National Programme Director (NPD), based at the FD. The Programme Management Unit (PMU) will serve the NPD and be responsible for day-to-day management of the UN-REDD Programme, including the work of the Task Forces. Furthermore, it is responsible for the development and implementation of work plans and budgets (in close collaboration with FAO, UNDP and UNEP) andthe organization of PEB

[37] This structure was subject to wide consultation and validation during the first drafts of the NPD prepared for REDD+

meetings, and maintains transparent and accessible records. Key staff members of the PMU include a Programme Manager, Senior Technical Advisor, a Communications Officer, an Administrative Officer, an Administration Officer and at least one Secretary. The TORs of the PMU are in **Annex 1a-3**.

Providing technical and communication support for implementation

• Technical capacity enhancement through TFs and TWGs

The TFs: The RPMCC, the National REDD+ Office and the PMU will be assisted in carrying out various aspects of R-PP implementation by up to five Task Forces (TFs). The TFs may be financially supported[38] by the Programme, if deemed necessary and in particular for developing the capacities of its members over time. These TFs will be small groups of persons with the expertise in the areas covered by the TF and/or the authority to make decisions affecting R-PP implementation. They will function as advisory groups for the activities to be carried out during R-PP implementation.

TF members will be appointed according to expertise, but may warrant the inclusion of ex-officio members of state institutions when this is necessary to accomplish the tasks. Specialist members of the *ad hoc* groups consulted during the development of the R-PP are candidates for TF membership. TFs will meet as frequently as deemed necessary for the outcomes to be achieved. Based on a capacity needs assessment, members of the TFs will have their capacities developed so that they can continue their advisory role beyond the R-PP implementation.

The five TFs proposed provisionally will cover (a) Governance, policy, and safeguards and multiple benefits; (b) REL/RL and MRV; (c) REDD+ Strategy design and implementation; (d) Financial flows and benefit sharing; and (e) Communication, Education and Public Awareness. Details of roles and responsibilities of these TFs are given in **Annex 1a-3**. TFs will be assisted, if particular inputs are required, by TWGs (see below). The TWGs will be created according to need and they are expected to function only for short durations. The TFs will provide continuous advice and direction to the TWGs so that they meet their work targets. All reports and other outputs prepared by TWGs will be reviewed and amended by the TFs before submission to the RPMCC, the National REDD+ Office and the PMU.

The TWGs: TWGs will be established on an *ad hoc* basis as and when required by the TFs, usually for short durations. Each TF may recommend the establishment of one or two TWGs (subject to approval by the RPMCC). The work of the TWGs may be financially supported[39] by the Programme, if deemed necessary. Membership of the TWGs will be flexible and needs-based, and will consist of individuals who can achieve well-defined, specific results that contribute the outcomes and outputs expected of each TF. The TWGs may include government and NGO representatives, subject specialists, national and/or international consultants, development partners, civil society members and communities including indigenous communities, as relevant. The provisional roles of TWGs are further addressed in **Annex 1a-3.**

Links to sub-national level

Links to sub-national activities will be obtained at different levels.At the field level, there will be District Forest Officers (DFOs) who can act as REDD+ District Focal Points (DFPs) in a small number of districts where the REDD+ demonstration activities and consultations are to be held. These DFPscould report to the NPD and the Programme Manager of the PMU, and also liaise directly with TWGs operating at demonstration sites (for Components 3 and 4) and with local communities. The DFPs will also coordinate with the District Coordinating Committees, District

[38]Certain rules and regulations of the United Nations will be applied (e.g., under no circumstances will a government employee be financially compensated or given a United Nations contract)
[39]Certain rules and regulations of the United Nations will be applied (e.g., under no circumstances will a government employee be financially compensated or given a United Nations contract)

Secretaries (DS) and local representatives of state agencies, local civil society and local community members, who have a role to play in REDD+ activities and/or monitoring and evaluation of the Programme. Local communities including indigenous peoples should be supported to engage fully and effectively in the REDD+ design and implementation process and their rights to FPIC should be upheld in accordance with the UN-REDD Guidelines on FPIC[40].These groups will liaise with the DFPs and*GramaNiladharis* (village headmen working as the lowest rung of the district administration).

Outreach and communication platforms

- **CSO/IP Forum**

One CBO and one indigenous peoples' representative will each be members of the PEB. In addition, a CSO/IP Forum will be established to serve as the principal outreach and communication platform for the Programme. This Forum will specificallybring the concerns of local communities and indigenous peoples into the Programme, but potentially also those of other stakeholders such as the private sector. The Forum will represent civil society, indigenous peoples, NGOs, private sector and academic institutions (if required). TFs will meet with the Forum regularly to review progress with, and provide comments on, the National REDD+ Readiness process. Minutes of these meetings will be taken and circulated widely. The TFs will send reports and decisions to Forum members for their comments, and will respond to comments raised. Forum members may also be invited to join TF meetings as appropriate.

While the Forumwill not be part of the decision-making hierarchy of the Programme, itwill act as an advisory body in major decision-making processes. The roles and responsibilities of the Forum are in **Annex 1a-3**.

- **Media platform to link to civil society, communities and policy makers**

There will be a special monthly media platform (live broadcast) ona national TV channel where a group of panelistswill discuss REDD+ related issues, with phone-in facilities for the general public. This will also be used to build awareness about the issues related to REDD+ and especially to getting ready for REDD+. This platform would also serve as an opportunity for all forestry related issues and infringement of safeguards at local levels to be brought to the notice of the Programme and will significantly enhance transparency.

Indicative Actions Supported by the UN-REDD National Programme (refer to Activities in Component 5)[41]

OUTCOME 1: National Consensus Reached on the National REDD+ Programme

Output 1.1: Broad-based, multi-stakeholder national REDD+ advisory group established

Activity 1.1.1. Review and finalize draft terms of reference for the National RPMCC (advisory group for the National REDD+ Programme, including the UN-REDD National Programme)
Activity 1.1.2. Establish RPMCC , through a ministerial decree
Activity 1.1.3 Initiate national coordination workshops
Activity 1.1.4. Organize regular meetings of REDD+ stakeholders

[40] UN-REDD (2012), UN-REDD Guidelines on Free, Prior and Informed Consent
[41] These actions are subject to change based on further appraisal before the programme inception.

Budget: US$ 50,000

Output 1.2: National legal, procedural and institutional arrangements for sectors relevant for REDD+ reviewed (some Activities under this Output will also be carried out under Component 2c)

Activity1.2.1. Sub-divide RPMCC into thematic groups to conduct gap analysis and recommend actions (e.g., MRV and Monitoring, Policy and Measures & Stakeholder Engagement) (linked to Output 5.6)
Activity1.2.2. Review institutional and legal arrangements and lessons of the Haritha Lanka programme (including implications of Rio+ 20) and its relevance to REDD+
Activity1.2.3. Stakeholder mapping (public and private sectors, CSO, forest dependent communities and Indigenous Peoples, etc.)
Activity1.2.4. Identify capacity needs in national legal, procedural and institutional arrangements for REDD+
Activity1.2.5. Develop a set of guidelines for management arrangements for the National REDD+ Programme

Budget: US$ 170,000

** Note: the above mentioned bodies may be provisional, and upon completion of the Roadmap, they may be dissolved, and new and more appropriate bodies may be established.*

OUTCOME 2: Management Arrangements Contributing to the National REDD+ Process

Output 2.1: UN-REDD Programme implementation arrangements established (parts of Activities under this Output will be carried out under Component 2c)

Activity2.1.1. Establish PMU, TFs, TWGs and effective REDD+ management structure and working arrangements
Activity2.1.2. Establish networks and links between RPMCC, MoE, CCS and other related institutions (Private Sector, CBOs, NGOs, Public Sector, INGOs etc.)
Activity2.1.3. Organize regular meetings and workshops for capacity building

Budget: US$ 635,000

Output 2.2: Capacity Building Action Plan developed for REDD+ (some Activities under this Output willbe carried out under Component 2c)

Activity2.2.1. Identify an effective REDD+ management structure and working arrangements with key institutions and partners – coordinate and collaborate with other development and national partner activities (e.g., assisted regeneration, fires, invasive species, agriculture, timber trade, production and consumption, etc)

Budget: Component 2c

1b. Information Sharing and Early Dialogue with Key Stakeholder Groups

The Cancun COP *Decision 1/CP.16,Appendix I*:
Indigenous Peoples and Local Communities (selected text)

"2…(c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;
(d) The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities, in the actions referred to in paragraphs 70 and 72 of this decision;…"

Appendix I **Guidance and safeguards (selected text):**

"…2. When undertaking the activities referred to in paragraph 70 of this decision, the following safeguards should be promoted and supported:
…(c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;
(d) The full and effective participation of relevant stakeholders, in particular, indigenous peoples and local communities, in actions referred to in paragraphs 70 and 72 of this decision; …

[1] *Taking into account the need for sustainable livelihoods of indigenous peoples and local communities and their interdependence on forests in most countries, reflected in the United Nations Declaration on the Rights of Indigenous Peoples, as well as the International Mother Earth Day."*

source: http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf

Objectives of component 1b

Although Sril Lanka officially became a UN-REDD partner country in 2009 (see Box 1b-1), little concrete progress was made until 2011. When the REDD+ stakeholder discussions began in Sri Lanka in July 2011, the subject was relatively new to the country, and little was understood about its potential; not only in terms of forest conservation and carbon benefits, but also about the multiple benefits and safeguards. The situation has changed since then through a range of discussions that have taken place at varied levels. Here we provide insights into the consultative processes that took place during the preparation of the R-PP, which were completed with the validation workshop organized on 12 January 2012.

BOX 1b-1: REDD+ Process in Sri Lanka up to now

As part of Sri Lanka's commitment to the UNFCCC, Sri Lanka was one of the first countries to request admission to the UN-REDD Programme, when the opportunity arose to expand membership beyond the initial nine member countries. Sri Lanka became a partner of the UN-REDD+ Programme at its 3rd Policy Board meeting in November 2009. A draft national programme document was duly forwarded to the UNDP country office. Subsequently, Sri Lanka was invited to submit a proposal for a UN-REDD National Programme. The draft document prepared in April 2011 was revised after a UN-REDD Programme Formulation Mission in July 2011, to keep it in line with new guidelines. The current Readiness-Preparation Proposal (R-PP) is a product of many discussions that have been carried out during the preparation of the two documents.

This component also describes the processes that were used for: stakeholder assessments and mapping (consultative processes during R-PP preparation and using outcomes of prior assessments); making stakeholders aware about REDD+; consulting stakeholders regarding relevance of REDD+ for Sri Lanka, potential benefits and pitfalls; and identification of drivers of deforestation and forest degradation and remedial measures.

Process followed for stakeholder mapping

"Stakeholders are those individuals and groups that live in and/or have a social, cultural or economic interest in forests and adjacent lands, and those that may be affected either negatively or positively by proposed or enacted REDD-plus activities." They include local communities, the indigenous *Veddha* community, formal and informal forest users, private sector entities, civil society, and relevant local and national government agencies.

Outputs of earlier comprehensive stakeholder mapping carried out during several previous forestry and biodiversity projects were used to inform R-PP development. The R-PP preparation team used three exercise conducted by the MoE, with broad stakeholder participation, to identify the key ministries and institutions for implementing REDD+, and other ministries and institutions that could have positive or negative impacts on the Programme. These previous analyses were::

(a)The UNDP project on National Capacity-needs Self-Assessment for Global Environmental Management in terms of Biodiversity Conservation (including forest biodiversity conservation) to prepare the Thematic Assessment Report on Biodiversity for Sri Lanka.[42] This was effected through a multi-sector stakeholder workshop for government and non-government participants, including academics, NGOs (some of whomwereworking with communities) and subject specialists.

(b) The 2010 ADB-funded project for preparation of the NCCAS for Sri Lanka 2010-2016.[43].(Box 1b-2).

(c) The validation of earlier stakeholder maps for preparation and updating the Fourth Country Report to the Convention on Biological Diversity in 2008 and 2010.

There have been many other initiatives for stakeholder mapping conducted by both the government and NGOs with regard to forest loss and degradation. Consequently, there is good in-country capacity for identification of key stakeholder groups that should be engaged in getting ready for REDD+. However, to validate the results of these previous exercises, astakeholder mapping exercise was also conducted during the implementation ofthe R-PP, the results of which are shown inTable 1a-1 (Component 1a). An analysis has also been carried out using the in-country information networks that can be used during the REDD+ Readiness process[44] (see **Annex 1a-2**).

Approach and process followed for engaging stakeholders during R-PP preparation

• Approaches to maximize consultation in the absence of institutional mechanisms

Unlike in most other REDD+ countries, Sri Lanka has no formal REDD+ institutional arrangements, yet.The REDD+ National Focal Point therefore organized all consultationsthrough the FD, without any funds apportioned for this purpose. As such, a strategic approach was adoptedto:

(a) enable a credible consultative and awareness raising process, by using platforms used previously by the MoE and potential REDD+ partner institutions (e.g. meetings organized for the *DeyataSeveran* nation-wide Tree Planting Campaign, and meetings of the National Man and the Biosphere Programme of the National Science Foundation). They were used to build awareness about REDD+ and for two-way consultations on REDD+ activities;

(b)use outputs of extensive stakeholder consultations held during previous environmental projects carried out by the MoE on climate change and forestry related subjects;

[42]MoENR (2007). Thematic Assessment Report on Biodiversity, prepared for the National Capacity Needs Self-Assessment for Global Environmental Management.

[43]MoE (2010). Sector Vulnerability Profile: Biodiversity and Ecosystem Services. Ministry of Environment, Sri Lanka.

[44]MoENR (2006).Workshop on Information Management & Exchange in relation to Biodiversity for the prepared for the National Capacity Needs Self-Assessment for Global Environmental Management.

(c) limit information on potential financial benefits to avoid raising expectations

- **Process for engagement of stakeholders**

The NFP organised early awareness raising and information sharing events and dialogue with national-level key stakeholder groups to: (a) apprise them about the objectives of the UN-REDD National Programme, (b) understand their concerns so that they could be addressed; (c) assess attitudes about the relevance of REDD+ for Sri Lanka; and (d) understand stakeholder perceptions on the approach that should be followed by Sri Lanka for REDD+. The early dialogues enabled widespread doubts about REDD+ to be discussed and toascertain interest in the UN-REDD National Programme. During the preparation and revision of the R-PP, both national and local level consultations with considerable geographic coverage were held to obtain the views of state sector institutions, NGOs, civil society, private sector, communities, and individuals with expertise in technical aspects of REDD+ and in education and communication.

— **Special efforts to engage communities**

The REDD+ NFP held a special meeting of the DFOs to provide them with material for consultative meetings with local communities and groups(This has already been done at a potential demonstration site for communities adjacent to the forest), as it was felt that such consultations would be more productive than meetings dominated by outsiders. This method also provides a wide geographic coverage in a very cost-effective and socially conducive manner, but should be subject to independent monitoring in the future.Materials necessary for presentations on REDD+ have been supplied to the DFOs, in English and the local language.In addition, the NFP is making arrangements to reprint a UNREDD+ poster series (with 6 posters) in the local language for distribution among REDD+ stakeholders.

Indigenous peoples have been part of the provincial awareness-raising programmes conducted by the NFP. Additionally, a special discussion was held with the indigenous *Veddha*community by FD field staff. When questioned about attitudes to REDD+, this community has expressed interest if it brings about an enhancement of their incomes.

BOX 1b-2: Results of Survey of Public Perceptions of Climate Change in Sri Lanka, 2010 under the ADB-funded project to formulate strategies to combat climate change in Sri Lanka carried out by the MoE

A country-wide survey on public perceptions on climate change, conducted in early and mid 2010, covering 1,000 men and women aged above 18 years, in urban and rural areas across all 25 districts of Sri Lanka show potential for REDD+ activities in Sri Lanka.
Summary of Findings:

- A vast majority of Sri Lankans – nearly 9 out of 10 across the country – have heard of climate change or global warming.
- Among them, 36% are 'strongly concerned', while another 57% are 'somewhat concerned' about how climate change can personally affect them and their families. The impacts they most fear are water and food shortages, and the spread of diseases due to weather anomalies.
- Many believe that 'there is still a chance to prevent the worst impacts -- if we act fast'.
- Many feel that both the government and people should be involved in responding to the climate crisis, and in taking better care of the environment.
- Among the most favoured climate-friendly actions are tree planting, forest conservation and proper disposal of waste.
- 'Not having enough technical or specific information' is the mainreason for non-action by those who are concerned about climate change and want to do something about it.
- Most people had first heard about climate change from the mass media or in school. The media is also the most popular source for more information on what can be done on climate change and how to do it. The next most preferred sources are state agencies dealing with the subject, and people's own peer circles.

Source: MoE (2011). Information, Education and Communication Strategy for Climate Change Adaptation in Sri Lanka.

— **Discussions with the DWLC**

A discussion was also held with the Director General Department of Wildlife Conservation regarding REDD+ on 18th November 2011 to obtain his opinion on the drivers of deforestation and forest degradation and the activities that are required to address them.

— **Discussions with high-level policy makers and administrators**

The NFP has also had meetings with the Minister for Environment and the Secretary, Ministry of Environment, to apprise them of what is involved under a national REDD+ Programme and to enlist their support.

- **Awareness creation opportunities on REDD+ at nation-wide tree planting campaigns through *DeyataSevena* Programme**

The NFP carried out large-scale awareness programmes on REDD+ in the Northern Province making use of the MoE'snational tree-planting programme termed *Deyatasevena*. A main feature of this programme is that people are required to maintain statistics about survival of the trees they plant and maintain, and this is monitored by the staff of relevant agencies supplying the planting material and the local administration. This will be an annual programme and one of its goals is the reduction of climate change impacts by the planting ofmulti-purpose trees (see more details in Component 1a). This makes it an ideal channel to further the REDD+ programme in Sri Lanka's forest analogue home garden systems.

- **Meetings with persons with expertise for Components 3 and 4**

Several technical meetings were held with the GIS and remote sensing staff of the FD, academics, and persons involved with measuring carbon in home gardens and foreststo develop Components 3 and 4.

A summary of stakeholder engagement during R-PP preparation is provided in Table 1b-1

TABLE 1b-1: Summary of stakeholder engagement during R-PP preparation

Stakeholder groups Consulted	Type and scope of meeting	Date of meeting	Numbers reached
Government institutions, private sector representatives and related non-governmental organizations and civil society organizations.	To inform all major stakeholders about the REDD+ concept, the national position on REDD+ and steps taken by GOSL, especially the MoE and the FD regarding UN-REDD+ National Programme development; and to provide opportunity for feedback on the programmes and activities to be included.	11.02.2011	29
Senior Deputy Conservators of forest, NGOs and private sector, state sector partners.	Discussion of draft Programme document.	31.03. 2011	25
Environmental NGOs, indigenous *Veddha* peoples, RFOs of the FD, in Central and UVA Provinces (NuwaraEliya)	Awareness creation about the REDD+ programme by NFP, CCS and Meteorology Department	11.07. 2011	112
NFP discussion with proposed REDD+ district focal points	Dissemination of REDD+ awareness material and discussion on organizing district level awareness campaigns for CBOs living near forests (discussions ongoing)	11.07. 2011	28
Environmental NGOs, RFOs of the FD, in the North, North Central and Eastern Provinces (Anuradhapura)	Awareness creation about the REDD+ programme by NFP, CCS and Meteorology Department	18. 07. 2011	76
Environmental NGOs, RFOs of the FD, in the Western and, North western Provinces (at	Awareness creation about the REDD+ programme by NFP, CCS and Meteorology Department	19. 07 2011	57

Stakeholder groups Consulted	Type and scope of meeting	Date of meeting	Numbers reached
Gampaha)			
Environmental NGOs, RFOs of the FD, in the Sabaragamuwa and Southern Provinces (at Ratnapura)	Awareness creation about the REDD+ programme by NFP, CCS and Meteorology Department	22. 07. 2011	68
Meeting with high level staff of the FD	Identification of drivers of deforestation and obtaining activity data.	06.10. 2011	10
FD field staff at Regional, District and Range levels in the Dry and Intermediate Zones (workshop at Kurunegala)	Meeting to create awareness about REDD+, identify drivers of deforestation in Sri Lanka and strategic action to address them	13.10 2011	19
FD field staff at Regional, District and Range levels in the Wet Zone (workshop at Colombo)	Meeting to create awareness about REDD+, identify drivers of deforestation in Sri Lanka and strategic action to address them	18.10.2011	14
Meeting with District Secretary Kilinochchi (northern province) and District level heads of departments in the area	Introduction of REDD+ concepts and opportunities to the district to be continued in other districts of the north and east.	28. 10. 2011	22
Individual meetings with experts on RL and MRV	Technical aspects of monitoring carbon stocks and area change	October 2011	04
NGOs, National Science Foundation, environmental lawyers, NGOs, civil society members.	Meeting to report progress on R-PP preparation, validation of drivers of deforestation and forest degradation and identification of strategic actions to address them through brainstorming and prioritisation (group work).	11.11. 2011	20
The UNESCO National Man and the Biosphere committee of the National Science Foundation (scientists including university academics and Director Department of Wildlife Conservation) and scientific staff members of NSF (The relevant minutes can be obtained from the MAB Committee on request)	Presentations on the REDD+ programme by National Focal Point and inputs on drivers of deforestation and forest degradation, and actions needed to mitigate them from members. See Box 1b-3 for main agenda items.	18. 11. 2011 16. 12. 2011	10
Meeting with the Ellawala Trust Fund Director, 5 staff and 14 community members (women) living near Bambaragala Reserve and participating in an industry linked with the *Mahausakanda* forest regeneration project.	Discussion about community willingness to protect forests in lieu of economic incentives, such as carbon benefits, livelihood upliftment initiatives, and potential mode of operation of community participation in forest conservation.	19.12. 2011	20
Meetings by DFOs with field forest officers to enhance their awareness of REDD+ in five districts. (Gampaha, Galle, Kegalle, Hambantota, Polonnaruwa and Ratnapura).	Enhancing FD field officers' ability to carryout awareness programmes on REDD+ among local communities.	20, 22,29 December 2011.	
Meetings between the FD field staff and local communities.	Awareness about REDD+ and willingness to participate in it as a prerequisite for FPIC. (Kanneliya Forest is earmarked as a potential demonstration site).		
Meetings by FD field staff with the indigenous *Veddha* community (where the national leader is located) and his people at Sorabora.	Awareness about REDD+ and willingness to participate in it as a prerequisite for FPIC.	29.12.2011	

BOX 1b-3: Agenda items for consultation workshops with the FD staff on 13th and 18th October 2011

- Understanding the REDD+ concept and the current Sri Lanka position on REDD+
- Identification of factors and underlying drivers of deforestation and forest degradation.
- Actions needed to reduce deforestation and forest degradation
- The proposed REDD+ process in Sri Lanka and its objectives
- Expectations of stakeholders from the UN-REDD National Programme

Process followed for identification of drivers of deforestation and forest degradation and forest conditions

— Prior consultations with state sector, subject specialists and NGOs

Underlying causes and attendant drivers of deforestation and forest degradation and potential remedial measures have been identified through previous consultations initiated by the MoE and FD at severalfora since the preparation of the National Biodiversity Action Plan (BCAP) published in 1999[45](e.g. consultation with state sector, NGOs and 100 Community Based Organizations). The most important consultative processes held by the MoE were for the preparation of: (a) the Task-force Report on *in-situ* Conservation for the Addendum to the BCAP published in 2007;[46] (b) the second national communication to the UNFCCC by the CCS of the MoE in 2009-2010 (being finalized); (c) the Biodiversity Sector Vulnerability Profile[47] under the 2009-2010 ADB-assisted project for preparation of the National Climate Change Adaption Strategy for Sri Lanka; and (d) the 4th National Report to theCBD in 2009[48]and its update in 2010.

— Prior consultations by the MoE, FD and DWLC with local communities

There have been many comprehensive consultations with communities in recent years on causes of deforestation and forest degradation and potential community participation in forest conservation and management during preparation of:

(a) periodic reviews of the Sinharaja International Man and theBiosphere Reserve in 2004, through focus group discussions with local communities and use of a structured questionnaire for individual participants to rank perceived threats to forests,[49]

(b) the nomination dossier to UNESCO for inscription of the Knuckles Conservation Forest (KCF), Peak Wilderness Protected Area and Horton Plans National Park as a serial World Heritage Site through focus group discussions,[50](local communities around KCF and around PWPA during 2008 and 2009),

(c) the Borrower's Project completion Report for the ADB-funded Protected Area Conservation and Wildlife Conservation (PAM&WC) Project[51]in 2009 (covering local communities around the Bundala, Udawalwe, Minneriya, Wasgamuwa and Horton Plans National Parks, Peak Wilderness Nature Reserve, through site visits and individual interviews with communities engaged in participatory projects near wildlife reserves). These consultations covered all climatic zones in the country.

[45]MoFE (1999). *Biodiversity conservation in Sri Lanka: a framework for action.* Colombo, Sri Lanka.
[46]MoENR (2007). *Biodiversity conservation in Sri Lanka: a framework for action. Addendum.*Colombo, Sri Lanka.
[47]MoE (2010). Sector Vulnerability Profile: Biodiversity and Ecosystem Services. Ministry of Environment, Sri Lanka
[48]MoENR (2009).Fourth Country Report to the Convention on Biological Diversity. Compiled J D S Dela (unpublished).
[49]Dela, J D S (2003).Periodic Review of the Sinharaja Biosphere Reserve.Prepared for the National Science Foundation and the UNESCO.Sri Lanka MAB Committee.
[50]GOSL (2008). Nomination of the Central Highlands of Sri Lanka: its cultural and natural heritage for inscription in the world heritage list. Submitted to UNESCO by the Government of the Democratic Socialist Republic of Sri Lanka.
[51]GoSL (2009). Sri Lanka: Protected Area Management and Wildlife Conservation Project Borrower's Project Completion Report (unpubl.).

Other recent examples are: consultations with communities living near degraded forest patches in the Intermediate Zone during the Sri Lanka Australia Natural Resources Management Project (SLANRMP) [See **Annex 2a-2** for details of this project). More recently (2008-2010) consultations were held with communities in densely populated areas in the northwestern lowlands of the Wet Zone characterized by small forest fragments, during a survey of forest and home garden habitats of the globally Critically Endangered western–purple faced langur [a project carried out by primate researchers in collaboration with FD staff]. There is considerable understanding of the on-the-ground causes of deforestation and forest degradation by academics, NGOs, state sector institutions, communities, FD and the team preparing this R-PP.

— **Integrated Strategic Environmental Assessment Project, Northern Province**

This involved the post–conflict forest cover assessment and identification of forests and other ecologically sensitive areas for conservation, with funds from the UNDP. During the assessment, conflicts that existed among key stakeholders were identified. Among the conflicting interests were archeological sites within forests, wildlife conservation areas, mineral resources, human settlements, water resources, and urban development.

— **Consultationsduring preparation of the R-PP**

Despite previous consultations and the information they have provided, the rapidly changing socio-economic conditions made it necessary to organize further consultations to obtain the current status. Focused discussions about the on-the-ground situation were held with district and field-level Forest Officers (i.e. DFOs and Range Forest Officers) in the Wet, Intermediate and Dry Zone areas to identify (a) the most current causes and major drivers of deforestation and forest degradation in different climatic zones; (b) actions needed to address them; and (c) capacity buildingneeds within the FD. The role of communities in forest conservation and the results of previous participatory projects for forest conservation were also discussed. Thedrivers that emanated did not vary from those obtained from previous consultations with other groups, bar some minor changes (e.g. clearing mangroves for shrimp farming along the North-western coast is no longer a problem due to disease which has caused many farms to be abandoned).[52]

The drivers of deforestation and forest degradationidentified by the FD staff, and actions perceived as vital to mitigate them, were validated at a meeting with key national NGOs (some of which are working closely with communities) and the NSF. This resulted in some additions. The resultant document was validated with the National Man and the Biosphere Committee, which is a diverse platform of experts comprising academics and specialists in a number of areas. There was overall agreement between the FD field staff, NGOs and the MAB Committee about the drivers of deforestation and forest degradation, and actions needed to address them (See Components 2a and 2b [and attendant annexes] for drivers and suggested remedial actions to alleviate the problem).

■ Concerns that surfaced during R-PP preparation consultations

Overall strategies and safeguards for enhancing carbon stocks under REDD+ were received from stakeholder consultations during theR-PP preparation phase. The following overall recommendations were noted:

- Establish a government fund early for payment for REDD+ activitiesto make this Programme operational, as external funding for REDD+ may be delayed.
- Home garden forest analogue systems with high biodiversity should be included within the National REDD+ Programme as they offer high potential for carbon removals.
- The forest definitionshould include home garden forest analogue systems.
- Cross–cutting legal and policy aspects that are applicable to REDD+ should be well studied and harmonized with each other and REDD+ policies, plans and programmes.

[52]. But note there is the danger of this problem shifting to the Northern and Eastern coasts in the future unless preventive action is taken (Prof Mala Amarasinghe, University of Kelaniya and member MAB Committee, pers, com. at consultative meeting with the MAB Committee).

- Ensure adequate consultation with communities and field level FD/DWLC officers as well as high-level policy makers, state officials, development partners, conservation agencies and NGOs for all major decisions during the implementation of the UN-REDD National Programme.
- There should be a clear understanding of benefits to the local people from REDD+.

The following concerns were noted:

- Ensure land ownership and resolve land tenure issues before engaging rural communities in REDD+
- Address leakage issues to stop misuse of the REDD+ mechanism where conservation of one area may lead to forest exploitation in other areas.
- Ensure that the FPIC process is not misused or abused under REDD+ [it was noted later that lack of proper understanding of the FPIC process may lead to its misuse].
- Ensure that safeguards identified in component 2c are met during REDD+ implementation.

Lessons from the consultations

- People are still somewhat apprehensive about the potential outcome of REDD+ (due to the lengthy REDD+ readiness process), and about promoting developing countries as carbon sinks with little benefits of REDD+ reaching them or the country.
- A clearerunderstanding of benefits from REDD+ apart from national benefits is required to make people less apprehensive about REDD+. People are generally following a 'watch-and wait policy'.
- People are critical of:
  (a) the length of the REDD+ Readiness phase as this may not actually help stemming the urgent problems of deforestation and forest degradation in developing countries on time.
  (b) the fact that REDD+ readiness does not address on-the-ground issues that drive deforestation.

Gaps in consultations to be addressed during the R-PP implementation

More focused discussions than held during R-PP preparation with stakeholder groups such as the private sector, local communities living near demonstration sites (for Components 3 and 4), owners of home gardens, policy makers, secretaries of ministries and heads of departments with a role to play during REDD+ Readiness, field level government staff in agencies that impact on forest conservation (i.e. in areas where there are conflicts of interest), and NGOs that will participate in the REDD+ Readiness process, are needed during R-PP implementation. For local communities including indigenous peoples, these discussions must happen in the context of a process of seeking the free, prior and informed consent when necessary.

However, these consultations should be held with a clear understanding by these groups of potential REDD+ benefits, trade-offs and risks and their economies/work programmes, for the consultations to be effective. It is particularly important that there is clarity of purpose and benefits from REDD+ when consulting with the private sector and communities, so as not to raise false expectations that may backfire on forest management and erode credibility of forest managers.

Indicative Actions Supported by the UN-REDD National Programme (refer to Activities in Component 5)[53]

OUTCOME 1: National Consensus Reached on the National REDD+ Programme

[53] These actions are subject to change based on further appraisal before the programme inception.

Output 1.3: National REDD+ Roadmap Prepared

Activity 1.3.1. Consolidate all assessment results from output 1.2 (review of legal, procedural and institutional arrangements required for REDD+)
Activity 1.3.2. Consultation meeting on preparation of the Roadmap
Activity 1.3.3 Prepare a National REDD+ Roadmap
Activity 1.3.4. Invite public comments on the Roadmap
Activity 1.3.5. Finalize the Roadmap through a validation meeting with stakeholders

Budget: US$ 55,000

1c. Consultation and Participation Process

The United Nations Framework Convention on Climate Change (UNFCCC), which Sri Lanka has signed and ratified, recognizes the importance of IEC. It calls for "improving awareness and understanding of climate change, and creating solutions to facilitate access to information on a changing climate" to winning public support for climate related policies. The UNFCCC, through its Article 6, and its Kyoto Protocol, through its Article 10 (e), call on governments "to educate, empower and engage all stakeholders and major groups on policies relating to climate change".

Source: http://unfccc.int/cooperation_and_support/education_and_outreach/items/2529.php

Background

The development of public awareness regarding the importance of forests and its conservation value is not a new issue in Sri Lanka. A relatively broad knowledge base has already been developed over many years of public awareness-raising activities carried out by the FD and the DWLC.Environmental education and promotion of forest conservation by various state institutions and NGOs has been in practice since the early 1980s. However, REDD+ is a new concept and the interpretation of what it can bring in terms of benefits and responsibilities is new to many people. While efforts have been made to increase knowledge about REDD+ during R-PP preparation, the successful implementation of the REDD+ Programme requires enhanced understanding, commitment and involvement from diverse stakeholder groups, ranging from policy and decision makers (at national, regional and local levels), officials in state agencies engaged in both conservation and development sectors, civil society, NGOs, the private sector, local communities, and indigenous groups in order to make REDD+ operational. Communication and consultations will need to target the following key processes:

1. Supporting the management structure and arrangements to implement REDD+.
2. Facilitating effective networking and a free flow of two-way communication and information exchange.
3. Communication support for REDD+ Strategy development, including MRV.
4. Ensuring that the REDD+ programme is in full compliance with the principles of SES and FPIC.

As the success of REDD+ interventions will significantly depend on active involvement of all relevant stakeholders identified under the different components of this R-PP, the objective of this component is to present the framework for communication and consultation that will guide the UN-REDD National Programme and relevant TF to plan for, and facilitate all communication [including stakeholder consultations], education, networking and public awareness to be undertaken during R-PP implementation. The scope of communication will extend beyond the R-PP implementation stage by setting the background for an institutional mechanism to assist communication for all REDD+ activities.

Stakeholder engagement processesduring preparation of the R-PP are outlined in Component 1b.

Communication and consultation needs to be customised for different target groups[54]. These groups[50](see Table 1c-1) and their knowledge, attitudes and perceptions about REDD+ will be identified early during the implementation of the Programme. While Component 1b sets out how potential stakeholder groups for REDD+ were engaged in the preparation of this R-PP, not all of

[54] CBD/IUCN/CEC (2007).Communication, Education and Public Awareness, a toolkit for the Convention on Biological Diversity, Montreal.

them will be target groups for all components of the Programme (e.g. FPIC and MRV have very different target groups). Upon identifying target groups,a survey of knowledge, attitudes, and perceptionswill be conducted as the first input to the development of the Communication and Consultation Strategy and Plan(CCSP). This component does not specify yet who should be communicated with and/or consulted, or why and how they should be communicated with/or consulted. Rather, it aims to present a broad framework to formulate communication actionsand to facilitate the preparation of the CCSP. The CCSP will cover both internal and external communication and, provisionally, the following areas:

- Situation Analysis
- Critical Elements for Success
- Communications Components
- Target Audiences
- Communications and Consultation Goals
- Approaches to Communication and Consultations
- Key Messages
- Communications and Consultations Management
- Detailed Plan for Year 1 of R-PP implementation

Overallobjectives of Component 1c

Based on the overall needs of communication, the broad objectives are:

(a) To provide a framework to guide effective management of participatory and multi-stakeholder dialogue, which upholds the rights of indigenous peoples and other local community rights-holders to FPIC when necessary.

(b) To provide a framework to guide effective communication, education, networking and information exchange, that (i) actively supports the management structure and arrangements to implement REDD+; (ii) facilitates a free flow of two-way communication and information exchange to build and strengthensectoral and cross-sectoral support; and (iii) enables specific communication support for the development of the REDD+ Strategy, the design of the National Forest Inventory and MRV Systems,and facilitates policy and legal reviews, alignment and harmonisation.

TABLE 1c-1: Main Target groups

Stakeholder Group	Candidate target groups
Managers of R-PP implementation	Those responsible for REDD+ institutional arrangements: PMU, PMCC, TFs, MoE and CCS, FD and DWLC.
Government	MoF&P[55]; DoA/HORDI, DLUPP, CEA, CCD, UDA, SD, Met Dept, DoPP, DER, ID, MASL, SLTDA, UNDP and FAO, etc) Should include institutions represented in the PMCC and others deemed relevant by the to be identified during R-PP implementation (candidates:
Communities and indigenous groups	Community advisory groups at the local level (See Component 1a), community members and indigenous representatives functional in TWGs, participants engaged in enhancing carbon stocks at pilot sites, communities engaged in participatory forest plantation establishment and conservation of natural forests.
Civil Society and NGOs	Those represented in the PMCC, TFs, RSF, or are woring at demonstration pilot sites.

[55] At the stakeholder workshops it had been recommended that MoFP, DER and DoPP be all include in the PMCC.

Private Sector	Private sector members of the PMCC, TFs and TWGs, agencies involved in enhancing carbon stocks, National Chambers of Commerce, etc.
Academics and subject specialists	Those represented in PMCC, TFs and RSF
Development and conservation partners (International)	UNDP, FAO, UNEP, UNEP-WCMC

(Source: Adapted from outcomes of consultations held during the early stages of NPD formulation)

Expected outcomes

The main outcome of this Component will be well-planned and strategically-designed communication for REDD+ through the preparation of a CCSP with the dual objectives stated above to help operationalise the REDD+ process, facilitate the implementation of activities and foster the participation of well-informed stakeholders. It is expected that the communication will address all REDD+ components, in particular FPIC and safeguards (see Component 2c).

The specific outputs

To achieve the broad general objectives and to ensure transparency and accountability of the REDD+ process, the specific outputs expected are as follows:

- A well designed CCSP that will be implemented and reviewed annually.
- Communication networks established with conservation,[56]developmentand other partners for REDD+ (in the state and non-state sectors) to promote smooth functioning of institutional arrangements.
- Customized awareness raising and communication programmes for specific target groups.
- A system of participatory and multi-stakeholder dialogue established to ensure that the development and implementation of all policies, programmes and activities under a REDD+ programme are in accordance with the principles of FPIC. Here the CBO/IP Forum would play an important role.
- Establishment of a baseline and an awareness impact monitoring system to assess the effectiveness of communication and consultations.
- A REDD+ website that will provide information not only on the UN-REDD National Programme but on all programmes and projects und the National REDD+ Programme.
- Partners in communications and stakeholder engagement, and "champions" identified and collaboration established.

Positioning communication within the REDD+ institutional arrangements

One Task Force will be responsible for preparation of the CCSP and implementing communication plans and stakeholder engagement. Supported by the Communication Officer of the PMU and potentially a TWG, the TF will preparecustomised communication messages and products for different target groups and for capacity building on effective communication and stakeholder engagement forexternal and internal target groups.Local and international consultants will be engaged on a needs basis.

Analysis of existing in-country capacity for communication, consultation, education and public awareness

[56] Conservation partners in state departments and NGOs, relevant Forest and Wildlife Department staff at field and central levels, state agencies involved with implementation of funding for REDD+ and benefit sharing.

A comprehensive analysis has been made by the MoEof the capacity for communication, education and public awareness for the preparation of the Biodiversity Thematic Assessment for the National Capacity Needs Self-Assessment for Global Environmental Management. This analysis is, to a large extent, relevant for REDD+.[57]

Overall, fair capacity exists in several state institutions, NGOs and media to engage in environmental education (including climate related education) but considerablecapacity building is required to promote effective strategic communication that is needs-based, consultative and customised for different target groups.

In preparation for the Information, Education and Communication Strategy for Climate Change Adaptation in Sri Lanka,the MoE conducted a country-wide survey of 1,000 persons on the public perceptions of climate change, consultations with 300 public officials in 9 Divisional Secretariats of two districts, and a stakeholder consultation workshop. The CCSP can build on the lessons learned.[58] The survey found that an essential factor for successful information, education and communication pertaining to climate change-related subjects is source credibility and public trust.[56]This is where credible information networks can play a role.

The public perceptions survey carried out during preparation of the Information, Education and Communication Strategy for Climate Change Adaptation in Sri Lanka by the MoE revealed that credibility among the public was highest for TV (88%), followed by internet (51%), radio (42%) and print media (33%). People's trust in all other information sources was very limited. This highlights a critical need to partner with credible multipliers in pursuing IEC activities. [56]

BOX 1c-1: The context of social and cultural factors and realities to be considered when strategizing communication in Sri Lanka

"To be realistic and effective, all Information, Education and Communication activities need to take into account the wider demographic, social and cultural factors and realities. A decade into the 21st Century, Sri Lankan society is undergoing macro-change at several levels." These trends include:

- Rising income levels which has already turned Sri Lanka into a lower middle income country with a per capita GDP slightly exceeding USD 2,000;
- Rapid urbanisation, which will see half of all Sri Lankans living in cities or towns during the next decade;
- A literate population that is, on the whole, eager to acquire new knowledge and skills;
- An expanding information society where access to telecom services and mass media has increased phenomenally in recent years due to market liberalization; and
- A more pluralistic market where providers of education, information and communication services compete intensely for the attention and patronage of 20 million people.

When the country's language and ethnic diversity are also factored in, it is clear that there is no single pathway or 'pipeline' to reach all Sri Lankan people. The diverse and multi-layered audience requires a differentiated and nuanced approach.

Source: MoE (2010). Information, Education and Communication Strategy for Climate Change Adaptation in Sri Lanka.

Compliance with the Principles of Free, Prior and Informed Consent (FPIC)

Indigenous peoples and forest-dependent communities are essential to the success of REDD+ given they have played a historical and cultural role in the sustainable management of these forests with relative success. Inadequate mechanisms for effective participation of local communities in land use

[57]MoENR (2007). Thematic Assessment Report on Biodiversity, prepared for the National Capacity Needs Self-Assessment for Global Environmental Management.
[58]MoE (2011). Information, Education and Communication Strategy for Climate Change Adaptation in Sri Lanka, page 13..

decisions could seriously compromise the delivery of both local and global benefits and the long-term sustainability of REDD+ investments.

Although FPIC is most often outlined in the context of the rights of Indigenous Peoples because of their unique circumstances, notable marginalization and special status in international law, this R-PP recognizes that, based on the specific context of Sri Lanka, REDD+ activities may impact other forest-dependent communities that have customary and/or legal rights to the territory and/or resource; therefore, FPIC will be applied to both Indigenous Peoples and forest dependent communities in the country.

This rights-based principle of FPIC applies to REDD+ discussions regarding potential changes in resource uses that could impact the livelihoods of indigenous and other local communities. Under these circumstances, consistent with international human rights instruments and other treaty obligations, potentially impacted peoples have the right to participate in and consent to, or withhold consent from, a proposed action. This principle holds that communities should have the right to withhold consent at key decision-making points occurring both prior to and during a proposed activity.FPIC applies to proposed actions (decisions, activities, projects, etc.) that have the potential to impact the lands, territories, and resources upon which indigenous peoples depend for their cultural, spiritual and physical sustenance, well-being, and survival.

As outlined in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), the CBD, the ILO Convention 169, and most importantly the Cancun Agreements decision on REDD+, compliance with FPIC principles is the key indicator by which the quality of all stakeholder engagement will be assessed during implementation of the Sri Lanka R-PP.

The processes and activities that require adherence to FPIC include all those that may have an impact on the rights and livelihoods of these communities. Compliance with FPIC is a key criterion within the REDD+ safeguards described in Component 2-c, and will be monitored accordingly. As part of the development of consultation processes, therefore, the TF on Governance, Policy, Safeguards and Multiple Benefits will provide guidelines on methods for ensuring FPIC and will establish a TWG to assist with their development as required.

This process will follow closely the guidance provided by the UN-REDD Programme Guidelines on Free, Prior, and Informed Consent (draft 2012).

Relevance of FPIC for REDD+ in Sri Lanka

As a mechanism based on large-scale changes in patterns of land use and related policies, REDD+ will inevitably affect the recognition and realisation of land tenure and land use rights. Its potential impact on traditional and territorial rights therefore came to the attention of international human rights groups and Indigenous Peoples' groups at an early stage in negotiations. REDD+ is expected to increase the value, per unit area, of forested land in recognition of its potential as a carbon sink or source of GHG emissions. The greatest proportional increases in value are likely to occur in areas with limited existing value as sources of forest products but with some potential for conversion to non-forest land use. Such areas often coincide with indigenous peoples' territories. In the context of Sri Lanka, the indigenous '*Veddhas*' and the forest-dependent poor, who live in and around forests, are the most likely to be affected. Though timber export is banned and trade in other forest products is limited, there is a growing trend of forest clearance, particularly at the margins, for plantation and other income-generating crops.
With increased value, real or perceived, comes an increase in competition for the rights to that value. In areas where rights have remained ambiguous or poorly defined, there will be increased pressure to clarify the rights to ownership, and thus the right to benefit from this increase in value. It is therefore essential that, in this effort to define land rights, the interests and rights of indigenous peoples, and other forest-dependent communities, are not adversely affected. This provision, in line

with UNDRIP, applies to both their legally-recognised statutory rights, and to traditional or customary rights.

Issues subject to FPIC

The right to FPIC encompasses not only the right to be fully informed and consulted before activities are implemented, but also to withhold consent from these activities altogether. This does not imply that forest-dependent people hold a veto over all aspects of a National REDD+ Programme, only over activities or policies which directly affect their lands or livelihoods. It does mean, however, that the REDD+ management structure must make every effort to build trust, particularly through transparency in decision-making, by ensuring participation and representation of local people throughout the R-PP implmentation.

Consent must be sought at key stages of the National REDD+ Readiness process. The stages which may trigger a consultation process to seek consent will be determined by the RPMCC alone, although in this regard it will rely largely on the advice and recommendations of the CSO/IP Forum and other bodies in the REDD+ management structure such as TFs and TWGs. These decisions may be made at any point but an initial list of decisions or stages which will trigger consultation will be drawn up by the RPMCC, with facilitation of the TF on Governance, Policy, Safeguards and Multiple Benefits, throughout the National REDD+ Readiness process. As described by the UN-REDD Guidelines on FPIC, these triggers in Sri Lanka may include the following, where they relate to forest land or forest resources on which Indigenous Peoples and local communities depend:

- Activities or decisions involving relocation or eviction
- Activities or decisions involving occupation or damage of forest land
- Decisions on location and design of pilot REDD+ activities
- Decisions on land tenure regulations or forest land use rights
- Design of new forest management policies and programmes
- Design of benefit sharing or revenue distribution mechanisms, where these benefits or resources are derived from forest lands
- Decisions on access to forest lands, and enforcement of such regulations
- Trials and research activities to support the design of REDD+ strategies
- Measurement and monitoring activities to support the design of RLs/RELs for REDD+
- Measurement of forest carbon stocks as part of an MRV system under REDD+

This list comprises activities for which withholding of consent must be considered binding on all stakeholders. It does not include some other planning activities, for example, the identification of drivers of deforestation and potential strategies, the development of a REDD+ Roadmap and Strategy, or the development of awareness raising materials and capacity building tools. Such activities do not, of themselves, carry a risk of undermining rights and are thus not trigger points to seek FPIC. They do, however, require the full and effective participation and representation of forest dependent people in order to be effective, and thus contribute to the FPIC process.

Implementation of FPIC process

One of the key properties of FPIC processes is that they are defined by the subjects themselves i.e. the methods of achieving (or withholding) consent are those that are traditionally used by local people in decision-making processes. In most of rural Sri Lanka, the basic unit of traditional decision-making is the village. An FPIC process for Sri Lanka would therefore rely on these units and the traditional systems based around them.

The meaning of 'consent' is itself determined by these local units. It is important to note that it does not imply unanimity, unless this is the usual means of decision-making (which would be very unusual).

Therefore, FPIC does not imply that every single individual can wield an effective veto over REDD+ activities and decisions.

FPIC is essentially a continuous process rather than the linear progression shown in **Annex 1c-1**. It should be seen as an ongoing process of two-way negotiation and communication between the forest-dependent people and RPMCC, through a network of trusted intermediaries. If the CCSP described above is effective, then the FPIC process should run smoothly and with very little need or occasion for consent tto be withheld at any point. Instead, the CCSP will ensure that proposed activities are discussed until a mutually-satisfactory agreement is reached.

The TF on Governance, Policy, Safeguards and Multiple Benefits will be responsible for commissioning studies into traditional decision-making systems in parts of Sri Lanka and designing a system of negotiation and communication around them, with reference to the diagram in **Annex 1c-1.** The activation of an effective FPIC process will also require the training of sub-national government units, extension services, and CBO /CSO counterparts to serve as intermediaries in the process.

Outcomes of the FPIC Process

As described by the UN-REDD Guidelines on FPIC, "the FPIC process and outcome should be well-documented and made publicly available. The territories and resources of communities that do not provide their consent should not be included in the proposed REDD+ policy/activity.

Communities may choose to grant their consent on the basis of certain conditions (e.g. benefits continue to be derived from the project). If these conditions are not met, the community may review and either reaffirm or refuse consent. This option may be invoked at any stage of programme implementation.

Given the significant time and resources that may have been invested during the process, the community should not be able to withdraw consent arbitrarily; thus, if the conditions upon which the original consent was based are being met, on-going consent is implied. If there is disagreement over whether conditions are being met or not, communities can express their grievance with the relevant national level grievance mechanism."

Grievance Mechanism

The provision of mechanisms to address grievances and monitor compliance with standards, guidelines and policies is of critical importance to ensuring REDD+ objectives in a transparent, legitimate, and effective way. Therefore, the R-PP implementation will initiate the process of establishing a mechanism to address grievances when communities feel they have been negatively impacted as a result of the REDD+ readiness and implementation.

The R-PP implementation will support the establishment of a mechanism to:

- Conduct a rapid assessment of existing formal or informal feedback and grievance mechanisms, including an assessment of how existing mechanisms could be modified to ensure that the eventual mechanism is accessible, transparent, fair, affordable, and effective in responding to challenges in REDD-plus implementation;
- Develop a framework for the proposed grievance mechanism, including steps that will be taken to define the structure, functioning and governance of such a mechanism, taking into account customary grievance approaches and best practices where feasible; and
- Describe how information sharing and consultation on the proposed mechanism will occur.

These functions will be provided through the established mechanism based on the principles of grievance and accountability – Independence, Fairness, Transparency, Professionalism, Accountability, and Effectiveness. In addition, the mechanism will also disclose information regarding how issues have been addressed and handled. It is also important that stakeholders especially the local communities are made fully aware of the application and process of the grievance and accountability mechanism through awareness-raising and regular communications.

Indicative Actions Supported by the UN-REDD National Programme (refer to Activities in Component 5)[59]

OUTCOME 3: Improved Stakeholder Awareness and Effective Engagement

Output 3.1: Communication and Consultation Strategy and Plan (CCSP) Prepared

Activity 3.1.1. Identify Target Groups (linked to Activity 1.2.3)
Activity 3.1.2. Establish communication networks with development partners for increased coordination and collaboration
Activity 3.1.3 Design and validate communication strategies and plans for target groups for raising awareness, promoting engagement and behavioral change (communication formats, products and feedback/evaluation mechanisms) (linked to Output 5.6)
Activity 3.1.4. Establish a REDD+ website and a media platform, and link with MoE media unit
Activity 3.1.5. Document and disseminate lessons learned

Budget: US$ 373,000

Output 3.2: Stakeholder engagement in REDD+ readiness process enhanced, including FPIC and private sector engagement (some Activities under this Output will be implementedunder Component 2c)

Activity3.2.1. Agree and establish stakeholder (CSO/IP) forums linked to the national REDD+ process
Activity3.2.2. Support self-organized regular meetings by the stakeholder forums
Activity3.2.3. Consult and identify a pilot location for FPIC
Activity3.2.4. Pilot FPIC and document lessons (linked to Output 5.6)
Activity3.2.5. Prepare and validate a national FPIC guideline and application toolkit
Activity3.2.6. Design training programs for FPIC application
Activity3.2.7. Establish a grievance mechanism
Activity3.2.8. Design and implement training on communication and team building for NGOs and CBOs, private sector and other relevant groups
Activity3.2.9. Design and implement customized communication training for relevant institutions.
Activity3.2.10. Enhancement of equipment and material for communication and extension programmes of the FD with regard to REDD+.

Budget: US$ 220,000

[59] These actions are subject to change based on further appraisal before the programme inception.

Component 2: Prepare the REDD-plus Strategy

Component 2a: Assessment of Land Use, Forest Law, Policy and Governance

Standard 2a the R-PP text needs to meet for this component:
Assessment of Land Use, Forest Policy, and Governance:

A completed assessment is presented that: identifies major land use trends; assesses direct and indirect deforestation and degradation drivers in the most relevant sectors in the context of REDD; recognizes major land tenure and natural resource rights and relevant governance issues and shortcomings; documents past successes and failures in implementing policies or measures for addressing drivers of deforestation and forest degradation; identifies significant gaps, challenges and opportunities to address REDD; and sets the stage for development of the country's REDD strategy to directly address key land use change drivers.

Introduction

Sri Lanka has a long history of forest conservation despite many vicissitudes in its political history. The 30-year civil war had considerable implications on the country's socio-economic status, despite which Sri Lanka forged ahead with progressive laws, policies and programmes to reduce deforestation and forest degradation. Emergence of peace and political stability since 2009has brought steady economic growth**,**with a strong move towards socio-economic and infrastructure development. Despite the need for such development, land use planning should be optimized to prevent adverse impacts on the country's forest resources, and its potential ramifications on economic development.

A detailed examination of the forestry sector in **Annex 2a-1** describes the nature of Sri Lanka's forest and non-forest tree cover resources; historic trends in forest degradation and deforestation, the underlying causes and challenges; and the polices, plans, laws, approaches and strategies that are in existence to address those challenges. A detailed analysis of participatory approaches adopted to wean people away from forest destruction and to engage them in forest conservation and management through livelihood enhancement is in **Annex 2a-2**. This also looks at private sector involvement in forest plantations and encouragement of tree cover enhancement in home garden forest analogues. **Annex 2a-3** provides information on laws and conventions (to which Sri Lanka is a signatory) with a bearing on addressing drivers of deforestation and forest degradation and enhancing carbon stocks.

This component is prepared based on two key elements: (a) reference to prior work carried out on the forestry sector, review of relevant policies and laws, reference to the Forestry Sector Master Plan which covers 1995-2020,[60]review of development sector policies and plans which are cited,past experience in the forestry sector by the compilers and NFP,and numerous documents and meetings held in Sri Lanka since 2006 to understand the status of forest biodiversity, and (b) consultations and discussions during R-PP preparation with a large number of stakeholders and FD field staff on current status of the forests,drivers affecting forest loss and degradation, and policies, laws, plans and programmes (including programmes and projects to promote community participation in forest management and conservation) that promote or reduce these drivers.

[60]MALF (1995). Sri Lanka Forestry Sector Master Plan. Ministry of Agriculture, Lands and Forestry, Sri Lanka.

The large number of reports and studies that helped prepare this component are cited. Foremost among these are (a) discussions with wide stakeholder participation through roundtable meetings, workshops and meetings to brainstorm and prioritize issues with the participation of state institutions, private sector and NGOs, for preparation and subsequent update of the Fourth Country Report to the CBD (in 2009 and 2010),[61](b) preparation of the Thematic Assessment Report on Biodiversity under the National Capacity Needs Self Assessment Project,[62] and (c) preparation of the Sector Vulnerability Profile: Biodiversity and Ecosystem Services[63] – all of which were carried out by the MoE. The drivers of deforestation and forest degradation presented in this R-PP are thoseidentified solely from consultations during the R-PP preparation. Upon comparison with issues and drivers identified at previous fora, they were found to be similar.

The lessons learned from the past experiences as well as the recent updates on the forestry sector through consultations during the preparation of this R-PP provides a sound basis for addressing the drivers in Component 2b. During R-PP implementation, there will be further analysis of the drivers of deforestation and forest degradation to prepare the REDD+ Strategy,with further consultation based on the Communication and Consultation Strategy and Plan (CCSP) discussed in Component 1c.

Objectives of Component 2a

The objectives of this Component areto (a) provide an assessment of current status of forest cover and forest change, overall land use, forest law, policy, governance,and actions for forest conservation, sustainable management of forests, and efforts for enhancement of forest carbon stocks; and (b) to identify key drivers of deforestation and forest degradation, with the aim of using the country's past experiences to provide the background for identification of potential approaches for the REDD+ strategy.

Current status of forests in Sri Lanka

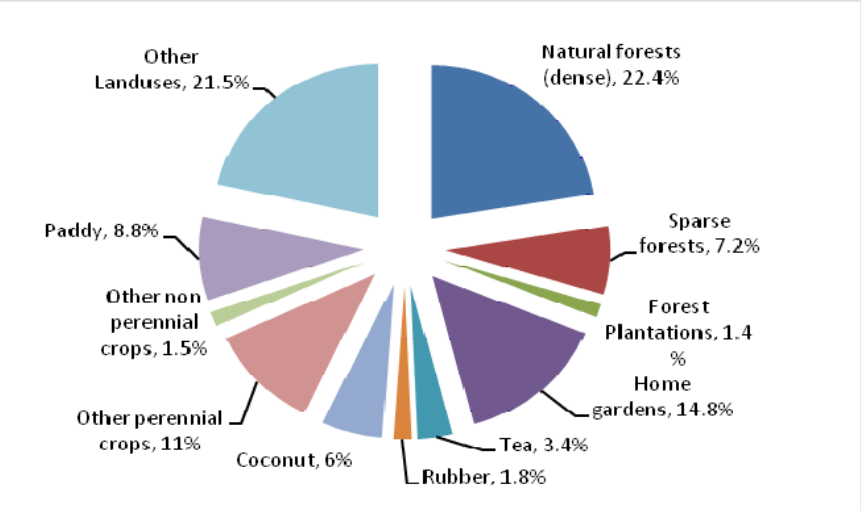


FIGURE 2a-1: Land Balance Sheet
Source: FAO/FD/GOSL. Sri Lanka Forestry Outlook Study 2009

Natural forests:

The percentage distribution of different land uses in the country, indicating the status of forest land compared with agricultural and other lands, is given in Figure 2a-1.Variations in climate, topography and soil have resulted in the presence of a total of 15 distinct floristic regions.[64] Accordingly, very specific forest types occur in different climatic zones

[61]MoENR (2009).Fourth Country Report to the Convention on Biological Diversity. Compiled J D S Dela (unpublished).

[62]MoENR (2007). Thematic Assessment Report on Biodiversity under the National Capacity Needs Self Assessment Project. Compiled J D S Dela.Ministry of Environment and Natural Resources, Sri Lanka.

[63]MoE (2010). Sector Vulnerability Profile: Biodiversity and Ecosystem Services. Prepared with Assistance from ADB TA 7326 (SRI). Strengthening Capacity for Climate Change Adaptation, Ministry of Environment.

[64]Ashton, P.S. and Gunatilleke, C.V.S. (1987). New light on the plant geography of Ceylon, I:*Journal of Biogeagraphy*. 14:249-285.

(Table 2a-1). Of these, the lowland rainforests of the southern region are also believed to be the richest, species-wise, in South Asia[65]and are known for theirhigh degree of endemism among both fauna and flora.[66] Due to historical factors, dry mixed evergreen forests of the Dry Zone are the most extensive. In comparison, the biologically more valuable rainforests of the Wet Zone are severely fragmented (**Annex 2a-1**) and scarcer(Table 2a-1). Thetotal forest cover in 2010 was 1.9 millionha comprising both dense and open forests.[67] This included 15,669 ha of mangroves, and 79,941 ha of forest plantations for both timber yield and protective purposes.[67]About14% of the island isdesignated as PAs,[68]only 18% of which falls within the Wet Zone.[69]Non-forest lands such as home gardens (9,701 sq km), 9,851,250 tea estates (2,220 sq km), rubber plantations (1,158 sq km), coconut plantations within the coconut triangle (3,948 sq km) and privately held woodlots provide additional tree cover, and are a major source of fuelwood and timber.[70,71]However, there are no current data available on the scale of agro-forestry planting or of trees outside forests and their contribution to carbon stocks.

Role and Importance of forests and agroforestry systems

Forest plantations provide timber, but overall about 70% of the roundwood supply is from home gardens, rubber plantations and "non-forest" lands.[72]The State Timber Corporation (STC) obtains timber harvested mostly from forest plantations released annually by the FD.[70] Apart from this obvious economic value, there are also numerous services provided by forests that underpin economic development. Forests enhance agricultural production by conserving soil and water[73]and help maintain hydrological cycles essential to provide freshwater for agricultural and domestic uses and for generation of hydroelectricity – which, according to available data in 2010provided 52.6% of the island's power generation.[74] Rural villagers near forests depend entirely on freshwater from forests for domestic requirements – either directly or for recharge of ground water from wells. A key ecosystem service provided by forests was revealed in the aftermath of the 2004 tsunami, which led to coastal reforestation to establish protective coastal shelterbelts. Forest dependency for Non-Timber Forest Products (NTFPs) is very low in Sri Lankan villages, although many villagers continue to obtain firewood and a variety of NTFPs (medicinal plants, food items and small wood requirements) for at least domestic use from adjacent forests.[70]Forests also provide medicinal plants for rural Ayurvedic physicians, and raw materials for industry, including several cottage industries.[75] The aesthetic and recreational values of the island's forests are also an essential component of nature tourism, now vigorously promoted to achieve the target of 2.5 million tourists by 2016. The FD promotes recreational tourism in six forests, and most of the 20 National Parks of the DWLC[76]are tourist attractions. However, relatively little is known on forest valuation and forestry sector contributions to the national economy in terms of NTFPs, fuelwood, biodiversity values, pharmaceutical values and ecosystem services. Some studies have been done on carbon values of forests [i.e. by calculating carbon volume and converting to carbon content]. Examples are: estimation of above ground carbon stock (e.g. at Horton Plains, Namunukula [montane forest], Sinharaja and Kanneliya [lowland rainforest], Kurunegala [intermediate zone]. Gannoruwa,

[65] Ashton, P.S. and Gunatilleke, C.V.S. (1987). New light on the plant geography of Ceylon, I:Journal of Biogeagraphy. 14:249-285.
[66] MOFE (1999). *Biodiversity conservation in Sri Lanka: a framework for action.* Colombo, Sri Lanka.
[67] Forest Department unpublished data for 2010
[68] National Environmental Outlook, 2006
[69] MoENR (2002) State of the Environment in Sri Lanka: a National Report Prepared for the South Asian Association for Regional Cooperation. Ministry of Environment and Natural Resources, Sri Lanka.
[70] FAO and FD (2009). Asia Pacific Forestry Sector Outlook Study II Working Paper Series: Sri Lanka Forestry Sector Outlook Study. Working Paper No.APFSOS II/WP/2009/29., Forest Department, Government of Sri Lanka.
[71] CB (2011).Central Bank Annual Report for 2010.
[72] MALF (1995). Sri Lanka Forestry Sector Master Plan. Forestry Planning Unit, Ministry of Agriculture, Lands and Forestry.
[73] MoE (2010). Sector Vulnerability Profile: Biodiversity and Ecosystem Services. Ministry of Environment, Sri Lanka.
[74] Central Bank (2011).Central Bank Annual Report for 2010.
[75] MoE (2010). Sector Vulnerability Profile: Biodiversity and Ecosystem Services. Ministry of Environment, Sri Lanka.
[76] MoENR (2009).Fourth Country Report to the Convention on Biological Diversity. Compiled by J D S Dela (unpublished)

TABLE 2a-1: Change in Natural Forest Types between 1992 and 1999

Climatic Zone and climatic features of forests†	Forest type and key features	Total forest area (ha)		
		1992*	1999	2010
Wet zone; > 1500 msl	**Montane forest**. Cleared during colonial times for cash crops, mainly coffee and tea	3,108.0	3,099.5	44,758
Wet zone; > 1000 msl >1800mm mean annual rainfall.	**Sub-montane forest.** Cleared during colonial times for cash crops, mainly coffee and tea. *(note: the altitude at which montane and sub-montane forests are separated as been revised for the 2010 fore survey)*	68,838.0	65,792.3	28,513
Wet zone; <1000 msl (this is due to be revised to <500 m), >2500mm mean annual rainfall.	**Lowland wet evergreen forest** containing trees with straight boles reaching 30-45 m in height. Many of these forests were subjected to selective logging during 1965-1990. A few unlogged forest areas remain; Most of the larger logged forests have regenerated. Stem density is on average 205 stems >10 dbh/ha.	141,549.0	124,340.8	123,302
Intermediate Zone; <1000 msl, 1800-2500 mm mean annual rainfall.	**Moist evergreen forest** Cleared during colonial times for cash crops in some administrative districts. Stem density. Stem density is on average 152 stems >10 dbh /ha	243,877.0	221,977.0	117,885
Dry Zone; <1800 mm rainfall	**Dry mixed evergreen forest** Canopy height <20 m. Mostly secondary forests due to clearing (during the ancient hydraulic civilization in the 10th -12th centuries). Divisible into regenerating chena, thorny scrub and natural forest. Stem density is on average 123 stems >10 dbh/ha. Later cleared during 1983-1992 for development, and degraded due to slash and burn cultivation and illegal timber felling.	1,094,287.0	1,027,544.1	1,121,392
Near rivers and streams	**Riverine forest** Catchments in river and stream reservations, degraded due to licenses given for short term agriculture and encroachments. Also affected by brackish water intrusion in some riverine estuaries.	22,411.0	18,352.1	2,425
Coastal, all zones in association with lagoons and estuaries	**Mangroves** Mangroves rarely extend beyond 1 km landwards from the mean low water tidal level, but they sometimes spread upriver to the upper limit of brackish water intrusion, even up to a distance of 20 km. Degraded due to excessive removal of branches and cleared for landfills for encroachment, and earlier were cleared for shrimp farming.	8,687.0	9,530.5	15,669
	Total "closed canopy" forest‡	1,582,757	1,470,636.2	1,453,944
	Open Canopy Sparse Forest†	463,842	471,583.2	445,485
	Total natural forest cover in the country	2,046,599	1,942,219.5	1,899,429
	Natural forests as % of total land cover	31.2	29.6	29.1
All zones	***Forest Plantations***	72,340	95,037	79,941

*Source: *Legg and Jewell (1995)[77] and †Forest Department 1999 and 2010 unpublished data.*The 2010 percentage is based on a land area of 6,524,540ha for Sri Lanka as per the 1999 analysis.‡defined by FD as natural forests with over 70 per cent crown closure. † Natural forests with crown density <70%, Savannahs and grasslands are estimated to be >75,000 ha (MoE, 2010)

[77]Legg and Jewell (1995). A 1: 50,000 forest map of Sri Lanka: the basis for a National Forest Geographic Information System. *Sri Lanka Forester,* Special Issue- Remote Sensing, 3-24.

Anuradhapura and Mihintale [Dry forest] and home gardens from each vegetation zone.[78,79]However, more studies are needed in this regard.

Sri Lanka's forests are also of high scientific and biodiversity significance as seen by the inscription of two Natural *World Heritage Sites* by UNESCO featuring four forests,[80] and the declaration of four International UNESCO *Man and the Biosphere Reserves,*[81]that are managed by the FD and DWLC. Wet Zone forests in particular, have exceptional levels of endemism that range between 37-64% for woody plants and 14-52% for animals.[82]Many forests also have cultural and/or religious value due to the presence of Buddhist and Hindu shrines - the most famous being the world famous Adam's Peak Shrine featuring the footprint of Lord Buddha located in one of the forests of the serial Central Highlands Natural World Heritage Site. Villagers living near forests also have a close association with forests based on their belief of numerous forest living deities who play an important part in their daily lives, agricultural practices and health related rituals.[80]

Forests and indigenous peoples

The small population of the indigenous '*Veddhas*' of Sri Lanka live adjacent to a few forests, while one population lives in a National Park. There are about 20 *Veddha* villages in Sri Lanka, comprising a population of about 200,000-400,000. These groups were originally resident within some Dry Zone forests and followed a hunter gatherer lifestyle, but have now settled into village life at the peripheries of forests, though they continue to access the forests for various subsistence and livelihood needs. Their main livelihood is slash and burn agriculture and paddy cultivation; some populations engage in fishing in addition to agriculture.[83]

Land/forest tenure and ownership

A large proportionof land in Sri Lanka is under State ownership (seeFigure 1.2 in the Introduction). The Land Reform Law set a ceiling on an individual's land holdings anda considerable amountof arable land was acquired by the State and vested with the Land Reform Commission. Much of the land from this segment has been distributed (alienated) among people, leaving very little unpopulated lands for development. This has caused a challenge to balance development with forest conservation.Due to historic reasons (see below and in **Annex 2a-1**), much of the closed canopy natural forests are in state owned forests managed by the FD and DWLC.Some of the FD lands are leased out under participatory forest projects to farmers or the private sector (**Annex 2a-2**).In addition, some State forests under the Land Reform Commission and not subject to any form of conservation or management. A few small forest patches (usually degraded or open forests) which are under the control of the Divisional Secretaries (Local Administration) are not subject to management, but may be alienated to the people or used for development purposes at the discretion of the Divisional Secretaries. All lands under the DWLC are gazetted State land, except Sanctuaries that can contain privately owned land where no destructive practices can be carried out with regard to fauna and flora. All reserves of the DWLC, including Sanctuaries, are governed by the Fauna and Flora Protection Ordinance (FFPO) of 1937 and by its subsequent amendments. Forests under the FD are governed by the Forest Ordinance of 1885, which also has been periodically revised for better management of forests.[84] Some lands (both privately and publicly held) in environmentally sensitive areas are gazetted as Environmental Protection Areas (EPAs) under the National

[78]See BOX A 3-1: Examples of recent studies on estimating above ground biomass in Sri Lanka. In Component 3 of this document.
[79]Nissanka, S.P.,and.Pathinayake, P.S., (2009). Estimation of above ground carbon stock in Sinharaja forest using Remote sensory data. http://www.cdmstudycentre.org/Estimation%20of%20total%20carbon%20stock%20in%20Sinharaja%20forest.ppt
[80]GOSL (2008). Nomination of the Central Highlands of Sri Lanka: its cultural and natural heritage for inscription in the world heritage list. Submitted to UNESCO by the Government of the Democratic Socialist Republic of Sri Lanka.
[81]Discussions with the National Man and the Biosphere Committee.
[82]MOFE (1999). Biodiversity conservation in Sri Lanka: a framework for action. Colombo, Sri Lanka.
[83] Consultation with National *Veddha* leader and community by the FD
[84]MALF (1995). Sri Lanka Forestry Sector Master Plan. Ministry of Agriculture, Lands and Forestry, Sri Lanka. P 37

Environmental Act (NEA).[85] All development activities in EPAs need prior permission from the Central Environmental Authority (CEA), but the CEA lacks capacity to ensure compliance by developers.

The position with regard to alienated land given to people under various land grants by the state (e.g.*Poojaand Swarnabhoomiforested lands*) needs to be studied.

Community participation in forest conservation

The policies and plans governingthe forestry and wildlife sub-sectors and amendments to the Forest Ordinance advocate greater involvement of local people in planning and managing forests, including PAs, with a view to improving local livelihoods, increasing benefits of forests, and thereby reducing the pressures on forests (**Annex 2a-1**). Both the FD and DWLC have made vast strides in working with communities. The FD has pilot-tested many approaches to engage communities ranging from raising plantations to natural forest conservation and management in the Wet and Intermediate Zones. These approaches were made through the establishment of CBOs (**Annex 2a-2**), aimed at reducing encroachments into forests, illegal tree felling and destructive exploitation of forest resources. The FD also issues permits to regulate extraction in most cases of some NTFPs.However, they lack guidelines to help field officers make objective and uniform judgements when providing the permits. Furthermore, the FD lacks manpower to monitor whether the extractions (e.g. granite and sand) adhere to the amounts authorized in the permit.[86]While there is no legal provision for forest extractions from Protected Forests, enforcement of the law in most cases has been light for non-destructive NTFP extractions. However, zoning of forests other than Conservation Forests to allow sustainable extraction of NTFPs by the local communities is pending. Compared with the FD, the DWLC embarked on community participation for Protected Area conservation more recently. Here too they established CBOs in the buffer zones of eight major conservation areas and provided them with micro-credit facilities to establish new ventures. While projects carried out by both departments were very successful during the project duration, long-term sustainability of community engagement appears less than desired (**Annex A2a-2**). Thus, people's forestry that is people-driven, people-centred, based on bottom-up planning and decision making, as strongly advocated by the Forestry Sector Master Plan (FSMP),[87] is still a far-off reality except in a few instances. As such, encroachment and illegal timber felling in the Wet Zone is largely controlled by boundary marking and law enforcement (MALF, 1995).[88]

There are several reasons for the failure of many community participation models in the long-term.Unlike other South Asian countries, Sri Lanka has very few clearly identifiable 'forest communities' that live inside forests or are totally dependanton forests for their daily needs, due to prevailing socio-economic conditions.[89]In the Wet Zone, people are more interested in cash crops such as tea and rubber. Theseare more lucrative than agro-forestry systems or managing forests to gather forest products.[25]Enlarging cash crop holdings through forest encroachment is thus a profitable prospect. Most families that still continue to collect NTFPs in the Wet Zone are not dependent on these products as their sole means of livelihood. Community participation has more scope in the Dry and Intermediate Zones where forest use may reach 23% to 47% of households.[90]The varied long-term success of the participatory models at different sites necessitates further study of past initiatives and the testing of various participatory modelsthat offer attractive

[85] MoENR (2009).Fourth Country Report to the Convention on Biological Diversity. Compiled J D S Dela (unpublished).

[86] Outcome of consultative process with the FD field staff for identification of drivers of deforestation

[87] MALF (1995). Sri Lanka Forestry Sector Master Plan. Ministry of Agriculture, Lands and Forestry, Sri Lanka. P 37

[88] MALF (1995). Sri Lanka Forestry Sector Master Plan. Forestry Planning Unit, Ministry of Agriculture, Lands and Forestry.

[89] Results of social mobilization activities and community consultations carried out during by the FD and DWLC during initiation of participatory conservation projects and field observations.

[90] FAO and FD (2009).Asia Pacific Forestry Sector Outlook Study II Working Paper Series: Sri Lanka Forestry Sector Outlook Study. Working Paper No.APFSOS II/WP/2009/29., Forest Department, Government of Sri Lanka.

site-based incentives for continued voluntary involvement of local people in forest conservation. While doubts have been raised whether community forestry can be successful in Sri Lanka, the few successful cases provide optimism and guidance.There is a need to evaluate success and analyse failure, and to pilot test more robust approaches to engage people through innovative enterprises that will help increase carbon stocks in their village gardens while providing multiple-benefits (e.g. biodiversity, and watershed benefits) that are economically viablein the long-term.

- **Benefit sharing**

The FD has pilot tested and implemented many models for benefit sharing from agro-forestry. These include application of the Taungya system;the Participatory Forestry Project (PFP) which includes the farmers' woodlots scheme, protective woodlots, and home garden development; and the village reforestation system (See **Annex 2a-2**). With regard to the 'woodlots' programmes benefits were accrued by the farmers, except that the land was not owned by them and they had to move out after a specified time period. These systemsprovide options for formulating benefit sharing mechanisms under REDD+. The amendment to the Forest Ordinance (FO) in 2009 also empowers the Conservator General of Forests to enter into agreements with stakeholders to carry out community participatory programmes for the development of forests (see **Annex 2a-2**). In addition, studies of other existing benefit distribution systems and financing mechanisms such as the national pension scheme and micro-credit banking systems are also required to identify most suitable arrangements for benefit sharing through REDD+ in Sri Lanka.

- **Private sector involvement**

Private sector involvement in forestry has begun to emerge recently. The FD has a scheme to provide private individuals with lands on a 30-year lease under a special reforestation scheme in the Dry Zone, using mainly teak. Intercropping is practiced during the initial years of plantation establishment. Several Regional Plantation Companies have also undertaken reforestation work on their lands, but private companies and individuals are not allowed to harvest the natural forest patches in estate crop plantations without an EIA.[91]While private sector involvement in forestry is relatively low, in 2002, 26 agreements have been signed between the Forest Department and private sector investors to develop commercial scale plantations.[92] Foreign investors can also invest in forestry projects in the country in association with local partners and substantial tax benefits are provided by the Sri Lanka Board of Investment. [92]Several private sector models are present. One is where a private company offers small plots of lands stocked with teak, mahogany seedlingsagarwood, sandalwood or bamboo to the public on long-term leases forecasting higher incomes for timber or poles by the end of the lease period,[92].The company manages the trees until harvest which is usually after at least 20 years, when the lessee gets a set sum on the proceeds of the timbersale.[92](e.g. Touchwood Investments, Sadaharitha Plantations Limited and Help Green). These forest plantations are, however, mainly monocultures and consist largely of exotic species.[92]Another model is when the private sector is involved in planting fast-growing species such as Eucalyptus and Acacia for timber and fuelwoodon barren and abandoned lands in tea and rubber estates, with their own funds.[92]Private sector participation is constrained due to lack of suitable land (sizeable areas for cost-effective operation), unclear land titles, and complicated tax regulations. [92]

Governance for forest conservation

Adequacy of policies and plans and institutional programmes

Major strides were made since the mid 1990s to promote forest conservation. These include: favourable amendments to the FO and the Fauna and Flora Protection Ordinance (FFPO) to

[91]FAO/FD/GOSL(2009).Sri Lanka Forestry Outlook Study, Working Paper No.APFSOS II/WP/2009/29. Asia Pacific Forestry SectorStudy II. Working Paper Series. Food and Agriculture Organization of the United Nations Regional Office for Asia and the Pacific, Bangkok.

[92]Chokkalingam, U. and Vanniarachchy, S. A. (2011). Sri Lanka's REDD+ Potential: Myth or Reality? Forest Carbon Asia Country Profile Report No. 1: Sri Lanka.

strengthen their implementation and support better forest management; formulation of the Forest Policy of 1995; the Forestry Sector Master Plan (FSMP) of 1995,[93] which provides a comprehensive framework for short, medium and long-term actions for conservation and management of the forest estate; increasing the protected area coverage to protect watersheds, faunal habitats and forests rich in biodiversity; application of many approaches to involve local communities in forest conservation **(see Annex 2a-2**); comprehensive EIA procedures;[94] and the National Conservation Review – a comprehensive survey of natural forests in the country to prioritise forests for biodiversity conservation and watershed protection. The objectives of the UN-REDD programme, with the recognition of benefits beyond carbon, are consonant with the development objectives of the forest policy and the FSMP to:

- Conserve forests for posterity, with particular regard to biodiversity, soils, water and historical, cultural, religions and aesthetic values.
- Increase the tree cover and productivity of the forests (and home garden forest analogues) to meet the needs of present and future generations for forest products and services.
- Enhance the contribution of forestry to the welfare of the rural population and to strengthen the national economy, with special attention paid to equity in economic development.

The moratorium on logging in natural forests, which came into being in 1990, was largely beneficial to halt deforestation,[95] and many of the biodiversity-rich logged forests are now regenerating well.[96]The introduction of legal provisions to regulate the transportation of timber has also markedly reduced illegal logging, particularly in the Wet Zone. Both the FD and DWLC have been strengthened by way of institutional reform and decentralisation of activities and staff training. These, however, need further expansion with better field staff deployment; training, knowledge enhancement and skills building; and facilities to increase mobility and communication ability among field staff – particularly in the FD. All reserves under the DWLC have been boundary-marked, but this applies only to a small proportion of forests under the FD. Completing this is crucial to halt further encroachment. Other important measures taken are legal reforms of the FO and FFPO. These include mandatory preparation of management plans for reserves under both departments. Operational plans are being prepared by field staff for reserves under the DWLC and at range level for forests managed by the FD. Concomitantly, efforts have been made by the FD to increase timber yield from forest plantations, community woodlots and home gardens. The total area of forest plantations maintained by the FDwas 79,941 ha in 2010.[97]With the stated exceptions, there are adequate policies, plans and legal strength for forest management, but due to various challenges, implementation has been problematic (Annex **2a-1)**.[98]Even so, there has been a reduction in the rate of deforestation in the country attributed to improved governance in the forestry sector over the past two decades.

Integration with national planning

The value of conserving the country's forests andbiodiversity is recognized in national planning, as reflected in the *MahindaChinthana* and the 10 Year Horizon Development Framework 2006-2016 which is the overarching vision for the country's development programme. The concepts of this are reflected in the National Physical Planning Policy & Plan (NPPP&P)and the *Randora* Infrastructure Development Programme. The NPPP&Pprovides vision and direction for structural physical development in Sri Lanka up to 2030, and has the underlying theme of preserving equilibrium between conservation and production, and encourages urban centre development while protecting environmentally sensitive areas such as forests and wildlife habitats. (see also Component 1a). The Action Plan for the *HarithaLanka*(Green Sri Lanka) Programme, which is headed by His Excellency

[93]MALF (1995). Sri Lanka Forestry Sector Master Plan. Ministry of Agriculture, Lands and Forestry, Sri Lanka.
[94] The National Environmental Act of 1988 empowers all project approving agencies to call for EIAs for prescribed activities that could cause environmental damage.
[95]MALF (1995). Sri Lanka Forestry Sector Master Plan. Ministry of Agriculture, Lands and Forestry, Sri Lanka
[96]Discussions at consultations of the National Man and the Biosphere Committee,
[97]Forest Department unpublished data for 2009.
[98]Also consultations with FD staff, this Component.

the President, focuses on addressing critical environmental issues which, if left unattended, would jeopardize the nation's economic development programme (See Component 1a). Among its 10 missions are saving the fauna, flora and ecosystems and meeting the challenges of climate change. What has been lacking is effective integration of the policies and plans within and for the forestry sector with development planning at the regional and field level.[99] Overall, the country's development framework is compatible with the forest and environmental policies and is well positioned to accommodate the objectives of REDD+, as it recommends: development of partnerships with all forest resource users; promotion of sustainable land use for state lands; development of private forests and tree resources; promotion of home gardens, other agro-forestry systems and plantations according to environmental guidelines; development of forest products, industries and marketing; supporting institutional development; and supporting inter-sectoral linkages to enhance inputs for production services, poverty alleviation, improving living standards and strengthening linkages.[100]However, there are gaps at the regional and local level in implementing these environmentally friendly concepts.

Underlying causes of deforestation and degradation

Historical Trends in Forest Loss

Due to historical factors and *ad hoc* policy decisions in the last century, the country has lost considerable forest cover since the turn of the last century **(Annex 2a-1).** Since gaining independence, forest degradation peaked with the 1967 policy of selective logging in natural forests.[101]Widespread public protest and a reorientation of forest policy after 47,500 ha of Wet Zone forests were logged, served to halt this practice and led to a moratorium on logging in all natural forests in 1990. However, clearing of Dry Zone forests for large-scale multi-purpose development schemes continued, and resulted in extensive deforestation between 1983 and 1992 to provide land for agriculture, human settlements, and development activities – particularly for irrigation and hydro-electric generation (Bogahawatte, N.D), timber for construction and other uses. Consequently, total forest cover (including "sparse natural forests") dropped to 31.2 % of the total land area by 1992, recording a concomitant drop of per capita forest area from 0.12 ha in 1983 to 0.09 ha by 1992 (Bandaratilleke, 2000).[102] The annual rate of deforestation also accelerated to 54,000 ha per year after 1983, from an annual rate of 42,000 ha per year between 1956 and 1983 (Wijesinghe et al, 1993; Jewel and Legg, 1994).[103,104]Going by this trend, the FSMP of 1995 predicted a drop in closed canopy natural forests to 17 % by 2020 if no preventive action was taken.[105]A very clear negative relationship is also shown between population increase and forest loss.[41]However, due to significant conservation action adopted by successive governments, the rate of deforestation has dropped to 20,000 ha per year between 1994-1999[106] but total forest cover has continued to decline, reaching 29.8% of the land area by 2010. Dense closed canopy forests have dropped from 24% in 1992 to 22.6% by 1999**,** with a decrease in the extent of all categories of closed canopy natural forest on the island (Table2a-1)**.**

While there have been many actions taken that argue well for forest conservation, deforestation and forest degradation continue, albeit at a lesser rate than during the 1983-1992 period. Although there

[99]Details of these documents are in Component 1a.
[100]Ministry of Finance and Planning (-). *MahindaChintana*, vision for a new Sri Lanka. A ten year horizon Development Framework 2006-2016.
[101]MALF (1995). Sri Lanka Forestry Sector Master Plan. Forestry Planning Unit, Ministry of Agriculture, Lands and Forestry.
[102]Bandaratilleke, H M (2000).Administration Report of the Conservator of Forests Sri Lanka.Forest Department and the Ministry of Forestry and Environment, Sri Lanka.
[103]Wijesinghe, L C A de S., Gunatilleke, I A U N., Jayawardana, S D G., Kotagama, S W and Gunatilleke, C V S (1993*). Biological Conservation in Sri Lanka.A National Status Report.* IUCN, Sri Lanka.
[104]Jewel, N. and Legg, C A (1994).A Remote Sensing/GIS Database for Forest Management and Monitoring in Sri Lanka. In: Geographical Information Systems for Natural Resource Management in South East Asia. Mahaweli Authority, Sri Lanka.
[105]MALF (1995).*Sri Lanka Forestry Sector Master Plan.*Forestry Planning Unit, Ministry of Agriculture, Lands and Forestry.
[106]MoENR and UNEP (2009). Sri Lanka Environmental Outlook, Colombo. Sri Lanka.

may not be major irrigation and land settlement schemes comparable with the MahaweliDevelopment Schemein the future,deforestation from illicit clearings and forest encroachmentsfor agriculture and expansion of land holdings continue to erode forests.Part of the reason for the limited deforestation during the 30-year civil war can be attributed to the inaccessibility of many areas in the Dry Zone, and the slow pace of development in the country during this period. This situation may change with accelerated development taking place in the post-war scenario, as seen by the commitment for economic and infrastructure development in the country. Already there are signs of this happening in the northern province.[107] This is compounded by the fact that much of the land is owned by the State due to past policies.[108]

Current drivers of deforestation

Despite the high availability of in-country information on the status of forests in the country, and drivers of deforestation, the drivers provided below are results of consultations with stakeholders carried out during the preparation of the R-PP. They ranged from field to expert level. This was because of the need to provide the most up-to-date situation, due to the continually changing environmental situation in the country – especially due to the post-war scenario and emerging socio-economic drivers. They, however, did not differ greatly form the prior consultations had in the country on similar themes (see Component 1b). However, some of the scenarios had become more serious, while some were no longer significant (e.g. clearing mangroves for shrimp farming along the North-western coast is no longer a problem due to disease).[109]The details of the varied consultation processes are provided in Component 1b.

The main causes of deforestation and forest degradation (both within the forestry sector and external) are given in Table 2a-2. Among the most pressing are the socio-economic challenges due to increasing demand for land for the execution of major development projects and inducements for illegal encroachments. Forest fires, illegal mining, over-extraction of NTFPs and invasive species are other major drivers of deforestation and forest degradation.

These problems in turn have resulted in loss of forest biodiversity and increased human-wildlife conflicts, particularly with regard to elephants (in the Dry Zone) and primates (in the Wet Zone). It has been said that increased democratization in the voter base with no corresponding increase of civic consciousnessalso underlies most of the major problems of deforestation.[110]While there is a highly welcome emphasis on promoting the welfare of rural people, this segment of the population ismovingaway from a subsistence lifestyle and isthus increasingly losing the respect for forests and nature that was inherent in traditional societies of Sri Lanka. This in turn has led to short-term development goals overriding environmental concerns, and is evident in the desire to cater to the needs of rural communities serviced by provincial and local bodies in a manner that is contrary to the long-term development goals of the country's development framework, the NPPP&P, and the *Haritha Lanka* Programme. Sri Lanka has legal provision for EIAs for prescribed development under the NEA, while the Coast Conservation Act empowers the Director of Coast Conservation to request an EIA for development in areas falling within the Coastal Zone. An EIA is also required for development within one mile of a Protected Area Reserve under the DWLC. There are, however, instances where EIA reports are not heeded. Overall, environmental problems are greatly exacerbated due to uninformed decisions resulting from inadequate coordination between the provincial and central administration, and between state agencies dealing with development and conservation,although the government development policy is committed to halt deforestation. This is compounded by a poor understanding among a major segment of the general public and many

[107]Prof.HemanthiRanasinghe of the Sri Jayawardenapura University. Member National MAB Committee (personal communication at the consultation with the National Man and the Biosphere Committee).
[108]MALF (1995). Sri Lanka Forestry Sector Master Plan. Ministry of Agriculture, Lands and Forestry, Sri Lanka.
[109]Prof Mala Amarasinghe, University of Kelaniya and member MAB Committee, pers, com. at consultative meeting with the MAB Committee.
[110]Interview of former government Agent Kegalle district, Mr L U C Kuruppu, and verified at the consultation with NGOs where there was agreement.

administrators and policy makers, of the full value of forests to the national economy in terms of goods and services.

TABLE 2a-2: Drivers of Deforestation and Forest Degradation

Sector	Direct Drivers	Indirect Drivers	Driver type
Forestry sector	**Encroachment for agriculture:** a. Tea and other cash crop cultivation in the Wet Zone (WZ). b. Slash and burncultivation in the Dry Zone and Intermediate Zone (DA/IZ)	• High Price of tea/other cash crop cultivation- pressure for economic returns from cultivations. • Social transformation in rural areas- changing lifestyles. • Decreased civic consciousness among communities living near forests. • Poverty due to low opportunities for economic advancement in the DZ. • Expansion of families engaged in slash and burn cultivation. • Commercial demand for produce ofslash and burn cultivation. • Low productivity of conventional agricultural lands. • Lack of suitable alternative employment to forslash and burn in the DZ/IZ. • High cost of production and greater investment for conventional agriculture. • Need to depend on rain-fed agriculture due to water scarcity in DZ/IZ. • Lack of non-forest lands for agricultural expansion in the DZ and IZ.	**Economic**
		• Loss of traditional values and respect for forests and wildlife. • Failure of most piloted community participation models for forest conservation by FD/DWLC for long-term sustenance. • Poor maintenance and incomplete boundary demarcation of forests. • Low valuation of forests by local people. • Emphasis at local levels on short-term development gains that run counter to the long-term government development agenda of the *MahindaChinthana.*	**Governance**
		• Inhibitions/reluctance to engage in more advanced agricultural systems due to lack of knowledge and skills or family tradition. • Lack of technology to obtain high yields from existing agricultural lands.	**Knowledge**
		• Inadequate staff and facilities for monitoring of encroachments/slash and burn cultivation.	**Capacity**
	Encroachments for housing, tourist infrastructure. **Development of commercial facilities and roads infrastructure.**	• High population density in the WZ –due to conducive living conditions. • Lack of privately owned arable/habitable non-state land. • Increased needs in rural communities for more amenities/infrastructure. • Emergence of tourism as a lucrative economic activity in peacetime.	**Economic**
		• Pressure on policy makers from increased democratisation among the rural voter base with no concomitant increase of civic consciousness.	**Governance**
		• High population density surrounding fragmented/isolated WZ forests.	**Other**
	Illicit felling (all zones; logging is banned in natural forests)	• High price and demand for timber in the country. • Poverty and lack of employment opportunities near Dry Zone forests. • Lack of high value timber that in many home gardens/private lands.	**Economic**
		• Inadequate monitoring capacity by FD (i.e. poor deployment of field staff; lack of vehicles, funds and communication equipment).	**Capacity**
		• Lack of timber depots near forests due to legal provisions promotes illegal felling for domestic use. • Tedious procedure for home garden timber transport permits – makes it easier to illicitly fell forest timber in nearby forests.	**Policies**
		• Low deterrent due to inadequate punishments from the judicial process. • Inadequate linkage and communication between FD and people in some areas – increasing in recent years from a more positive situation a few years back.	**Governance**

Sector	Direct Drivers	Indirect Drivers	Driver type
	Fires (DZ/IZ): Intentional & accidental	• Poverty in Dry Zone districts that lead people to engage in forest based practices /occupations that involve firing (e.g. slash and burn, hunting, grazing, bee honey gathering. • Lack of suitable non-forest grazing lands for traditional cattle grazing. • High demand for illegal game meat in the market – from tourist hotels. • Firing for encroachment.	**Economic**
		• Inadequate FD capacity to respond quickly to forest fires or detect firing.	**Capacity**
		• Negligence and low civic consciousness.	**Knowledge**
		• Pyromania in local people and visitors to forests who enjoy watching the fire.	**Other**
	Unintentional introduction of invasive species (IS). **Intentional introduction of IS for reforestation and afforestation** (all zones)	• Introduction via ornamental species/plant parts, contaminants in imported seeds.	**Governance**
		• Poor agricultural land preposition causing spread of invasive fungi, etc. • Invasion of canopy gaps and spread by indigenous secondary species and introduced exotics. • Use of invasive species for reforestation and afforestation in the past. • Lack of research on and research facilities for invasive species in the forestry sector.	**Knowledge**
		• Lack of capacity in the FD to control/ prevent unintentional invasions. • Insufficient capacity of quarantine services to check for IAS.	**Capacity**
	Destructive removal of minerals and rocks from forests **Over exploitation of some NTFPs** (all zones)	• Illegal mining in forests prompted by stringent restrictions and permits for mining and rock blasting in private non-forest lands. • Comparative ease of obtaining minerals and rocks from forests compared to procedures for private lands. • Lack of proper legislation to control over-exploitation of mineral resources in forests.	**Governance**
		• High demand for construction materials due to the development boom after the end of the 30 year war. • Low cost of illegal extractions from forests. • Low charges for forest products/goods from permitted extractions.	**Economic**
		• Inadequate capacity for monitoring permits for extraction from forests. • Lack of guidelines on permissible removals from forests – subjective judgements are used by officers when issuing permits.	**Capacity**
Outside the Forestry Sector	**Need for large scale multi-purpose development projects** after a 30 year civil war. **Lack of strategic forest clearing for development projects.** **Need for expansion/ development of human settlements** **Agricultural expansion** (all zones, but	• Need for expansion/development of human settlements in the north and east affected by the 30 year civil war downgrades conservation. • Strong need to increase national food production. • Challenges due to high demand for undeveloped land for execution of development /large scale agriculture projects (due to lack of large non-forest state /private lands due to past government land use policies). • Poor site selection by planners identifying forested lands for development, due to lack of field knowledge. • Failure to consult FD and DWLC by development oriented state agencies during the initial planning for large scale development/absence of two-way dialogue. • Lack of coordinated implementation of the land use policy. • Lack of zonation of forests for different uses based on adequate stakeholder dialogue • Lack of rationalization of a permanent forest estate and PA network. • Pressure on the government and policy makers to enhance rural economies.	**Governance**
		• Lack of appreciation of the full value of forests by planners.	**Knowledge**
		• Economic value of development rated higher than forests. • Lack of system of forest valuation that considers both goods and ecosystem services.	**Economic**

Sector	Direct Drivers	Indirect Drivers	Driver type
	mainly DZ)	• Lack of non-state/forested lands for large scale cultivations/development due to past land alienation policies. • Inadequate attention given to the *MahindaChinthana*environmental concepts by development sector. • Inconsistent procedures/policy for acquiring forested lands for development. • Inadequate land use policy which has not taken the forest policy into consideration.	**Policy**
		• Lack of water for agriculture in the Dry Zone which necessitates large scale irrigation projects, and hence need for land clearance. • Population increase: greater pressure on land and other natural resources.	**Other**

Note: The drivers were not grouped as governance, economic, policy etc, so as to indicate the drivers against the causes. The details of drivers are retained to provide meaning when strategies are formulated. More details of drivers are provided in Annex 2a-1.

Information gaps

There was general consensus among those consulted with regard to drivers of deforestation and forest degradation during preparation of this R-PP. However, this is only the start of the consultations that will form a major part ofthe national REDD+ Readiness process, and that will therefore continue during R-PP implementation. This will require filling the information gaps for final conclusions about the drivers to enable strategies to be formulated to address the most important drivers realistically. Hence studies are proposed during R-PP implementation to enrich and improve the quality and quantity of information available to positively identify and address drivers of deforestation and forest degradation in Sri Lanka.

- No up-to-date data are available on the scale of agroforestry planting or the contribution of trees outside forests to carbon stocks.
- There has been no study of land tenure under various state land grants to people.
- There is no reliable information on evaluation and assessment of lessons learnt from past and present community participation models in the forestry sector to help pilot more appropriate models for Sri Lanka.
- There are no data on impact of forest fires on carbon stocks and timber yields.
- There is little information on private sector participation in forestry/tree planting.
- There is no information on socio-economic and institutional constraints to tree growing outside forested lands.
- There are no data to enable identification of site-specific species to cultivate in degraded forests, home gardens and other non-forest areas.
- There has been no Inventory of trees outside the forest sector

Early action proposed:

- A study of the scale of forest analogue home gardens and contribution of trees outside forests to carbon stocks and potential for the continuation of these resources.
- Contribution of trees outside forests to addressing the drivers of deforestation.
- An evaluation of lessons learnt from past and present community participation models in the forestry sector and identification of appropriate models for Sri Lanka to engage people through innovative enterprises that will help increase carbon stocks in village gardens and provide multiplebenefits.
- Study of the opportunity cost of moving from one land use to another.
- Study and evaluation of measures to improve protection against illegal forest-related activities.

- Site species matching – testing and studies.
- Strengthening links with NGOs
- Updating and setting up a central information database on forests with the DWLC
- Ecological studies of ecosystems and species to identify conservation and management requirements and to resolve human/wildlife conflicts

Indicative Actions Supported by the UN-REDD National Programme (refer to Activities in Component 5)[111]

OUTCOME 4: National REDD+ Strategy and Implementation Framework

Output 4.1: Drivers of deforestation and forest degradation, and legal and policy alignment needs identified (some Activities under this Output will be implemented under Component 2c)

Activity4.1.1. Identify drivers of deforestation and forest degradation (Further confirmation of the initial assessment of drivers in Annex 2a-1)
Activity4.1.2. Assess national forest governance systems (linked to Output 5.6)
Activity4.1.3. Assess existing laws and policies to foster policy alignment in the land resources sectors (linked to Outputs 1.2. and 5.6)
Activity4.1.4. Analyze conflicts of interest between development activities and forest conservation and recommend remedial measures (linked to 5.4)
Activity4.1.5. Conduct an opportunity-cost assessment for REDD+
Activity4.1.6. Provide policy recommendations and sectoral action plans for REDD+ (including SFM, agriculture and transformational policies towards a green economy)
Activity4.1.7. Validate policy recommendations with stakeholders
Activity4.1.8. Assess the existing laws and policies to foster policy alignment in the relevant sectors (linked to activity 4.2.2)

Budget: US$160,000

**Note: More Outputs and Activities under Outcome 4 are indicated in the later sections of this Component.*

[111] These actions are subject to change based on further appraisal before the programme inception.

Component 2b: REDD+ Strategy Options

Standard 2b the R-PP text needs to meet for this component: REDD strategy Options

The R-PP should include: an alignment of the proposed REDD+ strategy with the identified drivers of deforestation and forest degradation, and with existing national and sectoral strategies, and a summary of the emerging REDD+ strategy to the extent known presently, and of proposed analytic work (and, optionally, ToR) for assessment of the various REDD+ strategy options. This summary should state: how the country proposes to address deforestation and degradation drivers in the design of its REDD+ strategy; a plan of how to estimate costs and benefits of the emerging REDD+ strategy, including benefits in terms of rural livelihoods, biodiversity conservation and other developmental aspects; socio-economic, political and institutional feasibility of the emerging REDD+ strategy; consideration of environmental and social issues; major potential synergies or inconsistencies of country sector strategies in the forest, agriculture, transport, or other sectors with the envisioned REDD+ strategy; and a plan of how to assess the risk of domestic leakage of GHG emission reduction benefits. The assessments included in the R-PP eventually should result in an elaboration of a fuller, more complete and adequately vetted REDD+ strategy over time.

Introduction

Reducing deforestation and forest degradation and increasing carbon stocks in a country requires a strategic approach to address the drivers identified in Component 2a,for a realistic reduction of in-country emissions, and to enhance carbon uptake from REDD+ activities through sustainable management of forests and other country specific initiatives. The drivers of deforestation and forest degradation specific to Sri Lanka have been identified through wide consultation with a range of stakeholder groups during the preparation of this R-PP. In addition to the conventional approaches for reducing deforestation and forest degradation, enhancement of socio-economic standards of the rural people, and infrastructure projectsto facilitate economic development are priority issues. This, however, can also have serious impacts on deforestation rates, as much of the available undeveloped land is under forest cover.

Objectives of Component 2b

The objective of this component is to help develop the framework for strategy setting during implementation of the R-PP, with particular emphasis on assistance needed for the necessary assessments and dialogue through a wide stakeholder participatory process with all relevant stakeholders that would range from local to the highest levels of government as appropriate for the various activities to be carried out. Such processes can involve development of policy, skills, technical ability, and formulation of legal and policy frameworks.

Summary of environment for forest management

Forest ownership and management in Sri Lanka

Almost all forest land in Sri Lanka is owned by the State (Figure 1.2, Introduction), and most of it is managed by the FD and DWLC. Thus, much of the forest carbon is assumed to be state-owned,while forest carbon on private lands is under private ownership, although the ownership of forest carbon as evinced by REDD+ is not currently formalized in Sri Lanka. Even so, the ownership

status of forests on alienated state land[112] distributed under various schemes, (*Jayabhoomi*, *Swarnaboomi*) remains unclear. The R-PP provides arrangements to address this aspect in Component 2c.The FD is responsible for forests set aside for conservation as National Heritage Wilderness Areas and Conservation Forests, in addition to other forest reserves [termed Forest Reserves and Proposed Forest Reserves], which may in the future be used for multiple purposes. The DWLC is responsible for forests declared as Wildlife Reserves under the FFPO. Except for the category under Sanctuaries that may contain private lands, the rest are set apart for conservation. The CEA can declare any environmentally sensitive area (under state or private ownership) as an EPA. While they are not PAs, they derive some protection through a permit system to control adverse impacts of development.

The natural forests under the FD and DWLC are currently managed for conservation, and there are stringent laws in place to prevent deforestation and forest degradation. Despite this, natural forests are subject to both these problems, the causes and drivers of which are presented in Component 2a. The forest plantations under the FD are managed mostly for production, though some are set aside for conservation (see Component 2a). Much of the rest of the forested lands are under the ownership of several state agencies, while only 0.3-0.5% of forested lands (including some plantation forests) is privately owned. The details of forest ownership and the historical causes for much of the forested lands being under state ownership are given in the Introduction and Annex 2a-1.

Forests under the FD and DWLC and other state agencies are under national administration, while <2% of forests (all small fragments) are under district administration. With regard to the mangrove ecosystem, only the areas managed by the FD and DWLC are set aside for conservation. However, all mangrove lands come under the purview of the CCD via the Coast Conservation Act, and any development activity within the coastal zone requires a legally-mandated EIA called for by the Director Coast Conservation. Mangroves in environmentally sensitive areas are also gazetted as Environmentally Protected Areas (EPAs) under the NEA, which is implemented by the CEA. Most home garden forest analogues are under private ownership, but some are on lands alienated by the state in which tenurial arrangements need clarification.

Overall laws and policies

There are very clear policies and plans for forest management, namely the National Forest Policy of 1995 and the Forestry Sector Master Plan of 1995, which spans the period 1995-2020. Forests under the FD and DWLC also derive protection from the FO and the FFPO, which have been periodically amended to strengthen protection purposes.[113]Under the NEA, clear felling in more than 1 ha of forest land at any given time requires an EIA process. Both the DWLC and FD have been subject to capacity building under ADB-funded projects in recent times (**Annex 2a-1**), and are well-positioned for working with local communities for participatory forest management. The overall policy direction is that all state forest resources will be brought under sustainable management for the continued existence of important ecosystems and the flow of forest products and services within a 'permanent forest estate'. Management plans for forests under the purview of the FD and DWLC are a legal requirement under the FO and FFPO respectively. Despite these positive features, forests area has continued to drop, albeit at a much-reduced rate compared with the period between 1982-1992. At the heart of this are drivers (mainly economic and governance drivers) which have to be addressed if deforestation and forest degradation are to be reduced in the future.

Identification of drivers and potential remedial action to reduce deforestation and forest degradation

[112] *i.e. Land distributed by the government to landless (mainly rural) people.*

[113] *The National Forest Policy and Forestry Sector Master Plan for Sri Lanka were developed in and approved by the government 1995, and the forest legislation (Forest Ordinance) was last amended in June 2009. The National Policy on Wildlife Conservation was formulated in year 2000, and the Fauna and Flora Protection Ordinance was last amended in 2008.*

Consultative processes from the field forest officers (at divisional and ranger levels), environmental NGOs and experts (members of the National Man and the Biosphere Committee–many of whom have worked at field level) and the Natural Resources and Research Divisions of the NSF), as well as consultations with communities, have all served to identify the causes and drivers of deforestation and forest degradation as summarised in Table 2a-2. The potential actions necessary to address these problems are also identified. The causes and drivers of deforestation, and strategies to address them, have been synthesised, and are presented in this component,together with the strategic action required to enhance carbon stocks. As stated in the guidelines for this R-PP, these are as yet only indicative REDD+ strategy options, which will be subject to rigorous scrutiny and selection during R-PP implementation. Thus the strategies presented here are priority options that have emerged from a multi-stakeholder processthat has emanatedfrom field experiences, high level forest officers, NGOs, state officials (including the Director General, DWLC) and academics at the national level (See component 1b). Under R-PP implementation, these candidate strategy options will be vetted by NGOs, conservation agencies, development sector agencies, communities, and private sector partners through a series of consultative processes (individual small meetings, roundtable meetings, and workshops) before finalvalidation for a nationalREDD+ Programme for Sri Lanka. The detailed drivers, and actions to address them, which emerged from the consultative meetings are documented in detail in **Annex 2b-1**

In this component, strategy options to address drivers of deforestation and forest degradation have been synthesised in several broad areas:

- To reduce emissions by conserving existing natural forests and preventing further loss of forest area and carbon stocks.
- To enhance carbon stocks in severely degraded natural forests, plantations and home garden agroforestry systems with due attention to co-benefits.
- To reduce external pressures on forests to prevent forest clearing and degradation.
- Enhance the contribution of forests and multi-species forest analogue home gardens forbiodiversity and watershed protection, promotion of local livelihoods and enhancement of the local and national economy through REDD+ interventions.

In formulating the REDD+ strategies the following directions will be followed as recommended at the consultations held during formulation of this document:

- The REDD+ strategies will conform to and support existing laws, policies and plans that have been strengthened to effectively stem deforestation and forest degradation.
- Livelihoods of local people (including indigenous communities) and their legitimate land tenures under present laws of the country will not be compromised due to REDD+ activities.
- Environmental services, biodiversity, and watershed functions will not be compromised due to REDD+ activities and will form an important consideration when identifying the REDD+ strategies.
- Adequate safeguards will be followed (Component 2c); institutional arrangements (Component 1a) and monitoring will be in place during R-PP implementation.
- Benefits from carbon or co-benefits will be shared with all stakeholdersin a transparent, accountable and equitable fashion, and local community interests will be safeguarded at all times through a consultative approach that conforms to FPIC where and when necessary.
- Potential leakage will be prevented to stop misuse of the REDD+ mechanism where conservation of one area may lead to forest exploitation in other areas.
- Steps will be in place to ensure that the FPIC process is not misused or abused under REDD+.
- Cross–cutting legal and policy aspects that are applicable to REDD+ will be well-studied and harmonised with forest related laws and policies.
- Adequate consultation with communities and field level FD/DWLC officers as well as high-level policy makers and development partners, conservation agencies and NGOs will be held for all major decisions regarding REDD+ in Sri Lanka.

- Land ownership and resolving of land tenure issues will be prioritised before engaging rural communities in REDD+ work (as the benefits under REDD+ are strongly linked to land rights).
- The possibility to establishment an interim government fund for performance-basedpayment will be explored,to reward REDD+ activities until the UNFCCC REDD+ mechanism becomes fully operational.

Indicative REDD+ strategy options

The detailed causes, drivers of deforestation and forest degradation and indicative REDD+ strategies to overcome these problems are further elaborated in **Annex 2b-1.** The main indicative strategy options for a national REDD+ Readiness process are given below. These indicative strategies will be further evaluated during more detailed studies of drivers of deforestation and forest degradation and analysis of the legal, policy and institutional framework (Component 2a). In addition, more intensive studies of the trends in home garden systems and the role of private sector stakeholders and agribusiness will be supported in order to develop appropriate REDD+ strategies. (Note: some are repeated as they address different targets/sub targets and are indicated with an asterisk *).

A. Target: Strengthening forest management to reduce emissions from deforestation and forest degradation

■ Sub-target: Support for better management of the permanent forest estate in accordance with the existing policies, plans and laws.

The FD and DWLC work within the framework of the Forest Policy of 1995 and the Wildlife Policy of 2000. The forestry sector has been closely and comprehensively guided by the Forest Policy and the FSMP of 1995 (See **Annex 2a-1**). While forest management has improved vastly during the past decades with a reorientation of forest policy for participatory management, forest cover continues to be eroded due to encroachment by local people for agricultural expansion of cash crops, and for slash and burn agriculture and housing. Encroachment for tourism facilities has also risen in post-war Sri Lanka due to its high economic potential. The key feature underlying encroachment has been identified as the lack of clearly marked permanent boundaries for much of the forests under the FD,[114]as boundary demarcation was stalled due to funding considerations. There is also poor maintenance of demarcated boundaries, leaving many forest reserves vulnerable to encroachment for cash crops (Wet and Dry Zones), slash and burn agriculture (Dry and Intermediate Zones), expansionof home gardens, and/orsiting of tourist facilities near scenic forests.

Likewise, there is forest degradation due to anthropogenic causes such as forest fires and poor extraction processes for minerals (rocks and sand) and illegal tree felling. The main drivers for these reasons are governance and economic(**Annex 2a-1**). A main underlying cause for illegal forest related activities is increased democratization and power at grassroots level with no corresponding increase of civic consciousness.[115] Timely detection of encroachments and stringent law enforcement is also hampered by capacity constraints among FD field staff for adequate monitoring of forest boundaries, and illegal activities such as misuse of permits for forest extractions and slash and burn cultivation.

[114]Pass under DWLC jurisdiction have been boundary marked, except sanctuaries that include private lands (i.e. Sanctuaries may have private lands which have to abide by certain conditions imposed by the FFPO.

[115]L U C Kuruppu, Former Government Agent Kegalle District (Senior administrator) and reiterated at the NGO meeting.

Indicative strategy options are:

- Studies to better understand the drivers for forest encroachment and forest degradation at the local level to help forest management and management planning.
- Capacity assessment of forestry sector and management skills (including factors for forest governance).
- Consultations with local people and local policy makers on amicable prescriptions for alleviating the problems of encroachment and forest degradation.
- Effective consultations with local people to clarify forest boundary disputes.
- Economic viability studies and cost benefit studies of forest conversion to obtain data to support forest conservation
- Enhancing technical capacities of field staff for better management of forests,
- Community needs assessments and socio-economic analysis to support management planning of forest reserves.
- Analysis of policy and laws for establishing the forest estate.
- Innovative financing models that will help reduce pressure on forested lands and incentives though carbon credits in adjacent home gardens for engagement in forest conservation.
- Conservation strategies within the framework of REDD+ and cost benefit analysis of relevant selected strategies.

Sub-target: Engage local communities in forest protection and management

- **Establish community participation in forest management as part of regular departmental programmes and self sustaining communities**

Despite the fact that many significant attempts have been made to establish community participation in forest conservation and management work in Sri Lanka by both the FD and DWLC, there are very few instances of long-term successof projects dealing with voluntary community participation for forest conservation. Many such projects peter out once project funds and momentum dries up. There also appears to be a disturbing drop in the good relations built over the past decade between forest managers and local people, reportedly due to perceived high returns from forest conversion and the failure of long-term success of most community projects. Part of the problem is, however, thelow dependency of local people on forests for livelihoods, and partly because there is no long-term economic returns from local people's involvement in forest conservation. Success stories in a limited number of locations show that a more innovative approach is required to actively engage communities in forest management or enhancement of carbon stocks.Such approaches should include tangible economic returnsand social upliftmentin the long-term from joint ventures, via strengthened and self-sustaining CBOs and a continued strong role for forest managers.

Indicative strategy options are:

- Review of community participation projects carried out by the FD and DWLC and identify factors for success and failure.
- Use lessons learned and best practices to identify, pilot test and apply innovative community participatory approaches appropriate for Sri Lanka.[116,117]
- Identify potential means and channels to wean people away from slash and burn agricultural activities, through consultations[118] and studies of best practices.
- Encourage private sector participation in forest conservation through innovative partnership building mechanisms and education and awareness initiatives.
- Establish appropriate models for tangible delivery of benefits from forests to local people.[119]

[116] *It appears that beyond project incentives are needed for local people as well as continuing monitoring role for the relevant government department such as FD or DWLC.*

[117] *This is considered important in Sri Lanka where forest dependency is low, to ensure long-term continuity of community engagement beyond project lifetimes.*

[118] They could be enhanced educational opportunities, job training, and likely alternative livelihoods, etc.

- Studies to understand how best to promote poverty reduction and social upliftment among communities engaged in deforestation and forest degradation activities.
- Explore innovative financing models to enhance livelihoods.*

B. Target: Enhance carbon stocks under the REDD+ programme

Sub-target: Increase carbon stocks and sinks in degrade forests – natural and planted

There are many degraded forests in all zones that can be enriched with species that have the potential to yield timber as well as enhanced carbon stocks, and to provide other benefits such as enhanced biodiversity conservation and watershed protection. This should be carried out in line with the FSMP, which recommends assisted natural regeneration where possible, and enrichment planting in other areas that are too degraded to expect natural restoration to occur.

Indicative strategy options are:

- Ascertain status of degraded forests that can be used for assisted natural regeneration or enrichment planting.
- Carryout a needs assessment and identification of potential species [120] that could be used for enrichment planting in very degraded forest areas, preferably with community participation (recommended in the FSMP).
- Ascertain the capacity needs at field level within the FD and DWLC and among local communities to promote assisted natural regeneration in degraded forests that can revert to climax conditions by preventing further fire damage in such areas (recommended in the FSMP).
- Identify potential incentive schemes to encourage the maintenance of forest patches in crop plantations.
- Promote initiatives for protection forests through the ecosystem approach.

Sub-target: Enhance carbon stocks in multiple-use home garden agroforestry systems[121]

Home garden agroforestry systems under private ownership are a valuable part of the country's tree cover: they provide 42% of the national timber requirements and act as important carbon sinks. They are widely accepted as forest analogues that reduce pressure on natural forests for timber, enabling the ban on timber logging to continue. Hence, changes in carbon stocks within home garden/forest analogue systems are considered to be of paramount importance for a national REDD+ Programme in Sri Lanka.[122] However, forest analogue home gardens in many areas of the lowland Wet Zone are getting fragmented, with loss of canopy trees, due to population pressure and paucity of land for housing. Furthermore, a segment of home gardens are in alienated state property or under co-ownership, so that ownership issues have to be resolved during REDD+Readiness. There is however, scope to incorporate the country-widetree-planting programme (*DayataSevena*) with R-PP implementation.

Indicative strategy options are:

[119] Should be location specific, and should for example consider channeling part of forest visitor fees for local area development and social enlistment of buffer zone villages.
[120] Preferably species with multiple-use and/or those that promote environmental or social co-benefits and also assist enhance carbon stocks.
[121] This could mean contiguous home garden forest analogues that would meet the definition of forests.
[122] This came out strongly as a recommendation from the forestry, NGO and Expert sectors and increasing tree cover in home gardens for timber is specifically recommended by the FSMP.

- Establishing how the definition of 'forest' can be applied for home gardens under the context of a national REDD+ programme (e.g. criteria for tree height, land area and canopy cover).
- Assessing and clarifying land ownership/tenurial land rights, (including in alienated lands), to enable benefit sharing under the REDD+ programme.
- Promoting studies to enhance canopy cover using indigenous timber/multiple use species in home garden systems in line with the *MahindaChintana,* [i.e. furthering the green village concept] by involving local authorities, schools, home garden owners and the private sector].
- Linking–up with the *DayataSevena*national tree planting campaign and*DiviNeguma*rural development programme to create awareness and commitment to enhance carbon stocks and other benefits through inclusion of home gardens in a national REDD+ Programme.
- Pilot testing incentives and novel approaches to encourage growing of multiple-use species in home gardens.

C. Target: Reduce external pressures on forests for clearing and degradation

Sub-target: Improving forest sector governance

There is a widespread perception of a lack of rational and environmentally-sound systems for inter-institutional coordination and consultation in the case of the conversion of forest areas for development purposes. This is contrary to the environmental ethics and direction that are embedded in the government development framework. Often,adverse decisions are overturned with public protest, but only after expending much time and energy, and sometimes after forest clearance has already taken place. The emergence of a more transparent, participatory, and accountable governance system must be established under the REDD+ programme. This could be achieved through links with a strengthened *Haritha Lanka* Programme.

Indicative strategy options are:

- Set up effective institutional coordination and collaboration mechanism for releasing forested lands for development and follow existing procedures and the *MahindaChintana* concepts.
- Provide maps prepared under the REDD+ programme for decision making when identifying areas for development.
- Promote arriving at consensus about strictly adhering to a consultative process and protocols for alienating forested lands for development projects and human settlements.[123,124]
- Use forest area monitoring under Component 4 to provide data to make informed decisions.
- Enhance inter-agency coordination and communication among those dealing with conservation and development at decentralized and central levels from the inception of a development project cycle.
- Harmonise forest policies with land use policy and other policies for development and conservation, to prevent large-scale deforestation and forest degradation.[125]
- Use cost benefit analysis to promote the use of degraded lands for development projects and communicate accordingly with policy makers and high level administrators
- Establish dialogue with relevant stakeholders to ensure that EIAs are carried out when releasing forested lands to minimise loss of ecosystem services, watershed values and biodiversity.
- Strengthen the Land Use Policy and harmonise with the forest and wildlife policies, *MahindaChintana* framework for development, NPPP&P, etc.
- Develop a process to involve district-level Land Use Departments and district land use maps and land

[123] *It may be needed to establish an effective inter-agency negotiating and dialogue platform for each large scale development project with all major stakeholders. The* Haritha Lanka *programme offers a platform, but this may be too broad to discuss each project in detail.*

[124] *It is also necessary to promote adherence to the Land Use Policy, MahindaChintana framework for development, NPPP&P, Forest and Wildlife policies and relevant laws during large scale project formulation.*

[125] *i.e. to convince policy makers and administrators that is more beneficial than clearing prime forested lands.*

banks when planning for all major projects, and formalize this process.
- Review, publicise and use the mechanisms agreed upon for identification and establishment of PAs using the ecosystem approach.[126]
- Review and recommend policy options for activities including mining, rock blasting, tourism development, and encroachment in the private forested lands and PA buffer zones in compliance with national environmental safeguards.
- Promote joint work between FD, CEA, DWLC, LRC and Tourism Development Agencies to prepare tourism policies and plans that do not harm the permanent forest estate. [127]

Sub-target: Use strategic communication to reduce external pressures on forests

The lack of inter-agency coordination and commitment for forest conservation is believed to be partly due to poor communication and lack of understanding about the detrimental long-term impacts of erosion of the forest estate and its concomitant adverse impacts on biodiversityand adverse impacts on the country's abundant water resources. The National Capacity Self-assessment Project carried out bythe MoE in 2007 identified theneed for effective customised communication for key target groups through formal and non-formal methods. No action has been taken in this regard. It is expected that the national REDD+ Programme will formulate and establish a strong Communication and Consultation Strategy and Plan (CCSP, see Component 1c) that will support the institutional arrangements for REDD+ (Component 1a), the REDD+ Strategic actions (this component) and Component 2c to address the safeguards required for a REDD+ programme.

Indicative strategy options are:

- Prepare and implement a CCSP designed to assist the REDD+ programme in Sri Lanka with the following components:
  - Establish direct channels of communication to decision-making bodies through the REDD+ process.
  - Communicate the need to use alternatives to wood for construction to architects and engineers.
  - Communicate the need to move toward a green economy.[128]
  - Communicate to judges the gravity of illegal logging and the need for significant deterrents.
  - Use effective communication to convert the agents ofdeforestation and forest degradation to become partners in implementing the REDD+ strategic actions.
  - Empower environmental NGOs to address environmental issues through effective communication, advocacy and negotiation.
  - Promote dissemination of research, to identify and popularise alternative construction materials, and to promote markets and techniques for using such resources as part of the communication strategy.
  - Carryout a full-scale assessment of environmental education capacity in the country through formal and non-formal methods.
  - Carryout a needs assessment for capacity building in education and communication for REDD+.

[126] This process has already been identified by the National Capacity Self-needs Assessment Project and published by the MoE. (inMoENR (2007). Thematic Assessment Report on Biodiversity, prepared for the National Capacity Needs Self-Assessment for Global Environmental Management.

[127] Provide strict guidelines that preclude large tourism facilities and related service infrastructure in the buffer zones of conservation forests and PAs that would affect forests and wildlife; Establish dialogue platforms to prevent ad hoc land releases for large scale tourism development.

[128] Communicate the need to (alternative technologies, materials and efficient production systems) to wood for construction to architects and engineers.

- Build civic consciousness and environmental ethics for forest conservation through the media
  - Build strong environmental knowledge among the media for accurate and investigative journalism through skills enhancement projects.
  - Initiate a media award for accurate forest and wildlife-related journalism
  - Obtain the help of the media (TV, radio and newspaper) to enhance civic consciousness and environmental knowledge and commitment among the public, administrators and policy makers to address external pressures for deforestation and forest degradation.
  - Build capacity within national environmental NGOs dealing with communication to enhance environmental awareness and commitment among school children, administrators, policy makers and other relevant groups through strategic activities/communication.
  - Build capacity for strategic communication planning and implementation.

Sub-target: Facilitate data sharing, research and development to effectively reduce external pressures on forests

Often *ad hoc* decisions for conversion of forests to other land uses are not based on scientific factors due to poor knowledge and understanding of adverse impacts and alternatives that could reduce pressure on forests. Most sectors work in isolation and there is no pooling of knowledge to arrive at rational common decisions. A major gap is research and development that targets national needs for timber, sand for construction, etc. There is also distrust among target groups to accept alternatives that are proposed by the state. More effort has to be taken to bridge this gapthrough demonstration of alternatives facilitated by research and development.

Indicative strategic option is:

- Establish data-sharing mechanisms to assist effective landuse planning
  - Initiate and establish data and information sharing mechanisms to promote implementation of REDD+ strategies to reduce deforestation and forest degradation, enhancing carbon stocks and ensuring co-benefits.

Sub-target: Obtain inter-agency collaboration to reduce threats of forest encroachments for agriculture

Forest encroachment is partly due to low returns from agricultural cash crops in the Wet Zone, which motivates people near forests to enhance their income through encroachment. Intensive agriculture should be encouraged to halt this trend. Likewise, the lack of year-round water for agriculture in the Dry and Intermediate Zones for conventional agriculture--such as paddy farming—has caused the proliferation of slash and burn agriculture.

Indicative strategic option is:

- **Promote intensive agriculture to enhance yields from existing croplands in the Wet Zone and provide water for conventional agriculture in the Dry Zone**
  - Promote coordination with local agricultural extension services for intensive agriculture of conventional crops and cash crops for communities near forests.
  - Initiate joint programmes between FD field staff and Provincial Agricultural Extension Officers to increase knowledge and skills for intensive agriculture from agricultural lands (tea and other cash crops in the wet zone) near forests.

D. Target: Enhance the contribution of forests and other tree resources for biodiversity and watershed conservation, local livelihoods and the national economy.

Sub-target: Position REDD+ strategies to look beyond carbon

It is recognized that if planned correctly, the REDD+ programme would not only enhance and secure forest carbon, but also deliver significant additional ecosystem, biodiversity and social benefits. This requires strategically identifying potential ecosystem services and aspects of biodiversity that are likely to deliver the highest economic, ecological and conservation returns. REDD+ investments could be directed so that there will also be biodiversity and watershed benefits by identification and monitoring of these aspects, and by enhancement of livelihoods and rural economies. For example, remote sensing products for activity data gathering could also help identify and map status of forests with high biodiversity and watershed values. Likewise, the REDD+ programme can give tangible benefits to people to boost livelihoods and hence rural incomes through agroforestry practiced in Wet Zone home garden systems (forest analogues).

Indicative strategy optionsare:

- Identify and map natural forests of high conservation value that can best deliver multiple benefits under REDD+ (e.g. for biodiversity conservation, critical habitats for threatened species. watershed conservation, reducing human-wildlife conflicts).
- Identify multiple-use species for enrichment planting in degraded forests, considering carbon sequestration potential
- Use the *DayataSevena*and *DiviNeguma*Programmes to link the REDD+ scenario in home gardens to enhance rural economies.*
- Identify areas suitable for creating links between forest fragments, which will also result in carbon stock enhancement – by the use of maps and ground truthing
- Enrich degraded forests and community-managed village forests that meet firewood, water and other requirements of local people and provide habitats for wildlife
- Devise valuation of forest ecosystem services and REDD+ co-benefits

BOX 2b-1: Set up demonstration sites for multiple benefits

While project financing is not carried out under Phase 1, it is possible to finance pilot projects to test REDD+ plus strategy options and to test how best to provide equitable REDD+ benefits in the field.First, safeguard policies would have to be prepared and applied. *Given the difficulty of obtaining the long-term commitment of local people in forest management and tree planting, novel approaches have to be tested which could motivate people to enhance carbon stocks.* This could also enable testing the compliance with FPIC and safeguards, benefit sharing mechanisms, institutional arrangements and conflict resolution mechanisms at demonstration sites. Such work will also help gain the interest of potential investors, popularize enhancement of carbon stocks in home gardens and crop plantations, demonstrate the value of forests and agroforestry systems, and help interest policy makers to support the national REDD+ Programme.

This may require the following:

- Identify potential demonstration sites for multiplebenefits through spatial analysis.
- Test potential incentives for community participation to enhance carbon stocks in forests and home garden systems under the REDD+ programme; select a mix of natural climax and degraded forests, forest plantations (state and privately owned), and home garden systems in forest buffer zones.
- Use International MAB reserves in Sri Lanka as demonstration sites.

While the designs and development of REL/RL and MRV systems are also part of the REDD+ strategy setting process, they are discussed in detail in Components 3 and 4.

Theindicative REDD+ strategy optionspresented in this Component are based on the consultative processes described in Component 1b. At this point, actual REDD+ Strategy activities will not be identified; however, itis expected that these strategies will be considered and further evaluated during R-PP implementation for identification of the final REDD+ strategies.

Indicative Actions Supported by the UN-REDD National Programme (refer to Activities in Component 5)[129]

OUTCOME 4: National REDD+ Strategy and Implementation Framework

Output 4.3: Options for addressing deforestation and forest degradation at sub-national level identified

Activity4.3.1. Resolve conflicts related to available guidelines/ legal boundaries with the locals to clarify forest boundary disputes where necessary.
Activity4.3.2. Review and readdress potential impacts in human/wildlife conflicts through REDD+/SFM activities
Activity4.3.3. Conduct an inventory of reforested areas
Activity4.3.4. Assess opportunity cost of alternate livelihoods/land uses
Activity4.3.5. Assess potential sustainable uses and species to be utilized in enrichment planting in degraded forests
Activity4.3.6. Analyze the status of degraded forests that can be used for assisted regeneration or enrichment planting and provide policy options
Activity4.3.7. Establish an inventory of tree cover outside forests and dynamics of agro-forest gardens (linked to Output 5.2)
Activity4.3.8. Assess potential for private sector engagement in REDD+, including tea and other plantation industries
Activity4.3.9. Develop an approach for Provincial/District level REDD+ Mainstreaming
Activity4.3.10. Analyze lessons from participatory models in the forest sector

Budget: US$ 450,000

Output 4.5: National REDD+ Strategy developed (findings and results from the other Activities under Outcome 4 will contribute to this Output)

Activity4.5.1. Develop national REDD+ strategy options and recommendations based on results of all assessments and consultations
Activity4.5.2. Validate national REDD+ strategy options and recommendations with stakeholders

Budget: US$ 30,000

[129] These actions are subject to change based on further appraisal before the programme inception.

Component 2c:
REDD+ Implementation Framework and Safeguards

Objective of this component

The REDD+ Readiness processfor Sri Lanka does not exist in a vacuum, but must instead rely on conducive frame conditions in order for itto be successfully implemented. The institutional frame conditions for REDD+ were introduced in Component 1a. However, in addition to describing these conditions it is necessary to ensure that they are improved where necessary and sustained in the long term. The implementation framework for REDD+ is therefore the sum of all the enabling frame conditions necessary for REDD+to be operationalized in Sri Lanka. In addition to appropriate and functioning institutions, this entails legal, policy and financial conditions, the potential for capacity development and effective, transparent communication networks. Crucially, the implementation framework for REDD+ includes the social and environmental frame conditions within which the programme operates, and therefore requires a system to assess how the programme affects these important aspects. The objective of this component of the R-PP is therefore to identify a process for developing, maintaining and monitoring the optimum frame conditions for REDD+ implementation.

Outcomes of this component

The activities under this section will contribute to two outcomes:

- Enhanced knowledge on the policy, legal, financial and institutional adjustments necessary to support implementation of REDD+ strategies; and
- Development of a system for assessing Sri Lanka's compliance with REDD+ Social and Environmental Safeguards, described in Cancun Agreements (UNFCCC CoP16).

These two outcomes constitute a feedback mechanism whereby Sri Lanka can continuously evaluate and improve the implementation framework for activities during REDD+ Readiness and a National REDD+ Programme, in line with national governance conditions and international obligations. These outcomes will be met under a combination of TFs dealing with land tenure, carbon rights, competency framework development, REDD+ safeguards development, etc.

Elements of the REDD+ Implementation Framework

An effective implementation framework is the foundation needed to facilitate such arrangements to be built and operated. The most appropriate REDD+ strategies may not be feasible unless this framework is in place. Key questions that need to be addressed under this framework are:

Institutional: Are the institutions required to implement REDD+ strategies in place, and can they operate effectively together? What needs to be done to make the management structure outlined in Component 1a operational? – The establishment of the RPMCC within the structure proposed in Component1a, once operationalized, will be able to address these questions by initiating a study to review all existing related institutions and policies to identify gaps, efficiency loopholes, and the need for new institutions/departments. With this, suitable and necessary amendments will be proposed to enable a suitable institutional and policy framework for REDD+ implementation.

Legal: Do the laws and regulations of Sri Lanka allow for REDD+ strategies to be implemented? Are there any legal provisions that need to be changed and/or created and, if possible, how can this be done? Legal provisions in place should be supportive of REDD+ activities. Further, the National REDD+ Policy will be formulated based on the REDD+ strategies to ensure the smooth implementation of REDD+ mechanisms and processesin line with the country's national policies. In addition, adjustments to existing laws and policies may be necessary to ensure a conducive legal

framework. These issues will be addressed through the TF on governance, policy, safeguards and multiple benefits. A study will have to be carried out to identify these gaps so that they are addressed early and effectively once the National REDD+ Policy is developed.

Financial: How will the financial resources necessary for implementation of REDD+ be distributed effectively? Can existing distribution channels be used and, if necessary, how can new channels be set up? A study will be required to assess whether the currently existing distribution channels through the ministries and/or outside of the public sector (e.g., national pension and micro-credit banking systems) can be used.

Operationalising the Institutional Structure

Institutional Strengthening

The key institutions for REDD+ readiness and implementation are presented in Component 1a. Some of these are pre-existing and others will be established through R-PP implementation.
Key pre-existing institutions, as presented in Component 1a, are:

- Ministry of Environment (MoE)
- Forest Department (FD)
- Climate Change Secretariat (CCS)

Those that will be established under the R-PP implementation are:

- Programme Management Unit (PMU)
- REDD+ Programme Management and Coordination Committee (RPMCC)
- Programme Executive Board (PEB)
- CSO/IP Forum
- Task Forces (TFs)
- Technical Working Groups (TWGs)

For the National REDD+ Programme to be successful, all these institutions must function with optimal efficiency and effectiveness. For the pre-existing institutions, this may involve some adjustment of existing policies and practices to take account of their role in REDD+, which may have unanticipated impacts (both positive and negative) on other aspects of the institution, while much of it remains unchanged. For the new bodies, their entire governing design will be determined by their roles within the National REDD+ Programme or the UN-REDD National Programme.

The establishment of new bodies and a management structure for REDD+, described in Component1a, must therefore be accompanied by a full analysis to identify institutional strengthening requirements for:
(a) Effective operation of the REDD+ management structure
(b) Effective operation of each of the (8) key institutions and bodies

This analysis, to be carried out during the R-PP implementation by qualified management and institutional development experts, will cover the following aspects of institutional operations, identifying the optimal systems and structures to allow the respective institutions to perform the required function. The conclusions will determine the priorities for institutional strengthening during the REDD+ Readiness process.

Governance and decision-making: The internal structure of institutions and the strength and complexity of links between institutions determine how efficiently decisions can be made and implemented. For national REDD+ readiness and implmentation, compliance with FPIC, and a full and effective consultation process, must be matched with an institutional governance structure that facilitates effective decision-making and implementation of activities. Leadership qualities, and the clarity of hierarchy are among the issues that must be assessed.

Communication: The ease and efficiency of the flow of information and instructions within and between institutions is critical for REDD+ Readiness and for a National REDD+ Programme. Facilitation of this process is addressed under Component 1c. The depth of institutional structures (that is, how many levels of management between the decision-maker and the implementer) is important, as well as the process of record keeping, to ensure that misunderstandings, duplication and contradictory messages are minimised. The ability of institutions to handle a two-way flow of information (witheffective feedback mechanisms) must also be assessed. This is necessary to ensure a smooth flow of communication. Initial training in better networking for partner institutions will be carried out during R-PP implementation.

Administration: Particularly for bodies with key implementation responsibilities, such as the PMU, effective administration is essential. This includes the ability to manage finances and logistics, as well as to plan and organise events, coordinate individual and institutional calendars and schedules, and maintain transparent, accessible records.

Capacity Building

A comprehensive and continuous process of learning is necessary for the key institutions to successfully engage in REDD+ Readiness activitiesand to contribute towards the scaling up of activities for the REDD+ implementation phase.

All components of the R-PP include some capacity building activities as an essential element of preparation for REDD+ implementation. As part of the overall readiness framework for REDD+, however, capacity building activities should be planned as part of an on-going, reflective learning process designed to provide each group of stakeholders with the competencies, skills and knowledge required to fulfil their role in the REDD+ programme.

This part of the implementation framework will require three broad steps:

1) **Develop a Competency Framework for REDD+ in Sri Lanka:** This will build on the stakeholder mapping and categorisation described in components 1b and 1c. According to UNDP guidance note[130], capacity resides on three levels – the enabling environment, the organizational, and the individual. Each of these can be the point of entry for a capacity assessment, and the Framework will especially be tailored to the enabling environment and the organizational level to investigate four core capacity issues: 1) institutional arrangements; 2) leadership; 3) knowledge; and 4) accountability. Also, the Framework will look atfunctional and technical capacities, which are necessary for creating and managing policies, legislations, strategies and programmes.Key functional capacities are to: 1) engage stakeholders; 2) assess a situation and define a vision and mandate; 3) formulate policies and strategies; 4) budget, manage and implement; and 5) evaluate. Various technical capacities will also be assessed, depending on the situation; they may be added to the set of functional capacities as needed, especially when dealing with MRV and monitoring.

   The competency framework will identify the knowledge and skills that each stakeholder group must attain in order to fulfil their role in a National REDD+ Programme. This activity will be undertaken by the TF on REDD+ Strategy design and implementation.

2) **Design and conduct a Capacity Building Needs Assessment (CBNA) for REDD+ in Sri Lanka**: Using the competency framework as a template, the CBNA will involve identifying the key capacity, skill and knowledge gaps among the stakeholder groups that will

[130] UNDP (2008), Capacity Assessment Practice Note

have to implement the National REDD+ Programme. A three-step process[131] will be used to conduct a capacity assessment:

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

This will be carried out in parallel with the CCSP outlined in component 1c and will help to manage stakeholders' expectations with regard to capacity building. The PMU will liaise with each TF and deliver capacity building services according to their guidance.The Capacity Building TF will finally review the CBNA methodology after the exercise is completed, and refine it accordingly. During the Readiness phase, the CBNA exercise will then be conducted on a regular, periodic basis to provide real-time feedback on the results of capacity building activities, and to identify new requirements. This activity will form part of the stakeholder mapping exercise that would be carried out by the PMU when initiating the institutional structure.

3) **Design and implement a Capacity Building Action Plan (CBAP) for REDD+ in Sri Lanka:** The CBAP will be developed to respond to the needs identified in the CBNA. It will include activities at all levels, for example:
   - Interactions with initiatives in other REDD+ countries, both at the regional and global level to build systemic, institutional and individual capacity strengthening of actors in Sri Lanka.
   - Training programmes for staff of key REDD+ institutions and other personnel involved in REDD+ strategy implementation.
   - Capacity building to ensure that local communities can be involved in local management decisions, implementation and monitoring of the REDD+ programme, through existing Community Forestry programmes and established CSOs, some of which have been set up around forests to promote community involvement in forest conservation.
   - Capacity building of other non-state actors, such as NGOs that may play key roles in implementation of the National REDD+ Programme at the national level and at demonstration sites.

Information management

This aspect is essential to ensure that all institutions and stakeholders have access to accurate, up-to-date and transparent information on the national REDD+ process in general. Information management activities during R-PP implementation will include the design and development of a tracking and information systems, and the establishment of an information platform for REDD+ that will be continually managed and actively used by the staff and members of the institutions involved in REDD+.

These activities will be aligned with existing information database and knowledge management systems described in **Annex 1a-2.** They will also employ, where possible, the templates and systems

[131] UNDP (2008), Capacity Assessment Practice Note

of existing international REDD+ knowledge management systems including the REDD Desk[132], Forest Carbon Asia[133] and the UN-REDD workspace.

Legal Aspects

Policy and legal alignment

As described in Component 1a and 2a, Sri Lanka has mechanisms in place to foster policy alignment in the fields of forestry and climate change. Among these mechanisms are the Forest Policy, FSMP, the National Environmental Action Plan, the NCCAS, the Coastal Zone Management Plan and the National Land Use Policy **(**see **Table A2a-2 in Annex 2a-1)**. Further Sri Lanka has a multitude of environmental and land-related laws (**Table A2a-2)**that need to be aligned with REDD+ implementation. In particular, the FO, FFPO, NEA and, the National Wilderness Heritage Act, all support the implementation of REDD+. It will also be necessary to review laws and policies that affect sectors dealing with water, agriculture, energy and others that have a major impact on the forestry sector with a view to implementation of candidate REDD+ strategies. Stakeholder mapping for these sectors, and key laws, polices and plans within these areas have already been identified through the multi-stakeholder process leading to preparation of the NCCAS.

Due to the importance of aligning the National REDD+ Programme with the national environmental programme and laws as well as development programmes and the land use policy, this has been assigned to one of the Task Forces (TF on Governance, policy, and safeguards and multiple benefits) to ensure the smooth running of the national REDD+ Readiness process(see details in **Component 1a**, and **Annex 1a-3**).

MahindaChintana-the National Development Framework and the National Physical Planning Policy & Plan (NPPP&P) provide the main development targets for the country which have to be brought into consideration, as should the *Haritha Lanka* Programme which has been formulated to ensure that critical environmental issues are not ignored during the national development process. (see**Box1a-4 inComponent 1a**). It is also important that the REDD+ Programme is coordinated with the *DeyataSevena* Tree planting programme (See **Annex 1a-1** and **Component 1b**) and its provincial and local level implementation mechanisms.

Accordingly, R-PP implementation will include an assessment of these programmes in order to provide recommendations for the UN-REDD National Programme.

Clarifying land tenure and land use rights (including indigenous peoples' rights)

The right to be recognised and rewarded for REDD+ performanceis essential to the efficiency of the National REDD+ Programme. As most activities under the Programme will inherently involve changes in land cover, land use or land use plans, it is imperative that land tenure and rights pertaining to land use are clarified.

In some parts of rural Sri Lanka, for example, there are people living in alienated state lands via land grants, but with no clear title as yet, though they are in all effects the owners of the land. Some of the recipients of such land grants are indigenous peoples (chiefly the *Veddah* community) who have now opted to settle in permanent villages rather than their traditional hunter-gatherer lifestyle. However, such indigenous peoples' groups may still claim customary rights to ecosystem services or to use or gather certain forest products to maintain their traditional lifestyle. They may also claim specific territorial rights to areas of particular significance, for cultural or other reasons. All of these rights are protected under international conventions and declarations such as the UNDeclaration on

[132] www.theredddesk.org
[133] www.forestcarbonasia.org

the Rights of Indigenous Peoples (UNDRIP),to which Sri Lanka is a signatory. Sri Lanka has also a few instances of informal systems such as the Nidagam lands that were given by the Kings of colonial times for services rendered. A study into these informal systems will be carried out to assess the feasibility of including the rights of these people and their activities under the existing laws and policies and to see how these will fit in with the National REDD+ Programme.

The blurred line between formal and informal tenure and rights, and between statutory and customary rights, is a serious impediment to REDD+. Activities under REDD+ strategies may potentially constrain or limit the customary rights of local and indigenous communities. Currently, however, there is no reliable information on what constitutes customary rights, or how to resolve conflicts between formal and informal systems.

A full analysis of the gaps in land ownership and in related legislation and policies will therefore be carried out as part of R-PP implementation. The results of this analysis will be used to develop specific REDD+ regulatory systems to underpin REDD+ activities of public and private actors during the readiness and implementation phases. This activity will be carried out under the guidance and supervision of theTF ongovernance, policy, and safeguards and multiple benefits. Within this activity, various issues regarding rights-holders such as gender, Indigenous Peoples (Veddhas) and other social minorities, will be addressed.

Carbon rights

The concept of 'Carbon rights' is completely new to Sri Lanka, as it is to all REDD+ participant countries. It is commonly understood as a novel type of property right, but the idea that the carbon in forest ecosystems can be isolated, 'owned', and traded separately from other physical products and ecosystem services creates many philosophical, moral, practical and legal difficulties.

If, however, the owners, managers and users of forest resources will be rewarded, under REDD+, directly on the basis of carbon stocks in their respective forest areas, then Sri Lanka must develop a clear system for defining which stakeholders have the right to make decisions which affect forest carbon stocks, and which have the right to benefit from any financial rewards that accrue as a result.

These are complex legal questions, and they are intimately linked to the system of resource distribution (or 'benefit sharing') that Sri Lanka will adopt for REDD+ implementation (see below). During R-PP implementation, a thorough study on the meaning of 'carbon rights' in the Sri Lankan context will be conducted and, if necessary, transparent rules on the allocation of carbon rights will be developed. This will have implications beyond R-PP implmentation, by enabling state or non-state actors to engage in REDD+ with confidence. This will be carried out under the TF ongovernance, policy, and safeguards and multiple benefits.

Financial Aspects

Management of REDD+ resources

The third and final phase of policy approaches and positive incentives, according to the Cancun Agreements[134], is performance-based payments. A national approach to REDD+, as envisaged under the Cancun Agreements, will see carbon credits accrue at the national level. A national-level facility to receive and manage these payments must therefore exist in order for a country to progress to full REDD+ implementation.

[134]The Cancun Agreements (2010): Outcome of the work of the AdHoc Working Group on Long-term Cooperative Action under the Convention

Coordination of various donor support for the National REDD+ Programme and the use of transparent and efficient systems for managing donor resources will be part of the Terms of Reference of theRPMCC and the Government.

The RPMCC will be among the principal bodies to help track and manage incoming finances against activities and outputs. Sources of such support already exist in Sri Lanka from the government, multilateral institutions, and private foundations, but coordination between such activities needs to be stepped up. The information clearinghouse for such development financing sources will be a valuable addition to the REDD+ capacity building efforts.

The participation of the Department of National Planning and the Department of External Resources of the Ministry of Finance and Planningwill help formulate the design of financial instruments and mechanisms to be used for the REDD+ implementation phase (as described in component 1a and **Annex 1a-2**).This will include defining the authority to transact international carbon credits through REDD+implementation.

Under the R-PP, a study will be carried in order to identify and define this authority, and to recommend options for the establishment of suitable arrangements. The study will also produce recommendations on the terms of reference for management of REDD+ finances. For example, the management facility may have the following attributes:

- Independent of the REDD+ management structure described in component 1a
- Ability to receive funds for performance based payments from both carbon market and fund-based systems and to create synergies between multiple sources of funding with clear accountability
- Ability to enforce decisions on fund disbursement for REDD+ implementation

It should also be noted that Sri Lanka has vast experience in carrying out a large number of environmental projects (See **Annex 2a-1**and **2a-2**) that have been satisfactorily concluded with good financial accountability. Lessons learned from these projects on smooth flow of finances will be considered during R-PP implementation. Sri Lanka has high capacity to build on the systems that have been followed successfully in the past in implementing large-scale development and conservation projects with adequate financial regulations.

Resource distribution (benefit sharing)

The distribution of REDD+ finances from a national facility to the actors that can implement the practical activities under REDD+ strategies is essentially a matter of designing economic incentives that will induce the appropriate changes in behaviour of certain stakeholders.

Each potential strategy identified through component 2b will entail direct costs on one or more groups of stakeholders. In addition to meeting these direct costs, the distribution of REDD+ resources must usually recognise the indirect costs of changing behaviour, so that the stakeholders involved actually recognise a benefit for themselves from taking part in REDD+.

If REDD+ resource distribution systems, including unit costs for activities, are set up autonomously, therefore, they are unlikely to deliver the necessary incentives. The cost of implementing a particular REDD+ strategy must therefore be determined through studies of any existing systems of fund distribution and consultations with the stakeholders. Under R-PP implementation, studies will be conducted to determine the appropriate mechanisms and negotiation processes for REDD+ resource distribution.

Accordingly, the TF on financial flows and benefit sharing will be responsible for setting up a TWG which will assist the TF to explore resource management and distribution options for the implementation of REDD+ in Sri Lanka (see **Annex 1a-3**), which will specifically investigate the following:

- Any existing relevant benefit sharing mechanisms (such as the national pension program and micro-financing schemes) to be compared during the R-PP implementation.
- Mechanisms for directing REDD+ funds to private and NGO actors.
- Creating supportive aggregating mechanisms (development of actions in the forest sector, or strengthening local institutions that can deliver support to actors locally). Sri Lanka has significant experience of such aggregating mechanisms from the forest sector, which can be drawn on for REDD+ resource distribution.
- Models for actions that can lower transaction costs for local actors.
- Financing options for the establishment of a mechanism for performance-based payment and benefit sharing.

Social and Environmental Safeguards

The core objective of REDD+ is to contribute to the global battle against climate change and the UNFCCC. To achieve this in a socially and environmentally sustainable way as set out in Annex I of the Cancun Agreements, a list of seven specific safeguards should be 'promoted and supported' (see Box 2c-1).

What are the Safeguards for?

The application of social and environmental safeguards is targeted at improving the sustainability of the National REDD+ Programmeand the potential to deliver measurable lasting emission reductions and enhanced removals, as well as reduce exposure to legal, financial, and reputational risks for donors, financiers, multilateral institutes, the private sector and civil society. A Review of REDD+ Safeguards Initiatives carried out on behalf of the UN-REDD partner agencies summarized the most commonly expressed risks of REDD+ programmes when implemented without due consideration of social and environmental impacts[135]:

1. The conversion of natural forests to plantations and other land use of low biodiversity value and low resilience;
2. The loss of traditional territories resulting in displacement and relocation of indigenous peoples and forest dependent communities;
3. The erosion or loss of rights with exclusion from lands, territories and resources;
4. The loss of ecological knowledge;
5. The loss of traditional and rural livelihoods;
6. Social exclusion and elite capture in the distribution of benefits from REDD+;
7. The loss of or reduced access to forest products important for local livelihoods;
8. The creation of contradictory or competing national policy frameworks;
9. The other benefits of forests are traded-off at the expense of maximizing the carbon benefits;
10. Human-wildlife conflict as population of crop raiding animals benefit from better protected forests.

During the preliminary stakeholder consultation process described in Component 1b, the risks 1, 5, 6 and 9 were identified as particularly significant in the Sri Lankan context. However, 8 and 10

[135] Moss, N, Nussbaum, R, Muchemi, J and Halverson, E. (2011). A Review of Three REDD+ Safeguard Initiatives. FAO, UNDP and UNEP

should also be seriously considered as most decisions and policies in the country are often made in isolation, and the human elephant conflict in the country may be aggravated as identified in the Elephant Management Plan prepared for the DWLC.

As a UN-REDD partner country, Sri Lanka's R-PP implementation must not only respect the safeguards listed in Box 2c-1 but also follow the relevant guidance from the UN-REDD programme. Jointly with the World Bank's FCPF, the global programme has issued guidelines[136] for stakeholder engagement, which requires that country programmes adhere to the principles of Free, Prior and Informed Consent (FPIC) with respect to indigenous peoples and other forest dependent communities (see Box 2c-2). These guidelines also oblige UN-REDD country programmes to abide by relevant provisions of, UNDRIP, the UN Development Group (UNDG) Guidelines on Indigenous Peoples' Issues and the International Labour Organization (ILO) Convention number 169.

Box 2c-2: FPIC
Free, Prior and Informed Consent
The collective right of peoples and/or individuals to give or withhold consent regarding actions that may affect their lands, territories, and resources or their rights associated with these lands, territories and resources.
FPIC is a key international instrument that can be applied across a range of land-based sectors, such as conservation, extractive industries, forestry, industrial plantations, and infrastructure development.
Recognized as a key right of Indigenous Peoples under UNDRIP. In the context of UN REDD country programmes, it applies to all indigenous peoples and local communities whose rights and interests may be affected by implementation of REDD+ strategies.

Sri Lanka is also a Party to the Convention on Biological Diversity (CBD) and is hence obliged to adhere to the CBD articles that deal with forest conservation, including those traditional practices and knowledge that are consonant with forest conservation.

Sri Lanka has inbuilt environmental safeguards by way of EIA procedures that are embodied in the NEA, and adherence to these will have to be ensured through the national REDD+ programme. The legal analysis undertaken as part of the R-PP preparation process suggests that the necessary laws and regulations pertaining to EIAs are present, but their implementation is weak.

Box 2c-1: REDD+ Safeguards, according to Annex 1 of the Cancun Agreements (Decision 1/CP.16)

(a) Actions *[under a REDD+ programme]* complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements;

(b) *[REDD+ programmes must have]* Transparent and effective national forest governance structures, taking into account national legislation and sovereignty;

(c) *[REDD+ programmes must demonstrate]* Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;

(d) *[REDD+ prograemmes must ensure]* The full and effective participation of relevant stakeholders, in particular, indigenous peoples and local communities, in actions *[under a REDD+ programme];*

(e) Actions *[under a REDD+ programme]* are consistent with the conservation of natural forests and biological diversity, ensuring that actions referred to in paragraph 70 of this decision are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits;

(f) *[A REDD+ programme must include]* Actions to address the risks of reversals

(g) *[A REDD+ programme must include]* Actions to reduce displacement of emissions

The REDD+ strategy options detailed above will have positive and negative social and environmental impacts that are beyond the reduction of GHG. Given the nature of these options, the safeguards

[136] UN-REDD (2009), Operational Guidance: Engagement of Indigenous Peoples and Other Forest Dependent Communities

for Sri Lanka's REDD+ programme would give special consideration to livelihoods, rights (including those of Indigenous Peoples), the special protection of vulnerable groups, biodiversity, cultural heritage, gender, institutional capacity assessment, etc.

Development of REDD+ Social and Environmental Standards

As a core part of its REDD+ readiness process, Sri Lanka will accordingly develop a set of nationally-specific social and environmental standards to ensure that the safeguards specified in the Cancun Agreements are complied with, while respecting the national interests and development goals. The processes and mechanisms necessary to identify, avoid and mitigate risk and adverse impacts, and enhance positive impacts, will be established during R-PP implementation, by monitoring progress against these safeguards. Likewise conflict resolution and grievance mechanisms will be established and are given in detail in **Component 1c**.

The adoption of a strategic assessment of policy development processes to identify potential positive and negative impacts of implementation (and to whom) is not a new concept for Sri Lanka. However, inter-institute cooperation and coordination has always been difficult to achieve to the desired level, therefore a practical and workable approach will have to be adopted, as proposed in component 1a.

Sri Lanka will develop nationally appropriate social and environmental safeguards for REDD+ based on review of the existing international REDD+ safeguards (e.g., REDD+ SES, FCPF's SESA, UN-REDD SEPC, etc.) and relevant national policies and measures (e.g. EIA) in line with the Cancun Agreements and the National Development Framework, the *MahindaChintana.*

A comprehensive framework of key social and environmental issues to address in the National REDD+ Programme will provide standards to guide the REDD+ design and will also provide a mechanism for reporting on social and environmental performance.

Sri Lanka will develop a set of nationally-appropriate indicators for the REDD+ safeguards according to the following steps:

1. **Review globally available REDD+ safeguards** (e.g., SESA, REDD+ SES, SEPC, etc.) **and any existing national policies relevant to safeguards** (e.g., EIA)**, and their applicability and effectiveness for REDD+ in Sri Lanka.** The TF on Governance, Policy, Safeguards and Multiple Benefits will lead this work and will set up aTWG on REDD+ safeguards to implement the review and other necessary activities. Based on the review, nationally appropriate REDD+ safeguards in compliance with the Cancun Agreements will be proposed together with indicators and verifiers.

2. **Hold consultations on the draft safeguards, indicators and verifiers.** Pending clearance by the RPMCC, a process of national consultation to identify and draft national REDD+ safeguards, indicators and verifiers will be initiated. This consultation process can take place in different formats (meetings, email feedback, written statements, etc.)

3. **Offical Endorsement of the National REDD+ Safeguards, indicators and verifiers by RPMCC**. Based on the feedback from the consultation period, the TF will produce a final draft of the National REDD+ Safeguards and submit it to the RPMCC for approval and adoption as a normative document for REDD+ in Sri Lanka.

4. **Develop information gathering methodologies** (consultations, secondary data, statistics and survey) **and a change monitoring approach through demonstration activities.** The TF and TWG will review any existing data collection mechanisms (e.g.,

national census, forest inventory, socio-economic and conservation studies forest protection and management plans, etc.) in Sri Lanka and consult with relevant stakeholders to develop methodologies for information gathering and a process for monitoring status change through demonstration activities.

5. **Collect and analyse information on National REDD+ Safeguards using the methodologies and approach to identify risks and potential multiple benefits.** The TF and TWG will collect and analyze safeguard information on a demonstration basis.

6. **Consultation based on analysis results to identify risk mitigation and benefit enhancement measures.** Pending clearance by the RPMCC, the TF and TWG will undertake stakeholder consultations to discuss risks and potential benefits in order to identify a mitigation /enhancement framework.

7. **Link safeguards information into the central database and archiving system.** The information generated and risks/benefits identified and monitored should be provided through a central database where all the other REDD+ information and data are collected and maintained.

Compliance with Safeguards

Once finalized, the National REDD+ Safeguards and indicators for Sri Lanka will be used to assess the quality of the REDD+readiness and implementation phases, as part of the MRV approach described in 4b. Therefore, the National REDD+ Safeguards will inform the design of REDD+ strategiesand monitor the implementation of the UN-REDD National Programme (and, eventually, the National REDD+ Programme) in order to ensure Sri Lanka's compliance with both national and international safeguards.

These activities may include strengthening of:

(i) Legal, regulatory, and policy frameworks, as described in this Component;
(ii) Institutions and institutional networks, as described in Component 1a
(iii) Mechanisms for stakeholder engagement, as described in Component 1c

Indicative Actions Supported by the UN-REDD National Programme (refer to Activities in Component 5)[137]

OUTCOME 1: National consensus reached on the Sri Lanka National REDD + programme

Output 1.2: National legal, procedural and institutional arrangements for sectors relevant for REDD+ reviewed (some Activities under this Output will also be carried out under Component 1a)

Activity1.2.1. Sub-divide RPMCC into thematic groups to conduct gap analysis and recommend actions (e.g., MRV and Monitoring, Policy and Measures & Stakeholder Engagement) (linked to Output 5.6)

[137] These actions are subject to change based on further appraisal before the programme inception.

Activity1.2.2. Review institutional and legal arrangements and lessons of the Haritha Lanka programme (including implications of Rio+ 20) and its relevance to REDD+ (Mission 2, 3 & 5)
Activity1.2.3. Stakeholder mapping (public and private sectors, CSO, forest dependent communities and Indigenous Peoples, etc.)
Activity1.2.4. Identify capacity needs in national legal, procedural and institutional arrangements for REDD+
Activity1.2.5. Develop a set of guidelines for management arrangements for the National REDD+ Programme

Budget: US$ 170,000

OUTCOME 2: Management Arrangements contributing to the National REDD+ Programme

Output 2.1: UN-REDD National Programme implementation arrangements established(some Activities under this Output will also be carried out under Component 1a)

Activity2.1.2. Establish networks and links between RPMCC, MoE, CCS and other related institutions (Private Sector, CBOs, NGOs, Public Sector, INGOs etc.)
Activity2.1.3. Organize regular meetings and workshops for capacity building

Budget: Component 1a

Output 2.2: Capacity Building ActionPlan developed for REDD+ (parts of Activities under this Output will also be carried out under Component 1)

Activity2.2.1. Identify an effective REDD+ management structure and working arrangements with key institutions and partners – coordinate and collaborate with other development and national partner activities (e.g., assisted regeneration, fires, invasive species, agriculture, timber trade, production and consumption, etc)
Activity2.2.2. Develop a Competency Framework for REDD+ in Sri Lanka
Activity2.2.3. Design and conduct a Capacity Building Needs Assessment (CBNA) for the forest sector in Sri Lanka, including all stakeholder groups

Budget: US$40,000

OUTCOME 3: Improved Stakeholder Awareness and Effective Engagement

Output 3.2: Stakeholder engagement in REDD+ Readiness process enhanced, including FPIC and private sector engagement (some Activities under this Output will also be carried out under Component 1c)

Activity3.2.8. Design and implement training on communication and team building for NGOs and CBOs, private sector and other relevant groups
Activity3.2.9. Design and implement customized communication training for relevant institutions.
Activity3.2.10. Enhancement of equipment and material for communication and extension programmes of the FD with regard to REDD+.

Budget: Component 1c

OUTCOME 4: National REDD+ Strategy and Implementation Framework

Output 4.1: Drivers of deforestation and forest degradation, and legal and policy alignment needs identified (some Activities under this Output will also be carried out under Component 1a and Component 2a)

Activity4.1.1. Identify drivers of deforestation and forest degradation (Further confirmation of the initial assessment of drivers in Annex 2a-1)
Activity4.1.2. Assess national forest governance systems (linked to Output 5.6)
Activity4.1.3. Assess existing laws and policies to foster policy alignment in the land resources sectors (linked to Outputs 1.2. and 5.6)
Activity4.1.4. Analyze conflicts of interest between development activities and forest conservation and recommend remedial measures (linked to 5.4)
Activity4.1.5. Conduct an opportunity-cost assessment for REDD+
Activity4.1.6. Provide policy recommendations and sectoral action plans for REDD+ (including SFM, agriculture and transformational policies towards a green economy)
Activity4.1.7. Validate policy recommendations with stakeholders
Activity4.1.8. Assess the existing laws and policies to foster policy alignment in the relevant sectors (linked to activity 4.2.2)

Budget: US$ 160,000

Output 4.2: Land tenure and rights clarified (some Activities under this Output will also be carried out under Component 1)

Activity4.2.1. Assess land and forest tenure systems and applicability under REDD+
Activity4.2.2. Analyze gaps in land ownership and related legislations and policies (including gender issues) (linked to Output 5.6)
Activity4.2.3. Study the meaning and applicability of the concept of 'carbon rights' (linked to Output 5.6)
Activity4.2.4. Consult with stakeholders to promote and develop holistic land-use planning and strategies
Activity4.2.5. Clarify land ownership/tenurial rights in alienated lands to enable REDD+ activities and benefit sharing

Budget: US$ 70,000

Output 4.4: Options for equitable and transparent benefit sharing identified

Activity4.4.1. Assess existing systems for financial management and distribution (e.g., micro-finance, national pension and healthcare schemes, etc.)
Activity4.4.2. Analyze potential benefit sharing arrangements to recommend policy options (linked to Output 5.6)
Activity4.4.3. Validate policy recommendations with stakeholders

Budget: US$ 100,000

OUTCOME 5: Monitoring and MRV Results for REDD+ Activities Provided

Output 5.1: MRV process initiated (carried out as part of Component 3)

Activity5.1.5. Establish a central database and archiving system including the provision of information on REDD+ safeguards (linked to Output 5.6)

Budget: Component 3

Output 5.6: Framework for social and environmental risk mitigation and potential multiple benefit enhancement designed

Activity5.6.1. Assess any existing policies relevant to safeguards (e.g., EIA), and their applicability and effectiveness for REDD+
Activity5.6.2. Identify and agree on nationally appropriate REDD+ safeguards and indicators
Activity5.6.3. Develop information gathering methodologies(consultations, secondary data, statistics and survey) and change morning approach through demonstration activities
Activity5.6.4. Provide information on risks of displacement and reversal for demonstration site
Activity5.6.5. Collect and analyze information on safeguards using the identified methodologies and approach to identify risks and potential multiple benefits,
Activity5.6.6. Consultation based on analysis results to identify risk mitigation and benefit enhancement measures (linked to Output 4.1)
Activity5.6.7. Link safeguards information into the central database and archiving system under Output 5.1

Budget: US$ 100,318

Component 3: Develop a National Forest Reference Emission Level and/or a Forest Reference Level

Standard 3 the R-PP text needs to meet for this component:
Reference Level

Present work plan for how the reference level for deforestation, forest degradation (if desired), conservation, sustainable management of forest, and enhancement of carbon stocks will be developed. Include early ideas on a process for determining which approach and methods to use (e.g., forest cover change and GHG emissions based on historical trends, and/or projections into the future of historical trend data; combination of inventory and/or remote sensing, and/or GIS or modelling), major data requirements, and current capacity and capacity requirements. Assess linkages to components 2a (assessment of deforestation drivers), 2b (REDD+ strategy activities), and 4 (MRV system design).

(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a stepwise approach may be useful. This component states what early activities are proposed.)

The Cancun COP *Decision 1/CP.16*, National Forest Reference Emission Level and/or Forest Reference Level

"71. (b) A national forest reference emission level and/or forest reference level[6] or, if appropriate, as an interim measure, sub-national forest reference emission levels and/or forest reference levels, in accordance with national circumstances, and with provisions contained in decision 4/CP.15, and with any further elaboration of those provisions adopted by the Conference of the Parties;

[6] In accordance with national circumstances, national forest reference emission levels and/or forest reference levels could be a combination of sub-national forest reference emissions levels and/or forest reference levels."

Introduction

Decision 1/CP.16 requests countries aiming to participate in the REDD+ mechanism to develop a National Forest Reference Emission Level and/or Forest Reference Level (REL/RL). According to decisions 4/CP.15 and -/CP.17, this should be done by taking into account historic data and adjusting for national circumstances[138].

Developing Sri Lanka's forest RELs/RLswill involve several activities:

a) Quantification of *historic emissions/removals* from REDD+ activities (when historic data are available) for a period yet to be defined, at the national and/or sub-national scale, following IPCC guidance and guidelines;
b) Assessment of Sri Lanka's national circumstances; and
c) Assessment of different conservation[139], economic and development scenarios for use in a projected scenario approach to REL/RL development. This will take into consideration direct and underlying drivers such as the goals and targets of the government's overarching development policy framework -*MahindaChintana: Vision for the Future*. It will also consider variables including GDP, population growth, agricultural expansion, industry growth, sectoral development plans, specific investment programs, and/or adjustment coefficients otherwise derived from such factors and data.
d) Investigating the possibility of developing a sub-national REDD+ REL/RL, taking into account that sub-national RELs/RLswill have to be integrated into the national RELs/RLs as per the

[138] The approach will be transparent by following Decision 4/CP.15 which recognizes that Developing Country Parties in establishing forest reference emission levels and forest reference levels should do so transparently taking into account historic data, and adjust for national circumstances (Article 7).

[139] The reference scenario should take into account the permanent forest estate to be established under the current forestry related policies and laws (described under Component 2) and other co-benefits expected under Component 4b.

Cancun and Durban agreements, where sub-national RELs/RLs would only be for an interim period.

RELs/RLs and the MRV system will be the key elements of a future accounting system for payments for emission reductionsunder REDD+. Theyset the yardstick against which the emissions reductions of Sri Lanka's REDD+ policies and interventions will be measured. At this stage, it would be difficult to ascertain whether Sri Lanka's RELs/RLs will be based on historical data only, or on adjusted historical data, or based on projected scenarios. Thus, Sri Lanka's RELs/RLs may use historical information and also national circumstances, including current forest conservation laws, policies and strategy as well as sustainable development needs.[140]RELs/RLs will be designed to meet international standards and requirements under the REDD+ mechanism.

RELs/RLs will be developed so that emissions and removals are directly comparable to the emissions and removals in the reference scenario using the same metrics to ensure consistency between RELs/RLs and the MRV system.

Sri Lanka's historical data on past forest cover change are given in **Annex 3-1.** Due to thefact that specific guidelines for development of RELs/RLs are still evolving, this component will present early ideas on the data to be collected, and the broad methods and approach to establish RELs/RLs, the basic requirements with regards to capacity building and data collection (**Annex 3-2**), a summary of national circumstances (**Annex-3-3**), and the pilot demonstration efforts.

Objectives for Component 3

The objective of Component 3 is to support the development offorest RELs/RLs for Sri Lanka. RELs/RLs will be the base against which the emissions reductions and removals of Sri Lanka's REDD+ policies and interventions will be measured.

This R-PP reflects a proposed work plan and an outline of the data and methods that could be used to establish forest RELs/RLs. It is envisaged that in the R-PP implementation stage, countries will undertake the studies, collect data, finetune the general approach they propose, and work on establishing a national (or as an interim measure, sub-national) RELs/RLs. This approach may evolve over the course of the early work, as and when the international policy process provides further guidance, more data become available and domestic understanding of methods and tools are refined.

Summary of Activities under Component 3

An outline of the activities and steps that need to be accomplished to attain the objectives of this component are presented in Figure 3-1. The proposed steps in Figure 3-1 can also be used as the TORs for accomplishing the objectives of this component.

[140]RELs/RLs should take into account the permanent forest estate to be established under the current forestry related policies and laws (described under Component2) and other co-benefits expected under Component 4b.

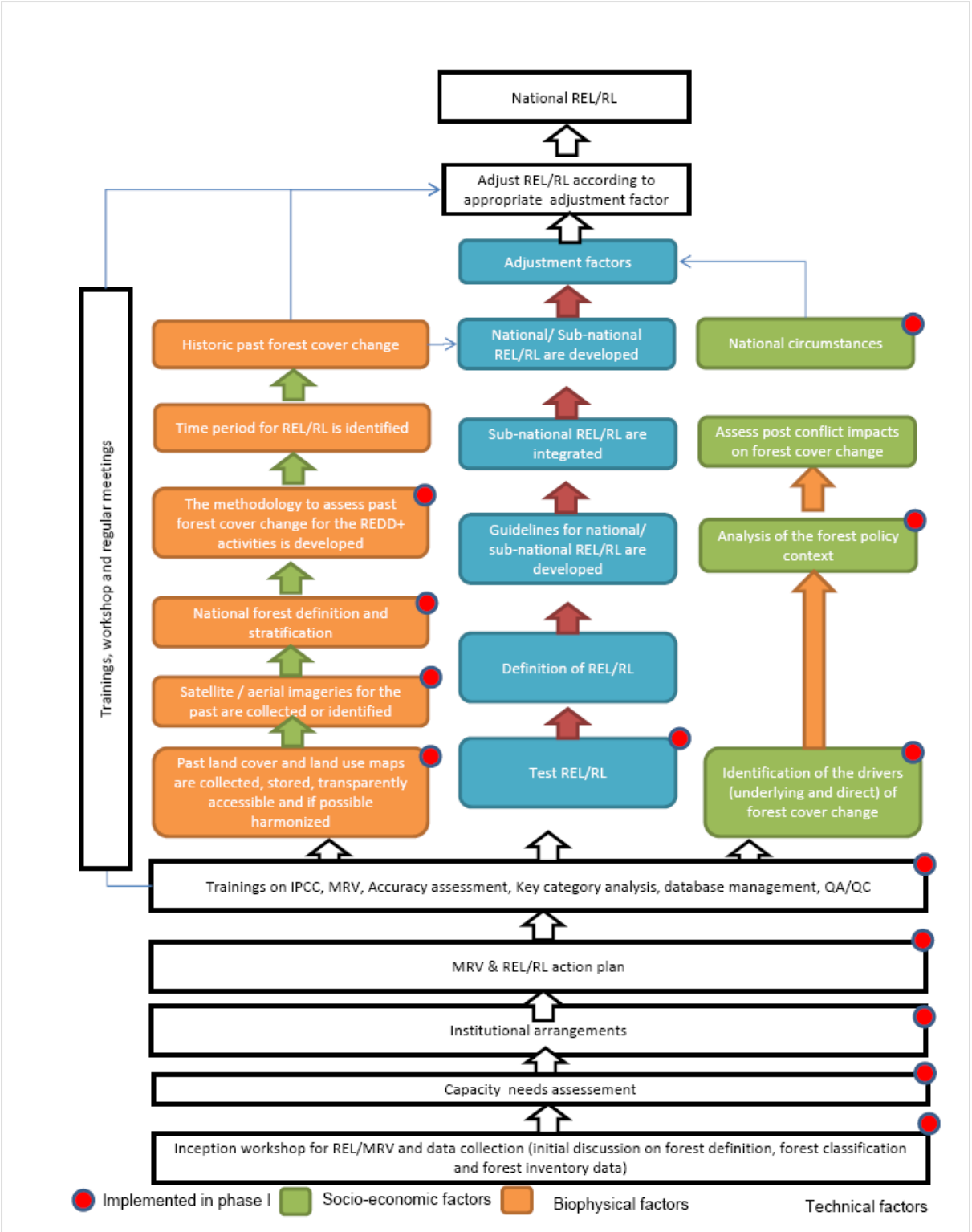


FIGURE 3-1: Activities and steps to accomplish the objectives of Component 3

Description of activities

Activity 3-1: Capacity needs assessment

Finetuning hierarchical structures

Following a formal capacity needs assessment among all groups involved in the REL/RL development process, capacity building will be carried out to address the needs identified. A hierarchical management system for developing RELs/RLs (and the MRV system) is proposed during R-PP preparation **(Annex 3-2),** and this will be further developed under R-PP implementation. Institutional, legal and procedural arrangements will need to be established to allow this system to function. Roles and responsibilities of various institutions will be clearly defined to ensure the necessary coordination to achieve common goals and outputs. This will involve formalization of existing and proposed collaboration and cooperation among key agencies and organizations (both governmental and non-governmental) leading to improved sharing of data and information that is vital to implementing REDD+.

A workshop will be held representing the FD, MoE/CCS, Survey Department,DWLC, Urban Development Authority, NSF/MAB Committee, University Academics, the International Water Management Institute (IWMI) and others as relevant that are involved with remote sensing and measurement of carbon stocks to assess existing capacities. This will be an assessment of (a) institutional arrangements, (b) existing expertise, (c) infrastructure needed to design and implement a plan to establish historic emissions/removals, and (d) how to use historic emissions levels to project RELs/RLs into the future. The institutional structure proposed, and the expected roles of institutions for establishment of RELs/RLs and the MRV system are in **Annex 3-2.** Institutional aspects ofComponent 1a will also be examined and validated (or changed) at this workshop.

The necessary institutional arrangements will be identified based on the assessment of the capacity, mandate and experience of each institution. This will be followed by a consultation and endorsement of the structure by the government. Based on this agreement, adequate legal procedural and institutional arrangements could be achieved. Draft institutional arrangements are presented in **Annex 3-2**.

Activity 3-2: Building capacity to undertake roles and responsibilities

The development of RELs/RLs is based on socio-economic and biophysical factors and requires multi-disciplinary expertise. Capacity building will mainly focus on the assessment of past forest cover change and analysis of the national circumstances that could be used to develop potential adjustment factors.

The present status of information on national forest cover and national forest inventories in **Annex 3-1** demonstrates the lack of regularly gathered precise information on forest cover and resource inventories. This is a major limitation in Sri Lanka. There are no national MRV systems for forest resources, and capacity in this regard needs to be enhanced in the FD and other partner organizations that are involved with documenting forest cover change.

Activity 3-3: Assess Sri Lanka's National Circumstances

Evaluating the national circumstances of Sri Lanka will be based on: (i) analysis of existing and historical social, political and economic data; (ii) existing conservation laws and policies; (iii) analysis of projected future development in Sri Lanka until 2016, until which time the present development policies and plans apply,[141] (iv) vulnerability to climate change and adaptive capacity; and (v) potential forest cover and carbon stock changes through a consultative process.[142]This will also involve:(a) a

[141]Ministry of Finance and Planning (-). MahindaChintana, vision for a new Sri Lanka. A ten year horizon Development Framework 2006-2016.

[142]The process to be led by the REDD+ PMU with the advice and technical support of the TF for RL/MRV, and implemented by working groups on RL/MRV is explained in Annex 3.2.

further assessment of land-use policy, forest policy and governance conducted through the roadmap process with appropriate institutional structures and arrangements (under Components1a, 2c and 2a), and (b) new assessments undertaken as part of the REDD+ Strategy analysis to be conducted during R-PP implementation under Component 2b. In combination with historic data, the above aspects willconstitute the tool on which to base national decisions for the establishment of RELs/RLs. Collating information on these aspects will provide the opportunity to harmonize REDD+ with Sri Lanka's conservation goals, sustainable development priorities, objectives and projects, and circumstances that will have a significant impact on the successful implementation of REDD+ within the broader context of national development.It will alsocreate a platform to promote a better understanding of the country's vulnerability and adaptive capacity to deal with adverse effects of climate change that have been comprehensively documented in the NCCAS, published by the MoE in 2011.

- **Activity 3-4: Post–conflict forest cover assessment**

The UNDP-funded Integrated Strategic Environmental Assessment of the Northern Provincewas carried out to prepare zoning plans for development of the region after the end of the 30-year internal conflict. This involved the post–conflict forest cover assessment and identification of forests and other ecologically sensitive areas for conservation. The assessment has been completed for the Northern Province and will shortly be extended to the Eastern Province. During the assessment, conflicts of interest with regard to land use among key stakeholders were identified. Among the conflicting interests were archeological sites within forests, wildlife conservation areas, mineral resources, human settlements, water resources and urban development.

- **Activity 3-5: Combining past historical data**

Combining historical area changes (deforestation, afforestation/reforestation, forest degradation, improved forest management, areas undergoing carbon stock enhancement) with other supporting data that provide information about the likelihood of future change is important. This will allow the identification of (a) currently forested areas that are under threat of deforestation and forest degradation (especially fire damage), or (b) areas that could undergo sustainable forest management or carbon stock enhancement in the future. It will also enable identification of currently non-forested areas that are suitable for supporting tree cover. The data could include biophysical data such as elevation, rainfall, slope, soil type; land use trends in the country; location of existing forest plantations, roads, protected areas; previously burned areas; agricultural lands; and areas earmarked for re-settlement (in war-affected areas) and infrastructure development. A spatial analysis will be performed combining all of these types of data layers to identify areas within Sri Lanka that are most suitable for each proposed REDD+ strategy intervention.

- **Activity 3-6: Gather data on past forest cover data**

Obtaining historic data for estimating emissions/removals from REDD+-related activities will require the application of different approaches and methods depending on the range of drivers identified in Component 2. In addition to mapping deforestation, remote sensing could be used to map and monitor indicators of forest degradation such as fire scars, agricultural encroachments and expansion of existing slash and burn holdings and some types of forest canopy damage, as well as positive features such as secondary forest recovery.

- **Activity 3-7: Develop methodology to assess past forest cover change**

Remote sensing data are vital to map indicators that can guide field verification programmes to understand the impacts of forest degradation or enhancements of carbon stocks. As the remote sensing signal of small changes in canopy cover of forests can be short-lived, it becomes important to map these signals frequently, possibly annually, to detect forest degradation or enhancement. Thus, a mix of medium resolution and high resolution imagery should be explored to detect changes due to forest area change, fire, logging and destruction from mining as well as forest regeneration, at the national scale.

While data from passive optical sensors can be used with precision to detect distinct forest cover changes, detecting forest degradation is more challenging and requires higher resolution imagery. Further, the accuracy of mapping changes in forest cover for forests remaining as forests would depend on differing forest stand characteristics in various regions.

- **Activity 3-8. Testing different RELs/RLs and possibilities of sub-national RELs/RLs**

For defining historical emissions and removals, and for developing REL/RL, advice will be required from national and international experts trained in modeling land-use change, and land management and forest policies.

Developing future trajectories will include activities such as:

- Defining methodologies for establishing RELs/RLs at national and sub-national scales.
- Identifying and learning from REL/RL methodologies from other countries
- Developing and testing RELs/RLs at sub-national scale with the objective of scaling up to national scale in the future
- Workshop to discuss the development of RELs/RLs
- Assigning a working group of experts to design several potential methodologies for modeling future projections that are appropriate for Sri Lanka's situation and national circumstances
- Capacity building of local staff in the FD and partner institutions on GIS and modelling
- Identifying the accessibility of all the satellite imageries for Sri Lanka. This analysis should allow identification of the potential costs for developing a forest monitoring system.

Indicative Actions Supported by the UN-REDD National Programme (refer to Activities in Component 5)[143]

OUTCOME 5: Monitoring and MRV results for REDD+ activities provided

Output 5.2: National forest monitoring systems established (some Activities under this Output will also be carried out under Component 4a)

Activity 5.2.2. Collate and populate database with mapping information
Activity 5.2.3. Analyse satellite imagery and provide recommendations for forest monitoring
Activity 5.2.10. Develop a forest reference map

Budget: Component 4a

Output 5.4: National circumstances considered for REL/RL

Activity 5.4.1. Assess Sri Lanka's national circumstances
Activity 5.4.2. Assess post conflict impacts on national forest cover, land use planning, rural livelihoods and demographics (in linkage with Activity 4.1.4.)
Activity 5.4.3. Test different socio-economic scenarios on the REL/RL through consultations with local stakeholders to discuss methodologies for modeling future emissions scenarios

Budget: US$ 60,000

Output 5.5: National circumstances considered for REL/RL

[143] These actions are subject to change based on further appraisal before the programme inception.

Activity 5.5.1. Collate past forest cover map and data
Activity 5.5.2. Harmonise the past forest cover data
Activity 5.5.3. Develop national capacities for REL/RL, GIS

Budget: US$ 100,000

Component 4:
Systems for National Forest monitoring, co-benefits and safeguards

Pp

The 15th Conference of the Parties (COP15) to the UNFCCC in 2009 adopted Decision 4/CP.15 on "Methodological guidance for activities relating to reducing emissions from deforestation and forest degradation; the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries" (REDD+). While not defining the structure of the REDD+ mitigation mechanism, Decision 4/CP.15 set out methodological principles that should be followed for measuring forestry emissions and removals (Box 4-1).Paragraph 71 of the Cancun Agreement sets out a number of elements that developing country Parties aiming to undertake REDD+ activities under the Convention are requested to develop:

- A national strategy or action plan;
- A robust and transparent national forest monitoring system for the monitoring and reporting of REDD+ activities; and
- A system for providing information on the REDD+ safeguards.

While the forest monitoring system is presented in Component 4a, the system for providing information on the REDD+ safeguards and co-benefits is presented in component 4b.

Component 4a: National Forest Land Monitoring and Measuring Reporting and Verification Systems

BOX 4-1: Decision 4/CP.15, Methodological guidelines for activities relating to reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries

Note: this COP decision pre-dates the COP 16 decision, but provides useful additional detail on the sense of the Parties relevant to MRV design. *"…Requests developing country Parties, on the basis of work conducted on the methodological issues set out in decision 2/CP.13, paragraphs 7 and 11, to take the following guidelines into account for activities relating to decision 2/CP.13, and without prejudging any further relevant decisions of the Conference of the Parties, in particular those relating to measurement and reporting: (a) To identify drivers of deforestation and forest degradation resulting in emissions and also the means to address these; (b) To identify activities within the country that result in reduced emissions and increased removals, and stabilization of forest carbon stocks; (c) To use the most recent Intergovernmental Panel on Climate Change guidelines and guidelines, as adopted or encouraged by the Conference of the Parties, as appropriate, as a basis for estimating anthropogenic forest-related greenhouse gas emissions by sources and removals by sinks, forest carbon stocks and forest area changes; (d) To establish, according to national circumstances and capabilities, robust and transparent national forest monitoring systems and, if appropriate, sub- national systems as part of national monitoring systems that: (i) Use a combination of remote sensing and ground-based forest carbon inventory approaches for estimating, as appropriate, forest-related greenhouse gas emissions by sources and removals by sinks, forest carbon stocks and forest area changes; (ii) Provide estimates that are transparent, consistent, as agreed by the Conference of the Parties;…"*

Source: http://unfccc.int/files/na/application/pdf/cop15_ddc_auv.pdf

BOX **4-2: COP Decision -/CP.16, National Forest Monitoring System**

"71. … (c) A robust and transparent national forest monitoring system for the monitoring and reporting of the activities referred to in paragraph 70 above, with, if appropriate, subnational monitoring and reporting as an interim measure,[7] in accordance with national circumstances, and with the provisions contained in decision 4/CP.15, and with any further elaboration of those provisions agreed by the Conference of the Parties;

[7] Including monitoring and reporting of emissions displacement at the national level, ifappropriate, and reporting on how displacement of emissions is being addressed, and on the means to integrate subnational monitoring systems into a national monitoring system"

Source: unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf

Introduction

At COP 16 in Cancun, Mexico, parties to the UNFCCC agreed to a series of rules to formally structure REDD+. Importantly, paragraph 73 of the Cancun Agreements "decides that the activities undertaken by Parties referred to in paragraph 70 [the five REDD+ activities] should be implemented in phases". This is significant as it allows developing countries to undertake a learning-by-doing approach, and allows the participation of all potential REDD+ countries regardless of their current national circumstances. Paragraph 73 outlines the activities to be undertaken in each of the three REDD+ phases (see Figure 4a-1) as follows:

Phase 1 focuses on: "Development of national strategies or action plans, policies and measures, and capacity-building". Activities here focus on capacity building, awareness raising and implementation planning, to describe the development and implementation of components for information, monitoring and Measurement, Reporting and Verification (MRV) and the design of systems and tools to be operational during the second phase.

Phase 2 focuses on: "Implementation of national policies and measures and national strategies or action plans that could involve further capacitybuilding, technology development and transfer and results-based demonstration activities". This phase requires the implementation of demonstration (pilot) activities to test strategies and methodologies, as well as (i) a system to make information freely available on how the REDD+ safeguards are being respected, and (ii) a REDD+ monitoring system to monitor the outcomes of the demonstration activities.

Phase 3 focuses on: "Evolution of all the REDD+ activities into results-based actions that should be fully measured, reported and verified". REDD+ is integrated with other mitigation mechanisms under the UNFCCC and national policies and measures that are implemented across the country. The information system continues to provide information on the REDD+ safeguards as relates to national implementation; the REDD+ monitoring system is upgraded to monitor the performance of national REDD+ policies and measures. The MRV system assesses GHG emissions and removals in the forestry sector and allows the country to report this to the UNFCCC Secretariat in a transparent, accountable and verifiable manner.

The time period it takes to progress through the three phases will vary from country to country, depending on existing capacities and capabilities, national circumstances and levels of international support received.

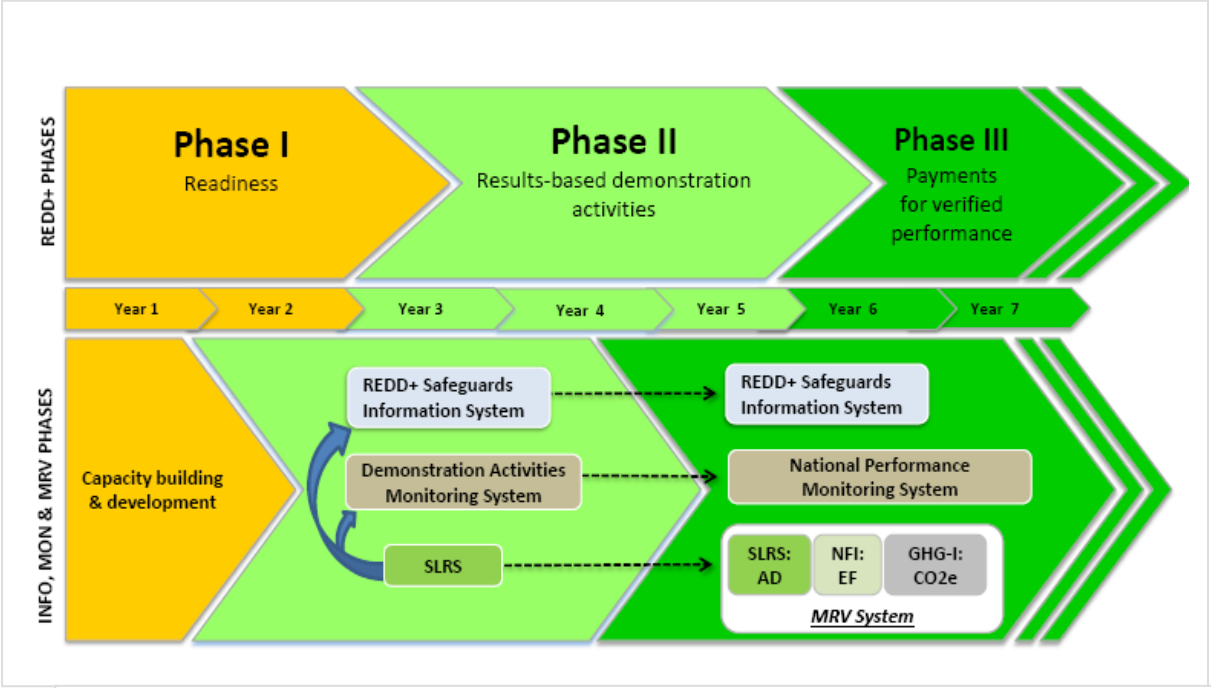


FIGURE 4a-1: Multi-phase implementation of REDD+ through MRV development and components of the Information, Monitoring and MRV System for REDD+.

Decision 1/CP.16 calls for the development of a national forest monitoring system for the monitoring and reporting of REDD+ activities, which reflects the need for two separate, but closely linked, systems. They are:

- **AForest Monitoring System (FMS) for which**:

— Actions under Phase 2 of REDD+ will (a) validate that sub-national demonstration activities are results-based (i.e. result in measureable positive outcomes), which is a requirement of the Convention (Decision 1/CP16 Para. 73),; and (b) provide basic national-level coverage data, e.g. forest cover changes and the location of fires.

— Actions under Phase 3 of REDD+ will validate that implementation of national policies and measures on all the national territory are (a) results-based (i.e. determine how much of each REDD+ activity is taking place over the national territory and how these are changing) through a National Performance Monitoring System; and (b) continue to provide basic national-level coverage data.

- **A MRV system**

This is required for the reporting of REDD+ mitigation performance and to fulfill the REDD+ MRV commitment under the Convention. The purpose of an MRV System is to assess and report on anthropogenic GHG emissions by sources and removals by sinks related to forested land. This system must enable identification and tracking of actions and processes related to the five activities identified under REDD+.

In the IPCC Good Practice Guidance, the most common methodological approach to the **Measurement** component of MRV is to collect information on the extent to which human activity takes place i.e. Activity Data (AD), and coefficients which quantify the emissions or removals per activity unit i.e. Emission Factors (EF). AD and EF are combined to develop a GHG inventory for the REDD+ activities. To collect this data, the MRV system requires a Satellite Land Monitoring System

(LMS) to assess AD on forest area and forest area changes; and a National Forest Inventory (NFI) to assess EFs on carbon stocks and carbon stock changes.Figure 4a-2 shows the IPCC's methodological approach to calculating anthropogenic GHG emissions and sinks related to forested land**.**

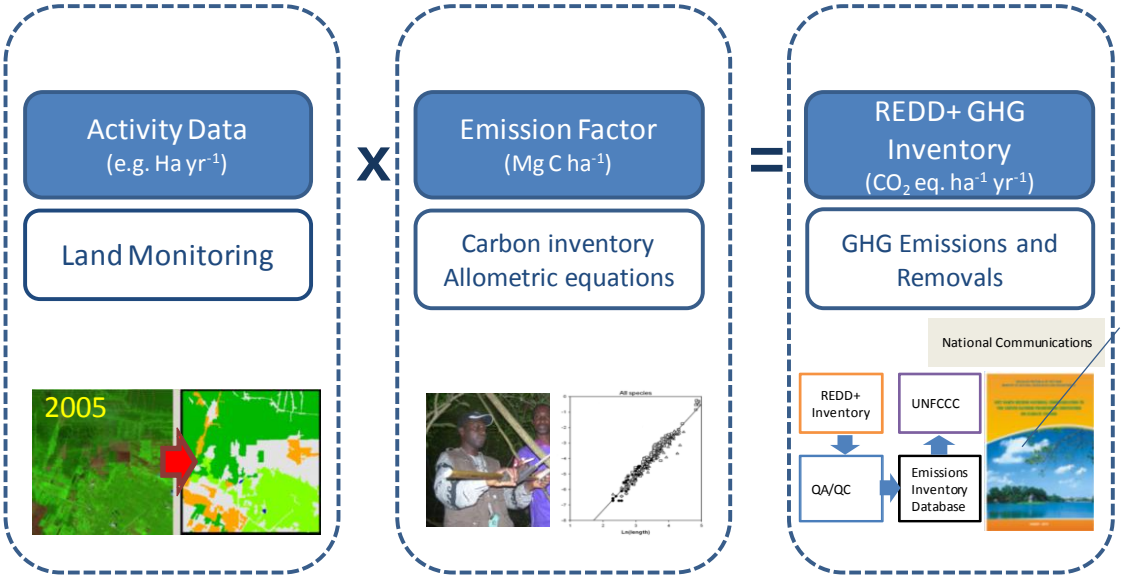


FIGURE 4a-2: The IPCC's methodological approach to calculating anthropogenic GHG emissions by sources and removals by sinks related to forested land

Reporting refers to the compilation and publication of national data, statistics and information in the format of a GHG-Inventory. The GHG-Inventory for REDD+ will form part of Sri Lanka's NC to the UNFCCC Secretariat.

Verification refers to the subsequent process of independent review (checking of the accuracy and reliability), undertaken by the UNFCCC Secretariat through its roster of experts, of reported information and the procedures used to generate information.

Objectives, outcomes and principles

Objectives of Component 4.

The purpose of this component is to design (a) a national forest monitoring system for emissions and removals of GHGs due to avoided deforestation and forest degradation, enhancement of forest carbon stocks, conservation and sustainable management of forests, and (b) an information system for co-benefits and safeguards. These two are complimentary and can be used to get the countries to move towards Phase 2 and then to Phase 3. UNFCCC decisions 1/CP.16 and 4/CP.15 (see Boxes 4-1 and 4-2)request developing countries to develop a national monitoring system for REDD+. In the absence of more definitive guidelines on how a potential REDD+ regime might be structured and its requirements and methods, UNFCCC COP decisions and negotiating texts and discussions offer a broad frameworkfor consideration.

Accordingly, the overall objective of this section is to develop a national forest monitoring system for REDD+ in Sri Lanka that achieves two sub-goals:

(a) Develop a Land Monitoring System

The LMS has to be country-specific in order to better consider the national specificities in terms of anthropogenic activities and interactions with the forest. A system based on satellite images with high frequency allows the implementation of a system of continuous monitoring of all the national territory. Each unplanned change in land cover detected by the satellite-based system will then be assessed on the ground by expert teams to analyze and quantify changes and identify causes and actors. Furthermore, the technical service will determine the need for remedial actions when undesired changes in land cover are detected, and guide the implementation of those actions.

(b) Design an MRV system[144] which allows for transparent and conservative accounting of emissions and removals (measured in tCO_2e)over time, that can be compared against the RELs/RLsdeveloped under Component 3.

A potential roadmap for the development of Sri Lanka's national forest monitoring system is given in**Annex 4a-2**. Accordingly, during R-PP preparation only the steps that are warranted under Phase I will be attempted by Sri Lanka.

Outcomes

The outcome of this component will be the design of a Monitoring& MRV system that can be used to evaluate the performance of REDD+ interventions (strategies) in Sri Lanka, when the system becomes functional in Phase 3. The three main phases are presented in Figure 4a-1.[145]While forest carbon stocks and carbon stock changes will be assessed during the third phase, this component mainly focuses on the establishment of a national forest monitoring system to be operational during the second phase.

Principles

As required by national and international requirements, the MRV system to be developed:

- **Will be nationally tailored,** robust, flexible, transparent, cost-effective, inter-agency,country-driven, and harmonized with the National Forest Policy, the Wildlife Policy, the Forestry Sector Master Plan and the government national development framework, *MahindaChintana – Vision for the Future,* and will specifically respond to national circumstances.

[144]*Note: The MRV system becomes fully operational only in Phase 3. In Phase 2, the forest monitoring system isa way for the country to assess the success of implementing their Policies and measures and will be instrumental for the success of Phase 3.*
[145]*Adapted from the Kenya and Cambodia's R-PPs and discussions with individual experts.*

- **Will follow the most recently** adopted IPCC guidance and guidelines, as encouraged by the UNFCCC, to result in a forest* GHG Inventory reported to the UNFCCC every four years and updated biennially.[146]

** Note:: Sri Lanka will have to decide whether agroforestry (forest analogue home gardens) falls under the national definition of forest land. If this is not feasiblebut the country still needs to monitor the home gardens it is necessary to specify this after considering the REDD+ activities' definitions for potential financial compensation.*

Monitoring of Emissions and Removals

Linkages between REL and MRV

REL/RL and national forest monitoring systems are intimately connected. For example, the data will be stored in the same national database and the same national forest definition will be used.

Linkages between REDD+ strategies and monitoring components

Monitoring and MRV is expected to determine the degree to which the sum total of *all* REDD+ strategies implemented across Sri Lanka result in a reduction of national emissionsfrom the forest sector. Accordingly, MRV will be directly aligned with the REDD+ strategies for Sri Lanka that are finalized during R-PP implementation. Data to be monitored as part of Component 4a will include: activity data that are indicative of deforestation, forest degradation, sustainable forest management, and enhancement of forest carbon stocks in forests and forest analogue home garden lands that would ultimately result in changes in carbon stocks or emission factors.

The REDD+ strategies proposed for Sri Lanka are still evolving, but their finalization during R-PP implementation will require that they be closely linked with existing policy frameworks, and laws and plans that play a key role in forest conservation and management (see details of such laws, policies and plans in **Annex 2a-1).**[147,148]

Summary of Activities under Component 4a

The MRV design and implementation will take a stepwise approach which is provided in detail in **Annex 4a-1**.

The steps set out in **Annex 4a-1**will provide the necessary outputs to design and implement a national MRV system that will monitor the extent to which human activity takes place as measured by forest land area change(AD) and estimation of carbon stock changes(EF). The final details of the national MRV system to be established will be completed during Sri Lanka's R-PP implementation phase, and will involve further consultation.

Gathering activity and emission data will enable calculation of the GHG balance for REDD+. Once the MRV system is in place, the compiling of data and preparation of the national GHG inventory will take place. Reporting will also provide information on national circumstances, vulnerability assessments and safeguards, financial resources and technology transfer, education, training and public awareness activities carried out under REDD+.

[146]The Cancun Agreements require that developing countries complete their full National Communication every four years and a biennial "update report." The biennial update report is to contain "updates of national greenhouse gas inventories including a national inventory report and information on mitigation actions, needs and support received." Emissions reduction actions that receive international support would be subject to international MRV, while actions that are only supported domestically would be subject to domestic MRV "in accordance with general guidelines to be developed under the UNFCCC.

[147]Nissanka, S.P., and Pathinayake, P.S., Estimation of above ground carbon stock in Sinharaja forest using Remote sensory data (power point presentation of case study)

[148]Gunawardena, A. R., Nissanka, S.P., and Dayawansa, N.D.K. (2008). Development of Merchantable Timber Volume Estimation of *Pinuscaribaea* Plantations using Multi-Spectral Satellite Images. Engineer - Vol. XXXXI, No. 05, pp. 68-73.

Emission reductions will be reported to the UNFCCC and verified at the national scale, while any sub-national actions will be integrated into the nationalframework. The exact criterion for sub-national level activities will be tested and selected.

Features of a potential national forest inventory for Sri Lanka are in Figure 4-1. Components of the indicators and monitoring system that are related to co-benefits and to the effectiveness of REDD+ program strategies are summarized in Components 4b.

Indicative Actions Supported by the UN-REDD National Programme (refer to Activities in Component 5)[149]

OUTCOME 5: Monitoring and MRV results for REDD+ activities provided

Output 5.1: MRV process initiated (some Activities under this Output will also be carried out under Components 1a, 2c and 4b)

Activity 5.1.1. Development of the MRV Action Plan while ensuring sustainability
Activity 5.1.2. Enhance general capacities for various stakeholders involved in monitoring and MRV
Activity 5.1.3. Deliver forest sector capacity training on GHG inventory
Activity 5.1.4. Rationalize forest definition and establish a forest stratification system
Activity 5.1.5. Establish a central database and archiving system including the provision of information on REDD+ safeguards (linked to Output 5.6)
Activity 5.1.6. Harmonization of existing EF and AD data and identifying data gaps
Activity 5.1.7. Develop QA/QC procedures for activity data and emission factors

Budget: US$ 600,000

Output 5.2: National forest monitoring systems established (some Activities under this Output will be implemented under Component 3)

Activity 5.2.1. Specific training on forest cover monitoring, remote sensing, GIS and database management etc
Activity 5.2.2. Collate and populate database with mapping information
Activity 5.2.3. Analyze satellite imagery and provide recommendations for forest monitoring
Activity 5.2.4. Identify and validate parameters for forest monitoring system with stakeholders
Activity 5.2.5. Determine the role of community mapping in determining forest cover change
Activity 5.2.6. Undertake a cost benefit analysis for the forest monitoring system.
Activity 5.2.7. Develop and operationalise a country-specific forest monitoring system.
Activity 5.2.8. Develop and deliver training programmes on data interpretation for monitoring systems (as part of the collaboration between FAO and INPE)
Activity 5.2.9. Calibration and field data collection
Activity 5.2.10. Develop a reference forest map

Budget: US$ 355,000

Output 5.3: National forest inventory (NFI) designed

[149] These actions are subject to change based on further appraisal before the programme inception.

Activity 5.3.1. Design the national forest inventory (incl. field manual) (linkage with Output 5.6)
Activity 5.3.2. Specific training on forest inventory
Activity 5.3.3. Develop a tree species and forestry database
Activity 5.3.4. Collate, populate the database and harmonize the data on forest inventories (includingallometric equations, wood density and conversion factors)
Activity 5.3.5. Specific training on allometric equations, wood density, and conversion factors, soils and litter carbon stock assessment, etc. (includingfield training).
Activity 5.3.6. Undertake national consultations for parameters to be included in NFI
Activity 5.3.7. Validate NFI with stakeholders
Activity 5.3.8. Develop emission factors for REDD+-related activities based on existing data
Activity 5.3.9. Carry out field training programmes at demonstration sites to test use of activity data and emission factors

Budget: US$ 170,000

4b. Multiple Benefits, Other Impacts, and Governance

Box 4-3: The Cancun *COP Decision 1/CP.16*: Reporting on Safeguards

Par. 71 calls for: *"(d) A system for providing information on how the safeguards referred to in appendix I to this decision are being addressed and respected throughout the implementation of the activities referred to in paragraph 70…"*

Appendix I Guidance and safeguards…:

… "2. When undertaking the activities referred to in paragraph 70 of this decision, the following safeguards should be promoted and supported: …

(e) Actions are consistent with the conservation of natural forests and biological diversity, ensuring that actions referred to in paragraph 70 of this decision are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits"

source: http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf

Background

It is understood that forests provide a number of ecosystem services and functions. When REDD+ prevents the loss or degradation of forest, in addition to protecting or enhancing carbon stocks, it can generate co-benefits alongside the climate change mitigation effects. They can be:

REDD+

Reducing Emissions from Deforestation and Forest Degradation

+

- Conservation of forest carbon stocks
- Sustainable management of forests
- Enhancement of forest carbon stocks

- ecosystem-based benefits such as conservation of forest biodiversity, water regulation, soil conservation, timber, providing forest foods and other non-timber forest products.
- social benefits, such as forest related jobs and livelihoods, land tenure clarifications, carbon payments, enhanced participation by local people in decision-making regarding forest management and conservation, and improved environmental governance.[150]

Relevance of co-benefits under REDD+

The types, mixture and scale of co-benefits vary between approaches and locations. Various factors can also affect the extent to which these benefits are delivered: the type, location and condition of the forests involved; the type of REDD+ activity undertaken and how it is implemented, and the level of dependence of the local population on forest resources. However, there have been valid concerns that harmful effects to ecosystems could ensue from the implementation of REDD+. Monitoring is thus suggested as a mechanism to support and promote benefits and ensure that safeguards are in place to avoid harm to the ecosystem by REDD+ activities. There are clear synergies and relationships between forest monitoring systems and monitoring multiple benefits. However, gaps in current monitoring schemes exist and it may be necessary to collect extra information so as to get an adequate picture for the multiple benefits and potential harm from REDD+. With careful planning and use of existing monitoring schemes and monitoring data, cost-effective solutions can be devised (FAO/UNDP/UNEP, 2010).[151]

[150] FAO/UNDP/UNEP (2010). Perspectives on REDD. UN-REDD.

[151] FAO/UNDP/UNEP (2010). Perspectives on REDD. UN-REDD Programme.

Understanding the most important co-benefits For Sri Lanka under REDD+

Well-planned and carefully implemented REDD+ actions can have positive outcomes that are additional to emissions reductions. For Sri Lanka, the most important aspect of increased forest cover will be its impacton biodiversity conservation and availability of freshwater (for hydropower, agriculture, domestic use, industry, wildlife and tourism) and soil and water conservation. Biodiversity conservation is a key element of the Nation's Forest and Wildlife Policies as well as the Forestry Sector Master Plan.[152].[153]

- **Biodiversity considerations**

The island is home to a large number of invertebrate species, 3,771 species of flowering plants, 82 freshwater fish, 106 amphibians, 171 reptiles, 492 birds and 91 mammals. There is exceptionally high endemism among plants and animals,[154]and the islandhas been named a global biodiversity hotspot along with the Western Ghats of India.[155] The country also has four forests[156] that are included within the UNESCO Natural World Heritage List, based mainly on their biodiversity values. As such, biodiversity conservation figures prominently among the co-benefits to be gained under REDD+.

- **Watershed functions**

Sri Lanka's forests also support hydrological cycles and provide freshwaterfor agricultural and domestic use to over 20 million people.Hydroelectricity accounts for 52.6% of power generation in the country, according to data for 2010.[157]

- **Livelihood benefits**

A conservative estimate made in 1952 on the contribution of the forestry sector to the national economy of Sri Lanka stood at 6%, mainly from the production of timber, sawn wood and firewood.[158]In terms of employment, the public forestry sector employs nearly 4,800 people, while approximately 550,000 people are involved in informal forestry sector activities across the country[159].

Although forest dependency as a means of livelihood is almost non-existent in villages in the Wet Zone of Sri Lanka and is low in other climatic zones,the collection of NTFPs including medicinal plants and food items - yams, mushrooms, bee honey, and wild fruits– is an important source of rural livelihood. Nearly 18,000 rural people aretotally dependent on such ecosystem services. In addition, the bamboo and rattan industry as well as tourism in and around national parks provide significant sources of income to local communities. Forest biodiversity also has the potential to expand nature- and culture-based tourism.

Therefore, potential co-benefits of REDD+ on livelihoods of local communities and employment across the country are thought to be significant.

[152]MALF (1995). Sri Lanka Forestry Sector Master Plan. Ministry of Agriculture, Lands and Forestry, Sri Lanka.

[153] Currently Sri Lanka is having dialogue with WCMC on possible technical assistance on co-benefits under REDD during R-PP preparation and implementation.

[154]MoE (2010).Sector Vulnerability Profile: Biodiversity and Ecosystem Services. Ministry of Environment, Battarmulla, Sri Lanka.

[155]Dela, J D S. (2009). Fourth National Report from Sri Lanka to the United Nations Convention on Biological Diversity, Ministry of Environment, Sri Lanka (unpublished).

[156]Sinharaja WHS, the Knuckles Conservation Forest, The Peak Wilderness Protected Area and the Horon Plains National Park that are components of the Central Highlands WHS.

[157]Central Bank (2011).Central Bank Annual Report for 2010.

[158]FAO and FD(2009).Sri Lanka Forestry Outlook Study, Working Paper No.APFSOS II/WP/2009/29. Asia Pacific Forestry Sector Study II. Working Paper Series.Food and Agriculture Organization of the United Nations Regional Office for Asia and the Pacific, Bangkok.

[159]FD (1995), Forestry Sector master plan

The impacts of forest co-benefits can be felt at the national level (e.g. through unimpaired water supply and electricity) and at local levels (e.g. through availability of timber from non-forest sources, improved biodiversity, etc.), and at various other levels through benefits such as jobs related to the forest industry andincome from forest-based.Tangible economic impacts of co-benefits could also result in positive perceptions on the value of forests and trees among administrators and policy makers. This will help conservation of forests and forest habitats of threatened species that are increasingly under pressure from population growth and the need for development.

Objectives of Component 4b

Adhering to safeguards

Component 4b outlines a system for provision of information for environmental, social, and other beneficial impacts of REDD+implementation of in Sri Lanka. While the REDD+ strategies selected for Sri Lanka in this regard are expected to have substantial positive social and environmental impacts beyond climate change mitigation, some individuals or groups could also be negatively impacted by the proposed REDD+ strategies.[160]Such impacts require identification and mitigation. Component 4b builds on the safeguards described in Component 2c. However, even without REDD+ interventions, many actions that promote deforestation and forest degradation, such as agricultural encroachment into forests and over-extraction of NTFPs within forest reserves, are already considered illegal by stringent national laws. Taking this into consideration, the social, environmental and other impacts created due to REDD+ implementation will be monitored to reduce any social injustices. The R-PP will develop and implement a set of methodologies for information (i.e., baseline, indicators and verifiers) gathering and provision, as well as a mechanism for providing information on the National REDD+ Safeguards, described in Component 2, to ensure that potential risks are minimized and benefits are enhanced through systematic monitoring of the REDD+ process in Sri Lanka. In the context of multiple-benefits, such monitoring will generate baseline information that enables the identification of potential social and environmental benefits associated with REDD+

REDD+ Safeguards and Multiple Benefits

This R-PP recognizes that the National REDD+ Safeguards together with indicators and verifiers described in Component 2 are not only a mechanism to identify and mitigate potential social and environmental risks, but also to recognize and enhance potential benefits of REDD+ in both environmental and social aspects.

Potential risks and benefits of REDD+ will be found in a wide range of sectors, not just limited to the areas of biodiversity conservation and ecosystems management but also human rights, financial control, poverty reduction and overall sustainable development goals of the country. In this regard, whether or not and to what extent the role of forests in biodiversity conservation for the country is well understood (having clear understanding of the relationship between forests and biodiversity and where critical areas are) would inform the REDD+ process certain potential risks and/or benefits as to how REDD+ activities might interact with the existing baseline conditions. For instance, with having a clear understanding on where critical biodiversity areas and carbon rich forests overlap, REDD+ actions could be design in a way to target the overlapping areas to ensure biodiversity benefits. This is a very important element for Sri Lanka since Sri Lanka's biodiversity rich, and nature-based tourism is an integral part of the national economy.

Similarly, whether or not there are existing policies that give procedural rights to stakeholders surrounding development policies, such as rights to free, prior and informed consent, and the procedures that enable these to be put in place is critical in ensuring that REDD+ actions would not

[160] FAO/UNDP/UNEP (2010). Perspectives on REDD. UN-REDD Programme.

cause conflicts with local communities that depend of forests. The procedural rights of stakeholders are particularly important to Sri Lanka as the country is expected to go through a rapid post-conflict development phase. And, ensuring such rights would benefit not only those who might be affected by REDD+ but also others who would face potential conflicts with development projects in the coming years.

Establishing linkages

Linkages will be built between the REDD+ PMU and other institutions/agencies/individuals through effective communicationunder the leadership of the RPMCCfor enhanced data access, for government departments to make use of existing monitoring schemes for REDD+ and vice-versa. Furthermore, although the provision of information on REDD+ safeguards and multiple benefits from REDD+ perhaps requires a different approach than approaches for carbon monitoring, information will be collected from various sources including the MRV systems and demonstration activities (e.g., national-and local-level information collection) and analyzed to identify baseline conditions and track progress on safeguards and multiple-benefits.

Activities under Component 4b

Description of Activities

The actions to be carried out under Component 4b during R-PP implementation will be done as part of the REDD+ Safeguards work described in Component 2. Theyinclude the following:

- **Activity 4b-1: Develop a framework for provision of information on co-benefits**

Developing a framework for provision of information on the desired changes (i.e. via changes in ecosystem services, biodiversity, governance, and social aspects)is a step-wise process, in which indicators are central.Under R-PP implementation, a TWG under the guidance of the TF on Governance, Policy, Safeguards and Multiple Benefitswill explore the most relevant co-benefits to be monitored under REDD+ and identify indicators for risk mitigation and benefit enhancement.

Several steps are involved in this process:

— ***Step 4b-1a. Conduct preliminary spatial analyses of the potential for multiple benefits and determine the most important co-benefits of REDD+ to be monitored***.

The monitoring systems for carbon can be used for spatial analysis to identify areas that are best suited for multiple benefits - e.g. forests high in biodiversity values. To be effective in terms of effort and costs, this step will also help identify the benefits that enhance certain forest related factors (e.g. biodiversity, water flow, forest related livelihoods such as plantations, ecotourism, and forest governance).

— ***Step 4b-1b. Conduct expanded and more in depth analyses of multiple benefits, pressures and management options, and building capacity for further such analysis.***

— ***Step 4b-1d.Consultation with stakeholders and development of indicators for each co-benefit to be monitored***.

This will enable an early dialogue among key national REDD+ stakeholders in Sri Lanka on REDD+ Safeguards including multiple-benefits to identify specific risks and benefits and indicators for measuring them.

BOX 4b-1: Potential indicators for MRV under REDD+

"In the context of REDD+, Remote Sensing can provide useful information for the following indicators: extent of ecosystems, forest change, rate of deforestation/reforestation, forest intactness, area and number of large forest blocks, forest fragmentation, carbon storage, area and location of old growth forests/plantations, forest degradation, alien species, fire occurrence, productivity and extent to watersheds. Remote Sensing can also provide indirect data for indicators, for instance an estimate of change in forest area, especially if the type of forest is known, will give an indication of change. Data on land use change can also be used in conjunction with modelling to provide estimates of change in the hydrological regime"

(Source: Strand et al. *2007 cited in FAO/UNDP/UNEP, 2010)*

— ***Step 4b-1e. Test and refine indicators with stakeholders to ensure that they are acceptable to all concerned groups.***

The indicators to be developed and tested will cover three aspects[161]:

- Environmental benefits and impacts of REDD+ activities – impacts on natural and plantation forests, biodiversity, related ecosystem services, etc.
- Socio-economic benefits and impact of REDD+ activities –impacts on rights holders including indigenous peoples and gender, livelihoods, traditional knowledge and culture, stakeholder engagement, etc.
- Governance capacity - transparency and accountability (e.g. corruption, rule of law and access to justice, and inclusive decision making)

- ***Step 4b-1f. Provision of Information on National REDD+ Safeguards (including multiple benefits)***

The information on the National REDD+ Safeguardsincluding multiple benefits will need to be made publically available in a transparent and accountable way. The central database, described in Component 4-a will be used to provide this information. An assessment will be carried out to determine the best way to present and provide information through the database based on usability and effectiveness.

Types of Assessment

Social and Environmental Risks and Benefit Assessments

Understanding how REDD+ might impact Sri Lanka's social conditions and environment is very critical in ensuring potential risks and co-benefits are recognized, and appropriate measures are taken in order to mitigate risks and enhance co-benefits. REDD+ would likely have certain impacts on stakeholder rights, livelihoods of local communities, national development planning, economic policy, forest conservation and natural resources management in and outside of forests. Based on the steps described in Component 2c, information and data generated through relevant activities of this R-PP such as the analysis of drivers of deforestation and forest degradation, demonstration of FPIC, etc. will help identify various baseline conditions. Through additional assessments and multi-stakeholder dialogue, specific indicators of risks and co-benefits based on the National REDD+ Safeguards will be identified. Indicators will be identified at two levels – national and local – in order to identify and narrowthe gap between policy and practice.

Governance Assessment[162]

[161]Reference should be made to the Cancun Agreements Appendix I

[162] UNDP's Participatory Governance Assessment (PGA) approach will be considered to assess governance capacity required for REDD+ in Sri Lanka

Limited inter-institutional capacity for coordination and collaboration, inadequate resources and lack of consultation and consensus for large-scale development projects necessitating forest clearance have been identified among major drivers of deforestation and degradation in Sri Lanka.

The correlation between deforestation and weak forest governance - exemplified by weak coordination in regulations and law enforcement, ambiguous land tenure, lack of respect for rights to land and overlapping responsibilities – can be recognized in Sri Lanka. Improving governance may have an indirect but strong impact on curbing deforestation. The characteristics of weak governance concur where there are few accountability mechanisms[163], low levels of transparency, as well as non-participatory decision making processes. Under these conditions, the potential for corruption, invasive illegal and unplanned forest conversion and use, and conflicts over land/ forest ownership and access rights are high.

Improved governance can enhance existing or develop systems for information sharing, which will affect the level of transparency and accountability in a positive direction given that the information is relevant and perceived as trustworthy, that capacity is developed to both demand relevant and provide updated information, and that the provision of information is institutionalized through the daily management of already existing institutions.

In assessing these conditions, independent processes or reports with recommendations for improved governance lack the ownership of national and local actors in both the process and follow up of the recommendations in the reports. Further, they fail to address capacity development to secure know-how on holding government agencies accountable and how governments can be accountable by sharing relevant information on a regular basis. Therefore, a participatory process will be used to:

- Conduct a multi-stakeholder dialogue on governance priorities within the REDD+ strategy, as well as stakeholder consultations on REDD+ policy issues and selecting relevant indicators;
- Develop policy recommendations for policy reform based on evidence and multi-stakeholder dialogue;
- Develop policy recommendations for policy reform based on evidence and multi-stakeholder dialogue;
- Supporting evidence-based policy making and institutionalization the assessment; and
- Establishing a system for providing information on agreed indicators.

Through this assessment, enabling capacities and conditions for transparent and accountable governance will be identified and used as indicators for governance safeguards.

Indicative Actions Supported by the UN-REDD National Programme (refer to Activities in Component 5)[164]

OUTCOME 4: National REDD+ Strategy and Implementation Framework

Output 4.1: Drivers of deforestation and forest degradation, and legal and policy alignment needs identified (some Activities under this Output will be implemented under Component 2c)

Activity 4.1.2. Assess national forest governance systems (linked to Output 5.6)

[163] UNDP publication, 'Staying on Track: Tackling Corruption Risks in Climate Change' (2010) will be used as a guidance material in assessing accountability.

[164] These actions are subject to change based on further appraisal before the programme inception.

Budget: Component 2c

OUTCOME 5: Monitoring and MRV results for REDD+ activities provided

Output 5.1: MRV process initiated(some Activities under this Output will also be carried out under Components 2c and 4a)

Activity 5.1.1. Development of the MRV Action Plan, while ensuring sustainability
Activity 5.1.2. Enhance general capacities for various stakeholders involved in monitoring and MRV

Budget: Component 4a

Output 5.6: Framework for social and environmental risk mitigation and potential multiple benefit enhancement designed (some Activities under this Output will be implemented under Component 2c)

Activity 5.6.1. Assess any existing policies relevant to safeguards (e.g., EIA), and their applicability and effectiveness for REDD+
Activity 5.6.2. Identify and agree on nationally appropriate REDD+ safeguards and indicators
Activity 5.6.3. Develop information gathering methodologies(consultations, secondary data, statistics and survey) and change morning approach through demonstration activities
Activity 5.6.4. Provide information on risks of displacement and reversal for demonstration site
Activity 5.6.5. Collect and analyze information on safeguards using the identified methodologies and approach to identify risks and potential multiple benefits
Activity 5.6.6. Consultation based on analysis results to identify risk mitigation and benefit enhancement measures (linked to Output 4.1)
Activity 5.6.7. Link safeguards information into the central database and archiving system under Output 5.1

Budget: Component 2c

Component 5: Results Framework

Standard 5 the R-PP text needs to meet for this component:
Completeness of information and resource requirements

The R-PP proposes a full suite of activities to achieve REDD-plus readiness, and identifies capacity building and financial resources needed to accomplish these activities. A budget and schedule for funding and technical support requested from the FCPF and/or UN-REDD, as well as from other international sources (e.g., bilateral assistance), are summarized by year and by potential donor. The information presented reflects the priorities in the R-PP, and is sufficient to meet the costs associated with REDD-plus readiness activities identified in the R-PP. Any gaps in funding, or sources of funding, are clearly noted.

Overall Programme Objective through the R-PP implementation is *to catalyse the establishment of key central mechanisms and processes and development of capacities, required to implement REDD+ by the end of the R-PP implementation.*

To achieve this objective, the following Main Activities and Sub-Activities in Table 5-1 are proposed for the period of three years.

Table 5-1. Schedule and Budget

Main Activity (Outcomes)	Sub-Activity (Outputs)	Estimated Cost (USD)			
		Year 1	Year 2	Year 3	Total
National consensus reached on the Sri Lanka REDD + programme	Broad-based, multi-stakeholder national REDD+ advisory group established	35,000	10,000	5,000	50,000
	National legal, procedural and institutional arrangements for sectors relevant for REDD+ reviewed	70,000	70,000	30,000	170,000
	National REDD+ Roadmap prepared	55,000	0	0	55,000
Management Arrangements contributing to the National REDD+ Process	UN-REDD Programme implementation arrangements established	200,000	215,000	220,000	635,000
	Capacity Building Action Plan developed for REDD+	20,000	20,000	0	40,000
Improved Stakeholder Awareness and Effective Engagement	Strategic communication and consultation plan prepared	100,000	153,000	120,000	373,000
	Stakeholder engagement in REDD+ readiness process enhanced (incl. FPIC, the private sector engagement)	70,000	100,000	50,000	220,000
National REDD+ Strategy and Implementation Framework	Drivers of deforestation and forest degradation, and legal and policy alignment needs identified	90,000	50,000	20,000	160,000
	Land tenure and rights clarified	20,000	40,000	10,000	70,000
	Options for addressing deforestation andforest degradation at sub-national level identified	150,000	150,000	150,000	450,000
	Options for equitable and transparent benefit sharing identified	40,000	40,000	20,000	100,000
	National REDD+ Strategy developed	0	10,000	20,000	30,000
Monitoring and MRV	MRV process initiated	200,000	200,000	200,000	600,000

Results for REDD+ Activities Provided	National forest monitoring systems established	125,000	130,000	100,000	355,000
	National forest inventory designed	90,000	60,000	20,000	170,000
	National circumstances considered for REL/RL	20,000	20,000	20,000	60,000
	National REL/RL tested	35,000	35,000	30,000	100,000
	Framework for social and environmental risk mitigation and potential multiple benefit enhancement designed	35,000	35,000	30,318	100,318
Total		1,355,000	1338000	1045318	3,738,318

UN Agency Allocations					
Outcomes	National Total ($)	Pass-through Funding Allocations	FAO ($)	UNDP ($)	UNEP ($)
1. National Consensus Reached on the Sri Lanka REDD+ Programme	275,000		170,000	105,000	0
2. Management t Arrangements Contributing to the National REDD+ Process	675,000		635000	40,000	0
3. Improved Stakeholder Awareness and Effective Engagement	593,000		0	220,000	373,000
4. National REDD+ Strategy and Implementation Framework	810,000		320000	490,000	0
5. Monitoring and MRV results for REDD+ Activities Provided	1,385,318		1285000	60,000	40,318
Sub-total	3,738,318		2,410,000	915,000	413,318
Indirect Support Costs	261,682		168,700	64,050	28,932
Grand Total ($)	4,000,000		2,578,700	979,050	442,250

Table 5-2: Draft Indicative Results Framework below further elaborates onindicativeOutcomes (Main Activities), Outputs (Sub-Activities) and Activities. The UN Agency (ies) identified for each Output is still indicative and a further appraisal and discussions are required to ensure clear roles and responsibilities.

**Please note that a further appraisal process during the inception and the Roadmap phases may suggest amendments to the indicative outcomes, outputs or activities described below.*

Table 5-2. Draft Indicative Results Framework								
Indicative Outcomes	**Indicative Outputs (R-PP Components)**	**Activity No.**	**Indicative activities**	**YR 1 Budget (USD)**	**YR 2 Budget (USD)**	**YR 3 Budget (USD)**	**Total (USD)**	**UN Agency**
OUTCOME 1: National consensus reached on the Sri Lanka REDD + programme	Output 1.1: (Component 1a) Broad-based, multi-stakeholder national REDD+ advisory group established	Activity1.1.1.	Review and finalize draft terms of reference for the National REDD+ RPMCC (advisory group for the National REDD+ process including the UN-REDD Programme)	35,000	10,000	5,000	50,000	UNDP
		Activity1.1.2.	Establish RPMCC , through a ministerial decree					
		Activity1.1.3.	Initiate national coordination workshops					
		Activity1.1.4.	Organize regular meetings of REDD+ stakeholders					
	Output 1.2: (Component 1a and 2c) National legal, procedural and institutional arrangements for sectors relevant for REDD+ reviewed	Activity1.2.1.	Sub-divide RPMCC into thematic groups to conduct gap analysis and recommend actions (e.g., MRV and Monitoring, Policy and Measures & Stakeholder Engagement) (linked to Output 5.6)	70,000	70,000	30,000	170,000	FAO
		Activity1.2.2.	Review institutional and legal arrangements and lessons of the Haritha Lanka programme (including implications of Rio+ 20) and its relevance to REDD+ (Mission 2, 3 & 5)					
		Activity1.2.3.	Stakeholder mapping (public and private sectors, CSO, forest dependent communities and Indigenous Peoples, etc.)					
		Activity1.2.4.	Identity capacity needs in national legal, procedural and institutional arrangements for REDD+					
		Activity1.2.5.	Develop a set of guidelines for management arrangements for the National REDD+ process					
	Output 1.3: (Component 1b) National REDD+ Roadmap prepared	Activity1.3.1.	Consolidate all assessment results from output 1.2.	55,000	0	0	55,000	UNDP
		Activity1.3.2.	Consultation meeting on preparation of the Roadmap					
		Activity1.3.3.	Prepare a National REDD+ Roadmap					
		Activity1.3.4.	Invite public comments on the Roadmap					
		Activity1.3.5.	Finalize the Roadmap through a validation meeting with stakeholders					
OUTCOME 2: Management Arrangements contributing to the National REDD+ Process	Output 2.1: (Component 1a and 2c) UN-REDD Programme implementation arrangements established	Activity2.1.1.	Establish PMU, TFs, TWGs and effective REDD+ management structure and working arrangements	200,000	215,000	220,000	635,000	FAO
		Activity2.1.2.	Establish networks and links between RPMCC, MoE, CCs and other related institutions (Private Sector, CBOs, NGOs, Public Sector, INGOs etc.)					
		Activity2.1.3.	Organize regular meetings and workshops for capacity building					

	Output 2.2: (Component 1a and 2c) Capacity Building Action Plan developed for REDD+ (linked to Output 1.2)	Activity2.2.1.	Identify an effective REDD+ management structure and working arrangements with key institutions and partners – coordinate and collaborate with other development and national partner activities (e.g., assisted regeneration, fires, invasive species, agriculture, timber trade, production and consumption, etc.)	20,000	20,000	0	40,000	UNDP
		Activity2.2.2.	Develop a Competency Framework for REDD+ in Sri Lanka					
		Activity2.2.3.	Design and conduct a Capacity Building Needs Assessment (CBNA) for the forest sector in Sri Lanka, including all stakeholder groups					
Indicative Outcomes	**Indicative Outputs (R-PP Components)**	**Activity No.**	**Indicative activities**	**YR 1 Budget (USD)**	**YR 2 Budget (USD)**	**YR 3 Budget (USD)**	**Total (USD)**	**UN Agency**
OUTCOME 3: Improved Stakeholder Awareness and Effective Engagement	Output 3.1: (Component 1c) Strategic communication and consultation plan prepared	Activity 3.1.1.	Identify target groups (linked to Activity 1.2.3)	100,000	153,000	120,000	373,000	UNEP
		Activity 3.1.2.	Establish communication networks with development partners for increased coordination and collaboration –e.g., linking up with Dayatasevena campaign and DiviNeguma programme, plantation sector, CBOs, NGOs, civil society groups.					
		Activity 3.1.3.	Design and validate communication strategies and plans for target groups for raising awareness, promoting engagement and behavioural changes towards green economy (communication formats, products and feedback/evaluation mechanisms) (linked to Output 5.6)					
		Activity 3.1.4.	Establish a REDD+ website and a media platform, and link with MoE media unit					
		Activity 3.1.5.	Document and disseminate lessons-learnt					
	Output 3.2: (Component 1c and 2c) Stakeholder engagement in REDD+ readiness process enhanced (incl. FPIC, the private sector engagement)	Activity3.2.1.	Agree and establish stakeholder forums linked to the national REDD+ process	70,000	100,000	50,000	220,000	UNDP
		Activity3.2.2.	Support self-organized regular meetings by the stakeholder forums					
		Activity3.2.3.	Consult and identify a plot location for FPIC					
		Activity3.2.4.	Pilot FPIC and document lessons (linked to Output 5.6)					
		Activity3.2.5.	Prepare and validate a national FPIC guideline and application toolkit					
		Activity3.2.6.	Design training programs for FPIC application					
		Activity3.2.7.	Establish a grievance mechanism					

		Activity3.2.8.	Design and implement training on communication and team building for NGOs and CBOs, private sector and other relevant groups					
		Activity3.2.9.	Design and implement customized communication training for relevant institutions.					
		Activity3.2.10.	Enhancement of equipment and material for communication and extension programmes of the FD with regard to REDD+.					
Indicative Outcomes	**Indicative Outputs (R-PP Components)**	**Activity No.**	**Indicative activities**	**YR 1 Budget (USD)**	**YR 2 Budget (USD)**	**YR 3 Budget (USD)**	**Total (USD)**	**UN Agency**
OUTCOME 4: National REDD+ Strategy and Implementation Framework	Output 4.1: (Component 2a, 2c) Drivers of deforestation and forest degradation, and legal and policy alignment needs identified	Activity4.1.1.	Identify drivers of D&D (Further confirmation of the initial assessment of drivers – Annex in RPP)	90,000	50,000	20,000	160,000	UNDP
		Activity4.1.2.	Assess national forest governance systems (linked to Output 5.6)					
		Activity4.1.3.	Assess existing laws and policies to foster policy alignment in the land resources sectors (linked to Output 1.2. and 5.6)					
		Activity4.1.4.	Analyse conflicts of interest between development activities and forest conservation and recommend remedial measures (linked to 5.6)					
		Activity4.1.5.	Conduct an REDD+ opportunity-cost assessment					
		Activity4.1.6.	Provide policy recommendations and sectoral action plans for REDD+ (incl. SFM, agriculture and transformational policies toward green economy)					
		Activity4.1.7.	Validate policy recommendations with stakeholders					
		Activity4.1.8.	Assess the existing laws and policies to foster policy alignment in the relevant sectors (linked to activity 4.2.2)					
	Output 4.2: (Component 2c) Land tenure and rights clarified	Activity4.2.1.	Assess land and forest tenure systems and applicability under REDD+	20,000	40,000	10,000	70,000	FAO
		Activity4.2.2.	Analyse gaps in land ownership and related legislations and policies (including gender issues) (linked to Output 5.6)					
		Activity4.2.3.	Study the meaning and applicability of the concept of 'carbon rights' (linked to Output 5.6)					
		Activity4.2.4.	Consult with stakeholders to promote and develop holistic land-use planning and strategies					
		Activity4.2.5.	Clarify land ownership/tenural rights in alienated lands to enable REDD+ activities and benefit sharing					

	Output 4.3: (Component 2b) Options for addressing deforestation and forest degradation at sub-national level identified	Activity4.3.1.	Resolve conflict related to available guidelines/ legal boundaries with the locals to clarify forest boundary disputes where necessary.	150,000	150,000	150,000	450,000	UNDP/ FAO
		Activity4.3.2.	Review and readdress potential impacts in human/wildlife conflicts through REDD+/SFM activities					
		Activity4.3.3.	Conduct an inventory of reforested areas					
		Activity4.3.4.	Assess opportunity cost of alternate livelihoods/land uses					
		Activity4.3.5.	Assess potential sustainable uses and species to be utilized in enrichment planting in degraded forests					
		Activity4.3.6.	Analyse the status of degraded forests that can be used for assisted regeneration or enrichment planting and provide policy options					
		Activity4.3.7.	Establish an inventory of tree cover outside forests and dynamics of agro-forest gardens (linked to Output 5.2)					
		Activity4.3.8.	Assess potential for private sector engagement in REDD+, including tea and other plantation industries					
		Activity4.3.9.	Develop an approach for Provincial/District level REDD+ Mainstreaming					
		Activity4.3.10.	Analyse lessons from participatory models in the forest sector					
	Output 4.4: (Component 2c) Options for equitable and transparent benefit sharing identified	Activity4.4.1.	Assess existing systems for financial management and distribution (e.g., micro-finance, national pension and healthcare schemes, etc.)	40,000	40,000	20,000	100,000	UNDP
		Activity4.4.2.	Analyse potential benefit sharing arrangements to recommend policy options (linked to Output 5.6)					
		Activity4.4.3.	Validate policy recommendations with stakeholders					
	Output 4.5:(Component 2b) National REDD+ Strategy developed	Activity4.5.1.	Develop national REDD+ strategy options and recommendations based on all assessment and consultation outcomes	0	10,000	20,000	30,000	UNDP
		Activity4.5.2.	Validate national REDD+ strategy options and recommendations with stakeholders					
Indicative Outcomes	**Indicative Outputs (R-PP Components)**	**Activity No.**	**Indicative activities**	**YR 1 Budget (USD)**	**YR 2 Budget (USD)**	**YR 3 Budget (USD)**	**Total (USD)**	**UN Agency**
OUTCOME 5: Monitoring and MRV Results for REDD+ Activities Provided	Output 5.1: (Component 1a, 2c, 4a, 4b)	Activity5.1.1.	Development of the MRV Action Plan& ensure the sustainability while preparing the Action Plan	200,000	200,000	200,000	600,000	FAO
		Activity5.1.2.	Enhance general capacities for various stakeholders involved in monitoring and MRV					

	MRV process initiated	Activity5.1.3.	Deliver forest sector capacity training on GHG inventory					
		Activity5.1.4.	Rationalize forest definition and establish a forest stratification system					
		Activity5.1.5.	Establish a central database and archiving system including the provision of information on REDD+ safeguards (linked to Output 5.6)					
		Activity5.1.6.	Harmonization of existing EF and AD data and identifying data gaps					
		Activity5.1.7.	Develop QA/QC procedures for activity data and emission factors					
	Output 5.2: (Component3 and 4a) National forest monitoring systems established	Activity5.2.1.	Specific training on forest cover monitoring(remote sensing, GIS and database management etc)	125,000	130,000	100,000	355,000	FAO
		Activity5.2.2.	Collate and populate database with mapping information.					
		Activity5.2.3.	Analyse satellite imagery and provide recommendations for forest monitoring.					
		Activity5.2.4.	Identify and validate parameters for forest monitoring system with stakeholders.					
		Activity5.2.5.	Determine the role of community mapping in determining forest cover change.					
		Activity5.2.6.	Undertake a cost benefit analysis for the forest monitoring system.					
		Activity5.2.7.	Develop and operationalize a country-specific forest monitoring system.					
		Activity5.2.8.	Develop and deliver training programmes on data interpretation for monitoring systems (as part of the collaboration between FAO and INPE)					
		Activity5.2.9.	Calibration and field data collection					
		Activity5.2.10.	Develop a reference forest map					
	Output 5.3: (Component 4a) National forest inventory designed	Activity5.3.1.	Design the national forest inventory (incl. field manual) (linkage with Output 5.6)	90,000	60,000	20,000	170,000	FAO
		Activity5.3.2.	Specific training on forest inventory					
		Activity5.3.3.	Develop a tree species and forestry database					
		Activity5.3.4.	Collate, populate the database and harmonize the data on forest inventories (incl. allometric equations, wood density, and conversion factors)					
		Activity5.3.5.	Specific training on allometric equations, wood density, and conversion factors, soils and litter carbon stock assessment, etc. (incl. field training).					
		Activity5.3.6.	Undertake national consultations for parameters to be included in NFI					

		Activity5.3.7.	Validate NFI with stakeholders					
		Activity5.3.8.	Develop emission factors for REDD+-related activities based on existing data					
		Activity5.3.9.	Carry out field training programmes at demonstration sites test use of activity data and emission factors					
	Output 5.4: (Component 3) National circumstances considered for REL/RL	Activity5.4.1.	Assess Sri Lanka's national circumstances	20,000	20,000	20,000	60,000	FAO
		Activity5.4.2.	Assess post conflict impacts on national forest cover, land use planning, rural livelihoods and demographics (in linkage with Activity 4.1.4.)					
		Activity5.4.3.	Test different socio-economic scenarios on the REL/RL through -consultations with local stakeholders to discuss the current thinking and methodologies for modelling future emissions scenarios based on historic emissions					
	Output 5.5: (Component 3) National REL/RL tested	Activity5.5.1.	Collate past forest cover map and data	35,000	35,000	30,000	100,000	FAO
		Activity5.5.2.	Harmonize the past forest cover data					
		Activity5.5.3.	Develop national capacities in REL/RL, GIS					
		Activity5.5.4.	Test REL/RL					
	Output 5.6: (Component 2c and 4b) Framework for social and environmental risk mitigation and potential multiple benefit enhancement designed	Activity5.6.1.	Assess any existing policies relevant to safeguards (e.g., EIA), and their applicability and effectiveness for REDD+	35,000	35,000	30,318	100,318	UNDP/ UNEP
		Activity5.6.2.	Identify and agree on nationally appropriate REDD+ safeguards and indicators					
		Activity5.6.3.	Develop information gathering methodologies(consultations, secondary data, statistics and survey) and change morning approach through demonstration activities					
		Activity5.6.4.	Provide information on risks of displacement and reversal for demonstration site					
		Activity5.6.5.	Collect and analyse information on safeguards using the identified methodologies and approach to identify risks and potential multiple benefits,					
		Activity5.6.6.	Consultation based on analysis results to identify risk mitigation and benefit enhancement measures (linked to Output 4.1)					
		Activity5.6.7.	Link safeguards information into the central database and archiving system under Output 5.1					
Cost Per Year				1,355,000	1338000	1045318	3,738,318	
TOTAL COST								
OUTCOME 1: National consensus reached on the Sri Lanka REDD + program								275,000
OUTCOME 2: Management Arrangements contributing to the National REDD+ Process								675,000

OUTCOME 3: Improved Stakeholder Awareness and Effective Engagement	593,000
OUTCOME 4: National REDD+ Strategy and Implementation Framework	810,000
OUTCOME 5: Monitoring and MRV Results for REDD+ Activities Provided	1,385,318
Sub-Total	3,738,318
Indirect support Cost (7%)	261,682
TOTAL	4,000,000

Component 6

Standard 6 the R-PP text needs to meet for this component:
Design a Program Monitoring and Evaluation Framework

The R-PP adequately describes the indicators that will be used to monitor program performance of the Readiness process and R-PP activities, and to identify in a timely manner any shortfalls in performance timing or quality. The R-PP demonstrates that the framework will assist in transparent management of financial and other resources, to meet the activity schedule.

Reporting and Monitoring

Reporting and monitoring provide opportunities at regular predetermined points to validate the logic of the R-PP implementation, and to make adjustments as needed. Information from systematic monitoring needs to be used to encourage improvements or reinforce plans, as well as provide critical input to evaluation. It is difficult to evaluate a process that is not well designed and that does not systematically monitor its progress.

The relevant impact, outcomes and outputs as derived from the R-PP document, which are to be reported on and monitored during the implementation, shall be included in Component 5. As the result framework does not include baselines, indicators and risks, the below Monitoring Framework provide the necessary parameters for monitoring.

Monitoring and Evaluation Schedule

In order to ensure adaptive management of the process, the R-PP implementation will be monitored and evaluated periodically every six months through internal reviews. There will be a final evaluation carried out by an independent reviewer at the end of the implementation to assess achievements and lessons and to make recommendations for remedial action and future consideration.

Monitoring Framework

Note: the details of this framework will go through a further appraisal before the inception and therefore subject to change.

Indicative Outcomes/Outputs (R-PP Components)	Indicative Indicators (with baselines and indicative timeframe)	Means of Verification	Collection Methods (with indicative timeframe and frequency	Responsibilities	Risks and Assumption
Overall Programme Objective: ***UN-REDD National Programme will have catalysed the establishment of key central mechanisms and processes and development of capacities required to implement REDD+ by the end of the Programme***					
OUTCOME 1: National consensus reached on the Sri Lanka REDD + programme					
Output 1.1: (Component 1a) Broad-based, multi-stakeholder national REDD+ advisory group established	Baseline: no advisory group, but draft ToR available Indicator: • By mid- 2012, national REDD+ advisory group is established and meeting regularly.	Reports and minutes of regular meetings	Collection of reports and Minutes on a quarterly basis	UNDP	Coordination mechanism works effectively
Output 1.2: (Component 1a and 2c) National legal, procedural and institutional arrangements for sectors relevant for REDD+ reviewed	Baseline: work initiated in R-PP preparation Indicators: • By mid-2012, RPMCC sub-groups are established to undertake thematic work. • By early-2013, recommendations are prepared based on reviews and consultations. • By mid-2013, a set of guidelines is developed and moving towards implementation.	Reports, and adopted guidelines by RPMCC	Collection of reports, minutes and guidelines	FAO	Coordination mechanism works effectively
Output 1.3: (Component 1b) National REDD+ Roadmap prepared	Baseline: no roadmap Indicators: • By mid-2013, a draft roadmap available for public review and comments. • By end -2013, the Roadmap officially adopted and guiding further REDD+ readiness process.	Reports, adopted Roadmap by RPMCC, readiness work plan based on Roadmap	Collection of reports, minutes and plans	UNDP	Coordination mechanism works effectively Political will in support of the Roadmap
OUTCOME 2: Management Arrangements contributing to the National REDD+ Process					
Output 2.1: (Component 1a and 2c) UN-REDD Programme implementation arrangements established	Baseline: no PMU, TFs, TWGs or stakeholder networks Indicators: • By mid-2012, MPU and specific TFs and TWGs are established and operational. • By end-2012, stakeholder networks are established and meeting regularly.	Reports and minutes of regular meetings	Collection of reports and Minutes and work plans	FAO	Coordination mechanism works effectively Strong stakeholder interests and enabling conditions exist

Indicative Outcomes/Outputs (R-PP Components)	Indicative Indicators (with baselines and indicative timeframe)	Means of Verification	Collection Methods (with indicative timeframe and frequency	Responsibilities	Risks and Assumption
Output 2.2: (Component 1a and 2c) Capacity Building Action Plan developed for REDD+ (linked to Output 1.2)	Baseline: no capacity assessment done Indicator: • By end-2012, a Competency Framework is designed and adopted. • By mid-2013, a Capacity Building Needs Assessment is complete.	Framework adopted by RPMCC and reports	Collection of reports and work plans	UNDP	Coordination mechanism works effectively
OUTCOME 3: Improved Stakeholder Awareness and Effective Engagement					
Output 3.1: (Component 1c) Strategic communication and consultation plan prepared	Baseline: no REDD+ specific but some relevant materials and processes are available Indicator: • By end-2012, target groups (linked to Output 2.1) are identified. • By early-2013, communication strategies are designed and adopted. • By mid-2013, the website and media platform begin disseminating information, lessons and receiving feedback.	Strategies adopted by RPMCC, a website and media platform	Collection of minutes, reports and stakeholder feedback	UNEP	Coordination mechanism works effectively Information access is possible in remote areas
Output 3.2: (Component 1a and 2c) Stakeholder engagement in REDD+ readiness process enhanced (incl. FPIC, the private sector engagement)	Baseline: preliminary consultation workshops and processes during R-PP preparation mainly at national level Indicator: • By end-2012, at least two independent stakeholder forums are established and having regular meetings. • By end-2013, FPIC is piloted in one district. • By mid-2014, FPIC training programs are designed and implemented. • By end-2014, a grievance mechanism is proposed and tested. • By mid-2015, the grievance mechanism is at least partially operational.	Established forums, reports, minutes, training materials and mechanism	Collection of minutes, reports, briefings, and materials	UNDP	The mechanism is developed to allow effective participation of all relevant stakeholder and they are willing to engage
OUTCOME 4: National REDD+ Strategy and Implementation Framework					
Output 4.1: (Component 2a, 2c) Drivers of deforestation and forest degradation, and legal and policy alignment needs identified	Baseline: Biodiversity and ecosystems assessments, consultations during R-PP preparation Indicator: • By end-2012, an analysis of drivers and national and subnational implementation framework is complete.	Reports and minutes	Collection of reports and minutes	UNDP	Coordination mechanism works effectively Political will in supporting policy and institutional reforms

Indicative Outcomes/Outputs (R-PP Components)	Indicative Indicators (with baselines and indicative timeframe)	Means of Verification	Collection Methods (with indicative timeframe and frequency	Responsibilities	Risks and Assumption
	• By end-2013, an opportunity cost assessment is completed. • By mid-2014, policy recommendations and sectoral action plans are prepared and proposed. • By mid-2015, policy recommendations are at least partially implemented.				
Output 4.2: (Component 2c) Land tenure and rights clarified	Baseline: unclear land tenure and land rights in rural areas Indicator: • By mid-2013, a land and forest tenure assessment and consultations are complete. • By end-2013, a proposal for clarifying land ownership and related rights (e.g., carbon) is adopted by RPMCC.	Reports, minutes, a proposal adopted by RPMCC	Collection of minutes, reports and policy statements	FAO	Coordination mechanism works effectively Political will in supporting policy and institutional reforms
Output 4.3: (Component 2b) Options for addressing deforestation and forest degradation at sub-national level identified	Baseline: some REDD+ relevant lessons already generated Indicator: • By end-2012, three demonstration activities are supported. • By end-2013, four more demonstration activities are supported. • By mid-2014, three more demonstration activities are supported.	Reports, sub-contracting agreements	Collection of minutes and reports, sub-contracting plans	FAO/UNDP	Coordination mechanisms work effectively
Output 4.4: (Component 2c) Options for equitable and transparent benefit sharing identified	Baseline: some relevant lessons from other sectors Indicator: • By mid-2013, an analysis of possible benefit sharing arrangement is complete. • By end-2013, consultation on different benefit sharing mechanisms is complete.	report on benefit sharing approved by RPMCC	Collection of minutes and reports	UNDP	Coordination mechanism works effectively No legal barriers to benefit sharing options
Output 4.5:(Component 2b) National REDD+ Strategy developed	Baseline: no REDD+ roadmap, strategic actions identified during RPP preparation Indicator: • By mid-2014, a National REDD+ Strategy is fully elaborated. • By end-2014, the Strategy officially is endorsed and implementation plans agreed. • By mid-2015, the Strategy is at least partially implemented.	Reports, strategy endorsed by RPMCC, implementation plans	Collection of minutes, reports and policy statements	FAO/UNDP	Coordination mechanism works effectively

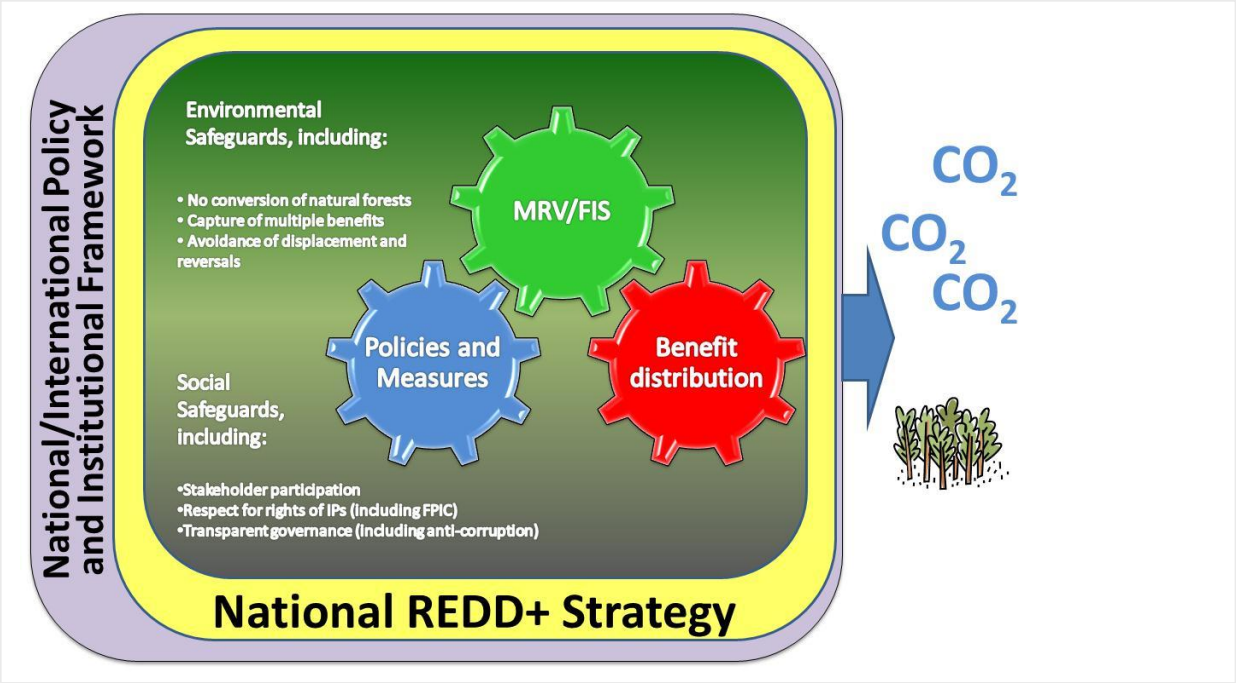
Indicative Outcomes/Outputs (R-PP Components)	Indicative Indicators (with baselines and indicative timeframe)	Means of Verification	Collection Methods (with indicative timeframe and frequency	Responsibilities	Risks and Assumption
OUTCOME 5: Monitoring and MRV Results for REDD+ Activities Provided					
Output 5.1: (Component 1a, 2c, 4a, 4b) MRV process initiated	Baseline: no MRV process in Sri Lanka Indicator: • By mid-2012, a National MRV action plan is elaborated. • By mid-2013, a national forest definition is adopted. • By end-2013, the national central database is developed. • By mid-2015, QA/ QC procedures are operational.	Reports, minutes, training materials and mechanism	Collection of reports and Minutes on a quarterly basis	FAO	Government institutions work Jointly and a formal MRV group is appointed
Output 5.2: (Component3 and 4a) National forest monitoring systems established	Baseline: no Forest Monitoring System in Sri Lanka Indicator: • By mid-2013, existing satellite imageries for Sri Lanka are analyzed. • By end-2013, trainings on Remote sensing and GIS are provided. • By mid-2014, the forest monitoring system for Sri Lanka is operational. • By end-2014, the forest monitoring system is operational. • By mid-2015, a reference forest map is developed.	Reports, minutes, training materials and web-GIS platform	Collection of minutes, reports, data, and materials	FAO	National consensus is reached to identify the forest land and to monitor forest land
Output 5.3: (Component 4a) National forest inventory designed	Baseline: no existing national forest inventory to provide emission factors Indicator: • By mid of 2013, the national tree species and forestry database is developed. • By mid of 2013, the central database is populated with existing data on forest inventories. • By end of 2013, the NFI parameters are identified. • By end of 2014, the National forest inventory is designed.	Reports, minutes, training materials	Collection of minutes, reports, and materials	FAO	The objectives of the NFI are well identified by the government. Adequate technical capacities exist to design the NFI.

Indicative Outcomes/Outputs (R-PP Components)	Indicative Indicators (with baselines and indicative timeframe)	Means of Verification	Collection Methods (with indicative timeframe and frequency	Responsibilities	Risks and Assumption
Output 5.4: (Component 3) National circumstances considered for REL/RL	Baseline: national circumstances analysis is not adapted for REDD+ Indicator: • By mid-2013, the post conflict impacts are assessed. • By end- 2014, the National circumstances are assessed. • By mid-2015, different socio-economic scenarios are tested.	Reports, minutes, training materials and mechanism	Collection of minutes, and reports	FAO	National capacities exist on REL/RL for REDD+. The different stakeholder groups are well coordinated to identify the national circumstances to consider.
Output 5.5: (Component 3) National REL/RL tested	Baseline: no REL/RL exist in Sri Lanka Indicator: • By mid-2013, past forest cover data are collected. • By end-2013, past forest cover data are harmonized. • By end-2014, different REL/RL are tested.	Data, materials and report on REL/RL	Collection of data and report	FAO	Past forest cover data are made available and can be harmonized. Original data are made available.
Output 5.6: (Component 2c and 4b) Framework for social and environmental risk mitigation and potential multiple benefit enhancement designed	Baseline: no safeguards in place Indicator: • By end-2013, nationally appropriate safeguards and indicator are identified. • By mid-2014, National REDD+ safeguards and indicators are tested and submitted for official endorsement. • By end of 2014, the safeguards information is made available in the central database.	National REDD+ Safeguards and indicators, monitoring and information provisioning systems	Collection of minutes, reports and policy statements	UNDP/UNEP	Safeguards can be agreed between all stakeholders

ANNEX 1a-1:
Introduction to the REDD+ Programme and its various requirements

How REDD+ works at the national level is explained in the diagram below. The **three main Elements** in a national REDD+ programme are:

1. A revised **Forest Information System (FIS)** which provides all the data required to accurately monitor changes in forest cover and condition through improved Measurement, Reporting and Verification (MRV) tools
2. The **Policies and Measures** required to achieve reductions in deforestation, forest degradation and enhancement of forest carbon stocks.
3. A system of **Benefit Distribution** to ensure that resources that flow into the forest sector are allocated in such a way as to induce sustained changes in behavior among actors which result in the desired long-term outcomes on the ground.



If these elements are achieved and become functional in the long-term, it is envisaged that deforestation and forest degradation will be reduced. However, to ensure that there are no negative impacts from REDD+ mechanisms, they must be accompanied by a number of **Safeguards.**

These safeguards are specific to national circumstances but will include:

- **Environmental:** Provisions to ensure that REDD+ measures do not result in conversion of natural vegetation, do not result in reduced biodiversity and do not merely displace environmentally unsustainable practices from one location to another
- **Social:** Provisions to ensure that REDD+ measures do not increase poverty, decrease equity or negatively affect the livelihoods of any vulnerable stakeholders. These safeguards will include full multi-

stakeholder participation in all REDD+ decision-making processes, adjustments in forest governance to minimize the opportunity for corrupt practices, and commitment to the principle of obtaining the Free, Prior and Informed Consent (FPIC) of all directly-affected stakeholders at each stage of implementation of a national REDD+ strategy.

The national-level elements and safeguards require enabling institutional systems that function and network, are efficient, transparent and stable at international, national and sub-national levels, and a conducive political environment.

Finally, if the national REDD+ strategy is successful and emission of GHGs (mainly CO_2) are reduced, the international financial systems must also be in place. Funds for REDD+ will flow only if the international community recognizes the value of these reductions and implements a transparent system for countries to be financially rewarded for their performance. Therefore REDD+ can only be viable, in the long-term, in the context of an international agreement on climate change that includes enforceable commitments to emission reductions.

Annex 1a-2:
Stakeholder groups that could play a role in REDD+ R-PP implementation

Government institutions and agencies: Several state sector institutions are responsible for policy formulation, law enforcement and forest conservation (see Table A1a-2 for detailed information). This includes enforcement of legislation and regulations, conflict resolution, service delivery, and ensuring that necessary capacity and technical assistance are available for conservation and development.

Non-Governmental Organizations: Sri Lanka has several strong environmental NGOs that have capacity to raise awareness and preclude very adverse effects on the environment. Out of all NGOs active in environmental and forestry fields in Sri Lanka, the most active ones are Environmental Foundation Ltd (EFL), Wildlife & Nature Protection Society of Sri Lanka (WNPSL), Green Movement of Sri Lanka (GMSL), Sri Lanka Environmental Journalists Forum (SLEJF), Energy Forum of Sri Lanka, Young Zoologists Association (YZA), "*Rukrakaganno"*(Protectors of trees), Sarvodaya,Energy Forum of Sri Lanka, "*SinharajaSumithuro"* (Frends of Sinharaja), *"DumbaraSurakinno"* (Protectors of Knuckles) etc. Apart from above, IUCN (International Union for Nature Conservation) and Practical Action are internationally operated NGOs active in the fields of environment, biodiversity and forestry in Sri Lanka. During the last two decades IUCN has closely collaborated with the Ministry of Environment and the Forest Department and contributed significantly to biodiversity assessment and conservation, forest management planning etc. One of their very recent involvements include preparation of the overall management plan for the Central Highlands World Heritage property recently declared by the UNESCO.

Some National NGOs have strong technical capacity to participate in REDD+ activities, especially under components 1a, 2a, 2b, 3 and 4, and to support government agencies in the implementation of REDD+ Readiness activities. Several national and international NGOs also work in rural areas through allied organizations such as schools' nature clubs, special projects, and community participation. Many NGOs are involved in conservation education, but capacity building is required for effective communication and strategic planning of communication (component 1c).

a) Some national and international level NGOs have high capacity to contribute towards identifying and monitoring forest cover change at field level and for biomass measurements. This human resource can be utilised by collaborative ventures with the FD or DWLC. Some NGOs can offer help monitoring and identification through their network of field officers.
b) There are also national level NGOs that can provide legal advice and monitor application of safeguards during implementation of REDD+.
c) Several small CBOs at local level are effective in working with communities to promote sustainable use of bio-resources and forest conservation. These CBOs rarely obtain support for enhancing their skills, but are willing to collaborate with state institutions, but are often not aware how they can do so.

Civil society: About 70% of Sri Lanka's population is rural,[165] and a considerable segment of this population lives adjacent to forests, particularly in the highly populated Wet Zone. While

[165] MoE (2010). Sector Vulnerability Profile: Urban Development, Human Settlements and Economic Infrastructure.. Ministry of Environment, Sri Lanka

the country has several ethnic groups, there is only one small group of indigenous people – the *Veddha* community. Originally hunter-gatherers, they are now largely integrated with other rural communities (see **Annex 2a-1**). Forest dependency is relatively low in Sri Lanka where there is free education from secondary school to university education and a net enrolment ratio in primary education of more than 98%.[1]Knowledge about environmental laws is relatively low. Rapid economic growth in the country over the past decades, ending of the 30-year civil war in 2009,the high priority for economic, social and infrastructure development, and enhanced democratization at local levels with no corresponding increase in civic consciousness,[166]has had adverse impacts on environmental conservation in the country.

Private Sector: There is low involvement of the private sector in forest conservation in Sri Lanka, with the exception of a few companies engaged in forest plantations. Private companies and individuals are not allowed to harvest the natural forest patches in estate crop plantations, and EIAs and approvals are required for timber extraction from over five hectares of land or conversion of more than one hectare of forest into non-forest use. The FD has also awarded long-term land leases to the private sector to establish commercial forest plantations (see **Annex 2a-2**). Foreign investors can invest in forestry projects in association with local partners and substantial tax benefits are provided by the Sri Lanka Board of Investment.[167]

One model of private sector involvement has been the planting of fast-growing exotic species such as Eucalyptus and Acacia for timber and fuelwood in barren and abandoned lands in former tea and rubber estates. [2] Some other private companies plant timber species such as teak, mahogany, agarwood and sandalwood for the general public to invest in them, with the company managing the trees on their behalf.[2] Touchwood Investments, Sadaharitha Plantations Limited and Help Green have engaged in this model of operation. For example, Touchwood Investments has about 1400 ha of plantations, while Sadaharitha Plantations has over 405 ha of teak and 30 ha of sandalwood at present, and has plans to establish 80 ha of teak and 80 hectares of sandalwood per year over the next 10 years. [2] Help Green had established 1909 ha of teak plantations in the Dry Zone of Sri Lanka. However, there is no precise knowledge of the extent of private sector plantations.[2]The private sector plantation operations are said to be constrained by lack of suitable land (sizeable areas for cost-effective operations), unclear land titles and complicated tax regulations. [2] Successful engagement with the private sector will be a necessary step for future initiatives for REDD+ activities.

Local communities: The cultural history of Sri Lanka is highly supportive of forest conservation, but long-term community participation in forest management remains successful only in a very limited number of locations. Due to high literacy rates, local communities have potential to be engaged in decision-making and technical aspects of Monitoring and MRV activities under component 4. A large number of community participation projects have been carried out to date in the forest and wildlife sector (see annex 2a-2 for details) but few have proved successful beyond the project's lifetime. The UN-REDD Programme needs to review lessons learned so far to develop a strategy for engaging communities in participatory forest conservation activities (see Output 4.3).

Knowledge networks: Knowledge Networks under government institutions include the comprehensive forest databases with the FD, DWLC'sNational Biodiversity Database, the CEA'sEnvironmental Information Network andthe CCD's databases on coastal and marine

[166] Interviews with stakeholders for preparation of this R-PP.

[167] Chokkalingam, U. and Vanniarachchy, S. A. (2011). Sri Lanka's REDD+ Potential: Myth or Reality? Forest Carbon Asia Country Profile Report No. 1: Sri Lanka

biodiversity and habitats. Other networks include those of the Open University (network facilities with four regional centres and 18 study centres), Council for Agriciultural Research Policy (CARP), which has an information coordinator and data of agricultural interests;, and NSF, which hosts the Sri Lanka Scientific and Technical Information Centre (SLISTIC). The SLSTIC is the focal point for the dissemination of information on science and technology. SLSTIC has web-hosting facilities for science and technology institutions and acts as a node for the Lanka Education, Academic and Research Network (LEARN) established by the Universities.

Development Partners: The World Bank, ADB, UNDP, FAO and JICA have provided strong support for forest conservation and for addressing climate change, including the National Conservation Review of Forests, management planning, National Capacity Self-needs Assessment for biodiversity conservation, addressing climate change and land degradation.

FAO and UNDP have been supportive throughout the preparation of the R-PP and there is dialogue with UNEP-WCMC on how best to obtain its assistance for work on ensuring multiple benefits of REDD+. The support of development partners will be vital to link national and international actionsand the establishment of a National REDD+ Programme.

Table A1a-2 Stakeholder Analysis of key institutionsto be involved in the National REDD+ Programme and UN-REDD National Programme

Stakeholder	Propose Membership in REDD+ institutional arrangements	Desired influence
Government Institutions		
Ministry of Environment (MoE)		
As the focal point for UNFCCC and Kiyoto Protocol will be the implementing partner In the UN-REDD National Programme The main functions related to REDD+ Readiness includes coordinating and harmonizing policies, plans, programmes and projects related to environment and climate change, and policy and strategy formulation and regulation related to forestry with the National REDD+ Programme.	Chair of the Programme Executive Board and the National REDD+ Programme Management Coordinating Committee (RPMCC)	Should be the most influential body to coordinate high-level commitment, promote conflict resolution and ensure cross-sectoral collaboration.
Ministry of Finance and Planning		
Responsible for formulation and implementation of policies, programmes and project related to Finance & Planning and Economic Reforms. It is also responsible for preparation of the annual budget and management of financial resource and planning and management of integrated development through collaborating with relevant Ministries. This is done through the Department of National Planning and liaising with donor agencies and international financial institutions through Department of External Resources.	A member of the RPMCC [Treasury], PEB and TFs on financial flows	Policy advice on financial matters and smooth flow of funding for REDD+ and integration of REDD+ activities, needs and concerns into national planning.
Ministry of Lands and Land Development		
Responsible for sustainable management and development of land resources for optimal utilization based on a national policy. It is also responsible for preparation of land-use plans at national and regional level, private sector and people's participation in the sustainable use of land resources, identifying and protecting environmentally sensitive areas, allocation of natural forests firstly for conservation and secondly for regulated multiple use production forestry and ensuring that all forests are brought under sustainable management.	A member of the RPMCC and PEB and TFs	Updating of the land-use policy to help contain deforestation and forest degradation and harmonizing it with the forest and wildlife policies. Ensure rational land-use planning
• **The Forest Department (FD)**	•	•
The FD is responsible for the conservation and development of forest resources. It implements the National Forest Policy, the Forestry Sector Master Plan and the Forest Ordinance (FO). The FD is also responsible for implementing the National Heritage Wilderness Area Act No. 3 of 1988. The REDD+ Programme Management Unit is positioned in the FD.	Key implementing partner in the UN-REDD National Programme and location of the National Programme Director. A member of the RPMCC, PEB and key contributor to TFs.	Through selected DFOs the FD will facilitate Programme activities at the sub-national level.
• **The Department of Wildlife Conservation (DWLC)**		

The DWLC is primarily responsible for the implementation of the FFPO which recognises six categories of wildlife reserves. The FFPO, besides protecting animal and plant life within the national wildlife reserves in both terrestrial and marine areas, has provision to protect certain categories of animals and plants, and lists penalties for violation of the law. Wildlife conservation by the DWLC is facilitated through implementation of the National Policy for Wildlife Conservation.	A member of the RPMCC and the PRB. Staff in TFs and TWG	Overall support to the UN-REDD National Programme and the National REDD+ Programme in areas under the purview of the DWLC. Supporting DFOs at the sub-national level.
(More details on the FD and DWLC are given in the introduction, component 2a and Annex 2a-1).		
• **The Central Environmental Authority (CEA)**		
Responsible for integrating environmental considerations in the development process of the country through the Mandatory EIA process for all prescribed development activities under the NEA. The CEA was originally established under the National Environmental Act of 1980 as a policy formulation and co-ordinating body for environmental management. Subsequently, it received adequate authority and regulatory authority under the 1988 revision of the NEA to control environmental pollution and to mitigate the adverse impacts of development activities through legally binding EPL and EIA procedures respectively. Under the NEA, the CEA can declare environmentally sensitive areas as Environmental Protection Areas where development activities are regulated. This is particularly applicable to buffer zones of forests and privately held forests of high biodiversity or watershed value. The activities of the CEA are decentralized via eight regional offices that have authority to award EPLs, carry out the CEA's monitoring functions, and where relevant to carry out EIA procedures of prescribed projects with less complexity and magnitude such as small housing projects, small scale land clearing, etc. The CEA has also Divisional Environmental Offices (DEOs) placed in the Divisional Secretariat Offices to help address environmental matters at the local levels. These officers are expected to advise the Divisional Secretaries on environmental matters, such as awarding permits for sand mining and awarding of minor permits within the Coastal Zone on behalf of the Coast Conservation Department, and to carry out environmental awareness at the local level. The Wayamba Environmental Authority has been setup under the North Western Provincial Administration.	A member of the RPMCC and PEB. Staff in TFs and TWG	Ensuring that relevant EIAs are carried out by state and non-state parties for development that involves clearing forest lands. Supporting DFOs at the sub-national level through Divisional Environmental Offices (DEOs) placed in the Divisional Secretariat Offices.
• **The Urban Development Authority**		
The Urban Development Authority (UDA) promotes the integrated planning and implementation of social, economic and physical development of areas declared as "Urban development areas". The UDA urban areas include 1 km inland from the coast in all areas of the	A member of the RPMCC Staff in TFs and TWG as relevant	Focus on agroforestry systems and forest plantations during urban planning.

coastal zone. The planning committee of the UDA looks into all environmental aspects of urban development within their jurisdiction. Already 42 Urban Development Plans have been gazetted. There are monitoring and coordination committees for each major project undertaken by the UDA. However this does not always happen in practice.		Supporting DFOs at the sub-national level through local authority level in Urban Councils.
• **The Coast Conservation Department (CCD)**		
The Coast Conservation Department (CCD)is located under the Ministry dealing with Ports and Aviation, and is the prime agency responsible for coastal issues. Its mandate provides it with a key role in conserving and managing coastal and marine biodiversity according to the periodically revised Coastal Zone Management Plan. The Director of the Coast Conservation Department is responsible for administration and implementation of the provisions of the Coast Conservation Act, including the survey and inventorization of coastal resources. The CCD is also responsible for the conservation and management of natural coastal habitats and areas of cultural and recreational value in the coastal zone. Programmes carried out by the CCD cover mitigating coastal erosion, policy development and coastal resources management, including issuing of permits for coastal development and revision of the Coastal Zone Management Plans periodically to regulate and control development activities in the coastal zone.	A member of the RPMCC Staff in relevant TWG	Providing support related to coastal zone issues, particularly with regard to reducing clearing and degradation of mangrove areas and coastal forests.
• **The Department of Agriculture (DOA)**		
The Department of Agriculture (DOA)deals with formulation/reform of policy/law/and regulations pertaining to the agricultural sector. It has several divisions, centres and research institutes that play a vital role in enhancing agricultural productivity. These include the: Horticultural Research and Development Institute (HORDI), Rice Research and Development Institute (RRDI), Field Crops Research and Development Institute (FCRDI), Seed Certification and Plant Protection Centre (SCPPC), Extension and Education Division, and the Seed and Planting Materials Division. The DOA has several Regional Agricultural Research and Development Centres (RARDCs) and a further network of research sub-stations island-wide. • **The Natural Resource Management Centre** The Centre functions under the DOA and deals with formulation and reform of agricultural policy/laws and regulations for the DOA. It is also responsible for promoting and implementing the Soil Conservation Act and for implementing laws and policies with respect to the agricultural sector. • **Horticultural Research and Development Institute (HORDI)** This is the main national institute mandated to undertake *ex-situ* conservation of horticultural crops and for information management and dissemination for	A member of the RPMCC through HORDI. Staff in TFs and TWGs.	Providing support with regard to reducing forest encroachments for agriculture through assistance for intensive agriculture and support for agro-forestry in home gardens via HORDI. Support from NRMC to harmonise Agricultural Policy with the National Forest Policy. Support from the SCPPC to reduce the impacts of the problem of import of accidentally introduced invasive species.

horticultural crops. HORDI carries out extension services at the central and regional levels through its six regional centres. • **Seed Certification and Plant Protection Centre (SCPPC)** This institution addresses plant quarantine and seed health. The National Plant Quarantine Service, the Office of the Registrar of Pesticides, the Plant Protection Service, the Seed Certification Service and the Plant Genetic Resources Centre (PGRC) function under the SCPPC. The SCPPC is responsible for the implementation of the Plant Protection Act No. 35 of 1999, the Seed Act of 2002 and the Control of Pesticides Act No. 33 of 1980 as amended by Act No. 6 of 1994.		
• **The State Timber Corporation (STC)**		
The functions of the State Timber Corporation are for extraction of timber from state plantation forests, conversion of such timber into sawntimber and finished products, sale of logs, sawn timber and finished products and construction of forest roads required for the above purpose. It also provides for the operation of timber and firewood sales depots, manufacture and marketing of any by-products from timber, import of timber, afforestation, reforestation and scientific management of forests and forest plantations, agricultural production, export of timber related finished and semi -finished products amongst other activities. The State Timber Corporation functions under the Minister of Environment & Natural Resources.	A member of the RPMCC	Collation of data on timber felling and assistance for setting up state-owned timber depots in buffer zones of forests where private timber mills are prohibited.
• **The National Science Foundation:**		
The National Science Foundationinitiates, facilitates and supports scientific research byuniversities,science, and technology institutions and scientists. It also facilitates the exchange of scientific information among scientists in Sri Lanka and foreign countries. It also hosts the UNESCO National Man and the Biosphere Committee of the National Science Foundation, which can play a major role in the National REDD+ Programme.	A member of the RPMCC and TFs	Support through prioritising for research funding and programme support via the National MAB Programme
• **Department of National Planning**		
The Department of National Planningresponsible for preparation of Long Term /Medium Term Development Plans, the Investment Programmes, the macro-economic framework and strategies and preparation of the project pipe line.	A member of the RPMCC. Staff in TFs	Enable coordination of National REDD+ Programme with broad national development plans
• **Department of External Resources**		
The Department of External Resourcesis responsible for mobilizing and coordinating foreign assistance to Sri Lanka and to facilitate achievement of the development objectives highlighted in the Development Policy Framework of the Government of Sri Lanka. It is responsible for coordinating, negotiating and mobilizing foreign financing for investments at favorable terms and	A member of the RPMCC and PEB. Staff in financial flows and monitoring TFs	Enable prioritization of REDD+ financing for inward development investment

conditions and to ensure effective utilization of foreign financing by the Line Ministries and Agencies under them.		
• **Implementers of the *Deyata Severna* National Tree Planting Programme**		
This is a large-scale national tree planting campaign that is carried out in all districts. It is coordinated by the District Secretaries. One of the aims of this project is to increase canopy cover with the aim of conserving biodiversity and reducing the adverse impacts of climate change.	A member of the RPMCC and PEB and TFs.	Coordinate REDD+ activities with existing afforestation efforts
■ **University academics**		
Stakeholder consultations have identified academics from the Department of Botany, Faculty of Science, Universities of Peradeniya; Department of Crop Science, Faculty of Agriculture, University of Peradeniya and Department of Environmental Science and Forestry, University of Sri Jayawardenapura as key resource persons for the National REDD+ Programme.	Membership of the RPMCC, PEB, TFs and TWGs	Facilitate research required for REDD+ Programme
■ **Non Governmental Organizations (NGOs)**		
There are many NGOs and CBOs actively involved in environmental issues in the country and some of them are associated with forest conservation and climate change activities. They are potential members of the RPMCC, and the Task Forces as the initiatives, research and lessons learned and experiences gained by these stakeholders should be utilized for the REDD+ programme.	Membership in the PEB RPMCC, TFs and TWGs	Central role in ensuring effective consultation and compliance with the principles of FPIC
■ **Community Based Organisations (CBOs), indigenous peoples and local community members**		
The implementation of the UN-REDD National Programme needs to involve grassroots organizations. Such organizations will participate in the design and validation of the REDD+ mechanism, particularly in the identification of sites for field testing. Priority would be given to CBOs that have already been involved with FD and DWLC initiatives for participatory conservation and tree planting (see Annex 2a-3), but new CBOs will also be identified in regions where such programmes have not been carried out as yet (e.g. in the North and the East). *(Mechanisms for direct participation of communities will be further discussed during the R-PP implementation and consultations of communities by FD field staf.).*	Membership in of the PEB RPMCC, NRSC, TFs and TWGs	Active support during development and implementation of the REDD+ strategies, design of MRV and monitoring, ensuring compliance with safeguards and ethics and determination of benefit sharing under a REDD+ mechanism. Participating in pilot projects. Commitment within the REDD+ process to carryout a bottom up approach via TWGs to ensure that community voice are heard and respected in the entirely of the REDD+ programme.
■ **Private Sector Organizations**		
Some private sector organizations involved in Climate Change, CDM and forestry activities have been involved in the preparation of the R-PP and their support is essential for its implementation.	Membership in RPMCC and TFs and TWGs.	Participate in strategy development and pilot projects.

■ **Media**		
The media can play a significant role in raising awareness and can have a considerable impact on ensuring that the community voices are heard and acted upon and that social and environmental safeguards are adhered to. A REDD+ media network should be established to ensure transparency of allactivities and to encourage media programmes from various radio and TV channels to report on REDD+ activities. Local people from all provinces and indigenous peoples would be featured over these media programmes in addition to the other stakeholders. This will also ensure multiple-benefits as issues pertaining to forest biodiversity conservation and damage to watershed would also be featured in these programme.	Membership in TFS and TWGs. Facilitators of media programmes among various channels and a special monthly panel discussion on REDD+ via the Sri Lanka Rupavahini Corporation.	Major contribution to (1) awareness building on REDD+, (2) its benefits and pitfalls so, and (3) a platform for voices to be heard from the local level, from civil society, CBOs, local communities and indigenous peoples representatives.

Annex 1a-3:
Terms of reference for institutions/bodies to be established and their roles and responsibilities

Programme Management Unit (PMU)

- **Roles and Responsibilities**

The UN-REDD National Programme will be headed by a National Programme Director (NPD) based at the Forest Department. The Programme Management Unit (PMU) will serve the NPD and is responsible for day-today management of the Programme, including the work of the Task Forces. Furthermore, it is responsible for the development and implementation of work plans and budgets (in close collaboration with FAO, UNDP and UNEP) andthe organization of PEB meetings, and maintains transparent and accessible records. Key staff members of the PMU include a Programme Manager, Senior Technical Advisor, a Communications Officer, an Administrative Officer, an Administration Officer and at least one Secretary.

- **Provisional TOR**

Under the supervision of the NPD, carry out day-to-day management of the UN-REDD National Programme, including coordination, communication, programme and financial management and administrative matters as needed. The PMU will:

- Establish and provide secretarialand management assistance to the NPD, the Task Forces and Technical Working Groups, and at least initially to the REDD+ Programme Management Coordinating Committee (RPMCC). Until a National REDD+ Programme and a REDD+ Office have been established and are fully functional.
- Ensure coordination with FAO, UNDP and UNEP activities for overall UN-REDD National Programme implementation in the country.
- Provide assistance in establishing the National REDD+ Programme and a REDD+ Office.
- Support the preparation of the Communication and Consultation Strategy and Plan (CCSP) and implement all components of the plan.
- With the assistance of the RPMCC and TFs, prepare comprehensive annual and quarterly work plans and operational budgets.
- Advise the Forest Department and the UN Agencies on revisions to work plans and budget plans in response to changing circumstances.
- Prepare Terms of Reference (ToR) for required inputs (individual and institutional consultancy services, the procurement of goods, organization of training, seminars, etc.), and submit these to the NPD and relevant UN Agencies.
- Ensure that all agreements with implementing agencies are prepared, negotiated, agreed upon and executed to the expected standards in a timely manner.
- Liaise and coordinate with relevant government departments and key external organizations on technical issues related to implementation of the UN-REDD National Programme.
- Lead the planning, organisation and convening of relevant stakeholders' participation in the PEB and the RPMCC.
- With respect to external project implementing agencies/ sub-contractors:

- Ensure that these agencies mobilize and deliver the inputs in accordance with their letters of agreement or contracts;
- Provide overall supervision and/or coordination of their work to ensure the production of the expected outputs.

— Review project resource requirements and provide advice to the NPD and PEB on the need for budget adjustments and possible revisions.
— Ensure coordination of UN-REDD National Programme activities with other REDD+ initiatives in the country.
— Build relations and effective networks with relevant existing and potentialpartners, policy makers, business, donors and civil society actors to further the interests of the Programme.
— Mobilize competent national and international experts.
— Follow-up and ensure that required inputs are processed in a timely and transparent manner and attest to the timeliness of submission and the quality of goods and services procured for the Programme.
— Ensure monitoring, evaluation and audits, including reports, are undertaken as per the Programme's Monitoring and Evaluation Plan.
— Develop and implement monitoring and evaluation mechanism for the Programme's financial, administrative, and operational activities and ensure timely submission of progress and financial reports.
— Report regularly onproject progress and problemsto the NPD.

• **Staffing**

Key staff members of the PMU include a Programme Manager, Senior Technical Advisor, a Communications Officer, an Administration Officer and at least one Secretary. In addition, FAO will provide support for one MRV specialist.

■ REDD+ Programme Management Coordinating Committee (RPMCC)

• Roles and responsibilities

The RPMCC is an advisory body with a mandate to advise the Ministry of Environment (MoE) on the development of REDD+ Readiness and the National REDD+ Programme. The decision-making authority for the National REDD+ Programme will be the REDD+ Programme Management and Coordinating Committee (RPMCC). The RPMCC will provide overall guidance and direction to the National REDD+ Readiness Process, including the development of the Roadmap and on matters related to cross-sectoral and inter-agency coordination and collaboration. The RPMCC, therefore, will ensure the overall coordination and collaboration between all REDD+ relevant initiatives, supported by various development partners and national institutions, including the UN-REDD Programme in order for Sir Lanka to attain REDD+ Readiness in the most cost-effective and coherent manner.

The RPMCC will initially meet monthly, and later at least quarterly. It will be chaired by the Secretary to the MoE. Initially, at its establishment, the National Programme Director of the UN-REDD National Programme will act as its Secretary, and the UN-REDD Programme Management Unit (PMU) will provide secretarial functions for the RPMCC and ensure that all documents including minutes relevant to meetings and reports are circulated in time to ensure informed advice and decisions from the RPMCC.

A large number of government agencies, high-level policy makers,civil society, private sector, communities and other stakeholders will be part of the RPMCC.

- **Provisional TOR**

- Advise on the establishment of the National REDD+ Programme and the National REDD+ Office.
- Provide strategic direction for the implementation of the UN-REDDNational Programme.
- Enhance inter-agency and inter-sectoral coordination and collaborative approach of Programme activities.
- Advise on issues brought to the attention of RPMCC by key stakeholders.
- Prepare draft TORs for Task Forces in close collaboration with the NPD and monitor progress of their work.
- Approve setting up of TWGs on the recommendation of TFs and the NPD.
- Advise on resource mobilization for implementing activities under the National REDD+ Programme.
- Provide guidance on the implementation of REDD+ activities by various development partners.
- Provide guidance on overall capacity building, adherence to safeguards under REDD+.
- Drive the roadmap development process and advise on the development of the REDD+ Strategy.
- Ensure that community-level concerns are heard and acted upon and that community partners are given due recognition in benefit sharing.

The REDD+ Technical Task Forces (TFs)

The Task Forces that are initially envisaged as part of the management structure for the UN-REDD National Programme, and their respective functions, are as follows:

- ***TF on Governance, policy, and safeguards and multiple benefits:*** Responsible for harmonising REDD+ with national policies, laws and plans, ensuring multiple benefits and formulating and establishing safeguards and developing guidelines for REDD+ pilot projects. It will develop nationally appropriate social and environmental safeguards as part of the UN-REDD National Programme implementation framework (Component 2c) and the monitoring plan to ensure compliance with these safeguards (Component 4b).Itmay include staff of FD and DWLC, NGOs, members of civil society and lawyers. This TF will liaise closely with the TF on Communication, Education and Public Awareness for stakeholder engagement, and will assist with monitoring and evaluation of the National REDD+ Programme by providing periodic reports to the RPMCC on how environmental and social safeguards are applied during R-PPimplementation.The TF will also identify capacity building needs relevant to its area of responsibility.

- ***TF on REL/RL and MRV***: Responsible for design and field testing the REL/RL at pilot demonstration sites to be set up; design and testing of the MRV system; advice on institutional mechanisms for these processes and identification of capacity building to implement REL/RL and MRV by TWGs. This TF will need involvement of the FD and other institutions working on carbon stock assessments and activity data, development partners and civil society as appropriate. It will be responsible for technical aspects of Components 3 and 4a of the R-PP.The TF will also identify capacity building needs for REL/RL and MRV.

- ***TF on REDD+ Strategy Design:*** Responsible for formulating the REDD+ strategy to help move towards reducing deforestation and forest degradation andenhancement of carbon

stocks, for providing technical expertise for its implementation with the required safeguards, and for establishing mechanisms for implementing the REL/MRV. The TF will also identify capacity building needs to implement the REDD+ strategyfor all stakeholders, including implementing agencies, community groups, private sector and NGOs (Component 2b).

- ***TF on Financial flows and benefit sharing under REDD+***: Responsible for providinga comprehensive understanding of the financial flows that will take place between public and private, central, regional and local actors in the implementation of the R-PP to aid in designing financial mechanisms for the National REDD+ Programme. This will include:
  - Identifying and formulating pathways for revenue distribution among all relevant stakeholders that are eligible for benefits under the National REDD+ Programme.
  - Identifying how benefit sharing rules will apply to REDD+ activities and helping to operationalize these rules in the context of national laws and financial regulations.
  - Identifying policies or procedures that may need new fiscal measures such as taxes, subsidies, incentives, levies, etc. to implement REDD+. The proposed measures will have to vetted by the RPMCC and forwarded to the PEB, and thence for Cabinet approval if necessary.
  - Identifying funding mechanisms to which participants of a National REDD+ Programme may apply.
  - Ensuring that applications for REDD+ carbon credits are accounted for at national level through an identified single focal point.
  - Capacity building for benefit sharing arrangements in the context of REDD+, for allconcerned stakeholders.

  The TF will need to comprise line agencies as appropriate, development partners and civil society representatives.

- ***TF on Communication, Education and Public Awareness***: Responsible for preparation and implementation of the Communication and Consultation Strategy and Plan (CCSP, see Component 1c) to (a) ensure that activities undertheUN-REDD National Programme and National REDD+ Programme are implemented with full stakeholder engagement and Free, Prior and Informed Consent (FPIC), and (b) develop communication products to support the design and implementation of the REDD+ strategies, and (c) carryout REDD+ demonstration activities at the local level. This TF, through the assistance of TWGs, will be responsible for preparation of communication material on National REDD+ initiatives and to organise stakeholder engagement activities for all TFs and other REDD+ activities undertaken by the PMU. It will also be responsible for needs assessment and capacity building to support the CCSP. This TF will be comprised of experts in strategic environmental communication, education and public awareness and will need the services of part time national and international consultants.

The REDD+ Technical Working Groups (TWGs)- roles and responsibilities

The TWGs will be set up as required to cater to specific activities of the TFs. The TWGs required for the TF on RL/MRV are descried in Annex 3-2 of Component 3. The TORs for the TWGs and consultants for TF activities will be developed by the respective TF and the PMU, and will be subject to approval by the RPMCC. Activities for TWGs may include interviews, capacity assessments, field work, report preparation, mapping, training, etc.

CSO/IP Forum

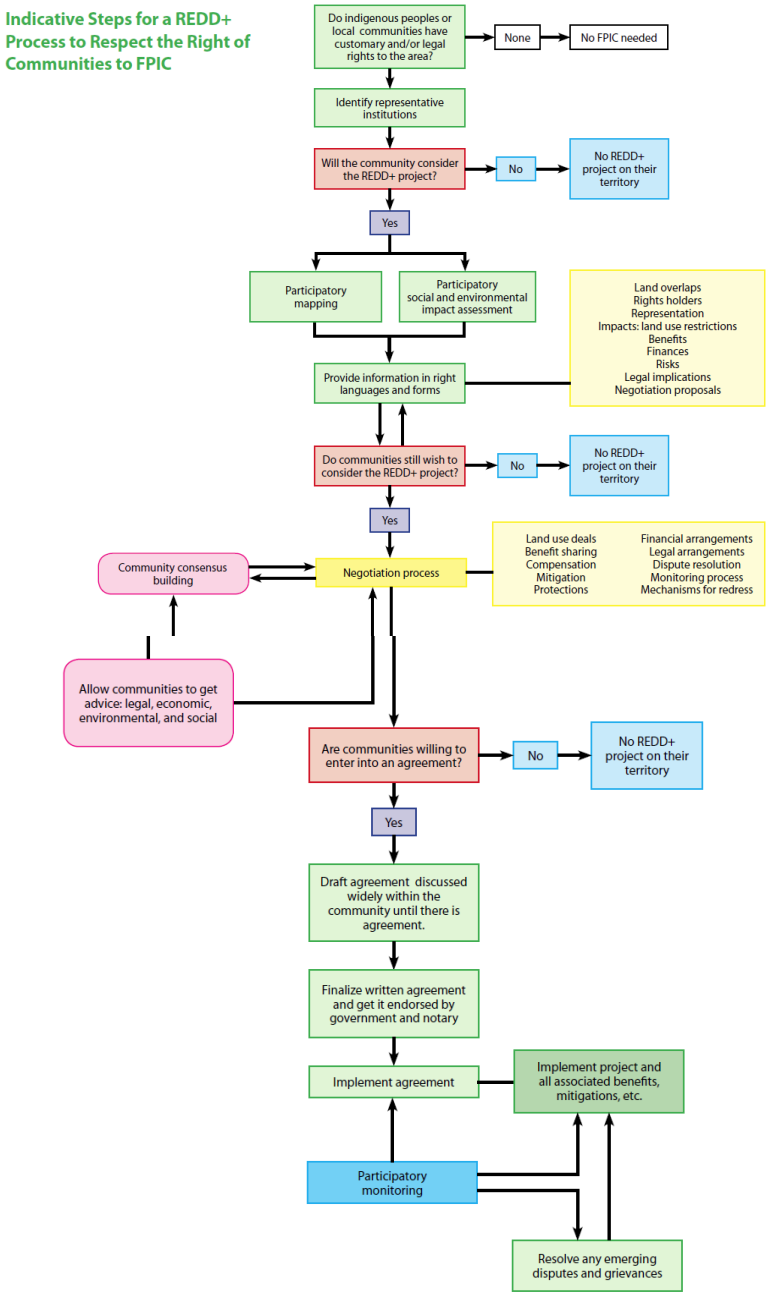
- **Roles and responsibilities**

The key role of the CSO/IP Forum will be to enhance multi-stakeholder ownership of the UN-REDD National Programme and National REDD+Programme and act as the main guarantor of compliance with social safeguards. Among its key responsibilities will be to:

- Confirm representation of NGOs and other non-government stakeholders on REDD+ management structure institutions (RPMCC, PEB, PMU, Task Forces and TWGs)
- Act as the first point of reference for all REDD+ consultation processes and validate consultation methodologies
- Commission, develop and approve REDD+ communication materials
- Provide continuous feedback to the REDD+ management structure
- Monitor compliance with Social and Environmental Safeguards
- Act as the initial arbiter in the REDD+ grievance mechanism
- Additional roles as determined by the Forum members themselves and mandated by the RPMCC

The CSO/IP Forum will develop its own TOR.

Annex 1c-1: Indicative Steps for a REDD+ Process to Respect the Right of Communities to FPIC[168]



[168] RECOFTC/GIZ (2011), "Free, Prior and Informed Consent in REDD+: Principles and Approaches for Policy and Project Development'

Annex 2a-1: Forest Sector Background Paper

This paper provides the background for assessment of the country situation with regard to Component 2a. It was formulated with reference to the Forestry Sector Master Plan which covers 1995-2020;*MahindaChintana*: Vision for the Future, and numerous documents and meetings held in Sri Lanka since 2006 to understand the status of forests. Discussions carried out during R-PP preparation with a large number of stakeholders and FD field staff to identify current issues affecting forests; analyzerelevant polices, laws, plans and programmes that can help conserve forest biodiversity; and identify institutional arrangements and capacity needs, were also incorporated into this document. The process followed is given in detail in Components 1b and 2a.

Overview of Sri Lanka's forest resource

Natural Forests

The diversity of forests in Sri Lanka has been influenced by its geo-evolutionary history and climate. Numerous "geological upheavals and geographic movements"[169] have resulted in the south-central mountains rising to 2500 m from the surrounding broad lowland plains that range from 0 - 75 m above sea level.[170]The resultant topography of the island displays a "staircase pattern" of about 11 plantation surfaces.[171] Sri Lanka's climate is tropical and varies with the seasonality of rainfall. The rain shadow effect caused by the central mountains has given rise to two pronounced Wet and Dry Zones separated by the 2000 m isohyet. The Wet Zone with its humid, ever-wet climate, has a rainfall of 2500-5000 mm, and is stratified into low, mid and montane regions that progressively rise to 2500 m above mean sea level.[172, 173]Due to this altitudinal variation, the mean temperature of the Wet Zone drops progressively from 27^{0}C in the lowlands to around 13^{0}C - 16^{0}C in the montaneareas.[2] The Dry Zone, with a mean daily temperature of 30^{0}C, is spread over much of the lowland plains. Despite a rainfall of 1250 mm - 1900mm per year this region has a long drought period of about 5 months (ibid). A narrow Intermediate Zone with a mean annual rainfall between 1900 and 2500 mm lies between the Wet and Dry Zones.[4,5]

Due to historical reasons, the dry mixed evergreen forests located in the northern and eastern Dry Zone regions of the island are the most extensive. These forests have an overall canopy height of less than 20 m, and due to historical factors are secondary, although climax vegetation can be found in a few isolated hills. They change into the characteristic low stature thorny scrub forests in the driest areas of this region in the north-western and south-eastern coastal areas.The lowland Intermediate Zone located between the Wet and Dry Zones contain distinct tropical moist monsoon (evergreen) forests. The temperature and altitudinal differences in the Wet Zone, which is about a fourth of the island, have resulted in different forest formations and

[169] Tan, B. C. 2005. New species records of Sri Lankan mosses. The Raffles Bulletin of Zoology. Supplement 12. pp 5-8
[170]Wijesinghe, L C A de S., Gunatilleke, I A U N., Jayawardana, S D G., Kotagama, S W and Gunatilleke, C V S (1993). *Biological Conservation in Sri Lanka.A National Status Report.* IUCN, Sri Lanka.
[171]MoENR, 2008. The nomination of the Central Highlands of Sri Lanka: Its cultural and Natural Heritage. Submitted to UNESCO by the Government of the Democratic Socialist Republic of Sri Lanka.
[172]Survey Department of Sri Lanka (2007).The National Atlas of Sri Lanka. second edition, Survey Department, Sri Lanka
[173]MoE (2010). Sector Vulnerability Profile: Biodiversity and Ecosystem Services. Ministry of Environment, Sri Lanka.

species characteristics of the Low, Mid and Montane Wet Zones.[174]Sri Lanka also has coastal mangrove swamps which are naturally fragmented and occur in a narrow inter-tidal belt that extends less than 1 km landward from the mean low water tidal level.[175] These mangroves are, however, very important in terms of carbon sequestration.[176]

The biomass availability in terms of timber (and carbon storage) varies between forest types. The average allowable cut in productive natural forests of the Wet Zone is fixed as 40 cubic m/ha in a 30 year felling cycle. These productive and biologically valuable rainforests with its high concentration of the island's unique endemic species[177, 178] are severely fragmented due to historic reasons, and account for only about 3% of the land area (Table A2a-1).The Dry Zone forests are less diverse than rainforests in terms of tree species and have an estimated volume increment of 0.45-0.5 cubic m /ha/annum(FAO and FD, 2009).[179]

About 9,462 km^2 of natural forest and scrubland, amounting to about 14% of the island, is declared as Protected Areas. (PAs)[180] More than 80% of the combined area of PAs lies in the Dry Zone.[13]

BOX A2a-1: DEFINITION OF FOREST

Under the Forest Ordinance No 16 of 1907, a forest is defined as all land at the disposal of the state, including all forest, waste and *chena*[slash and burn], which are uncultivated or unoccupied, and all lands resumed under the Land Resumption Ordinance, Waste Lands Ordinance, and Land Settlement Ordinance. By gazette notification, the Minister in charge of the subject can declare all or any of such land as "reserved forests". The Minister can also declare "any portion of forest" as "village forests," providing the legal basis for village forests in the Ordinance.For purposes of the REDD+, forests will be defined after consultations to be carried out during R-PP implementation, and it has been proposed during discussions for preparation of this R-PP that multi-species agroforestry systems where primary use is not agriculture should also be considered under the REDD+ scenario.

Forest Plantations

With the shift in emphasis of forest policy from production to protection, and the moratorium on logging in natural forests for timber in 1990, forest plantations have become particularly important for timber and wood products and to relieve pressure on natural forests. The total area of forest plantations maintained by the Forest Department currently is 79,941 ha.[181]In the past,exotic species such as teak,*Pinus*and *Eucalyptus* comprised much of the total forest plantations, but planting *Pinus*was discontinued after 1989.[182]Other exotic species have been used for forest plantations on a lower scale, but in recent years, jak (*Artocarpusheterophyllus*), an indigenous species, has been increasingly used in forest plantations with several other native tree species on a lesser scale.Much of the teak plantations have been raised with people's participation (**Annex 2a-2**), while *Pinus* and *Eucalyptus* have been mostly planted directly by the FD. These planted forests generally come into the category of multiple use reserved forests

[174]MoE (2010). Sector Vulnerability Profile: Biodiversity and Ecosystem Services. Ministry of Environment, Sri Lanka.

[175]CCD (2006).*Revised Coastal Zone Management Plan*, Sri Lanka.Coast Conservation Department and the Ministry of Fisheries and Aquatic Resources Development, Sri Lanka.
[176] Prof Mala Amarasinghe, University of Kelaniya and member MAB Committee, pers, com. at consultative meeting with the MAB Committee
[177]IUCN/FAO/FD (1997). Designing an optimum protected areas system for Sri Lanka's natural forests (I). IUCN, Sri Lanka (unpubl.).
[178]MoFE (1999). Biodiversity conservation in Sri Lanka: a framework for action. Colombo, Sri Lanka.
[179]FAO and FD (2009). Asia Pacific Forestry Sector Outlook Study II Working Paper Series: Sri Lanka Forestry Sector Outlook Study. Working Paper No.APFSOS II/WP/2009/29., Forest Department, Government of Sri Lanka.
[180]MoENR and UNEP (2009). Sri Lanka Environmental Outlook, Colombo. Sri Lanka.
[181]Forest Department unpublished data for 2009.
[182]Unpublished information of the Forest Department for 2010.

(Class III) as defined in the FSMP, unless classified in the categories of strict conservation or conservation forests due to specific reasons (FAO and FD, 2009),[12]

At the turn of the twentieth century, forest plantations consisted of only 713 ha, but this rose to 20,157 ha in the forest inventory of 1956 indicating a rapid expansion of the forest plantation estate in the early post-independence period. The area has now reached a more stable stage, attributed to the lack of suitable new lands for forest plantation expansion, and the fact that planting is generally confined to the second rotation areas, which is likely to continue in the future. However, there is possibility for volume increment, especially with teak, with sufficient stand treatments in the future, indicating potential for increasing carbon stocks in plantations. The rehabilitation of the older teak, Pine and *Eucalyptus* plantations is also considered important, and could be addressed under REDD+ activities.The FD also carries out afforestation programmes on degraded or barren lands.

Although forest plantations are the major source of timber for the State Timber Corporation, 80% of forest plantations are set aside for environmental protection and habitat management, especially in water catchments and environmentally sensitive areas, while some are declared as wildlife sanctuaries.[183] Notably, about 2,000 ha of *Eucalyptus* plantations at high altitudes are reserved for environmental protection,[21]adding to the permanent carbon stocks in natural forests.

Overview of Sri Lanka's non-forest tree cover

In addition to forests, a wide range of non-forest tree resources are available in home gardens, rubber and coconut plantations that yield timber or fuelwood, as do shade trees planted in tea plantations.[184]
Trees grown for shade, or as windbreaks, along roadsides and farm and plantation boundaries also provide timber and fuelwood. Trees from non-forest areas reduce the pressure on natural forests as sources of timber, fuelwood and NTFPs. According to the FSMP, wood production from home gardens could reach 681,400 m^3 in 2020.[185]Increasing tree cover in home gardens is, therefore, of major interest to the government as exemplified under the massive national tree planting campaign (*DeyataKirula*) that is currently underway. The 'Miscellaneous' component of the Participatory Forestry Project (PFP) of the FD addresses growing of trees in public places.

In terms of carbon potential, the FAO[186] estimated the wood supply from non-forest timber resources in Sri Lanka to be 1.5 millionm^3 in 2005, with a projected rise to 1.6million$m^3$by 2010. In terms of carbon potential, the average stocking density of trees in home gardens varies from 54-419 stems/ha, while the home gardens in the Kalutara and Kurunegala Districts show stocking densities averaging 508 and 284 stems/ha respectively due to the presence of rubber smallholdings and coconut trees in these districts.[187] Home gardens in the Dry Zone are comparatively lower in density with respect to trees.Those in the sub-montane (up country) zone in the Kandy, Matale and Kurunegala Districts, known as 'Kandyan home Gardens', have a very dense structure and support a rich diversity of tree species. These Kandyan home gardens

[183]FAO and FD (2009). Asia Pacific Forestry Sector Outlook Study II Working Paper Series: Sri Lanka Forestry Sector Outlook Study. Working Paper No.APFSOS II/WP/2009/29., Forest Department, Government of Sri Lanka.
[184]CB (2011).Central Bank of Sri Lanka, Annual Report.
[185]MALF (1995). Sri Lanka Forestry Sector Master Plan. Ministry of Agriculture, Lands and Forestry, Sri Lanka
[186]FAO/FRA (2006), Forest Resources of Sri Lanka.
[187]FAO and FD (2009). Asia Pacific Forestry Sector Outlook Study II Working Paper Series: Sri Lanka Forestry Sector Outlook Study. Working Paper No.APFSOS II/WP/2009/29., Forest Department, Government of Sri Lanka.

in small plots of about 0.4-2.0 haare a traditional system of perennial cropping which helps maintain canopy cover and a range of economically valuable tree species, many of which are used for both food and timber. They offer considerable scope for obtaining multiple-benefits under a National REDD+ Programme.

Rising human populations and the resultant escalating demand for land has increased the number of home gardens at a rate of about 1% per annum, due to the establishment of new settlements and fragmentation of some of the existing home gardens.[188] Home gardens, particularly in the western wet lowlands, are increasingly fragmented due to land being allocated among family members for housing.[189]This has led to considerable localized loss of canopy cover and trees that are important in terms of timber and fuelwood, and the erosion of indigenous horticultural crop diversity and habitats outside forests.[190]Some lands in the wet and intermediate zones, mainly coconut plantations, are converted into commercial housing schemes,[22] while the landscategorized as 'sparsely used croplands' are being converted into new housing programmes in the Dry Zone.

Historic trends in forest degradation and deforestation

Historical background

Due to historical factors there has been considerable loss and degradation of Sri Lanka's forest base. Before colonization, Sri Lanka was a well-forested island. Even though the Dry Zone forests of Sri Lanka are secondary forests, having been cleared and regenerated at least once since colonization, when this region was heavily populated during Sri Lanka's hydraulic civilisation, the catchment forests and forests covering the sloping land of the Wet Zone were preserved undisturbed.[191]With the gradual shifting of the capital towards the Wet Zone in the thirteenth century, Dry Zone forests that contain many valuable timber species were re-established. During the colonial period, however, considerable exploitation of natural forests occurred in all climatic zones and in the coastal areas for prized timber species.[192]Slash and burncultivation by the poor, deprived of their traditional lands,began to proliferate in the hinterland forests, particularly in the Dry Zone. After the British gained control of the entire island in 1815, there was heavy exploitation of Dry Zone natural forests for valuable timber, while the Wet Zone low, mid country and montane forests, that had hitherto remained intact, were rapidly cleared for plantations of coffee, and later tea, rubber and coconut. However, due to concerns about the rampant soil erosion at elevations where forests had been cleared for plantations, and the fear of famine, the Forest Ordinance No 10 was promulgated in 1940.[25]The first authoritative Forest Policy Statements were made in 1929 to protect forests, and amended in 1938 to afford protection to all forests above 1500m.[25] Consequently, by 1981 the country had about 80% forest cover left. and about 70% of land area was under natural forestat the

[188]Dela, J., A Sathurusinghe and UKGK Padmalal, unpublished information from a survey of the range of *Semnopithecusvetulusnestor*, the western purple-faced langur of Sri Lanka.

[189]Dela, J., A Sathurusinghe and UKGK Padmalal, unpublished information from a survey of the range of *Semnopithecusvetulusnestor*, the western purple-faced langur of Sri Lanka.

[190]MoENR (2009).Fourth Country Report to the Convention on Biological Diversity. Compiled J D S Dela (unpublished).

[191]MoFE (1999). Biodiversity conservation in Sri Lanka: a framework for action. Colombo, Sri Lanka.

[192]MALF (1995). Sri Lanka Forestry Sector Master Plan. Forestry Planning Unit, Ministry of Agriculture, Lands and Forestry.

beginning of the last century.[193]

During the first period of post-colonial Sri Lanka, there were relatively large forest tracts remaining in the Dry Zone. There was subsequent clearing of Dry Zone forests to establish reservoirs for hydropower generation, human settlements and agriculture depleted the forest cover in this region. Later, the national forest inventory of 1956 led to the resource assessment during 1965-67, which ascertained that the country could be self-reliant fortimber.[25]This led to destructive harvesting of large quantities of timber from natural forests in the belief that this was sustainable. Due to the height of the canopy trees and the straightness of their boles, the biodiversity rich Wet Zone forests, already fragmented during the colonial era, were the first in line for timber production. This resulted in selective logging of 47,500 ha. Widespread public protest and a reorientation of forest policy in the early 1980s halted logging in Wet Zone forests, followed by a moratorium on logging in all natural forests of the country in 1990, which continues to date.[25]

Recent trendsof forest loss

Increasing populations and the concomitant increase of the landless segment of the population led to considerable forest clearing for slash and burn cultivation during 1983-1992. Development of Irrigation, agriculture, human settlement, hydropower development and timber extraction caused severe forest loss and degradation during this period.[194] Due to many preventive measures undertaken by successive governments, the deforestation rate declined over the following decades. Yet, the forest cover declined to 29.4% by 1999 while dense closed canopy forests dropped from 44% in 1956 to 22.6% by 1999.[195]The Forest cover assessment of 2010 has dropped further to 29.1%

The first comprehensive post-independence forest survey conducted in 1956 revealed the presence of 2.9 million ha of closed canopy forest, amounting to 44% of the country's land extent.[196]However, due to over-exploitation of the forest resource, about 42% of all natural forests were at the time classified as non-productive.[197]By 1983, the forest cover had dropped to 1.76 million ha, amounting to 27% per cent of the country's land area.[30] and a per capita figure of 0.12 ha of forests(Table A2a-4).[198]A comprehensive forest survey in 1992, based on satellite imagery supported by ground sampling, revealed a further drop in the closed canopy forest to 1.58 million ha or 24% of the land area[199]. Analysis of forest loss at the district level from 1983 to 1992 revealed highest declines in the Kilinochchi, Polonnaruwa, Batticaloa, Ampara, Badulla and Hambantota districts, where over half the forests in these districts were lost during this period.[200]While some of the forest loss (per district) is attributed to redefining of district boundaries,[201]the acceleration of deforestation from 1983 to 1992 was partly due to

[193]Wijesinghe, L C A de S., Gunatilleke, I A U N., Jayawardana, S D G., Kotagama, S W and Gunatilleke, C V S (1993). *Biological Conservation in Sri Lanka.A National Status Report*. IUCN, Sri Lanka.

[194]Jewel, N. and Legg, C A (1994).A Remote Sensing/GIS Database for Forest Management and Monitoring in Sri Lanka. In: *Geographical Information Systems fo Natural Resource Management in South East Asia*. Mahaweli Authority, Sri Lanka.

[195]MoENR (2009).Fourth Country Report to the Convention on Biological Diversity. Compiled J D S Dela (unpublished).

[196]Jewel, N. and Legg, C A (1994).A Remote Sensing/GIS Database for Forest Management and Monitoring in Sri Lanka. In: *Geographical Information Systems for Natural Resource Management in South East Asia*. Mahaweli Authority, Sri Lanka

[197]Wijesinghe, L C A de S (2000). Forest Resources. In: *Natural Resources of Sri Lanka 2000*. National Science Foundation, Sri Lanka

[198]Bandaratilleke, H M (2000).Administration Report of the Conservator of Forests Sri Lanka. Forest Department and the Ministry of Forestry and Environment, Sri Lanka

[199]MOFE (1999). Biodiversity Conservation in Sri Lanka: A Framework for Action. Ministry of Forestry and Environment, Sri Lanka.

[200]Jewel, N. and Legg, C A (1994).A Remote Sensing/GIS Database for Forest Management and Monitoring in Sri Lanka. In: *Geographical Information Systems fo Natural Resource Management in South East Asia*. Mahaweli Authority, Sri Lanka.

[201] A decrease in land area within the district results in a reduced forest cover for the district.

extensive land clearing in the Dry Zone for irrigation schemes established through the Mahaweli Development Project. Forest loss decreased considerably after this period due to concerted forest conservation efforts, and due to stagnation of development activities in the country during the 30-year civil war. In the latter part of the past century, timber exploitation and shifting cultivation have been particularly responsible for deforestation and forest degradation in the Dry Zone, while encroachment for tea cultivation and selective logging has been responsible for deforestation and degradation respectively (FAO and FD, 2009).[202]

Stringent conservation measures adopted in the mid 1990s have served to reduce the rate of deforestation considerably between1994-1999, and this is apparent in the Wet Zone.[203]However, deforestation and forest degradation are continuing, and can be expected to rise with the post-war development trajectory. While is it unlikely that there will be any major irrigation and land settlement schemes in the future comparable with the Mahaweli Development Scheme, deforestation from illicit clearings and forest encroachment continue and cause loss and degradation of forest cover in the country. Further, it is possible that deforestation decreased during the 30-year civil war due to the inaccessibility of many areas in the Dry Zone and the reduced development potential in the country. These conditions are expected to change in view of the development trajectory that is expected in the country in the post-war scenario – particularly in the northern and eastern provinces.

Role and Importance of Forests

Biodiversity and ecosystem values

Conservation of Sri Lanka's forests is of considerable importance for maintenance of numerous ecosystem services essential for the country's 20 million people and for future national development. The Wet Zone forests have been identified as the most important in terms of biodiversity, as well as for soil and water conservation, by the National Conservation Review (NCR) of natural forests carried out by the Forest Department in the 1990s.[204]These rainforests harbour nearly all the country's woody endemic flora, about 75% of the endemic fauna, all the endemic genera.[37] The level of endemism in Wet Zone forests ranges from 37-64% for woody plants and 14-52% for animals.[37] The NCR also revealed that 79% of the woody plant diversity (including 88% of endemic woody plant species) and 83% of faunal diversity (including 85% of endemic faunal species) in the island are represented in just eight units of contiguous forests.[37] Although endemism at 10-16% in the Dry Zone forests for species is lower and generally less diverse.[37]they are extremely important as habitats for the charismatic large mammals that are of great value to the tourist industry and the country's economic development. Sri Lanka's forests also maintain hydrological cycles and provide freshwater for agricultural and domestic use and to produce hydroelectricity (comprising 52.6% of power generation in 2010).[205]A key ecosystem

[202]FAO and FD (2009). Asia Pacific Forestry Sector Outlook Study II Working Paper Series: Sri Lanka Forestry Sector Outlook Study. Working Paper No.APFSOS II/WP/2009/29., Forest Department, Government of Sri Lanka.

[203]MoENR and UNEP (2009). Sri Lanka Environmental Outlook, Colombo. Sri Lanka.

[204]IUCN/FAO/FD (1997). Designing an optimum protected areas system for Sri Lanka's natural forests (I). IUCN, Sri Lanka (unpubl.).

[205]Central Bank (2011).Central Bank Annual Report for 2010.

service provided by forests was also revealed in the aftermath of the 2004 tsunami to provide protective coastal shelterbelts through coastal afforestation. [39]

The Wet Zone forests in particular (even the degraded forest fragments) have a high watershed value, as rural villagers near Wet Zone forests depend heavily on freshwater for their daily domestic requirements – either directly or for recharge of ground water from wells.The montane cloud forests are deemed extremely important for fog interception and the maintenance of the island's water balance and hydrological cycles. [43]. Many of the critical watersheds in the uplands fall within the protected area network of the DWLC (e.g. Horton Plains, Peak Wilderness).

Economic importance

A conservative estimate in 1995 identified a 6% contribution of the forestry sector to the national economy of Sri Lanka, mainly from the production of timber, sawn wood and firewood.[206] Eleven percent of the share of the national wood supply is from forest plantations, while home gardens provide 42% (considered less than its potential).[39] Rubber and coconut plantations add another 29% to the national wood supply. The STC obtains timber harvested from state lands, mostly from forest plantations annually released by the FD. Forests of all zones are important in terms of domestic and industrial uses to medicine, and othercottage industries.

Although forest dependency in villages near Wet Zone forests has declined perceptibly during the past few decades, due to a shift towards cultivation of cash crops, many villagers continue to obtain firewood, medicinal plants, food items and small wood requirements from adjacent forests.[207,208,209]Sri Lankan forests - both natural and planted - provide a variety of NTFPs, such as seeds, fruits, mushrooms, herbaceous material, oils, exudates such as gum resin, sap, stems, latex and gums and several plants of high medicinal value to local people.

The aesthetic and recreational value of forests under the management of the FD and the DWLC will be an essential component of the socio-economically important tourismindustry, which aims to attract 2.5 million tourists in 2016 as targeted in the *MahindaChinthana*.[210]Currently, the FD maintains six forests as recreational areasfor the public.[211] The revenue to the government from 66,903 visitors to these areas amounted to Rs8.9 million in 2008.Likewise, the National Parks of the DWLC are major tourist attractions.[44] The FD and DWLC are in charge of two UNESCO Natural World Heritage Sites, featuring 4 forests; and four International Man and the Biosphere Reserves. With the improved security situation following the liberation of areas affected by the separatist conflict over a 30-year period, a significant increase in both local and foreign visitors is expected to these forest areas.

In view of the recognition of forests to the national economy, a methodology is being developed to value the forestry sector contributions to the national economy by accounting for NTFPs, timber, fuelwood and ecosystem services, including carbon sequestration and biodiversity values.

[206]FAO and FD (2009). Asia Pacific Forestry Sector Outlook Study II Working Paper Series: Sri Lanka Forestry Sector Outlook Study. Working Paper No.APFSOS II/WP/2009/29., Forest Department, Government of Sri Lanka.
[207]IUCN (1995).Traditional Use of Natural Resources in Sri Lanka. A National Survey I. IUCN Sri Lanka (unpublished).
[208]PILF, unpublished PILF (2004). Case study of environmental justice in respect of access to forest resources in the Kanneliya Forest Reserve (unpublished report)
[209]Dela, J D S (2003).Periodic Review of the Sinharaja Biosphere Reserve.Prepared for the National Science Foundation and the UNESCO.Sri Lanka MAB Committee.
[210]Ministry of Finance and Planning (-). MahindaChintana, vision for a new Sri Lanka. A ten year horizon Development Framework 2006-2016.
[211]MoE (2010).Sector Vulnerability Profile:Biodiversity and Ecosystem Services. Ministry of Environment, Sri Lanka.

Cultural values of forests

Many forests are of cultural and religious value to people due to the presence of Buddhist and Hindu shrines and temples. The most famous of these are the Peak Wilderness Forest (a component of the serial Central Highlands World Heritage Site) which has the world famous Adam's Peak Shrine featuring the footprint of Lord Buddha. Villagers living near forests also pay obeisance to forest living local deities who play an important part in their daily lives, agricultural practices and health related rituals.[212]

Governance aspects for forest conservation

Legal provisions to reduce deforestation and forest degradation

Overall, there are about 80 laws to conserve Sri Lanka's environment, many of which are of direct relevance for conservation of forests.[44]Of prime importance is the Forest Ordinance (FO), followed by the National Heritage Wilderness Area Act No. 3 of 1988 and the Flora and Fauna Protection Ordinance (FFPO). Both the FO and FFPO have been revised periodically to enhance their efficacy to improve governance. Chief among the other laws that have significant impact on forest conservation are the National Environmental Act, the Coast Conservation Act and the Soil Conservation Act. All laws that have bearing on forest conservation and management are given Table A2a-2; the main laws are discussed below.

The Forest Ordinance No. 16 of 1907, and its subsequent amendments including Act No. 23 of 1995 and Act No. 65 of 2009

The Forest Department is responsible for the implementation of this Ordinance which has been subject to many revisions. This Ordinance contains provision to: declare forests as a particular category of Reserved Forests; protect state forests from illegal felling, clearing, encroachment, removal of produce etc.; impose penalties for violation of the law; control felling and other forms of forest uses; and regulate transportation of timber. Initially promulgated to protect and create Reserved Forests primarily for timber production, the FO has become greener with recent amendments. The amendment Act of 1995 created Conservation Forests for strict protection, while the 2009 amendment empowered the Conservator General of Forests to enter into agreements with stakeholders to carry out community participatory programmes for the development of other categories of forests. It also made provision for the preparation of management plans mandatory for Conservation forests and Reserved forests managed by the FD. A shortcoming in the FO is that it contains no provisions for the control of mining in state forests which is an increasing cause of forest degradation.Enforcement of the law with regard to control of illegal felling and forest encroachment for tea cultivation and housing is fairly strong, although at times weakened due to external influences. Further, the FO does not legally define buffer zones to Conservation Forests or prohibit activities in such areas.

The National Heritage Wilderness Area Act No. 3 of 1988

[212]GOSL (2008). Nomination of the Central Highlands of Sri Lanka: its cultural and natural heritage for inscription in the world heritage list. Submitted to UNESCO by the Government of the Democratic Socialist Republic of Sri Lanka.

The Forest Department is the implementing agency for this very powerful Act, which was enacted to enable the preservation of unique natural ecosystems under the jurisdiction of the Forest Department.Thus far, only Sinharaja forest has been declared under this Act.

The Fauna and Flora Protection Ordinance No. 2 of 1937, and its subsequent amendments including Act No. 49 of 1993 and Act No. 22 of 2009

The Department of Wildlife Conservation is responsible for implementing this Act. It recognizes six categories of wildlife reserves as Protected Areas (PAs). The Act provides a list of protected species wherever they are found in the country, and states the penalties for violation of the law. The FFPO of Amendment Act No 1 of 1970 recognises rights of indigenous people acquired prior to establishment of a national reserve or sanctuary, but these rights would lapse if not exercised for a continuous period of 2 years. This Act also enables the DWLC to request an EIA for developmental activities in areas within one mile from the boundary of any National Reserve declared under the FFPO. The 2009 revision makes the preparation of management plans for the national reserves or sanctuaries mandatory, establishes buffer zones for PAs, and contains many other new features that facilitate an efficient management of reserves by the DWLC. There have been many amendments to this Act for the purpose of strengthening it, but enforcement remains fairly weak with regard to protected species and encroachments.

Felling of Trees Control Act No. 9 of 1951

The Agriculture Department is the implementing agency for this Act, which makes provision for the prohibition, regulation or control of the felling of specified valuable tree species, including cultivated species such as jak and breadfruit. This Act is in fairly effective with respect to stemming the felling of the listed species, but transportation of such timber is controlled more effectively by the FO.

The National Environmental Act No. 47 of 1980 and the amendment No. 56 of 1988 and Act No. 53 of 2000.

The NEA served to create the Central Environmental Authority, while its amendment of 1988 empowers all project approving agencies to obtain an EIA for prescribed developmental projects from any developer (including the State). The NEA provides for the establishment of District Environmental Agencies (DEAs) in each administrative district for devolution of powers to the regions in relation to environmental management through the Provincial Councils and the DEAs. Environmental Protection Areas administered by the CEA are gazetted under the NEA, but due to lack of regulations limiting development in EPAs this does not achieve desired objectives. For example, although EPLs are necessary, monitoring, to check whether the prescribed pollution limits are adhered to, is very weak and capacity for EIAs that address biodiversity issues adequately is also weak in the country.

The Coast Conservation Act No. 57 of 1981 as amended by Act No. 64 of 1988.

This Act requires the Coast Conservation Department to survey the coastal zone and inventory the resources available therein, including coastal ecosystems (such as mangroves and other coastal vegetation including forests under the FD) and material regularly removed for commercial or industrial purposes from this area, and to draw up Coastal Zone Management Plans periodically. The Act vests the administration, custody and management of the coastal zone in the State, while the responsibility of administering and implementing the Act is devolved to the Director of the Coast Conservation Department who is empowered to issue permits for all development activities undertaken within the coastal zone (including by the State) after consideration of an EIA. Implementation of this Act is weak with regard to coastal

habitat conservation, and there are gaps in the control of development actions in the coastal zone.

Soil Conservation Act, No. 25 of 1951as amended in 1996
This act empowers the Minister of Agriculture to declare and acquire "erodible areas'; to specify measures regulating the use of land in such areas; and to acquire land for carrying out measures to prevent erosion. Deficiencies in the original Act have been rectified in the Amended Act of 1996. Accordingly, there has also been a shift of focus from the control of soil erosion to land resource management, while covering damage by floods, stream bank erosion, salinity, alkalinity and water logging.

Policy and institutional context

Key policies, plans and strategies

The Forest Policy governs the forestry sector while its implementation is furthered by the Forestry Sector Master Plan of 1995 which covers the period 1995-1920. Both effectively set the stage for control of deforestation and forest degradationThe Forest Policy of 1995 and implementation of the Forestry Sector Master Plan, together with revisions of the FFPO and the FO, and various measures for institutional strengthening and decentralisation of the FD and DWLC, have contributed to reduce the rate of deforestation in the island from 1995. Sri Lanka has a host of other policies and plans that have a positive impact on reducing deforestation and forest degradation. The most important laws, policies and plans that influence good governance in the forestry sector are summarised in Table 2a-2.

- **The National Forest Policy of 1995**

Since the promulgation of the first authoritative forest policy statement in 1929 and its amendment in 1938, national forest policy has evolved through the 1953 revision, the restatements of 1972 and 1980, and the present comprehensive revision in 1995.[213] Initial policies focused more on timber and firewood production, with environmental protection measures being secondary. In contrast, the main objectives of the 1995 policy are: to conserve forests for posterity, with particular regard to biodiversity, soils, water, and historical, cultural, religious and aesthetic values; to increase the tree cover and productivity of forests to meet the needs of present and future generations for forest products and services; and to enhance the contribution of forestry to the welfare of the rural population, and strengthen the national economy, with special attention to equity in economic development. The 1995 policy thus emphasizes conservation of forests as its primary aim and multiple-use as a secondary aim and has clear objectives and policy statements. It is progressive in advocating a complete reorientation of the traditional "command and rule" approach to forest and protected area management by promoting involvement of local people in planning and managing forests.

This policy also emphasises the importance of retaining the present natural forest cover and increasing overall tree cover as a whole, including non-forested areas. It also reiterates that the State will observe international forest-related conventions and principles that have been agreed upon by Sri Lanka. In pursuance of this policy, the functions of the Forest Department have become 'greener' since 1995 and shifted from a production orientation to conservation of the nation's forest biodiversity.

[213] MALF (1995). Sri Lanka Forestry Sector Master Plan. Forestry Planning Unit, Ministry of Agriculture, Lands and Forestry, Sri Lanka.

TABLE A2a-2: Key legislation, policy and plans that promote the reduction of deforestation and forest degradation and tree felling

Legislation with impact on reducing deforestation and forest degradation	Key policies/plans/strategies governing forest conservation and management
Main legislation • The National Heritage Wilderness Area Act No. 3 of 1988* • The Forest Ordinance No. 16 of 1907, and its subsequent amendments, including Act No. 23 of 1995 and Act No. 65 of 2009** • The Fauna and Flora Protection Ordinance No. 2 of 1937, and subsequent amendments including Act No. 49 of 1993 and Act No. 22 of 2009 * ***Other legislation with impact*** • The National Environmental Act No. 47 of 1980 and the amendments: Act No. 56 of 1988 and Act No. 53 of 2000 • Felling of Trees Control Act No. 9 of 1951 • Plant Protection Act No. 35 of 1999 (replacing Plant Protection Ordinance No. 10 of 1924). • The Coast Conservation Act No. 57 of 1981 as amended by Act No. 64 of 1988. • The Soil Conservation Act No. 25 of 1951 as amended in 1996. • ***Urban Development Authority Law No 37 of 1978, as amended by subsequent Acts, the recent ones being Act No. 44 of 1984 and Act No. 4 of 1992*** • The Northwestern Environmental Statute No. 12 of 1990.	***Key policies*** • The National Forest Policy of 1995** • The National Environmental Policy of 2003* • The National Wildlife Policy of 2000* • The National Wetlands Policy and Strategy of 2006 • The National Watershed Management Policy of 2004 • The National Land Use Policy of 2009 ***Key Plans*** • **The Forestry Sector Master Plan of 1995* *** • The National Biodiversity Conservation Action Plan of 1999 (Biodiversity Conservation in Sri Lanka: a framework for action) termed the BCAP and the Addendum to BCAP of 2007. • The National Environmental Action Plan of 1991 and its subsequent revisions (the current being Caring for the Environment, path to sustainable, 2008) which has a chapter on biodiversity conservation, forests and wildlife. • The Coastal Zone Management Plans (CZMPs) of 1991, 1997 and 2006. The chapter on coastal habitats and their conservation includes the conservation of mangroves within the coastal zone. • National Strategy for Sri Lanka Tourism (This deals with incorporating nature, culture and adventure tourism to develop the tourist industry) • Individual management plans for all forests and wildlife reserves.

** the main law, policy and Plan that governs the Forestry Sector * Other laws policies and plants with major impacts

Some of the key policy directions for management of state forest resources that are very relevant for REDD+ are:

- All state forest resources will be brought under sustainable management both in terms of the continued existence of important ecosystems and the flow of forest products and services.
- The traditional rights, cultural values, and religious beliefs of people living within or adjacent to forest areas will be recognized and respected.
- The natural forests will be allocated firstly for conservation, and secondly for regulated multiple-use production forestry.
- For the management and protection of the natural forests and forest plantations, the state will, where appropriate, form partnerships with local people, rural communities and other stakeholders, and introduce appropriate tenurial arrangements.

- The establishment and management of industrial forest plantations on state lands will be entrusted progressively to local people, rural communities, industries and other private bodies, in pace with institutionalizing effective environmental safeguards.
- Degraded forested land will be rehabilitated as forest for conservation and multiple-use production where it is economically and technically feasible, mainly for the benefit of local people.
- Planned conversion of forests into other land uses can take place only in accordance with procedures defined in legislation and with accepted conservation and scientific norms.
- Tree-growing on homesteads, and other agroforestry activities, will be promoted as a main strategy to supply wood and other forest products for meeting household and market needs.

The Forestry Sector Master Plan of 1995

This is a macro-level development plan which provides a short-term, medium-turn and long-term plan and strategy for implementation of the National Forest Policy of 1995. Its expected impacts are described inprogrammes outlining the immediate, medium-term and long-term actions. It provides a clear framework for: detailed project formulation, implementation and resource allocation; institutional strengthening for implementation; and information dissemination to facilitate planning. It shares the objectives of the Forest Policy, which can be summarised as halting deforestation to conserve biodiversity and soil and water resources, and to provide for various forest products sustainably to the people. For the first time, due recognition is given for partnerships as a basic forestry development and forest conservation strategy. It explores possibilities for achieving people-driven "people's forestry" rather than state-driven community or "participatory forestry", but also recognises that local people will only help manage and protect forests if they have tangible incentives to do so. Although the public sector role as forest authority and manager of protected areas is reiterated, the FSMP also explores and recommends effective forms of partnerships with communities, the private sector and NGOs for joint forestry management or leasehold forestry.

The core elements of the FSMP development programme are: conservation, comprising biodiversity conservation in forests, forestry and soil and water conservation; multiple use natural forests; home gardens and other non-forest tree resources; forest plantations; and forest product utilisation. It also identifies support programmes under policy, legislation and institutions; human resources; forestry research; forestry extension and support services; planning, monitoring and evaluation. It is significant that there is an Environmental Assessment of the FSMP to identify its environmental and social impacts and ways of mitigating negative impacts.

BOX A2a-2: Some Important Aspects of the FSMP relevant to home gardens and plantations

According to the FSMP, forests under the jurisdiction of the Forest Department will be reclassified, rehabilitated and placed under four management systems for:

- Class I: strict conservation;
- Class II: non extractive use such as research and tourism with controlled collection of non wood resources;
- Class III: management of multiple use forests primarily for sustainable production of wood, and also for NWFPs for local people; and
- Class IV: Forest plantations and agro-forestry systems in state lands,

The FSMP recommends ascertaining management objectives for all forests and recommends legal provision for conservation forests, multiple use forests and buffer zone management, and also in other types of PA and adjacent lands. The FSMP also recognizes that home gardens in Sri Lanka are an extraordinary case of successful agro-forestry based on peoples' needs and long traditions, and that they should be promoted for supplying timber and other wood

needs as well as for multiple benefits. It further states that biodiversity status and socio-economic importance will be assessed in planted forests and home gardens, and that the role of such forests as refuges for communities and species, storehouses of genetic diversity and as corridors connecting natural forests should be evaluated.

To carry out the activities recommended in the FSMP it also addresses information management and dissemination and recognizes the need for adequately deployed staff who are well trained, mobile and have facilities for efficient internal communication.

Among the key elements of the FSMP as applicable to benefit sharing under REDD+ are:

- Formal recognition of joint partnerships by farmers and plantation crop owners.
- Enhancing non-forest tree resources such as home gardens as the main sources of timber and fuelwood, while assisting people with production efforts.
- Creating conditions for people's forestry, through facilitation of secure tenure for land, sound operating policies and rules, and enhancement of extension services to support forestry development.
- Non-natural forests are incorporated into conservation planning both as store houses of biodiversity and as corridors between otherwise isolated forests.

BOX A2a-2: ANALYSIS OF FSMP IMPLEMENTATION

The FSMP addresses the needs of both FD and DWLC, but it is only followed by the FD, due to administrative changes since the FSMP was formulated. All programmatic activities of the FD are addressed within the framework of the strategies and programmes outlined in the FSMP: including those for management of forest resources and reserves, forest plantations, and to a lesser degree non-forested areas with tree cover and the selection of forests for conservation by the FD based on the recommendations from the national conservation review (NCR). A key feature in the FSMP is the emphasis given for forest protection rather than for timber production.There has also been a complete re-orientation of the traditional "protectionist" approach, which is promoted by the forest policy, and the FSMP by facilitating the involvement of local communities for protected area conservation. Work with local communities has had mixed success in terms of long-term sustainability in Sri Lanka, but there are some records of success, and the concept is now well entrenched in the 'thinking' of the FD. However, examples of actual people's forestry where communities manage forests without continual incentives from the state are yet few. In view of the considerable experience gained by the FD and DWLC, a review of lessons learned and a radically new approach are vital to move towards 'people's forestry' under REDD+. Further, measures to develop partnerships with home garden owners, private sector, and NGOs, to increase production from plantations and outside protected areas, via the progressive recommendations of the FSMP should be explored under REDD+. Overall, the prescriptions in the FSMP have been followed with a fair amount of success by the FD, which has led to better forest management and law enforcement, despite some gaps, leading to a significant reduction of the annual deforestation rate of 20,000 ha of forests lost per year recorded prior to 1995.

Source: adapted from MALF, 1995[214]

The FSMP also accepts the need for a system to monitor threats to Protected Areas (e.g. encroachment) and assisting with EIAs, and recognises the need for information networks to be established between *bona fide* institutions to make information accessible, with adequate steps to prevent data pillage.

- **The National Wildlife Policy of 2000**

[214]MALF (1995). Sri Lanka Forestry Sector Master Plan. Forestry Planning Unit, Ministry of Agriculture, Lands and Forestry, Sri Lanka.

This policy spells out the commitment of Government to conserve wildlife resources for the benefit of present and future generations in a transparent and equitable manner. It addresses policy needs that respond to the evolving needs of Sri Lankan society and the mandate conferred as obligations under the Convention on Biological Diversity. It also recognizes the need for appropriate and effective management of PAs, taking into consideration the needs of local communities and providing support to wildlife resource managers by way of reorientation of perception and institutional strengthening and decentralization.

- **The National Environmental Policy and Strategies of 2003**

This policy aims to ensure sound environmental management within a framework of sustainable development in the country to balance the needs for social and economic development and environment integrity. It presents the course of action to be taken by Sri Lanka for safeguarding the environment and ensuring that economic development is sustainable. The policy addresses environmental dimensions under conservation and management of four basic groupings of natural resources, namely: land, water, atmosphere and biological diversity. It addresses restoration and conservation of ecosystems; conservation of threatened species; conservation of forest and agro-biodiversity and the threat from invasive species. It also underscores the need for valuation of biodiversity in national accounting, research on conservation and sustainable use of biodiversity, protection of traditional knowledge on biodiversity and measures to limit access to genetic resources by external parties unless equitable benefits to the country are assured.

- **The National Agricultural Policy of 2007**

Amongst other matters, this policy promotes home gardening and urban agriculture to enhance household nutrition and income; conservation of water resources, efficient water management and soil moisture retention techniques; prevention of water pollution from agriculture; adhering to the National Land Use Policy when allocating land for cultivation purposes; land conservation within watershed areas; enforcing the provisions of the Soil Conservation Act; and facilitating exchange of relevant knowledge among the farming community.

- ***Sri Lanka's Biodiversity Conservation Action Plan or BCAP (Biodiversity Conservation in Sri Lanka: A framework for Action)***

The BCAP gives a comprehensive overview of the country's species diversity, as well as the biodiversity within the forest, wetland, coastal and marine and agricultural systems; the policies relating to them; and the institutions that have administrative powers over these systems. The document gives conservation objectives and recommended action for the forestry systems as well as several priority cross-cutting and inter-sectoral thematic areas. Sustainable use, research and awareness creation needs are identified where specifically applicable under the forestry systems. Key threats and issues affecting forest biodiversity conservation,, objectives to be reached, recommended actions, and the main implementing institutions for such actions have been identified. The Plan also introduces, for the first time, 15 terrestrial and coastal bio-regions to address biodiversity conservation issues in the country. During preparation of the BCAP, the essence of the FSMP, pertaining to conservation, was reiterated in the actions proposed for forestry systems.

- **Caring for the Environment: Path to sustainable development (i.e. the National Environmental Action Plan [NEAP] 2008-2012)**

The NEAP has a chapter on Biological Diversity, Forests and Wildlife, which deals with *in-situ* conservation, *ex-situ* conservation, access to genetic resources, and biosafety. The major environmental issues related to biodiversity, forests and wildlife are identified in terms of habitat

loss and fragmentation, loss of wetlands, global climate change and pollution. Gaps in major programme areas of biodiversity are identified under *in-situ* and *ex-situ* conservation, access to genetic resources, traditional knowledge, impacts on biodiversity, and legal and institutional aspects. It also deals with the vision for biodiversity, forests and wildlife sector.

Major achievements that help REDD+ implementation

Forest protection

- **Forest Department** (following recommendations for forest protection in the FSMP)
  - Survey and marking of forest boundaries by the FD (since 2001 over a seven-year period) in forests identified by the NCR as the most important in the country in terms of biodiversity and hydrological conservation. Boundary marking of many other forests is pending due to funding constraints.
  - Proclamation of Conservation Forests vide Section3A(1) of the Forest Ordinance.A total of 65 CFs have already been gazetted. Gazettting of the others are pending.
  - Conservation of all natural forests, especially on higher and lower catchments,
  - Establishment of protective woodlots in areas prone to heavy soil erosion and the decision for non-harvesting of timber in areas exceeding 1,515 m elevation for watershed protection.
  - The proclamation of 15important mangrove areas in the western and southern coastal belt by the FD as Conservation Forests to promote coastal zone protection.
  - Strengthening the efficacy of forest management through the ADB-assisted Forestry Resources Management Project.
  - Preparation of range plans and operational plans for all reserves under the FD and management plans for conservation and reserved forests.
  - Decision by the FD to regulate the extraction of NTFPs from Multiple-use Forests in specially designated zones based on forest specific management plans and resource assessment of all important NTFPs in a given area. This follows the recommendation of the FSMP.
  - Coastal afforestation by planting *Casuarina*spp for the establishment of about 120 protective shelterbelts in vulnerable coastal areas, under the project 'Forestry Programme for Early Rehabilitation in Asian Tsunami Affected Countries' (2006-2007) implemented with the technical assistance of FAO.

- **Department of Wildlife Conservation**
  - Boundary redefinition of 8 National Parks under the DWLC by resurveying and mapping with assistance through the 'Protected Area Management and Wildlife Conservation Project.'
  - Strengthening the efficacy of the conservation area network of the DWLC and institutional capacity under the ADB-assisted 'Protected Area Management and Wildlife Conservation Project.'
  - Preparation of management plans for nine PAs by the DWLC. These requirements are mandated by the FFPO.

- **Overall:**
  - Increasing the protected area network of the country (comprising all forest areas managed by the DWLC and Conservation Forests managed by the FD) to 18% of the land area. This is expected to increase with the further proclamation of new forest areas as Conservation Forests.

- Moving away from strict protection only to adaptive management and participatory conservation by both the FD and DWLC to ensure long-term protection to the PAs they manage.

- **Department of Agriculture**

- Promotion of best cultural practices among farmers to mitigate high soil erosion by the agricultural extension services; encouragement of horticultural tree cover in home gardens.

- **Central Environmental Authority**

- Establishment of Environmental Protection Areas (EPAs) gazetted under the provisions of the National Environmental Act and administered by the CEA. There are currently 8 EPAs; two more are proposed. Implementation of monitoring development whether it conforms to the EIAs is however weak.

- **Increasing forest production by the FD as recommended by the FSMP through:**

- Direct planting of forest plantations.
- Forestation activities through the community Forestry Project and Participatory Forestry Project (farmers woodlots, home garden development, protective woodlots and miscellaneous plantings; Village reforestation system; ADB-assisted Plantation Reform Project where leaseholders were given the right to harvest trees on their premises on prescriptions of management plans approved by the FD; private sector reforestation programme where 50 ha plot of barren FD owned land are leased to the private sector for plantation establishment (See details in Annex 2a-2).

National Arrangements to Reduce Deforestation and Forest Degradation

Constitutional aspects

The Constitution of the Democratic Socialist Republic of Sri Lanka (1978) enshrines the strong conservation tradition and affinity of Sri Lankan culture towards nature, by including the following clauses:

- *The state shall protect, preserve and improve the environment for the benefit of the community [Article 27.14]*
- *The exercise and enjoyment of rights and freedom is inseparable from the performance of duties and obligations, and accordingly it is the duty of every person in Sri Lanka to protect nature and conserve its riches [Article 28 F]*

These statements are the basis of many conservation initiatives that commenced or are in operation in Sri Lanka.

Environmental aspects at the regional and local levels

The 13thAmendment to the Constitution of Sri Lanka adopted in 1987 recognised the nine Provincial Councils as a new level of governance between the Central Government and Local Government. This resulted in a major shift in government policy to decentralise and devolve many functions of the Central Government to the Provinces. Provincial Councils are empowered with legislative and executive powers over several subject areas including the environment (scheduled as a devolved subject), and for intra-provincial projects relating to irrigation, land development, road development, transport, agricultural services, health and

education. Some subjects were kept with the Central Government, and some in the concurrent list for which both the Parliament and the PCs can legislate, but only in consultation with each other. Forest and forest related issues are the responsibility of the relevant Ministries of the Central Government and falls under purview of the FD and DWLC. However, significant responsibilities on social forestry, forestry extension and public awareness comes within the local level through provincial administration. Accordingly, the REDD+ activities will come within the purview of both Central Government and PCs. The North Western Province is the only province to have setup its own Environmental Authority. Overall, PCs and other decentralised bodies, regional administration and local authorities have poor understanding and institutional capacities to formulate or implement environmental laws and regulations or to engage meaningfully in forest conservation. Hence, capacity building, awareness creation and creating commitment for conserving forests at decentralised levels is vital.

Governance rating in the forestry sector

Consultations on governance factors affecting forests during preparation of this R-PP among a varied stakeholder groups including professional foresters, conservationists, academics and general public reveal that governance within the forestry sector at national level was medium/low (score of 2 on a range of 0-4).

TABLE A2a-1.1: Indicators of e-governance and their perceived effectiveness in Sri Lanka

Indicators of e-governance in the forestry sector	Average rank on a scale of 0 (nil) to 4 (100%)
Strategic vision: Leaders and the public have a broad and long-term perspective on good governance and human development, along with a sense of what is needed for such development.	**2**
Transparency: Information flows freely; institutions and information are directly accessible to those concerned with them and enough information is provided to understand and monitor them.	**2**
Accountability: Decision-makers, whether in government, the private sector or civil society organisations, are accountable to the public as well as to institutional stakeholders.	**3**
Predictability: Institutions and individual officials respond to all stakeholders consistently and in a consistently timely manner.	**2**
Participation: All men and women have a voice in decision-making, either directly or through legitimate intermediate institutions that represent their intention.	**2**
Consensus orientation: Different interests are mediated to reach a broad consensus on what is in the best interest of the group and, where possible, on policies and procedures.	**2**
Subsidiarity: Responsibilities and tasks are delegated to the level most appropriate for accomplishing them effectively and efficiently.	**2**
Integration: Environmental considerations are incorporated into development decision-making.	**2**
Rule of Law: Legal frameworks are fairly and impartially enforced	**2**
Overall effectives of key environmental institutions at the national level In promoting environmental	**3**
Overall effectives of key forest management institutions at the decentralised level promoting forest conservation	**2**

Commitment to international conventions and programmes relevant to REDD+

The government has shown strong commitment to meeting the responsibilities imposed by environment-related Conventions and programmes such as the UNFCCC (1992), KyotoProtocol (2002), CBD (1992), Convention on International Trade in Endangered Species

of Wild Flora and Fauna, CITES (1979), The World Heritage Convention (1980), the Ramsar (Wetland) Convention (1990) and the UNESCO Man & Biosphere Programme (1970).

TABLE A2a-1.2:Conventions relevant to protection of forests and their biodiversity and to address climate change

Name of Convention	Year of Ratification/ Acceptance (At) Accession(Ac)/ Succession	Focal Point
Convention on Biological Diversity (1992)	1994	Ministry dealing with Environment
Convention on Wetlands of International Importance Especially As Waterfowl Habitat (1971)- Ramsar	1990 (Ac)	Department of Wildlife Conservation
Convention concerning the protection of the World Cultural and Natural Heritage (1972)	1980 (At)	Ministry dealing with Environment and Ministry dealing with Cultural Affairs
United Nations Framework Convention on Climate Change (1992)	1993	Ministry dealing with Environment
Vienna Convention for the Protection of the Ozone Layer (1985)	1989(AC)	Ministry dealing with Environment
Montreal Protocol on Substances That Deplete the Ozone Layer (1987)	1989(AC)	Ministry dealing with Environment
Kyoto Protocol on Climate Change		Ministry dealing with Environment
Convention on International Trade in Endangered Species Of Wild Fauna and Flora (1973)- CITES	1979 (Ac)	Department of Wildlife Conservation
International Plant Protection Convention	1952	Ministry dealing with Agriculture

Past projects of relevance to REDD+

Major projects in the forestry sector

A large number of projects have served to build institutional and national capacity to conserve and manage forests and similar vegetation. The main projects with marked impact are given below;

- **The Forestry Sector Development Project** (FSDP)

This was a landmark project to enhance forest management, expand forest plantations to supply timber without exploiting natural forests and to develop an Environmental Component to the FSDP. Among the cutting edge activities carried out were the Accelerated Conservation Review (ACR) of 31 lowland rain forests followed by the National Conservation Review (NCR) for biodiversity assessment of natural forests greater than 200 ha in the country; setting upa database on forest biodiversity (the Environmental Information Management system-EIMS) and a comprehensive survey of traditional uses of forests by local communities and their impact on forest biodiversity.

- **TheForest Resources Management Project** (FRMP)

Under this project there was capacity building in the FD (as the main beneficiary), targeted awareness and extension,agro-forestry,rehabilitation of degraded forests, buffer zone development through participatory community programmes,and boundary demarcation of natural forests and forest plantations which could not be completed by the end of the project.

- **The Protected Area Management and Wildlife Conservation (PAM&WC)Project** 2001-2008.

The main beneficiary from this project was the Department of Wildlife Conservation (DWLC). Key activities of the project were: (a) enhancing institutional capacity in the DWLC for wildlife management; (b) promoting participatory adaptive management orhabitat enrichment, including management of alien invasive species and pilot research on invasive species eradication; (c) facilitating collaborative conservation planning; (d) community partnership building through buffer zone community development; (e) habitat mapping in seven PAs to pilot test systematic monitoring of biodiversity and enable PA zoning; (f) a gap analysis to assemble a strategic portfolio of conservation sites for Sri Lanka and (g) biodiversity baseline survey in the piloted protected areas and preparation of provincial action plans for biodiversity conservation.

- **The Coastal Resources Management Project (CRMP)** from 2000-2006

This was a major initiative of the then Ministry of Fisheries and Ocean Resources targeting its line agencies. Component B of the CRMP for Institutional Strengthening coversseveral aspects that are relevant for managing coastal resources. Amongstother activities, it included institutional strengthening of the Coast Conservation Department (CCD) by setting up a GIS unit in the CCD with the required facilities and a database to assist the department's functions; capacity enhancement for Integrated Special Area Management Planning in the coastal areas; assistance for conservation and mapping of coastal habitats and updating the Coastal Zone Management Plan (CZMP) which has a chapter of coastal habitats (including mangroves) with policies and actions for their conservation.

- ***The GEF-UNDP funded National Capacity Needs Self Assessment (NCSA) from 2005-2006***

This project was carried out by the Ministry of Environment. The National Capacity Needs Self Assessment Project (NCSA) resulted in preparation of the NCSA Action Plan based on a thematic assessment of existing capacity to address climate change, biodiversity conservation and land degradation by the Ministry of Environment and Natural Resources.

- **The UNDP-funded Integrated Strategic Environmental Assessment of the Northern Province (2009 onwards)**

This was an environmental assessment carried out by the CEA to prepare zoning plans for development of the region after the end of the 30-year internal conflict. The assessment has been completed for Hambantota and Trincomalee Districts.

Noteworthy forest related institutional projects and programmes for community participation

- **The Community Forestry Project** (1982-1990) and the Participatory Forestry Project (1992-2000) which led to understanding of the role of local people in forest conservation through raising timber plantations and raising fuelwood plantations for local communities respectively (Annex 2a-2).
- **The GEF/UNDP funded Southwest Rainforest Conservation Project**of the Forest Department (2000-2006)for pilot testing a model for participatory forest conservation in the wet zone with the help of local people(Annex 2a-2).
- **Sri Lanka Australia Natural Resources Management Project (SLANRMP**) for poverty reduction through improved natural resource management in selected areas of the Intermediate and Dry Zone with the participation of local people (Annex 2a-2).

Links to international programmes of relevance

- **The Man and the Biosphere Programme (MAB) programme of UNESCO convened by the National Science Foundation (NSF).**

The Sri Lanka MAB Programme has been in existence since the 1980s. A main aim of this programme is to adopt the MAB concept for management and conservation of forests in four international Biosphere Reserves belonging to Category IX under the IUCN system of classification. These sites are established to promote and demonstrate a balanced relationship between humans and the biosphere, and thereby take a people-centred approach, and are designed to offer solutions to conserving the environment to ensure sustainable development for people through reconciling the objectives of *conserving biological resources* with *sustainable use* of the environment and its resources. Biosphere reserves offer excellent opportunities to implement benefit sharing under REDD+.

The current drivers of deforestation and degradation

Past policies and actions that led to deforestation have already resulted in a loss of approximately 50% of the country's forest cover within about 50 years during the last century due to expansion of irrigation, human settlements, agricultural development, and other non-forest development activities such as hydro-power generation.

BOX A2a-3: PROJECTED URBAN DEVELOPMENT BY 2030

- The estimated annual urban growth rate of 3% between 2005-2015 will result in an urban population of over 50% of the total by 2016.[a]
- The NPPP&P targets the development of 5 Metro Regions, 9 Metro Cities, and a further 16 District Capitals by 2030, as key areas for human settlement and economic activity in the country.[b]
- The above regions are to be developed with a range of infrastructure facilities to ensure access to urban centres for more than 70% of the population by 2030.[b]

Source: (a) MoFP[215] (a) and (b) NPPD & MUDSAD (2006)[216]

Despite these factors that led to large-scale loss and degradation of forests, the decline of total tree cover in the country has been reduced due to the presence of rubber and coconut plantations and the increase in area under home gardens. Furthermore, the rate of annual deforestation has decreased due to concerted efforts in the forestry sector. However, given the trajectory of projected urbanization in the country, the need for development in the aftermath of the war and the pressing needs for socio-economic advancement where people's aspirations have risen due to free education and good healthcare, there is indication that the pressure on forests lands may increase in the future(Box A2a-3). On the positive side, the *MahindaChinthana*, the main Development Framework for Sri Lanka, and the National Physical Planning Policy and Plan NPPP&P) promote forest and biodiversity conservation and development that is in harmony with environmental conservation. Balancing the two objectives will be a major challenge for the country as it forges ahead with a strong development agenda. Providing a value for forestry through REDD+ should thus aim at giving a strong impetus to forest conservation and increase of tree cover in the country to help mitigate the impacts of climate change. This is even more important is that a 'GAP analysis' of the existing Protected Area system using GIS technology

[215] MOFP, MahindaChintana, vision for a new Sri Lanka. A Ten Year Horizon Development Framework 2006-2016.

[216] NPPD and MUDSAD (2006). Sri Lanka 2006-2030: National Physical Planning Policy and Plan. Final Draft.

showed that a considerable percentage of forests in the island are of the condition categories of 'moderate' or 'poor'[217](Gap Analysis final report, 2006).

The main drivers of deforestation and forest degradation at present are given in Table A2a-7. They are due to inadequacies in governance, policies, technology, knowledge, capacity, or cultural reasons and need for rapid economic development. The drivers can also be categorised as those that can be addressed within the forest system by better management of forests by the FD and DWLC, and others that are external and cross-sectoral, and need better overall environmental governance, coordination and productive collaboration between development and conservation sectors.

One of the main causes of deforestation and forest degradation is forest encroachment - mainly for tea cultivation in the Wet Zone and shifting (or slash and burn) cultivation in the Dry Zone. These problems persist, despite actions taken during the past two decades including increased boundary marking of forest reserves and better law enforcement coupled with a more people-centred approach by the FD to increase community involvement in forest conservation. This is partly due to the fact that most rural communities in Sri Lanka (particularly in the wet zone) show very low forest dependency. Such encroachments are often supported by local policy makers who are pressurized by their voters due to increased democratization at grassroots level with no corresponding increase of civic consciousness in the voter base. This also results in emphasis at local political levels on short term development gains that run counter to the long-term government national development agenda of the *MahindaChinthana*which provides high priority for environmental concerns along with development.There is also a disturbing drop in relations built over the past decade between forest managers and local people, due to high returns from forest conversion and the failure of long-term sustainability of most community participation forest conservation projects. The presence of many forests that have not been boundary marked, and the poor maintenance of demarcated boundaries due to capacity constraints within the FD has added to the problem of forest encroachment. Slash and burn cultivation results in forest degradation and if practiced persistently over a long time will eventually lead to deforestation. This too continues, despite a step-up in law enforcement and the introduction of many participatory schemes (**Annex 2a-2**) by both FD and DWLC to reduce peoples' dependence on slash and burn cultivation which was destroying the Dry and Intermediate Zone forests. Illegal felling has been largely controlled due to regulations based on the Forest Ordinance to prevent establishment of private timber depots within specified distances of forest reserves,and to require permits to transport timber. However, this continues to be a considerable threat to forest degradation, particularly in the Dry Zone, though not a cause for excessive deforestation.

Another major factor underlying deforestation and forest degradation is land clearance for locating multi-purpose large-scale projects that are fuelled by the need for rapid economic advancement after the war. The need for development is also propelled by a growing rural population with aspirations for a better life, that require hydropower for electricity; industry; human settlements with modern amenities and better housing, roads and other infrastructure which are now only available in urban areas. While the lack of non-forest land for siting development projects in the Dry Zone makes forest clearing inevitable, adequate interactive consultation with the FD at the initial planning stages of project planning could considerably minimise the impacts of forest loss and degradation. Such a balance is promoted in the

[217]MoENR (2006). Portfolio of Strategic Conservation Sites/Protected Area Gap Analysis in Sri Lanka (unpublished).

government development framework - the *MahindaChinthana*- which provides high priority for environmental concerns - including protecting forests - alongside development.

Forest fires are a major cause of forest loss and degradation in the Dry Zone. Poverty in Dry Zone districts induces local people to engage in forest-based practices that involve deliberate burning. The low capacity in the FD to respond rapidly to forest fires compounds this problem. Over exploitation of NTFPs such as minerals/gems and rocks also contributes to degradation of natural forests in all zones. This occurs mainly due to governance and policy gaps; high demand for these items; stringent permit procedures that apply to removal from private lands coupled with lack of guidelines to control forest extractions that are permitted; and low cost of extraction from forestsinducing removal of these resources from forests. Invasive species too are emerging as a problem in all climatic zones as a cause of forest degradation with problems arising from exotic species introduced into plantation forests (i.e. *Acasia* and Mahagony) or forest enrichment in the past, as well as naturally occurring secondary species that suddenly become invasive. While clearing mangroves for shrimp cultivation in the northwest coast where it proliferated in the past is no longer a problem due to closing down of many shrimp farms there is a concern that this may shift elsewhere, particularly to the valuable beaches on the eastern coasts.

Table A2a-5: Details of Direct and Indirect Drivers of Deforestation and Forest Degradation

Sector	Direct Driver	Indirect Driver	Driver type
Forestry sector	**Encroachment for agriculture:** c. Tea and other cash crop cultivation in the Wet Zone (WZ). d. Slash and burn cultivation in the Dry Zone and Intermediate Zone (DA/IZ)	***Tea and other cash crops*** • High Price of tea and other Wet Zone cash crops, and intense socio-economic pressure among rural communities to increase economic returns from tea lands. • Increased consumerism/enhanced lifestyles needing higher incomes. • Rapid social transition/upward social and economic mobility in rural societies with decreased civic consciousness. • Low productivity of tea/agricultural lands encourages larger holdings. ***Slash and burn cultivation (S&B)*** • Poverty due to inadequate opportunities for economic advancement in these regions. • Expansion of families engaged in slash and burn cultivation needs more plots worked simultaneously. • Commercial demand forslash and burn produce in the market (year-round and seasonal crops-some illegal such as cannabis) • Lack of competitive alternative employment. • Low levels of educational attainment among S & Bfarmers for employment outside the agricultural sector. • High cost of production and greater investment (time/effort/money/water of conventional agriculture (e.g. paddy) compared with S & B. • Difficulties for conventional agriculture - high dependence on rain-fed agriculture due to insufficient irrigation water (seasonally or year-round) • Lack of non-forest lands for agricultural expansion in the DZ and IZ.	**Economic**
		• Loss of traditional values and respect for forests and wildlife among rural communities. • Failure of pilot tested community participation models for long-term engagement of local people in forest conservation, after project funds ceases. • Incomplete boundary demarcation of forests under the Forest Department. • Poor maintenance of many demarcated boundaries due to absence of regular monitoring – shifting of boundary posts by local people. • Low valuation of forests by local people.	**Governance** **Technology/ Knowledge** **Cultural** **Capacity** **Economic** **Policies**

Sector	Direct Driver	Indirect Driver	Driver type
		• Lack of technology to obtain high yields from existing agricultural lands. • Inadequate agricultural extension services • Inhibitions/reluctance to engage in more advanced agricultural systems due to lack of knowledge and skills.	**Technology/ knowledge**
		• Family traditions over generations of slash and burn as a livelihood.	**Cultural**
		• Inadequate staff deployment/ facilities for field monitoring in FD. • Inadequate coordination between FD and Agriculture department to increase yields from tea lends to prevent encroachment.	**Capacity**
	Other encroachments into forests (all zones) a. For housing: village expansion/new villages b. For provision of amenities – e.g. electricity c. For tourist accommodation by an irresponsible segment of the tourist sector – often small scale but affecting very sensitive forest areas. d. For development of commercial facilities and roads following tourism infrastructure.	<u>Housing and settlements/tourist infrastructure</u> • Population increase in the Wet Zone due to expansion of families over time - lack of privately owned arable/habitable land. • Increased consumerism in rural communities to support new lifestyles, necessitating more common amenities/infrastructure. • Greater socio-economic potential and resources in the WZ - high population densities. <u>Tourism infrastructure</u> • Emergence of tourism as a lucrative economic activity after the 30 year war which retarded tourism development. • High potential of scenic forest sites to attract nature tourists. • High demand - sale of rural lands near forests to tourism developers.	**Economic**
		• Social requirements and pressure on policy makers due to increased democratization at grassroots levels without a corresponding increase of civic consciousness in the voter base	**Governance**
		• High population density surrounding fragmented/isolated WZ forests.	**Other**
	Illicit felling (all zones) (logging is banned in natural forests)	• High price and demand for timber in the country for construction purposes. • Poverty and lack of employment opportunities near Dry Zone forests - felling for housing and commercial purposes. • Lack of high value timber in home gardens/private lands. • Lack of space to grow timber species in home gardens.	**Economic**
		• Inadequate monitoring for better law enforcement due to poor deployment of field staff; lack of vehicles, funds and communication equipment.	**Capacity**

Sector	Direct Driver	Indirect Driver	Driver type
		• Lack of timber depots near forests due to legal provisions – promotes illegal felling for domestic use. • Time consuming and tedious procedure for timber transport permits from home gardens.	**Policies**
		• Low deterrent due to inadequate punishments. • Inadequate linkage and communication between FD officials and people.	**Governance**
		• Lack of knowledge that illegally felled timber is of low quality	**Knowledge**
		• Cultural attitudes that certain wood species are good for houses	**Cultural**
	Firing (DZ/IZ): Intentional: • for slash and burn cultivation, • encroachments to expand land holdings, • to clear forest foot paths, • to encourage new flush for cattle grazing • facilitate hunting (commercial/subsistence) and • traditional operations (e.g. bee honey collection). Accidental:	• Poverty in Dry Zone districts that lead people to engage in forest based practices /occupations that involve firing. • Lack of suitable non-forest grazing lands for traditional cattle grazing. • Poverty – lack of money to use concentrates for cattle feed. • High demand for illegal game meat in the market – tourist hotels.	**Economic**
		• Poor practices when using fire for hunting and other traditional forest uses (e.g. collecting bee honey) • Traditional beliefs that rains are induced by smoke from fires • Lack of knowledge about consequences/low civic consciousness. • Lack of education to know the dangers of forest fires. • Negligence.	**Knowledge**
		• Inadequate FD capacity to respond quickly to forest fires or detect firing.	**Capacity**
		• Pyromania in local people and visitors to forests.	**Other**
	Invasive species (IS). Unintentional introduction Intentional introduction of IS for reforestation and	• Ornamental species that become invasive; contaminants from imported seed for animal fodder and dried plants (grasses) for ornamental uses. • Insufficient capacity in quarantine services to check for IAS.	**Governance**

Sector	Direct Driver	Indirect Driver	Driver type
	afforestation (all zones)	• Poor land preposition in agricultural holdings leads to proliferation of fungi, etc. that become invasive in forest plantations. • Invasion by indigenous secondary species that colonize colony gaps • Use of invasive species for reforestation and afforestation in the past (this is no longer done, but the impacts persist) • Invasions by introduced exotic plantation species colonizing canopy gaps in adjacent natural forests • Lack of research on and research facilities for invasive species in the forestry sector. • Lack of knowledge and resources in the FD to control/ prevent unintentional invasions.	**Capacity / Knowledge**
	Destructive removal of minerals and rocks from forests Over exploitation of some NWFPs (all zones)	• Illegal mining has prompted stringent restrictions through permits for mining and rock blasting in private lands. • Comparative ease of obtaining minerals and rocks from forests. • Lack of proper legislation to control over-exploitation of mineral resources in forests.	**Governance**
		• High demand for rocks and other minerals due to development boom after ending of the war. • Low cost of illegal extraction from forests. • Low charges for forest products (-18/1600 gazette) as sale is not for income but as a deterrent for over exploitation. –	**Economic**
		• Inadequate capacity for monitoring to prevent over-extraction from forests under the permit system. • Lack of guidelines to issue permits for sand mining, rock blasting etc. in forests.	**Capacity**
Outside the forestry Sector	**Need for expansion of human settlements** in the north and east affected by the civil war. **The critical need for large scale multi-purpose development projects** for urgent economic advancement of the country after a 30 year civil war. **Loss of critical forests and important wildlife habitats due to lack of strategic forest clearing** for development projects. **Expansion and**	• Difficulty of identifying non-forest state lands for large scale development. • Lack of field level knowledge by persons identifying forest lands and poor advice for site selection of projects • Lack of communication between field level staff and project planners. • Failure to consult FD and DWLC in development projects at initial planning stages due to poor coordination and communication. • Poor coordination and joint goal setting among state institutions when identifying forest lands for clearance. • Lack of coordinated implementation of the land use policy by all stakeholders when initiating development projects. • Lack of zonation for different land uses to enable sustainable development. • Pressure on governments to enhance rural	**Governance**

Sector	Direct Driver	Indirect Driver	Driver type
	development of existing settlements, and new settlements. **Agricultural expansion** (all zones, but mainly DZ)	economies. • Need to increase national food production for an expanding population. • Poor agricultural planning – a definite quota not given for production.	
		• Economic aspects of development considered to outweigh values of forest by project planners. • Lack of a proper system of forest valuation that considers both goods and ecosystem services of forests.	**Economic**
		• Lack of non-state lands to expand existing cultivations or set up new cultivations due to past land alienation policies. • Inadequate attention given to the *MahindaChinthana*environmental concepts when planning large scale development projects. • Inconsistent procedures/policy for acquiring forest lands for development. • Land use policy is inadequate • Land policy not adhered to during project planning.	**Policy**
		• Lack of water for agriculture in the Dry Zone which necessitates large scale irrigation projects. • Population increase: greater pressure on land and other natural resources.	**Other**

Annex 2a-2:
Lessons learned from Participatory Projects carried out by the FD and DWLC

This analysis has been prepared using several reviews of community forestry in Sri Lanka,[218,219,220]and interviews with FD field and headquaters staff during consultations for this R-PP. It also draws on prior field visits to sites where participatory projects were in progress by preparers of this document for interviews with CBOs involved with the GEF/UNDP funded Southwest Rainforest Conservation Project of the Forest Department, Sri Lanka Australia Natural Resources Management Project, and the Protected Area Management and Wildlife Conservation (PAM&WLC) Project, and community participation around the Knuckles Conservation Project[221,222, 223, 224,225]and consultations with NGOs during preparation of the R-PP (described in Component 1b).

Analysis: As said in the Forestry Sector Master Plan of 1995, both the FD and DWLC have tried participatory forestry with varied success. In the early years participatory forestry had evolved into a concept whereby the state initiates the effort and people are encouraged to participate by means of incentives, such as employment in tree planting outside natural forests and sharing of the produce. This worked well in the farmers' woodlot projects but is not likely to be sustainable in the long-term unless the state continues to provide funds. Subsequent attempts to derive a suitable model for participation of local people in natural forest conservation were very successful during the project period when there was close monitoring by FD and DWLC respectively, but except in a limited instances, the enthusiasm of the community participants tends to wane once the projects end and the FD and DWLC ease out of the monitoring leaving community members in charge of the trust funds and micro credit schemes that are set up. Except in a very few example, projects have not evolved to people's forestry as promoted in the forestry Sector Master Plan of 1995.

Taungya system in Sri Lanka to reduce chena cultivation in closed canopy forests. (since the 1930s)
About 40 years back, the scrub forests were cut down for establishment of teak plantations. These teak plantations are standing first generation teak, people are paid for raising them and

[218]MALF (1995). Sri Lanka Forestry Sector Master Plan. Ministry of Agriculture, Lands and Forestry, Sri Lanka.

[219]FAO and FD (2009). Asia Pacific Forestry Sector Outlook Study II Working Paper Series: Sri Lanka Forestry Sector Outlook Study. Working Paper No.APFSOS II/WP/2009/29.Forest Department, Government of Sri Lanka.

[220]Community Forest Management in Sri Lanka "Lesson Learnt and Future Direction". September, 2009. Dangal S.P. and De Silva P.M.A. Paper presented at the Community Forestry International Workshop, Pokhara, Nepal.

[221]Dela, J D S (2003).Periodic Review of the Sinharaja Biosphere Reserve.Prepared for the National Science Foundation/ Sri Lanka National MAB Committee, for submission to UNESCO.

[222]PILF, unpublished PILF (2004).Case study of environmental justice in respect of access to forest resources in the Kanneliya Forest Reserve (unpublished report).

[223]GoSL (2009). Sri Lanka: Protected Area Management and Wildlife Conservation Project Borrower's Project Completion Report (unpubl.).

[224]GOSL (2008). Nomination of the Central Highlands of Sri Lanka: its cultural and natural heritage for inscription in the world heritage list. Submitted to UNESCO by the Government of the Democratic Socialist Republic of Sri Lanka.

225 Visit to Mahausakanda Community Project where a rubber estate is being converted to a rainforest.

move out after 4 years. Payments are made in year 1 for establishment seedlings, and during years 2 -4 for maintenance of the trees. During this time the farmers can grow agricultural crops until the canopy closes. After 4 years the farmer has to leave as they have no ownership of the trees planted. This lacked sustainability from the farmer's point of view, and they could revert to chena cultivation again.

†The Participatory Forestry Project (PFP) (1993-2000).

This project greatly increased the bond between FD and people. It is based on the principle that there should be some form of participation between the people and the FD. This project had 4 components: Some components are being continued.

1. Home garden development:

Forest extension officers conduct a survey and collect information on what species are preferred by households. They are then provided with a mix of species comprising coconut, fruit plants and some timber species. About 40 tree species are provided per 0.1ha for home gardens in the wet zone and per 0.5 ha for home gardens in the Dry Zone. (i.e. average home garden size in the wet and dry zones respectively). In addition, instruction is given on how to manage the trees:

2. Farmers woodlots

Most existing plantations were raised through farmers' woodlots and continued through the Forestry Resource Management Project (FRMP). Thus tree plantations are raised with peoples' participation.

Procedure: The FD selects suitable state land adjacent to village after field visits, select the farmers for the programme and provide each farmer with average sized blocks of 0.5 ha to raise 1000 trees per ha. Each farmer has to grow 500 trees in a block. Trees are spaced to keep 5 m between two rows for the forest species, enabling the farmer to grow crops between the trees.

Phase I: During 1993-2000, this system served to raise 10,000 ha of plantations (of which 90% were teak), with 100% of the trees owned by the farmers while the land belonged to the FD. Agreements are signed initially for 25 years, which is extended depending on tree requirements and maturity. Within the first 5 years farmers have to thin the trees, and they are free to take the thinnings as well as crops they grow under the canopy..

Phase II: The procedure continued under the Forestry Resource Management Project (FRMP) with the change that new agreements reduced the farmers' ownership of trees to 75%. The farmers are permitted to the income from sale of the final timber product, and all income and timber from thinnings during maintenance.

The farmers are also paid incentives as follows: (1993 rates)

1st year :Rs 6000/- per ha; maintenance payments of Rs 4000/- for the 2nd year, Rs 3000/-for the 3rd year and Rs 1500/- for the 4th year. This incentive was earlier provided as food aid (coupons), but later changed to any goods that could be purchased through the local cooperative stores for the given value.

It is participatory in that non-FD participants are engaged in planting trees and they have some degree of choice over what is planted, but there is a question of whether it was truly participatory as 'participation depended on food and other aid.

Analysis: Even though this approach is successful, it is not a fully participatory project as there is dependence on payments by the FD in terms of goods. Also, there is no guarantee that the farmers will not revert back to slash and burn (chena) cultivation once the 4-year incentive period is over.

3. Protective woodlots:

Under this scheme, people are provided with the incentives to plant fruit trees and timber

(indigenous) species in selected environmentally sensitive areas, such as tank catchments and upcountry catchment areas. They have access to the fruits, but not the timber, and they do now own the land or trees.

4. Miscellaneous: (continuing)

This involves tree planting in river and stream reservations, and temples, canal banks, school premises (forest gardens) and public places. Accordingly, there has been home garden development, canal bank planting, tank catchment rehabilitation of degraded mangrove forests in the Ampara, Trincomalee and Batticaloa districts.

†Natural forest management with local people

†The GEF/UNDP funded Southwest Rainforest Conservation Project of the Forest Department (2000-2006)

This project pilot tested the development of a viable participatory management model for forests in Sri Lanka, and was functional in buffer zone villages along the southern perimeter of the Sinharaja Forest Reserve and the perimeter of the Kanneliya Forest within Sri Lanka's PA system. The project built capacity in the FD for community mobilisation and formal registration of existing CBOs involved with the project in villages where it was in operation. The model took into account the conservation status of the relevant forests, the level and type of forest dependency among local people, and the national forest policy**.** As such, the model developed was one in which the overall control of forest resources remains vested in the FD, while the communities had a recognisable role in planning and managing the pilot forest reserves so that they remained committed stakeholders in the process. The CBOs that were established assisted the FD to work out appropriate systems for delivery of assistance (for each village) as required for social upliftment, and to reduce forest dependency (including encroachment) by improving local livelihoods. The CBOs were helped to become self-reliant in the long-term after the project ended through establishment of Community Trust Funds (CTFs) for which seed money was initially provided via the FD. The CBOs were registered so that they can operate the CTFs and a bank account. The CTFs provided soft loans at very low interest rates for CBO members to engage in activities that would enhance cash incomes and reduce forest dependency – mainly to alleviate the need to expand tea smallholdings into the reserves and to wean away local people from some damaging forest extractions for commercial purposes. The CBO members were trained through the project to write proposals for seeking funds, and office bearers were trained to keep accounts and carry out the CBO activities.

The CBO members were also assisted in developing technical and entrepreneurial skills by the FDto enhance their cash incomes, thereby reducing the need to encroach into the reserve to expand tea holdings. The required training programmes and the members to receive training were selected by the CBOs. As a result of this project, communities have become more aware of the value of the forests due to effective social mobilization, and a dialogue developed between the community and the Forest Department. This has generated greater local commitment towards conservation of the reserves. The project also provides tangible benefits for CBO members, thereby promoting continued support for forest conservation. The FD, which initially facilitated the formation of these voluntary CBOs, has now moved into an advisory and monitoring role; the CBOs are run entirely by community members.

Analysis: This project was very successful during the project period when there were FD social mobilisers actively working with the communities, but it lacks sustainability. Many of those in the villages who were trained in leadership have since got jobs elsewhere and left the villagers; the loan payments under the micro-credit scheme are in abeyance when it is handled only by the community, and there is no incentive to continue with the CBO on a long-term basis., and membership has dropped. Only a few of the CBOs set up under this project are in

operation now. The CBOs have not built capacity to be self sustaining and to maintain the interests of members once the state funding support ceased after the project.

†Sri Lanka Australia Natural Resources Management Project (SLANRMP)

This project aimed for poverty reduction through improved natural resource management in selected areas of the Intermediate and Dry Zone with the participation of local people. Under this project the focus was on conserving degraded forest islands in the DZ that are surrounded by villages. The connection with people was made through their dependency on water from the forest and alleviation of the danger from accidental forest fires. This project dealt with enrichment and management of natural forest and establishment of farmers' woodlots at forest boundaries. It also involved enrichment plantingin the forest with species for firelines. To implement the project functional units were formed by parceling out the area into water catchments and the villages associated with each catchment. Management plans were prepared to enhance income generation and forest management, which included developing ecotourism potential.

This project was active in two Dry Zone areas in the Kurunegala and Matale districts since February 2003 - 2008 to support communities improve the management of natural resources through a participatory and holistic approach. The project aimed for institutional capacity building and human resource development in this sphere in the forestry sector. The project also aimed to pilot the management of degraded forest patches by communities in adjacent villages which could benefit from enhanced household incomes due to improved land use and integration of forestry and agriculture. The project specifically targeted communities that were dependent to varying degrees on the adjacent forests for their livelihood, and were thus willing to accept responsibility for community management of forests in exchange for forest user rights. Women and disadvantaged members were given special attention.

It is noteworthy that the project piloted the Micro Enterprise (ME) facilitation model for the communities and developed the capacity of FD staff for facilitation. A mechanism was developed to introduce Micro-Finance Institutions (MFIs) to the community to finance planned enterprises. There was no mechanism for monetary support to the MFIs. By 2009, all 55 sites had access to financial services within their villages.

This project acted as a pilot research project to test an appropriate development process that that the FD could implement through its institutional programmes on a routine basis. A Training of Trainers course was developed to disseminate the results nationally. The ultimate goal of the project was to contribute to poverty reduction through improved natural resource management in Sri Lanka.

Analysis: While the poverty reduction component has been successful, the natural resource management component has lacked continuity in most areas This project was also very successful during the project period when FD's social mobilisers were actively working with the communities, but it lacked sustainability. Except in a few instances the CBOs are not functioning as expected for managing the forests that were handed over to them. Part of this is because they are not totally dependant on them for livelihood. The one instance where it remains successful is where the CBO is acting as a conduit for marketing and economic enhancement of members. For community participation to be successful in the long-term projects must not only help social upliftment on an individual family basis, but scale up to common community social upliftment programmes backed by a string of CBO mechanisms and continued interaction with the FD..

†Village reforestation system (continuing)

This project functioned under the same principle as the Tongya – but it was established only at plantation sites under second rotation planting. The plots were given to a farmer for a 4 year period to grow timber species (teak), whowere then paid according to FD norms. After the 4 years they have to give up the plots, but during the planting period they can grow their crops such as ground nuts as well as the teak and derive an income.
Private sector reforestation programme
This programme works with parcels of barren FD-owned land with shrubs, advertised for proposals from the private sector. The best proponents are awarded the land on a 25-year lease basis, for which they have to pay the FD. This is mainly for planting teak in Dry Zone. The private tree growers can be categorized as 'private individuals' who have obtained lands from the FD on 30-year leases under a special reforestation scheme in the Dry Zone. The area of a land parcel varies from 5-100 ha and the total extent of lands leased under this scheme is around 1,500 ha. Intercropping was practiced during the initial years of plantation establishment. The most common tree species that has been planted is teak.
The Mahausakanda Reforestation programme with community participation This project run by the Ellawala Trust is gradually converting a rubber plantation into a rainforest by planting rainforest species characteristic of the area. Records on tree growth etc, are kept meticulously under the supervision of scientists. Schools educational programmes and ecotourism are carried out successfully, and the community has incentives to assist with forest conservation by the establishment of a coconut shell and other seed accessory business through a cooperative set up for the village women. The products are marketed with the assistance of the ET at one of the most exclusive stores in Sri Lanka. Care is taken by the women not to take too many seeds for the business to allow regeneration in the rubber area. Community awareness has resulted in better protection for the adjacent natural forest managed by the FD. The trail guides are hired from the village and the males are given jobs in the rubber plantation/rainforest. This community project is working extremely well.
Direct planting by the FD - for regeneration
This is mainly through direct establishment of Eucalyptus plantations in the NuwaraEliya District. Some plantations in the Dry Zone are also established directly, but much of the plantations are established under the PFP.
Enrichment of carbon stocks in *Pinus* (ongoing- small scale)
This is carried out by direct planting of rattan in *Pinus* plantations for livelihood development, with the exceptionof the *Pinus* plantations in the Kalutara that are enriched with *hora*.
Home garden component
PFP HG – contacted and plants given. In addition instructions given how to manage trees – pruning etc.
†The ADB-assisted Plantation Reform Project (1998-2004)
Leaseholders were given the right to harvest trees on their premises on prescriptions of management plans approved by the FD through the formulation of 21 Regional Plantation Companies in the latter part of the 1990s and by clustering government-owned tea, coconut and rubber plantations and leasing them on 99-year lease agreements to the private sector. The estimated extent of forest plantations in the leased lands was nearly 5000 ha. The leaseholders were given assistance for planting of forest crops in their estates. Reforestation was done mainly in the up-country tea estates in the up- country zone using *Eucalyptus* species. A total extent of new tree crop establishment under the project was 4,500 ha. By end of June 2002, the establishment of fuel, timber and of protective woodlots was about 2,876 ha, 638 ha and 253 ha respectively. The new forest plantations would reach harvestable sizes for timber by the end of the next decade.

Forestry Programme for Early Rehabilitation in Asian Tsunami Affected Countries' (2006-2007)
Coastal afforestation for the establishment of protective shelterbelts commenced under the project implemented with the technical assistance of FAO. Nearly 120 ha of coastal shelterbelts have been established in vulnerable coastal areas, especially by planting *Casuarina*sp. The establishment of such coastal shelterbelts exercises several positive impacts on the environment such as the fixation of sand dunes.
The Protected Area Management and Wildlife Conservation (PAM&WLC) Project 2001- 2008
This project was carried out by the DWLC to implement participatory adaptive management in pilot protected Areas and to facilitate community participation for buffer zone development. Component D of this project dealt with Sustainable Financing for Community Partnership Building. Under this, a new feature for the DWLC was the establishment or strengthening CBOs in the buffer zones of eight Protected Areas and providing them with micro credit facilities to establish new ventures. CBOs were strengthened with funds from the Protected Area Conservation Fund (PACF) designed to provide assistance to the fringe dwellers around the selected PAs to establish a range of ventures including agriculture development, carpentry work, poultry farming, retail shops, computer training centres, cottage industries and manufacturing dairy products to reduce illegal forest use. This project achieved significant success in bringing the PAs and local people together at closure of the project. A total of 168 micro plans were prepared and village needs were identified by CBOs to prepare proposals for buffer zone development. Overall this component was functional in 171 *GramaNiladhari*divisions and 144 CBOs around 8 pilot PAs in the Dry, Intermediate and Wet Zones. **Analysis**: This project too was very successful during the project period when there were social mobilisers hired by the DWLC actively working with the communities. Much larger finding was provided to CBOs than the two community participation projects described above, with larger micro credit facilities. As the social mobilsers were not absorbed to the DWLC, it became very hard for the DWLC Park staff to monitor the activities of the large number of CBOs set up around each of the pilot PAs where the project was operational. Furthermore, many of the staff trained in social mobilisation have been transferred to parks with no facilities for community participation work. While there are a large number of CBOs operational, many have fallen in to abeyance. Here too, there is a clear need for strong backing by the DWLC in the CBOs that were formed, as well as continuity of CBO-driven activities that are beneficial to the members in addition to the loan scheme.

† *Projects with a strong focus on community participation*

Independent project reviews suggest that community forestry projects has had mixed success, but also that several were successful during project implementation and contributed significantly to community livelihoods, and definitely helped to develop the FD's capacity to implement community forestry activities.[226,227]However, a few years after successful participatory projects

[226]Community Forest Management in Sri Lanka "Lesson Learnt and Future Direction". September, 2009. Dangal S.P. and De
Silva P.M.A. Paper presented at the Community Forestry International Workshop, Pokhara, Nepal.

such as the GEF/UNDP funded Southwest Rainforest Conservation Project of the Forest Department (2000-2006), the Sri Lanka Australia Natural Resources Management Project (SLANRMP), and the PAM&WC project ended, with the state departments easing out of a dominant role, the long-term sustainability of many of the CBOs that were established or strengthened through such projects has not materialised.[228]

Despite this, some CBOs continue to thrive, indicating that lessons could be learned as to what works and what does not. Further, those participatory forest conservation projects which followed the national Forest Policy of 1995 and the Forestry Sector Master Plan of 1995 have created a marked change in attitude of the FD staff towards communities: the attitudes of the FD staff from field level to central level have changed towards the participatory approach, and have moved from policing to collaboration. Likewise, capacity building has occurred in the DWLC for community participation, but not to the extent reached by the FD which has over 200 extension officers who are now trained to work with communities. The FD field staff agree that collaborative effort is a key means of management of fragmented forest resource, but that models with potential for long-term engagement of communities have to be further explored. However, the relationship between the FD staff and community members have changed significantly from 'police and offender' to one of distinctly better understanding over the last two decades. This is also applicable to some forests managed by the DWLC, but not to all reserves under them.

227Dela, J D S (2003).Periodic Review of the Sinharaja Biosphere Reserve.Prepared for the National Science Foundation/ Sri Lanka National MAB Committee, for submission to UNESCO.

[228]Discussions with Fd field staff during preparation of this R-PP

Annex 2a-3:
Laws and Conventions that have a bearing on reducing deforestation and forest degradation and enhancing Carbon stocks

The following analysis is taken from prior work carried out on legal aspects for biodiversity conservation with the help of an environmental lawyer.[229]

Legislation	Conservation measures
The main legislation governing the management of forests	
The Forest Ordinance No. 10 of 1885 and its subsequent amendmentsincluding the amendment Act No, 23 of 1995 and Act No. 65 of 2009.	The Forest Department is responsible for the implementation of this Ordinance which has been subject to many revisions to make provision for the protection of state forests from unlawful felling, clearing, encroachment, removal of produce, etc; the declaration of forests as Reserve Forests: the control of felling and other forms of exploitation in forests; and to regulate the transportation of timber. The recent amendment in 1995 created Conservation Forests set aside entirely for protection. While encroachment and illicit felling of timber from Wet Zone forests has been largely controlled, some illicit activities continue in some State forests. An amendment to the Forest Ordinance in 2009 empowers the Conservator General of Forests to enter into agreements with stakeholders to carry out community participatory programmes for the development of forests. The new revision also makes provision for preparation of management plans for all forest reserves managed by the FD.
The Fauna and Flora Protection Ordinance No. 2 of 1937, and subsequent amendments including Act No. 49 of 1993 and Act No. 22 of 2009.	The Department of Wildlife Conservation is primarily responsible for the implementation of this Act which recognizes six categories of wildlife reserves. The Act besides protecting animal and plant life within the national reserves also has provision to protect certain categories of animals and plants wherever they are found. The Act also states the penalties for violation of the law. The amendment Act of 1993 of the Fauna and Flora Protection Ordinance provides negative listing of species for several faunal groups, including all vertebrate groups, to ensure better coverage of species to be protected by law. This Act also requires a permit for the export of any wild plant or animal or their body parts from the DWLC, and this is enforced by the Customs Department at ports of exit from the country. There have been many amendments to this acts to strengthen it, but enforcement remains fairly weak with regard to protection of all species listed for Protection under this Act. This Act enables the DWLC to request an IEE or EIA for developmental activities in areas within one mile from the boundary of any National Reserve declared under the FFPO. The new revision makes provision for preparation of management plans for the national reserves or sanctuaries mandatory, assessment of impacts of activities within national reserves and sanctuaries and the restriction of development activities within one mile of a National Reserve and many other new features that facilitate an efficient service by the DWLC.
The National Heritage Wilderness Area Act No. 3 of 1988.	The Forest Department is the implementing agency for this very powerful Act, which was enacted to enable the preservation of unique natural ecosystems under the jurisdiction of the Forest Department. Under this Act any area deemed necessary

[229] MoENR, 2007.Thematic Assessment Report on Biodiversity under the National Capacity Needs Self Assessment Project. Compiled J D S Dela.Ministry of Environment and Natural Resources, Sri Lanka.

Legislation	Conservation measures
The main legislation governing the management of forests	
	for the protection of a National Heritage Wilderness Area can be acquired by the Forest Department and annexed to the reserved area. Only the Sinharaja forest has been declared under this Act as yet.
Felling of Trees Control Act No. 9 of 1951.	The Agriculture Department is the implementing agency for this act, which makes provision for the prohibition, regulation or control of the felling of specified valuable tree species, including cultivated species such as jak, breadfruit and coconut in home gardens. This Act is largely ineffective with respect to stemming the felling of the listed species, particularly in urban areas.
The National Environmental Act No. 47 of 1980 and the amendment No. 56 of 1988 and Act No. 53 of 2000.	The NEA served to create the Central Environmental Authority, while its amendment of 1988 empowers all project approving agencies to obtain an Environmental Impact Assessment (EIA) from any developer for prescribed developmental projects. The NEA has also provided for the establishment of District Environmental Agencies (DEAs) in each administrative district for devolution of powers to the regions in relation to environmental management through the Provincial Councils and the DEAs. The draft Act updates the existing legislation while introducing new concepts in relation to pollution abatement. Environmental Protection Areas administered by the CEA are Gazetted under the NEA.
The Coast Conservation Act No. 57 of 1981 as amended by Act No. 64 of 1988.	The Act requires the Coast Conservation Department to survey the Coastal Zone and inventory the resources available therein, including coastal ecosystems (such as mangroves) and material regularly removed for commercial or industrial purposes from this area, and to draw up Coastal Zone Management Plans periodically. The Act vests the administration, custody and management of the coastal zone in the state, while the responsibility of administering and implementing the Act devolves on the Director of the Coast Conservation Department who has to issue permits for all development activities undertaken within the coastal zone. This requires calling for an Environmental Impact Assessment before permitting any such activities.
Other acts with impact on governance in the forestry sector	
Soil Conservation Act, No. 25 of 1951; amended in 1996.	This Act empowers the Director of Agriculture to undertake surveys and investigations for the purposes of ascertaining the nature and extent of land degradation due to various factors including floods, droughts, salinisation, desertification, siltation and soil erosion measures on a watershed basis. It also empowers the Minister of Agriculture to declare and acquire "erodible areas', to specify measures regulating the use of land in such areas and to acquire land for carrying out measures to prevent erosion. While the original Act was inadequate to meet present day demands for a number of reasons, the deficiencies have been rectified in the Amended Act of 1996. Accordingly there has also been a shift of focus from the control of soil erosion to land resource management, while covering damage by floods, stream bank erosion, salinity, alkalinity and water logging. One of the major shortcomings in soil conservation legislation has been identified as the lack of provision to integrate the application of soil conservation measures on a watershed basis. Implementation of this Act is weak.
Agrarian Services Act No. 58 of 1979,and and its subsequent amendments, and the new Agriculture and Agrarian Services Act of 1999.	This Act has provisions for the Commissioner of Agrarian Services to specify and ensure that the owner, cultivator or occupier of any agricultural land carries out, in addition to such other duties as the Commissioner may in his discretion specify, measures for proper maintenance of the land to ensure the maximum conservation of soil and water. This Act has been updated to regularise ownership of land and to create better ownership of land among farmers, and to empower grassroots level organisations involved in the agricultural sector.

Legislation	Conservation measures
The main legislation governing the management of forests	
Land Development Ordinance No.19 of 1935; and its subsequent amendments.	Under this Ordinance, the Minister responsible for land development may, by notification published in the Gazette, declare that any state land is constituted as a state reservation for any one or more of stated public purposes, including for the prevention of the erosion of the soil. This law provides for the systematic development and alienation of state land, for which a Land Commissioner is appointed, who apart from the duties and functions assigned to him under the Ordinance, is responsible for the general supervision of land officers in the administration of state land. Under this law there is no mechanism for monitoring the use of land at high elevations, and regulating the alienation and unauthorised use of land on slopes and hilltops.
Land Grants Special Provisions Act No. 2 of 1979.	This Act provides for the transfer to the state land vested in the Land Reform Commission and the transfer of this vested land, free of charge, to landless persons. The transfers are subject to certain conditions, one of which is the stipulation that the transferee should carry out on his land, such soil conservation measures which the District Secretary may require from time to time.
Mahaweli Authority of Sri Lanka Act No. 23 of 1979; and amendment 59 of 1993.	This Act has provision for the Mahaweli Authority to have the power to take such measures as may be necessary for watershed management and control of soil erosion in the relevant lands under its purview.
Water Resources Board Act No.29 of 1964.	This Act provides for the appointment of a Water Resources Board, which is responsible for advising the relevant Minister on the use of water resources, maintenance of irrigation schemes, drainage, flood control, hydropower, promotion of aforestation, control of soil erosion, prevention of pollution of rivers and other water courses, formulation of national policies on the use of water resources, and preparation of plans for conservation and use of water resources.[8] However, it does not empower the Board to act or intervene in any of these areas.
Crown Lands Ordinance as amended by the State Lands Ordinance No. 8 of 1947 and its two amendments.	The right to use manage and control water in any public lake or stream has been vested in the State under Section 72 of this Ordinance. Thus, the occupant of a land on the bank of any public lake or public stream has a 'right to the water in that lake or stream for domestic use, livestock or agricultural purposes' provided that it is extracted by manual means. However, all beds of public streams and lakes belong to the state and their use is allowed only by a permit.
Colombo District (Low Lying Areas) Reclamation and Development Board Act of 1968, and the Amendment - Sri Lanka Land Reclamation and Development Corporation Act No. 52 of 1982.	Under this Act the Sri Lanka Land Reclamation and Development Corporation is the authority responsible for the maintenance of canals in Colombo, but enforcement is poor. At present canal banks are extensively encroached by squatters and shanty dwellers while industries on the banks discharge industrial wastes directly into the canals. Powers to prevent encroachments and abuses are vested in the Local Authorities.
Urban Development Authority Law No. 37 of 1978; theUrban Development Authority (Special Provisions) Act No. 44 of 1984; Act No. 4 of 1992.	***This Law served to establish the Urban Development Authority (UDA) to promote the integrated planning and implementation of social, economic and physical development of areas declared as "Urban development areas". The Act provides for the development of environmental standards and schemes for environmental improvement in areas identified as UDA areas.***
Plant Protection Act No. 35 of 1999 (replacing Plant Protection Ordinance No. 10 of 1924). Legislation is being drafted to implement the Protocol on Biosafety.	This Act controls the introduction of noxious plants, pests and diseases of plants into Sri Lanka. The Director of Agriculture is the administering authority under this Act. However, this Act needs revision to ensure that it addresses alien invasive species, GMOs, and LMOs more comprehensively.

- **Conventions relevant to protection of forests and their biodiversity and to address climate change**

Name of Convention	Objective	Year of Ratification/ Acceptance (At) Accession(Ac)/ Succession	Focal Point
Convention on Biological Diversity (1992)	To conserve biological diversity, promote the sustainable use of its components, and encourage equitable sharing of the benefits arising out of the utilisation of genetic resources. Such equitable sharing includes appropriate access to genetic resources, as well as appropriate transfer of technology, taking in to account existing rights over such resources and such technology.	1994	Ministry dealing with Environment
Convention on Wetlands of International Importance Especially As Waterfowl Habitat (1971)- Ramsar	To stem the progressive encroachment on and loss of wetlands now and in the future, recognising the fundamental ecological functions of wetlands and their economic, cultural, scientific and recreational value.	1990 (Ac)	Department of Wildlife Conservation
Convention concerning the protection of the World Cultural and Natural Heritage (1972)	To establish an effective system of collective protection of the cultural and natural heritage of outstanding universal value organised on a permanent basis and in accordance with modern scientific methods.	1980 (At)	Ministry dealing with Environment and Ministry dealing with Cultural Affairs
United Nations Framework Convention on Climate Change (1992)	To regulate levels of greenhouse gas concentration in the Atmosphere, so as to avoid the occurrence of Climate Change on a level that would impede sustainable economic development, or comprise initiatives in food production.	1993	Ministry dealing with Environment
Vienna Convention for the Protection of the Ozone Layer (1985)	To protect human health and the environment against adverse effects resulting from modification of the Ozone layer	1989(AC)	Ministry dealing with Environment
Montreal Protocol on Substances That Deplete the Ozone Layer (1987)	To protect the Ozone layer by taking precautionary measures to control global emissions of substances that deplete it	1989(AC)	Ministry dealing with Environment MFE
Kyoto Protocol on Climate Change			
Convention on International Trade in Endangered Species Of Wild Fauna and Flora (1973)- CITES	To protect certain endangered species from over-exploitation by means of a system of import/export permits	1979 (Ac)	Department of Wildlife Conservation Wild life Department
International Plant Protection Convention	To maintain and increase international co-operation in controlling pests and diseases of plants and plant products, and in preventing their introduction and spread across national boundaries.	1952	Ministry dealing with Agriculture

Annex 2b-1:

Drivers of Deforestation and forest degradation and corresponding actions needed to reduce deforestation and forest degradation as identified through stakeholder consultation

Table A2b-1: Details of Major Direct and Indirect Drivers of Deforestation and Forest Degradation and national targets to be achieved.

Sector	Direct Driver	Indirect Driver	Potential actions needed to reduce deforestation and forest degradation within the framework of the National Forest Policy and the Forestry Sector Master Plan
	Encroachment for agriculture: e. Cash crops in the Wet Zone (WZ). f. Slash-and-burn - cultivation in the Dry Zone and Intermediate Zone (DA/IZ) g. Cash crop cultivation in the Dry Zone and Intermediate Zone (DA/IZ)	**Small scale cash crops in the Wet Zone** • High Price from tea/vegetables, and intense socio-economic pressure among rural communities to increase economic returns from tea lands. • Increased consumerism/enhanced lifestyles needing higher incomes. • Growing consumerism due to people's need for better lifestyles and living conditions, rapid social transition/upward social and economic mobility in rural societies with decreased civic consciousness. • Low productivity of lands under tea/other agricultural cash crops encourages expansion of holdings – into adjacent forests. • Lack of technology to obtain high yields from existing agricultural lands motivates encroachment. • Inadequate agricultural extension services. • Inadequate knowledge/skills from tea/other cash crops Low coordination between FD and DoA extension officers to address encroachments on a routine basis (only exists for some specific projects). **Slash and burn (S&B) agriculture**	• Enhance strict law enforcement with regard to illegal encroachments. • Complete boundary marking of forests under the FD and declare national forest estate. • Complete physical demarcation of pending forest boundaries in agreement with local communities (as done earlier). • Timely circulation of reviewed and amended boundary demarcation guidelines to Divisional Forest Officers for efficient implementation of boundary marking. • Build facilities within the FD for boundary maintenance (i.e. reopen at least every 5 years to check). • Build capacity within the FD and DWLC to regularly patrol forest boundaries and detect encroachment, illegal felling and other extractions and firing; provide motorbikes and GPS at range/beat levels. • Use International MAB reserves in Sri Lanka as demonstration sites for forest management and enhancement of carbon stocks in buffer zone areas. • Identify, pilot test and apply innovative community participatory approaches appropriate for Sri Lanka (where forest dependency is low) as part of regular annual departmental programmes.

Sector	Direct Driver	Indirect Driver	Potential actions needed to reduce deforestation and forest degradation within the framework of the National Forest Policy and the Forestry Sector Master Plan
		• Poverty due to inadequate opportunities for economic advancement in these regions. • Expansion of families engaged in S&Bcultivation needs more plots worked simultaneously –leads to more encroachments or permits • Commercial demand forS&B agricultureproduce in the market • Lack of competitive alternative employment. • Low levels of educational attainment among chena farmers for employment outside the agricultural sector. • High cost of production and greater investment · (time/effort/money/water forf conventional agriculture (e.g. paddy) compared with S&B cultivation • Difficulties for conventional agriculture - high dependence on rainfed agriculture due to insufficient irrigation water (seasonally or year-round) • Lack of non-forest lands for agricultural expansion in the DZ and IZ. • Family traditions of S&B as a livelihood over generations. • Inhibitions/reluctance to engage in more advanced agricultural systems due to lack of knowledge and skills. **Cash crops in the DZ** • Poverty in the DZ • Commercial demand forseasonal cash crops-some illegal such as cannabis. • Abuse of the S&B permit system to grow monoculture cash crops due to high economic remuneration. • Lack of competitive alternative employment. **All encroachments** • Loss of traditional values and respect for forests and wildlife among rural communities.	• Strengthen the role of CBOs in participatory forest management programmes to enable profitable long-term (beyond project) incentives for local people, with a clear role for the FD. • Devise strong benefit sharing methods under REDD+ for local people to value adjacent forests. • Tangible infiltration of benefits from forests as relevant in different locations to the local people (not necessarily forest resources; but could be channelling part of forest visitor fees for local area development). • Initiate Joint programmes between FD field staff and Provincial Agricultural Extension Officers to help people maximise yields from agricultural lands near forests (provide knowledge and skills). • Provide better agricultural extension services to rural communities for intensive agriculture of conventional crops and cash crops. • Identify and address cash (mono) crop farmers who erroneously obtain permits in the guise of traditional chena cultivators and take action. • Closely monitor use of permits for traditional slash-and burn cultivations to prevent misuse. • Promote poverty reduction and social upliftment among communities engaged in S&B and illegal cash crops in forests to wean then away from such activities. • Continue the farmers' woodlots schemes and expand programme into areas where slash-and-burn agriculture is practised. • Promote and facilitate enrichment of carbon stocks in degraded and abandoned slash-and-burn cultivations and establish institutional system for such land cover conversion

Sector	Direct Driver	Indirect Driver	Potential actions needed to reduce deforestation and forest degradation within the framework of the National Forest Policy and the Forestry Sector Master Plan
		• Low valuation of forests by local people who are not dependent on forests for livelihood. • Failure of pilot tested community participation models for long-term engagement of local people in forest conservation, after project funds ceases. • Incomplete boundary demarcation of forests under the Forest Department. • Poor maintenance of many demarcated boundaries due to absence of regular monitoring – shifting of boundary posts by local people. • Inadequate staff deployment/ facilities for field monitoring in FD. .	with adequate incentives. • Introduce agro-forestry systems and other viable alternate livelihoods for slash-and –burn farmers and others highly dependant on destructive forest uses. • Enhance educational opportunities and alternative livelihoods for communities engaged in slash-and-burn cultivation. • Provide a greater availability of water for irrigated agriculture in the Dry Zone • Carry out integrated river basin management where stakeholders near rivers also benefit from irrigation waters (issue where waters of one area are used by farmers in another area) • Promote assisted natural regeneration in degraded forests where this practice is applicable. • Prevent firing in areas that can revert where to climax conditions. • Carry out enrichment planting in much degraded forests areas with multiple use trees to provide carbon stocks and co-benefits.
	Other encroachments into forests (all zones) a. For housing: village expansion/new villages b. For provision of amenities – e.g. electricity c. For tourist facilities by an irresponsible segment of the tourist sector – often small scale but affecting very	<u>Housing and settlements/tourist infrastructure</u> • Population increase in the wet zone due to expansion of families over time–lack of privately owned arable/habitable land. • Increased consumerism in rural communities to support new lifestyles, necessitating more common amenities/infrastructure. • Greater socio-economic potential and resources in the WZ - high population densities surrounding WZ forests • Encroachment/clearing forest area by services providers of water and electricity. • High population density surrounding fragmented/isolated WZ forests.	• Classify forests [for strict conservation, multiple use, community management] as per the FSMP. • Demarcate buffer zones, and areas that could be released for settlements, tourism and large scale development projects with minimise adverse impacts to the permanent forest estate. • Cary out zonation of forests for multiple use. • Monitor boundaries for encroachments and tale legal action. • Regulate all activities that should not be carried out in Forest Buffer zones - provide clear guidelines for permitted uses. • Initiate mechanisms for effective institutional coordination to prevent ad hoc land release for tourism and large scale development.

Sector	Direct Driver	Indirect Driver	Potential actions needed to reduce deforestation and forest degradation within the framework of the National Forest Policy and the Forestry Sector Master Plan
	sensitive forest areas.	<u>Tourism development</u> • Emergence of tourism as a lucrative economic activity after the 30 year war which retarded tourism development previously. • High potential of scenic forest sites to attract nature tourists, hence tourism developers motivated to encroach. • High demand for private lands in or near forests with tourist potential for investments in tourism facilities.	• Ensure joint work between FD, CEA, DWLC, LRC and Tourism Development Agencies to prepare tourism development zonal plans. • Develop regulations for forest buffer zones with regard to tourism, service providers and other development activities/agencies. • Earmark areas suitable for canopy linkages between fragmented forests for establishing carbon stocks. • Involve local authorities, schools, home garden owners and private sector to enhance timber resources/canopy cover/carbon stocks [under REDD+] outside forests in home garden agroforestry systems in line with the *MahindaChintana*. [Green villages] and *Dayata Severna* programme. • Recommend canopy cover levels and species in different land use zones to enable multiple benefits (e.g. biodiversity conservation, watershed conservation, reducing human-wildlife conflicts). • Where possible use tree species that have potential as timber and/or biodiversity conservation (i.e. food species for wildlife). • Enrich very degraded forests to serve as village forests that are community mananged and meet firewood, water and other resource use requirements of local people and provide habitats for wildlife.

Sector	Direct Driver	Indirect Driver	Potential actions needed to reduce deforestation and forest degradation within the framework of the National Forest Policy and the Forestry Sector Master Plan
	d. For development of commercial facilities and roads following tourism infrastructure.	• Social requirements and pressure on policy makers due to increased democratization at grassroots levels without a corresponding increase of civic consciousness in the voter base	**Build civic consciousness and environmental ethics for forest conservation** • Obtain the help of the media (TV, radio and newspaper) to enhance civic consciousness and environmental knowledge and commitment, among the public, administrators and policy makers. • Use effective communication to convert those adversely affecting forests to partners in the REDD+ strategic actions. • Empower environmental NGOs to address environmental issues through effective communication, advocacy and negotiation. • Build capacity in NGOs dealing with communication to enhance environmental awareness and commitment among school children, administrators, policy makers and other relevant groups through strategic activities/communication. • Implement capacity strengthening for environmental communication identified through formal and non formal methods through the National Capacity Self-assessment Project.the Ministry of Environment (published in 2007). • Build strong environmental knowledge among the media for accurate and investigative journalism through skills enhancement projects. • Initiate a media award for forest and wildlife related accurate journalism.
	Illicit felling (all zones) (logging is banned in natural forests)	• High price and demand for timber in the country for construction. • Poverty and few employment opportunities near Dry Zone forests motivate felling for housing and commercial purposes. • When these is lack of high value timber in home gardens/private lands. • When there is lack of space to grow timber species in home gardens. • Cultural attitudes that certain wood species are good for	• Enhance patrolling of forests and law enforcement by FD. • Encourage growing of multiple use timber species in home gardens. • Enourage the maintenance of forest patches in crop plantations through incentive schemes. • Establish short courses on silviculture and timber species for private individuals and communities to promote growing of timber species. • Encourage development and use of alternatives to wood in

Sector	Direct Driver	Indirect Driver	Potential actions needed to reduce deforestation and forest degradation within the framework of the National Forest Policy and the Forestry Sector Master Plan
		houses. • Lack of knowledge that illegally felled timber is of low quality	construction. • Communicate the need to use alternatives to wood as construction materials to architects and engineers. • Review and revise permit procedures for timber transportation from home gardens less time consuming through better coordination among permit providers (while strictly controlling transportation of timber from natural forests and increasing vigilance at check points). • Make timber available to people near forests [i.e. within areas where private timber depots are not allowed] through state channels at affordable prices. • Encourage the commercial production and use of treated rubber and other low quality wood as alternatives to forest timber and wood species. • Make judges aware of the gravity of commercial forest felling and the need for significant deterrents.
		• Lack of timber depots near forests due to legal provisions – promotes illegal felling for domestic use. • Time consuming and tedious procedure for timber transport permits from home gardens.	
		• Low deterrent for illegal feeling due to inadequate punishments. • Inadequate linkage and communication between FD officials and people to extend monitoring capacity of the FD in most areas.	
		• Inadequate monitoring and law enforcement due to poor deployment of FD field staff; lack of vehicles, funds and communication equipment.	
	Firing (DZ/IZ): Intentional: • for *chena* cultivation, • encroachments to expand land holdings, • to clear forest foot paths, • to encourage new flush for cattle • grazing • facilitate hunting (commercial/subsistence) and • traditional operations (e.g. bee	• Poverty in Dry Zone districts lead people to engage in forest based practices /occupations that involve firing. • Poverty induced lack of money to buy concentrate cattle feed- motivates firing forests to create grazing lands. • Lack of suitable non-forest lands for traditional cattle grazing. • Negligence when using fire for hunting and other traditional forest uses (e.g. collecting bee honey) • High demand for illegal game meat in the market – tourist hotels – motivates firing to help hunting. • Traditional beliefs that rains are induced by smoke from fires. • Pyromania in local people and visitors to forests. • Lack of knowledge about consequences/low civic consciousness. • Lack of education to know the dangers of forest fires. • Inadequate FD capacity (fire fighting equipment, water bowsers, transport for beat offices, FAs to notify fires to range offices, communication equipment, training on fire	• Devise more effective coordination and assistance from disaster management for fire fighting in forests; set up a 24 hour help/coordination desk at DMC. • Establish a mechanism to engage the armed forces for forest fire fighting. • Establish up-to-date training and equipment (including vehicles, communication equipment, bowsers and backhoes to open firelines) for firefighting within the FD at range office level in areas prone to forest fires. • Identify fire prone areas and establish firefighting plans and actions to provide necessary support. • Introduce and pilot test effectiveness of accepted firefighting techniques in areas with regular fire records (e.g. drip irrigation systems) • Provide firefighting training for communities in areas prone to fire. • Create effective community awareness programmes & educate

Sector	Direct Driver	Indirect Driver	Potential actions needed to reduce deforestation and forest degradation within the framework of the National Forest Policy and the Forestry Sector Master Plan
	honey collection). Accidental: introduction negligence	fighting) to respond quickly to forest fires. • Lack of capacity for frequent forest monitoring in areas where fires are prevalent to detect firing/onset of fires. • Lack of community participation in forest detection and fighting in many places. • Lack of an efficient and cost effective forest fire fighting strategy for FD/DWLC/Disaster Management.	adults and school children on fire prevention; dispel beliefs that promote firing (i.e. that smoke induces rain). • Promote weaning away of local people from forest use practices that lead to forest fires (hunting, bee honey collection, grazing etc) through social upliftment and alternate livelihood development. • Increase legal deterrents for fire offenders. • Enhance community participation to assist FD and DWLC for fire detection and firefighting.
	Invasive species (IS). • Unintentional introduction • Intentional introduction of IS for reforestation and afforestation (all zones)	• Ornamental species have become invasive; contaminants from imported seed for animal fodder and dried plants (grasses) for ornamental uses. • Insufficient capacity in quarantine services to thoroughly check for IAS at points of entry. • Poor land preposition in agricultural holdings leads to proliferation of fungi, etc. that spread to forest plantations. • Invasions by introduced exotic plantation species colonizing canopy gaps in adjacent natural forests • Invasion by indigenous secondary species that colonize forest gaps. • Use of invasive species for reforestation and afforestation in the past (this is no longer done, but the impacts persist) • Lack of research on and research facilities for invasive species in the forestry sector. • Lack of knowledge and resources in the FD to control/ prevent unintentional invasions.	• Promote research important for adaptive management of invasive species • Investigate what causes indigenous species to become invasive. • Provide training in preventing establishment and control of invasive species for FD and DWLC.
	Destructive removal of minerals and rocks from forests Over exploitation of some NWFPs	• Illegal mining has prompted stringent permit system for mining and rock blasting in private lands. • Comparative ease of obtaining minerals and rocks from state forests. • Lack of proper legislation to control over-exploitation of mineral resources in forests/lack of FD guidelines for permitted extractions from forests.	• Give preference to mining and rock blasting in private lands where feasible, after following EIA procedures. ?? • Formulate and formalize guidelines for awarding permits for extraction of minerals from forests by FD. • Establish mechanisms/systems for FD to tender mineral resources according to an institutional plan with adequate environmental safeguards.

Sector	Direct Driver	Indirect Driver	Potential actions needed to reduce deforestation and forest degradation within the framework of the National Forest Policy and the Forestry Sector Master Plan
	(all zones)	• Local authorities lack knowledge about environmental impacts of destructive removal of mineral resources. • Sand mining permits in FD held lands are given by GSMB without prior informing /checking with FD. • High demand for rocks and other minerals due to development boom after ending of the war. • Low cost of illegal extraction from forests. • Low charges for forest products (-18/1600 gazette) as sale is not for income but as a deterrent for over-exploitation.	• Identify and popularise alternatives to mineral resources and promote markets and building techniques using such resources. • Enhance FD capacity for monitoring permitted extractions. • Carryout forest classification and zonation as recommended in the FSMP and restrict extractive forest uses for applicable forest classifications and zones only.

Sector	Direct Driver	Indirect Driver	Potential actions needed to reduce deforestation and forest degradation within the framework of the National Forest Policy and the Forestry Sector Master Plan
Outside the forestry Sector	**Need for expansion of human settlements** in the north and east affected by the civil war. **The need felt for large scale multi-purpose development projects** for urgent economic advancement of the country after a 30 year civil war. **Loss of critical forests and important wildlife habitats due to lack of strategic forest clearing for** **(a) development projects.**	• Poor coordination and joint goal setting among state institutions when identifying forest lands for clearance. • Failure to consult FD and DWLC in development projects at initial planning stages due to poor coordination and communication. • Lack of coordination and consultation leads to poor earmarking of forested lands that can be released for large scale development. • Lack of field level knowledge by persons identifying forest lands for development causing poor advice for site selection of projects. • Lack of communication between field level staff and project planners. • Lack of coordinated implementation of the land use policy, *MahindanChintana* development framework , forest policy and FSMP by all stakeholders when initiating development projects. • Lack of zonation for different land uses to enable sustainable development. • Pressure on government and local policy makers to enhance rural economies. • Requirement to increase national food production for an expanding population. • Poor agricultural planning with no definite quota of land given for production.	• A strong mechanism for inter-agency coordination for land alienation for development or settlements to (a) harmonise policies and guidelines for development and (b) decision making regarding release of forest lands for development needs etc. • Enhance inter-agency coordination and communication among those dealing with conservation and development at decentralized and central levels at all points in a development project cycle. • Establish an inter-agency negotiating and dialogue platform for each large scale development project with all major stakeholders. (*Haritha Lanka* programme exists as a broad platform, but this committee is too broad to discuss each project in detail). • Establish and strictly adhere to a rational and environmentally acceptable inter-institutional coordination and consultative system for forest land cover conversions. • Use degraded lands for development rather than clearing prime forest lands. • Ensure that EIAs are carried out when releasing forest lands for deelopment. • Review and make use of the mechanisms agreed upon for identification and establishment of PAs using the ecosystem approach under the National Capacity Self-needs Assessment Project. • Adhere to the Land Use Policy, *MahindaChintana* framework for development, NPPP&P, Forest and wildlife policies and relevant laws during large scale project formulation

	(b) Expansion and development of existing settlements, and new settlements. **(b) large scale agricultural expansion** (applicable to all zones, but mainly DZ)	• The gazetted EPAs under the NEA are not supported by regulations to ensure their protection, making them obsolete. • Economic aspects of development are considered toout weigh values of forest by project planners. • Lack of a proper system of forest valuation that considers both goods (marketable and otherwise) from, and ecosystem services of, forests. • Lack of non-state lands to expand existing cultivations or set up new cultivations due to past land alienation policies. • Inadequate attention given to the *MahindaChintana* environmental concepts when planning large scale development projects. • Inconsistent procedures/policy for acquiring forest lands for development. • Land use policy is inadequate • Land policy is not adhered to during project planning. • Lack of water for agriculture in the Dry Zone which necessitates large scale irrigation projects and population pressure. • Population increase: greater pressure on land and other natural resources.	• Involve District Land Use departments and district land use maps and land banks during planning and formalize this process for all major projects. • Data and information sharing mechanisms on REDD + potential for carbon stoking and co-benefits in place. • Establish direct channels of communication to the highest levels of decision makers and decision making bodies through the REDD+ process. • Establish strategic communication for dialogue with all stakeholders through the REDD+ readiness process. • Assess progress for land mapping in Sri Lanka and link up to REDD+ MRV process. • Provide maps prepared through the REDD+ readiness process for accurate decision making. • Review and amend the Land Use Policy and harmonize it with environment related polices and ensure compliance at all administrative levels. • Assess the Forest Policy and FSMP and update the data in the FSMP in view of new data gathered; review implementation of the FSMP. • Use strategic communication to involve and engage all stakeholders productively from communities to high level policy makers; discuss stakeholder concerns openly and arrive at a consensus to enables development with least impact on the environment. • Prepare and implement a Strategic Communication Plan to engage high level policy makers on prevailing forestry and biodiversity related issues and to promote integrated land use planning.

			• Identify and set up the permanent forest estate with agreement from the highest level of policy makers. • Market the FSMP as a long-term development tool through effective communication with department heads, secretaries of Ministries, advisors to ministries, and relevant high level policy makers. • Establish realistic forestry valuation that takes into account goods and ecosystem services from forests at local and national levels. • Establish innovative programmes to make local people, people engaged in development work and policy makers aware about the multiple-values of forests through REDD+ for socio-economic development.

ANNEX 3-1:
Forest inventories and capacity within Sri Lanka for RELRL

Forest Inventories

TABLE A3-1.1Forest Inventories by the Forest Department (relevant for and carbon stocks RL)

Year	Outcome	Methods used
1956	National Forest Inventory of 1956.	Carried out using aerial photographs.[230]
1982-1985.	Last nation-wide forest inventory.	Carried out by the Forest Department with assistance from UNDP and FAO, using aerial photographs, satellite imagery and field surveys to produce a nationwide forest cover map.[1]
1992-1994	An indicative forest inventory in 1993, covering about 300,000 ha, concentrated on forests likely to fall under the multiple use category. Only some categories were samples; among the excluded categories are all plantations, Protected Areas and forests at high elevations.[231]	This used two sets of measurements, those from sample plots at 1-km intervals within forest blocks, and those taken at 25-m intervals along the survey lines which connect the plots. This showed the status of forest degradation was primarily due to excessive logging.[232]

Plantation inventories are done at intervals of 15 years.

The Forest Department needs to carry out a national forest inventory, based on sample plots and establishing permanent sample plots under a statistical sampling design. These data will show the condition of forests across wide areas within the country, enabling the identification of forest degradation.

Biodiversity surveys

During the 1993-96 period a biodiversity and hydrological assessment was carried out in the forests of Sri Lanka via the National Conservation Review (NCR). These data are entered into the Environmental Management Information System (EMIS) established in the Forest Department. To date, EMIS acts as a sound management tool for decision making in sustainable forest management.

[230] Chokkalingam, U. and Vanniarachchy, S. A. (2011). Sri Lanka's REDD+ Potential: Myth or Reality? Forest Carbon Asia Country Profile Report No. 1: Sri Lanka.

[231] MALF (1995). Sri Lanka Forestry Sector Master Plan. Forestry Planning Unit, Ministry of Agriculture, Lands and Forestry

[232] Jewell, N. (1995). Summary report on the application of GIS analysis to the Forest Indicative Inventory (FII) data. The Sri Lanka Forester, Special Issue, (69-72).

BOX A 3-1: Examples of recent studies on estimating above ground biomass in Sri Lanka

Several recent projects have estimated above ground carbon stock (e.g. Sinharaja, Horton Plains, Namunukula [montane forest], Sinharajaand Kanneliya [lowland rainforest], Kurunegala [intermediate zone]. Gannoruwa, Anuradhapura and Mihintale [Dry forest] and home gardens from each vegetation zone.

Estimation of above ground carbon stock in Sinharaja forest has also used remote sensory data and field measurements of DBH and height in 30x 30 m plots to calculate above ground biomass. This study showed that the total carbon stock of Sinharaja forest is 2.437 mega tons of carbon, and the above ground carbon stock is 1.624 mega tons (the total carbon stock was estimated assuming 1/3 of total carbon was stored below ground).

Studies have also been carried out to develop merchantable volume prediction models using satellite image spectral response. This has considerable advantage over field inventory methods which are more costly and time consuming.

Source: Dr S P Nissankapers com, 2011

TABLE A3-1.2Background data on forest land cover assessment in Sri Lanka

Year	Forest Assessment and details	Outcomes of assessment
1956	Hard copy of map prepared and available. More details need to be gathered through examination of old records during R-PP implementation	The first comprehensive forest survey conducted after independence (in 1956) revealed 2.9 million ha of closed canopy forest, amounting to 44 % of the country.[233]However, due to over-exploitation of the forest resource, about 42 % of all natural forests were at the time classified as non-productive.[4]
1983	GAO/GOSL census. Maps produced by the Forest Department based on visual interpretation of LANDSAT satellite images	Showed that forest cover had dropped to 1.76 million ha, amounting to 27 % of the country's land area,[234] amounting to a per capita figure of 0.12 ha of forests.[235]
1991-1992	Landsat Thematic Mapper (TM) imagery (resolution 30m) acquired between May 1991-March 1992 (covering 95% of Sri Lanka) used as primary data source, the remaining areas were covered with 1988 TM which was used for initial mapping. Recent changes in forest cover extent were checked by reference to cloud free IRS-1 imagery covering the entire island, acquired in March 1992. Imagery acquired in the mid-infrared (1.5 micron wave length) portion of the spectrum for practical discrimination of different vegetation categories, especially forest types, was the main data source. TM bands 3,4,and 5 contained the greatest amount of	This comprehensive forest survey in 1992, based on satellite imagery supported by ground sampling, revealed a further drop in the closed canopy forest to 1.58 million ha or 24% of the land area.[237] Analysis of forest loss at the district level from 1983 to 1992 revealed highest declines in Kilinochchi, Polonnaruwa, Batticaloa, Ampara, Badulla and Hambantota districts, where over

[233]Jewel, N. and Legg, C A (1994).A Remote Sensing/GIS Database for Forest Management and Monitoring in Sri Lanka. In: *Geographical Information Systems for Natural Resource Management in South East Asia*. Mahaweli Authority, Sri Lanka.

[234]MALF (1995).The Forestry Sector Master Plan for Sri Lanka.

[235]Bandaratilleke, H M (2000).Administration Report of the Conservator of Forests Sri Lanka. Forest Department and the Ministry of Forestry and Environment, Sri Lanka

[237]MOFE (1999).*Biodiversity Conservation in Sri Lanka: A Framework for Action*.Ministry of Forestry and Environment, Sri Lanka

Year	Forest Assessment and details	Outcomes of assessment
	information on vegetation, especially woody vegetation. Visual interpretation done for eight types of forests: Lowland, sub-montane and montaneWet Zone forests; moist monsoon, dry monsoon, riverine dry, mangroves and sparse forest. Survey Department topographic maps of scale 1:63,360 were used as control points for geometric correction and for digitisations of background information such as major roads, rivers, railways, towns, and district boundaries. Forest reserve boundaries and wildlife reserve boundaries were digitised from series of hand drawn overlays to 1:63,360 maps. Carried out under FORLUMP funded by British ODA. Draft 1:50,000 maps circulated to DFOs for field checking.[236]	half the forests were lost during this period.[238](Jewel and Legg 1994).[9] Some of the forest loss (per district) is attributed to redefining of district boundaries.[239]
1999	Landsat TM (resolution 30 m) [240]	The last National Forest Cover Assessment was completed in December 2000.[241]
2009-2010	IRS – images at 23.5 resolution. Wall to wall images available. Google images used for verification and reference.[242]	Assessment completed in 2010

Additionally, a district-wise forest inventory for the nation using Landsat 7 ETM+ data has been conducted national wide from 1999-2001 by the National Physical Planning Department. Ths district wise mapping of dense forest cover was by semi-automatically updating apreviously available map. This showed that of the 25 districts, six had significant change (>6%) in closed canopy forest cover from 1992 to 2001: four districts in the North (Mannar, Puttalam, Trincomalee and Vavuniya) showed a significant decline while Kandy and Badulla districts in the uplands showed a significant increase.[243]

- Data sets are also available with DWLC, UDA, IWMI, CCD. Sri Lanka is covered by several satellite stations: Bangkok, Hyderabad,
- The Survey Department **Remote Sensing Centre (CRS)**land-use maps with nation-wide coverage based on aerial photos and satellite imagery taken in 1981-1983.
- The FORLUMP used 1992 satellite imagery to update the mapping of all land use categories, but it covered only the Mahaweli districts.

Projects for estimation of forest carbon stocks

[236]Legg.C., and Jewell, N. (1995). A 1: 50,000 forest map of Sri Lanka: the basis for a National Forest Geographic Information System. *Sri Lanka Forester,* Special Issue- Remote Sensing, 3-24.

[238]Jewel, N. and Legg, C A (1994).A Remote Sensing/GIS Database for Forest Management and Monitoring in Sri Lanka. In: *Geographical Information Systems for Natural Resource Management in South East Asia*. Mahaweli Authority, Sri Lanka.

[239]A decrease in land area within the district results in a reduced forest cover for the district.

[240]Forest department, communication with the GIS unit.

[241]Forest department, communication with the GIS unit.

[242]Forest Department, communication with the GIS unit.

[243]Chokkalingam, U. and Vanniarachchy, S. A. (2011). Sri Lanka's REDD+ Potential: Myth or Reality? Forest Carbon Asia Country Profile Report No. 1: Sri Lanka.

Sri Lanka established its Climate Change Secretariat in 2008, and is currently developing its Climate Change policy, in which REDD is recognized and promoted as a mitigation and adaptation option that generates important co-benefits and helps maintain the provision of ecosystem services. The last emission figures available for land use change and forestry sectors in Sri Lanka were for 1994, as reported in the Initial National Communication on Climate Change submitted to the UNFCCC in 2000. With regard to Greenhouse Gas (GHG) emissions, Sri Lanka has completed its second GHG inventory and reported it in the Second National Communication (SNC) to the UNFCCC which is currently being finalized.

TABLE A3-1.3: Current Registered CDM Projects in Sri Lanka

Title	Participants	Other Parties	Sectors	Activity Sale	Methodologies	Amount of Reduction *
10 MW Biomass Power Generation Project	Tokyo Cement Company (Lanka)Ltd.	JapanCarbon Finance Ltd. (Japan)	Energy (renewable - / non-renewable sources)	SMALL	AMS-I.D. ver. 13	43 800
Coconut shell charcoaling and power generation at Badalgama, Sri Lanka	Recogen Limited	JapanCarbon Finance, Ltd. (Japan)	Energy (renewable - / non-renewable sources) , Manufacturing	SMALL	AMS-III.K. ver. 3 AMS-I.D. ver. 13	43 265
Sanquhar and Delta Small Hydro Power Projects	Hydro Power Free Lanka (Pvt) Ltd	VOLTALIA (Switzerland)	Energy (renewable - / non-renewable sources)	SMALL	AMS-I.D. ver. 9	5 489
Hapugastenne and Hulu Ganga Small Hydropower Projects.	Eco Power (Private) Ltd. (EPL)	IFC Netherlands Carbon Facility (INCAF) (Netherlands)	Energy (renewable - / non-renewable sources)	SMALL	AMS-I.D. ver. 5	44 842
Small Hydropower Projects at Alupola and BaduluOya.	Hydro Power Free Lanka (Pvt) Ltd	IFC Netherlands Carbon Facility (INCAF) (Netherlands)	Energy (renewable - / non-renewable sources)	SMALL	AMS-I.D. ver. 5	25 109
Magal Ganga Small Hydropower Project	Eco Power (Private) Ltd. (EPL)	IFC Netherlands Carbon Facility (INCAF) (Netherlands)	Energy (renewable - / non-renewable sources)	SMALL	AMS-I.D. ver. 5	34 179
Adavikanda, Kuruwita Division Mini Hydro Power Project	Alternate Power Systems (Pvt.) Ltd.	Mitsubishi UFJ Securities Co., Ltd. (Japan)	Energy (renewable - / non-renewable sources)	SMALL	AMS-I.D. ver. 13	13 484

GHG Emissions[244]

Carbon stock changes in living biomass include the annual biomass gain in the forests due to growth (both above- and below-ground), and any losses due to timber and fuel-wood harvesting and forest disturbances such as fires. The estimated carbon removal in timber and fuel wood extraction from forest plantations and home gardens in Sri Lanka have been estimated at 5,030.46 and 16,719.00 Gg CO_2 /yr respectively. Forest soil was a net carbon sink of 636.85Gg CO_2/yr. Carbon stock changes in living biomass include the annual biomass gain in the forests due to growth, and any losses due to timber and fuel-wood harvesting and disturbances such as forest fires. According to the estimates, overall, there was a net carbon loss of 22,081.07Gg CO_2 due to timber and firewood removal from forest plantations, home gardens and other perennial crops in year 2000. Overall, there was an estimated net carbon gain of 10,206.26 Gg CO_2 during the year 2000, from forest plantations, home gardens and other perennial crops in Sri Lanka.[245]

[244] M/E- Second National Communication on Climate Change, 2010 (DRAFT).
[245]National Programme document first draft prepared for REDD+ in 2010-2011

ANNEX 3-2
Proposed institutional arrangements for RL setting and MRV, and capacity building needs

Proposed Institutional structure for REL/RL and MRV

Setting the Sri Lanka REL/RL for the MRV system would be a demanding technical challenge. This task will require a high level of coordination, collaboration and contribution from a range of government departments, experts and university academics/researchers, taking into consideration that national communications will have to be reported every four years, and updated reports will be provided every two years. National technical experts will be engaged and consulted to develop the databases and models during R-PP formulation. They will also decide on the and to the need to derive adjustment coefficients to modify the historical emission levels when developing future trajectories.

Potential institutions that should be involved in setting the REL/RL and designing and establishing the MRV are in TABLE A3-2.1. Due to the limited number of persons in Sri Lanka with the required technical skills for establishing the REL/RL and MRV system, there will be one common Task Force (TF) for both. The REDD+ PMU, and the TF for RL/MRV (see Component Ia) will be responsible for the technical activities pertaining to the establishment and testing of the REL/RL and MRV activities. The coordination of all work will be the responsibility of the REDD+ PMU, while the TF on REL/ RL and MRV will The TF will be in charge of the technical support for the NFI (national Forest inventory), Satellite Forest Monitoring System, GHG inventory and REL/RL. It will be supported by an international (part time) and national (full time) consultant for REL/RL and MRV and TWGs.

The technical activities recommended by the TF on RL/MRV will be supported by two Technical Working Groups (TWGs): one for the NFI (comprising several Field Monitoring Teams [FMTs]) and one for Analysis and Interpretation (comprising a central Mapping and Assessment Team [MAT] located in the FD GIS Unit and several other MATs in partner institutions). The TWGs will comprise the consultants, the FD regional/field staff, communities involved with the monitoring, and members from partner agencies who will be involved in the ground level operational aspects. In addition to the core field teams, there will be links between the FTs and local CBOs that are already engaged with forest conservation to monitor and report on activities related to reductions in the extent of forest degradation, forest improvements, management of woodlots/community managed forests, increased tree cover in systems defined as agro-forestry home gardens,[246]etc.

FIGURE A3-2.1: Structure for carrying out the REL/RL and MRV work

[246]The inclusion of homegardens in Sri Lanka which are clear examples of forest analogue agro-forestry systems that are not primarily for agricultural production was strongly recommended at a consultative meeting with environmental NGOs in Sri Lanka. However, these systems would have to meet the final definition of forest cover adopted for Sri Lanka (e.g. 20% tree cover, >3m height, and covering a contiguous area >0.05 ha, as used in the CDM forest definition- which would be amended as required during R-PP implementation).

The management structure proposed provisionally for the MRV/RL TF and TWGs (FMTs and MATs) will need to be developed and roles and responsibilities of various institutions and bodies clearly defined to ensure that all groups workin collaboration towards a common goal, share and archive data, and have access to data in a transparent way.

At least one international advisor and a national consultant will support the activities of the TF and working groups and will be based in the FD GIS Division. They will also carry out a training and capacity-building needs assessment for the FMTs and MATs, the FD,,partner organizations and community members who participate in some forest monitoring activities. The administrative and financial aspects of the TFs, and the working groups as well as coordination of FMTs will be managed and operated by the PMU (Component 1a). It would be necessary to test the viability of using a network of CBOs that will report to the TWGs using a set of standard forms for data input. This will be compiled and archived in a database by the FD's MAT unit (nested within the FD GIS Division). There should be clear procedures and links between data collected at project/sub-national scales and data compiled within the national M & MRV systems.

Sub-national RLs/MRV

It is possible to use the nested approach, with site or project-level activities in forested areas nested within provincial-level (sub-national[247]) REDD+ activities, which will contribute to the overall national REDD+ strategy. This is possible as the FD operates at a decentralized level which reports to Divisional/DistrictForest Officers (these Divisions are the same as Districtsin most cases). Further there will be District Focal Points appointed for REDD+ in phase II. The final selection of sub-national scale needs to be defined in detail by the RL/MRV TF that is set up under R-PP implementation. The sub-national RLs must be integrated within the national REL/RLs.Establishment of the nested approach will require additional studies to understand the level at which sub-national RLs/RELs might be established.

TABLE A3-2.1: Potential Institutions with responsibility and impact on reducing deforestation and forest degradation and increasing tree cover

Ministries with a role In RL/MRV	Main agencies	Other agencies/groups that could lend support or have impact
Key ministries: • Ministry of Environment • Ministry of Agrarian Services and Wildlife Conservation (dealing with wildlife) • Ministry of Economic Development (dealing with tourism and home garden development) • Ministry of Irrigation and Water Resources Management • Ministry of Lands and Land Development • Ministry of Plantation Industries • Ministry of Defence	***Key agencies:*** • Forest Department (FD) • Department of Wildlife Conservation (DWLC) • Climate Change Secretariat* ***Other agencies with mandate to assist:*** • Central Environmental Authority (CEA) • Coast Conservation Department (CCD) • Department of Agriculture (DOA) • Department of Land Use Policy Planning • Urban Development Authority (UDA) • The Survey Department • Department of Meteorology	• National Science Foundation (NSF) • Mahaweli Authority of Sri Lanka (MASL) • Department of Meteorology • Department of National Planning • Land Reform Commission (LRC) ***Other relevant groups:*** • Community Based Organisations (CBOs) adjacent to forests • NGOs focusing on environmental conservation ***Individual Experts***

[247]The exact sub-national level is uncertain and needs further discussion and consensus during the R-PP implementation phase. There is divided opinion at present whether it should be agro-ecological zones or floristic regions.

Ministries with a role In RL/MRV	Main agencies	Other agencies/groups that could lend support or have impact
(responsible for urban development)	• Universities offering forestry courses and land use mapping.	

Source: Adapted from the *4th Country Report from Sri Lanka to the United Nations Convention on Biological Diversity in 2009* and validated in 2010.

* Note: The Climate Change Secretariat is the institution with mandate to report to the UNFCCC. The GHG inventory and QA/QC procedures are supposed to be done by the institution in charge of the compilation of the inventory, emission factor analysis, and preparation of the reports to the UNFCCC. The CCS would need capacity strengthening to carry out the additional QA/QC activities.

Provisional capacity development and training needs

The structure for REL/RL and MRV needs to be revised to better identify the responsibilities for the MRV activitiesThe structure for REL/RL and MRV is expected to evolve out of the preliminary workshops that are envisaged for the TF on REL/RL and MRV. It is expected that the structure proposed needs to be revised with a clear identification of responsibilities for the MRV activities. The TF on RL/MRV and the MATs headed by the FD GIS Division should be provided with an opportunity to engage with international experts to become more familiar with other national MRV systems already in place. Through this process, Sri Lanka will be able to apply lessons learned in other countries when developing and implementing an MRV system that caters to national needs and interests.

- The FD GIS division (which will be leading the REL/RL and MRV activities should have high end capacity on RS/GIS in order to efficiently manage the MRV data archive and registry. To meet this end:
    - the Head of the REDD+ GIS activities would need training in application of various land use change models relevant to REDD+, and how to develop a field sampling design within GIS.
    - Mid-level analysts (05)need to be trained in GIS and remote sensing interpretation (GIS/spatial analysis relevant to monitoring REDD+ activities)
    - Field staff of FD (15 technicians/field staff the FD) and local communities (CBOs, farmers engaged with the woodlot programmes, indigenous communities) need to be trained in carbon stock measurement and monitoring methods, including field plot measurement techniques and collecting descriptors for land use detection, especially for forests that are difficult to monitor remotely. This training will be provided by the Technical Field Teams who are trained earlier.
    - Other needs would be identified during the capacity needs assessment process of the TF on REL/RL and MRV for preparation of the CBAP during R-PP implementation.

ANNEX 3-3
Indictors of national circumstances

Indicators of national circumstances for use in establishing the reference level

Sri Lanka's national circumstances arepart of the national communication reported to the UNFCCC. This work will be led by the FD, CCS and RL/MRV Taskforce in consultation with relevant stakeholders and will be based on the analysis of socio-economic data (see below), the national REDD+ strategy analysis (see Component 2b), the analysis of future projections of Sri Lanka's development agenda and on potential changes in forest land cover, and existing laws and policies relevant for land use and the forestry sector. Modelling approaches will be used to predict future landuse change.

In order to establish Sri Lanka's RL/REL, the assessment of national circumstances will be focused on three main aspects:

(i) **Current country socio-economic conditions:** The assessment of current socio-economic condition will be based on a study review of all the available socio-economic data, including those related to:
   a. Forest use by local people/indigenous communities;
   b. Geographical characteristics: including climate, forests, land use and other environmental characteristics;
   c. Population: growth rates, distribution, density and other vital statistics;
   d. Economy: including GDP growth, energy, transport, industry, mining, tourism, agriculture, fisheries, waste, health and services sector;
   e. Education: including schools, universities, and scientific and technical research institutions;
   f. Transport infrastructure.

(ii) **Sustainable development needs:**
The assessment of Sri Lanka's sustainable development needs will be based on:
   a. Assessment of national policies: including factors such as the National Environmental Policy and Strategy, National Forest Policy, National Wildlife Policy, National Watershed Policy;
   b. Assessment of environmental laws: FFPO, FO, NEA;
   c. The Sri Lanka Millennium Development Goals;
   d. The Sri Lanka National REDD+ Strategies (see Annex 2a) identified through the roadmap process (see Component 2a and Annex 2a);
   e. Study that will indicate all the development objectives for Sri Lanka upto 2016, as laid out in national planning documents (e.g. the *MahindaChinthana* development framework, *Randora* infrastructure plan and the National Physical Policy and Plan);
   f. New assessments undertaken as part of the REDD+ Strategy analysis (see Component 2a and 2b) such as other current country indicators like: sectoral development plans, specific investment programmes.

(iii) **Development of reference scenarios**: the establishment of a reference scenario will lead to predictions on the amount and location of future land use and land use change, and its associated emissions and removals. It will use the results of socio-economic and sustainable development studies and seek to qualify and quantify the impact of possible future emissions and removals (including those identified as the causes of deforestation).

These factors will be discussed and defined during the R-PP process.

ANNEX 3-4
Details of steps 3-4a to 3-4d under Activity 3-4

- **Activity 3-4. Gather and quantify activity data**

Step 3-4a. Create benchmark land map and perform change detection for historical reference period

This step will involve compilation of imagery and interpretation based on the selected definition of forest to create a forest land map with classes relevant to REDD+ activities and biophysical aspects. It has been suggested during consultations that past time-series data should be acquired. The type of imagery to be acquired will depend on the forest definition, the spatial resolution needed, the type of imageries in function of the cloud cover, the spectral resolution and the temporal resolution. Wall to wall coverage IRS images are currently available for the 2010 national forest cover map. The 2010 product (using 2009 IRS-imagery) could be used as a benchmark map for future monitoring. Land cover change could be mapped over the selected reference period using Landsat/IRS imagery using standard approaches and enhanced expertise of staff within the government agencies.

Step 3-4b. Classification quality control

Map products will be subject to stringent QA/QC procedure to ensure that the interpretation and classification provide accurate products via a plan developed for quality assurance. The selection of methodologies for classification and accuracy assessments for mapping changes in forest land area (gains and losses) and forest degradation [and increased area under home garden ago-forestry situations] will benefit from existing experience in remote sensing interpretation available in the country, the technical expertise available and discussions with the international remote sensing community. This will enable peer-review of methodologies to be used that caters specifically to the Sri Lankan situation, and the causes of deforestation that would be addressed under Component 2b.

Step 3-4c. Accuracy assessment

The accuracy assessment can be conducted by randomly mapping points of deforestation, degradation, regeneration, and no change, in different land cover classifications [including home garden agro-forestry situations with the required specifications] and verified by field checking. Standard methods described in the GOFC-GOLD 2009[248] Sourcebook will be used to assess the overall accuracies of the land cover classification to provide a statistically valid representation of map accuracy. Based on results from the quality control step, the classification results will be adjusted either manually in GIS or by adjusting the parameters used to assign RS data to field checked forest and non-forest classes. All image processing methods and evaluation results will be permanently documented, and recorded for verification and to ensure a high level of transparency.

Step 3-4d. Mosaic and stratification of classification products

Individual imagery products will be brought together to create the final wall-to-wall benchmark and change maps. These products will be stratified by forest type, agro-ecological region or floristic region.[249]etc. At a minimum, the required products will be created by: (1) deforestation and (2)

[248]

[249]This decision has to be made with due consultation and well informed judgement as the final decision will influence the cost of the NFI and the development of the forest monitoring system.

forestation maps[250]. These maps will indicate areas of forest lost and forest[3] gained during each census period for each stratum identified.

Maps of forest degradation and stock enhancement are more difficult to detect using mid-resolution IRSLandsat imagery (30m), and would require higher resolution imagery. Forest quality has been already mapped via a gap analysis of forests carried out by the DWLC in 2006.[251] This could be examined and used in setting the RL. Large-scale logging of Wet Zone forests during the 1980s and slash-and-burn cultivation have caused considerable forest degradation. Hence, developing methods to address degradation will be vital during the implementation stage of the R-PP, and should be given high consideration during the planning of the National Forest Inventory. Methods to assist in stratifying into area of degradation and enhancement of stocks described in the GOFC-GOLD Sourcebook should be examined for use nationally.

[250] Including tree cover gain maps for forest analogue home gardens

[251] MoENR (2006). Portfolio of Strategic Conservation Sites/Protected Area Gap Analysis in Sri Lanka (unpublished)

Annex 4a-1:
Detailed Description of Activities under Component 4a

Pp

- **Activity 4a-1: Develop the MRV Action Plan, while ensuring sustainability.**

An MRV action plan will be developed in consultation with the relevant stakeholders and will identify the activities to be implemented to allow implementation of monitoring and MRV systemsthrough phases2 and 3 of REDD+. The MRV Action Plan will ensure that the activities are in line with international guidance (UNFCCC and IPCC), national context and will consider existing and future national institutional, legal and procedural arrangements for the forestry sector's GHG inventory. The activities will consider the human, financial and technical gaps identified by the capacity needs assessment.

- **Activity 4a-2: Enhance general capacities for various stakeholders involved in monitoring and MRV.**

Once the institutional arrangements, the roles and responsibilities for each component, and systems for collaboration and coordination are established, stakeholders to be engaged in developing the GHG inventory for the forestry sector will receive training on MRV, IPCC guidance and guidelines, and UNFCCC guidelines for national systems. The training for all those engaged in technical field work will be initiated before implementation of the activities related to the forest monitoring system and the national forest inventory, and will be offered at multiple levels and whenever appropriate, to ensure that each group is provided with the training at the most appropriate technical level and at the most appropriate time.

- **Activity 4a-3: Deliver forest sector capacity training on GHG inventory.**

Capacity building will be provided to technical experts on GHG inventory, accuracy assessments, QualityAssessment/Quality Control (QA/QC) and key category analysis. Institutions with the mandate to undertake the GHG inventory will coordinate the training on reporting for REDD+, and systems will be established to allow such reporting to take place, including systems for QA/QCand measurement of uncertainty. It is important to assess the quality of measurements taken in the field, and data compilation and data analysis procedures in order to generate error estimates and improve future measurements. The IPCC Guidance and guidelines provides guidance regarding QA/QC.

- **Activity 4a-4: Rationalize forest definition and establish a forest stratification system**

This activity involves two steps:

- **<u>Step 4a-2a(i).Set the National Forest Definition</u>**

  It is important to have an appropriate national definition of forest that facilitates the development of a cost effective forest monitoring system and inclusion of the relevant forestry activities. The difference in definition of forests by the FD and by the CCS for CDM (Box A4a-1))needs to be discussed and a definition agreed upon for REDD+.The final thresholds will need to be within the thresholds identified by the UNFCCC. During consultations for preparation of this R-PP there was consensus that multi-species forest within home gardens, where the primary use is not agriculture, should also be included in the country's forest definition.

Box A4a-1: National and International Forest Definitions

Defining forest land under the Kyoto Protocol

"Forest" is a minimum area of land of 0.05-1.0 hectares with tree crown cover (or equivalent stocking level) of more than 10-30 per cent with trees with the potential to reach a minimum height of 2-5 metres at maturity *in situ*. A forest may consist either of closed forest formations, where trees of various storeys and undergrowth cover a high proportion of the ground, or open forest. Young natural stands and all plantations which have yet to reach a crown density of 10-30 per cent or tree height of 2-5 metres are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention, such as harvesting or natural causes, but which are expected to revert to forest. . . . :
Source: Definitions, modalities, rules and guidelines relating to land use, land-use change and forestry activities under the Kyoto Protocol, Decision 11/CP.7

Definition of forest land for CDM A/R in Sri Lanka

A piece of land with a single minimum land area value of 0.05 hectare, a single minimum tree crown cover of 20% and a single minimum tree height value of 3 meters.

- **Step 4a-2a(ii). Forest stratification**
  One of the most important sampling procedures, which incorporates auxiliary information, is stratification, where the population (the total area of tree cover under consideration) is divided into subpopulations on the basis of auxiliary data. These data may consist of knowledge of legal, administrative boundaries or boundaries of forest administrations which will be efficient to sample separately, or maps or remote sensing data which distinguish between upland and lowland areas or between different ecosystem types. Since stratification is intended to increase efficiency, it is good practice to use auxiliary data when such data are available or can be made available at low additional cost.
  Sri Lanka has categorized forests as lowland, sub-montane and montane forests of the wet zone, Dry Zone forests and moist deciduous forests. This classification will have to be adopted or modified and agreed upon for REDD+ purposes. The classification system will need to be consistent with the IPCC guidelines and consider the existing forest classification and ecological zones.

- **Activity 4a-4: Establish a central database and archiving system including the provision of information on REDD+ safeguards**

It is of crucial importance that a common archiving procedure is developed in order to secure the REDD+ data related to monitoring and MRV but also the information on the safeguards. The archiving system will be used by the relevant institutions and ensure that the documents and data are shared in order to ensure that the activities are implemented in time. The archiving system is of crucial importance for the preparation of the national inventory reports. For example, the description of the archiving system is required in the national communication for Annex I countries. The archiving system will host a central database whose structure will allow effective, efficient and transparent QA/QC procedures.

- **Activity 4a-5: Harmonization of existing EF and AD data and identifying data gaps.**

Often activity data and emission factors from different datasets held by various research institutions, universities and NGOs, are not compatible with each other, and hence cannot be compared due to methodological differences in data collection and image types. They may therefore need to be harmonized, and the key gaps determined as to where data collection and analysis is required. EF and AD need to be integrated so that they match. One emission factor needs to correspond to each activity data. In some cases, it will be necessary to harmonize the data provided to ensure consistency when developing the GHG inventory. The gaps will be identified in order to improve subsequent GHG inventories and reporting quality.

- **Activity 4a-6: Develop QA/QC procedures for activity data and emission factors.**

The most suitable data characteristics, quality and consistency will have to be ensured. In collaboration with relevant experts, QA/QC procedures for GHG inventory will be developed with (a) recommendations on expected standards and methodologies, and (b) methods for addressing the use of different data sources through time. Data uncertainties with regard to errors of measurement (human or calibration), modeling (where the model does not describe the phenomenon), sampling (inadequate or unrepresentative), classification of forest types (non-counting, under-counting, or double-counting) will have to be considered. All protocols for QA/QC procedures will be compiled into the initial MRV action plan (activity 4a-1).

National land monitoring system

- **Activity 4a-7: Specific training on forest cover monitoring(e.g. remote sensing, GIS and database management)**.

Monitoring of forest cover change using remote sensing requires high technical capacities. Currently, several entities are involved in land mapping in Sri Lanka. However, their collaboration is limited. Based on the institutional arrangements and the assessment of the capacities (see Component 2c), relevant stakeholders will be identified from relevant entities and will be trained. Training will focus on GIS, remote sensing and database management for the forest monitoring system.

- **Activity 4a-8: Collate and populate database with mapping information.**

Once the different contributors are identified, the available remote sensing/geographical information systems (RS/GIS) information from all the mapping institutions will be identified and collected. RS/GIS information should concern REDD+ activities. The data collected will be prepared and stored in the national central database. Appropriate copyright and licenses will be prepared to protect intellectual property owners.

- **Activity 4a-9: Analyze satellite imagery and provide recommendations for forestmonitoring.**

Different types of satellite imagery can be used to monitor forest cover changes. It is important to consider the spatial, temporal and spectral resolution of satellite imagery in order to be able to monitor certain types of forest cover change such as forest degradation, illegal logging activities or to map agroforestry systems. This activity will:

- Identify and organize all available satellite and/or aerial imageries for Sri Lanka in a database,
- Assess the quality of these data in terms of spatial and temporal coverage, cloud cover, spatial and spectral resolution, and image registration,
- Analyze the impact of the use of different forest definitions on the system for national forest monitoring,
- Provide recommendations for the use of imagery for past and future forest cover assessments, forest stratification and monitoring of REDD+ activities.

The experiences from past RS projects will be collected and used to provide the recommendations. The possibility of using certain types of satellite imagery to provide information on some of the safeguards will be explored.

- **Activity 4a-10: Identify and validate parameters for forest monitoring system with stakeholders.**

An important question when designing the MRV system is: what should be monitored? This is where linkages between REDD+ strategies and monitoring components become essential. As one of the objectives of the MRV system is to evaluate the degree to which Sri Lanka's candidate REDD+ strategies have (or have not) been effective in reducing GHG emissions and/or increasing removals, the monitoring indicators will need to be linked to the proposed REDD+ strategies. As the implementation of each individual REDD+ strategy may not have a direct measurable impact on emission reductions, common outcomes/indicators that are directly or indirectly linked to the strategies and can be monitored will need to be established.

RS is the simplest way to determine land covertypes and land area, as well as changes, and is the main tool for monitoring deforestation. The information collected by RS will, however, depend upon its resolution and type of sensor. The selection of the types of satellite imagery will depend on their quality, cloud cover, spatial, temporal and spectral resolution, and their cost. It is therefore necessary to decide the parameters to be collected using remote sensing to accurately monitor forest cover change and provide information on some of the REDD+ safeguards. It is also important to decide on the use of correct levels of resolution, to accurately monitor forest degradation or enhancement of forest carbon stocks by way of distinguishing forest landscape feature changes or forest area changes.[252]As the data currently available with the FD is mid-resolution RS data, the need for high-resolution remote sensing methods to map and monitor indicators of forest degradation, such as fire scars and other forest canopy damage, and secondary forest recovery, will be evaluated against costs.

BOX A4a-2: Factors to be considered when developing a Monitoring and MRV system.

Deforestation and afforestation/reforestation can be monitored with medium-resolution remote sensing data (e.g. Landsat, SPOT, IRS-imagery) which Sri Lanka has used in the past, but other REDD+ interventions that occur at finer spatial scales and may not result in a significant change in land cover (e.g. forest encroachment, degradation due to mining, etc) and therefore may be more difficult or even impossible to monitor with such data. If so, high-resolution satellite imagery and aerial photography may be necessary for monitoring small-scale changes in land cover and forest condition. The possibility of using both high-resolution imagery and freely available RS data should therefore be evaluated and a draft monitoring framework developed to identify gaps as part of the TOR for the TF on RL/MRV.

- **Activity 4a-11: Determine the role of community mapping in determining forest cover change.**

It is necessary to assess the role of community mapping and its feasibility in Sri Lanka. Due to the nature of forest cover change over time in Sri Lanka that can be expected under the present scenario, it is possible that not all major REDD+ interventions may be monitored cost-effectively (e.g., monitoring tree cover changes in agroforestry systems). Hence options for incorporating community mapping into the monitoring framework (MRV implementation plan) will have to be investigated. If so, the community sampling methodology, sampling design and QA/QC protocols will be developed and incorporated into the MRV Action Plan.

- **Activity 4a-12: Undertake a cost benefit analysis for the forest monitoring system.**

As Sri Lankahas already produced land use maps or land cover assessments covering the entire country, the wall–to-wall approach can be used, and the country's forests can be stratified up-front. Some large countries such as Brazil and India have demonstrated that wall-to-wall systems can be established based on mid-resolution satellite imagery, which is a primary tool to map deforestation and estimate area change.The cost and time associated with monitoring the REDD+ activities across the entire country would be substantial, hence identifying the cost associated with the different types of satellite imagery will be necessary. This analysis will serve to inform the design of the monitoring system...

- **Activity 4a-13: Develop and operationalise a country-specific forest monitoring system.**

[252] GOFC-GOLD (2009). A Sourcebook of methods and procedures for monitoring and reporting anthropogenic greenhouse gas emissions and removals caused by deforestation, gains and losses of carbon stocks, and forests remaining forests and forestation (for REDD+).

The land monitoring system (LMS) will be a crucial element to monitor the implementation of the REDD+ policies and measures and to provide forest cover and area change data generated through RS. The operationalisation of the LMS will be required in Phase 2 to provide RS monitoring data of sub-national demonstration activities and national coverage data for basic land use indicators (such as forest cover). This LMS should become fully operational in Phase 3 of REDD+ when it will need to provide AD across the entire national territory (wall-to-wall) as part of the MRV System, as well as monitor the outcomes of national REDD+ policies and measures. The forest monitoring system will particularly contribute to the three main national necessities.

- **Remote sensing to detect forest cover changes**
  RS techniques are well adapted to fit the data principles of adequacy, consistency, completeness, and transparency required by the IPCC Guidelines. In addition, RS can provide consistent historical land representation. As biennial annual reports are required (according to the Cancun Agreements), the LMS will need to cover the entire territory at least every two years. Integration of different types of RS information will be needed to overcome the constraints of cloud cover, detection of rapid forest cover change (e.g. forest degradation) and seasonal and climatic variations.

- **Land monitoring system for REDD+ policies and measures, and safeguards**
  The LMS provides data on the net outcomes of policies and measures through provision of land use and land use change data for sub-national demonstration activities during Phase 2 and at national level for Phase 3. In Phase 2 the country should begin to implement national policies and sub-national REDD+ demonstration activities – ensuring they are results-based through a monitoring system – and implement a system for providing information on how the REDD+ safeguards are being addressed and respected, as set out by the UNFCCC.

- **The use of forest monitoring data in national REDD+ strategy**
  The LMS will be the key element to support and operationalise any national subsidy or payment distribution scheme. The LMS has to be country-specific in order to better consider the national specificities in terms of anthropogenic activities and interactions with the forest. The LMS will also contribute to providing information on some of the REDD+ safeguards, specifically those requiring geo-spatial information.

- **Activity 4a-14: Develop and deliver training programmes on data interpretation for monitoring systems (as part of the collaboration between FAO and INPE)**

Several pieces of GIS/RS software and remote sensing data exist. Training programmes will be provided to test different systems and their application to analyze different types of satellite imagery. The training will contribute to increase the knowledge of remote sensing and GIS, but also to facilitate decision-making regarding the necessary materials and equipment required to develop the forest monitoring system.

- **Activity 4a-15: Calibration and field data collection**

Interpretation of the forest land area changes using remote sensing require calibration based on data collected in the field. Existing georeferenced data for vegetation descriptions will be collected. Additional data collection will be undertaken to assess the accuracy of the interpretation of the satellite imagery of demonstration activities. In Phase 2, the data for the calibration of the national forest land cover mapping will collected by the NFI.

- **Activity 4a-16: Develop a reference forest map**

The national forest cover map for the REDD+ activities for the year 2012 will be partially developed using satellite imagery identified in activity 4a-10 (for the land area covered by the demonstration activities). The forest land map for 2012 will be used to monitor forest cover changes from 2012 onward.

- **Activity 4a-17: Specific training on forest inventory**

The last national forest inventory was completed in 1999. There have since been no activities undertaken to assess forest volume or biomass. Specific training on forest inventory needs to be undertaken. Taking examples from other countries' NFIs, the training will present how NFI data can be used to produce the necessary emission factors to report to the UNFCCC for the forest sector.

- **Activity 4a-18: Develop a tree species and forestry database**

  Forests in Sri Lanka host more than 4,000 tree, liana and palm species. In order to allow the linkage between the data collected from the previous field inventories, the future NFI, existing conversion factors, biomass expansion factors, allometric equations and wood densities, it is important to develop a tree species database. This database can be linked to the information related to their use, allowing the consideration of the linkages between carbon and multiple benefits, e.g. biodiversity.

- **Activity 4a-19: Collate, populate the database and harmonize the data on forest inventories (including allometric equations, wood density, and conversion factors)**

Using tree diameter as the main input, biomass and carbon stocks can be assessed based on wood density, allometric equations and conversion factors. Currently, the conversion factors accepted by the IPCC are hosted by the Emission Factor Database of the IPCC. However, this database does not represent the available information in Sri Lanka and will not allow reporting under Tier 2 level. It is necessary to collect country-specific conversion factors and allometric equations. Based on the existing data it will be possible to identify the gaps and identify the necessary actions to be undertaken in Phase 2.

- **Activity 4a-20: Specific training on allometric equations, wood density, and conversion factors, soil and litter carbon stock assessment, etc. (including field training).**

The development of allometric equations and conversion factors requires the implementation of destructive measurement. Analyzing the relationship between dendrometric parameters and biomass or carbon stocks is time consuming and costly. The development of an allometric model has to be based on the forest stratification, existing forestry data on the forest structure and available destructive measurements for tree biomass in Sri Lanka. Available regional data will be helpful to fill gaps. This activity will focus on improving national capacities for developing those coefficients and models. Training will focus on destructive measurement and biometry.

- **Activity 4a-21: Undertake national consultations for parameters to be included in NFI**

Assessment of forest carbon stocks and carbon stock changes is necessary to calculate emission factors. However, the NFIs do not focus only on forest carbon parameters. Other variables are usually collected, such as volume, bioenergy, biodiversity, forest condition and socio-economic interactions with forest resources. It is important to identify the best compromise to establish a multi-purpose forest inventory which allows the development of a cost-effective NFI. Based on the targeted accuracy and national objectives, the parameters and variables to be considered by the NFI need to be identified. This activity will, based on available data, identify the carbon pools to be considered by the NFI (above-ground biomass, below-ground biomass, litter, soil and dead wood).

- **Activity 4a-22: Design the NFI (including field manual).**

The NFI will be a multi-purpose forest inventory. It will provide the relevant data to support national forest policy and provide the necessary data to report for REDD+ under the UNFCCC. This activity involves several steps:

  - **Participation of partners and major users of forest information reinforced**

This step involves setting up a Technical Working Group (TWG) for the design of the NFI. The TWG for the NFI will meet in order to identify needs and provide recommendations on the parameters to be considered by the NFI, and associated costs.

- **Assessment of national and local needs to implement the NFI**
  The last NFI was implemented a long time ago. National capacities may not be adequate to implement the NFI today. It is important to assess the capacity needs and evaluate the associated cost. The needs assessment will consider the technical capacities (forest mapping, field data collection, processing, analysis, accuracy assessment, emission factor analysis and information management) and define the needs for field equipment and office activities, including for forest inventory information system development.

- **Design of the NFI**
  Based on the available information and targeted variables, targeted accuracy and available funds, the multi-purpose NFI will be designed. The design will take into consideration IPCC guidelines to ensure that the outputs from the NFI will be in line with the UNFCCC reporting requirements and provide Tier 2 level for the EF. The NFI will be designed to provide the necessary data for the calibration of satellite data interpretation. This implies that methods for NFI and the satellite monitoring system must be consistent. This activity focuses on designing the NFI and providing a manual for field measurement. Such a manual can be used for demonstration activities in order to ensure that forest measurement in sub-national activities are integrated into the national framework and can be used to assess EFs.

- **Activity 4a-22: Validate NFI with stakeholders**

In order to validate the NFI design, a national consultation will be organized. The relevant stakeholders in forest inventories will provide their comments and be involved in the finalization of the design.

- **Activity 4a-23: Develop emission factors for REDD+-related activities based on existing data**

The IPCC provides default data for all forest carbon pools throughout the world at Tier 1 level. As these are general, Sri Lanka will use at least a Tier 2 level. Based on the available data collected from existing forest inventories, emission factors will be developed. This activity will allow the identification of gaps and needs to improve the accuracy of the carbon stock change assessment. The EFs need to be consistent with the AD, which requires the harmonization of the existing data. Existing data were collected using a different methodology, sampling approach and descriptors for the vegetation. This activity will harmonize the existing data as much as possible and develop EFs when possible.

- **Activity 4a-24: Carry out field training programmes at demonstration sites test use of activity data and emission factors**

While most of the activities focus on providing theoretical inputs for the development of the NFI, this activity focuses on field measurements in demonstration sites. Using the manual and the design of the NFI, field measurements will test its applicability and feasibility, and provide data that will be used in future EF assessment.

Annex 4a-2:
A potential outcome chain for designing and implementing an MRV system for REDD+ in Sri Lanka