

Sri Lanka National Scoping Study

September 2017



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List of Acronyms

ADB	Asian Development Bank
ARDQ	Aquatic Resource Development and Quality Improvement
AusAid	Australian Agency for International Development
BAU	Business-As-Usual
BHP	Broadlands Hydropower Project
BDCSES	Enhancing biodiversity conservation and sustenance of ecosystem services in environmentally sensitive areas
CASUMPP	Conservation and Sustainable Use of Medicinal Plants Project
CED	Centre for Environment and Development
CEPF	Clean Energy Partnership Facility
CCS	Climate Change Secretariat
CRIWMP	UNDP Green Climate Fund (Climate Resilient Integrated Water Management Project)
CFP	Sri Lanka Community Forestry Programme
CRIP	Climate Resilience Improvement project
CRIPAF	Climate Resilience Improvement Project Additional Financing
CCIMRB	Addressing climate change impacts on Marginalized Agricultural Communities Living in the Mahaweli River basin of Sri Lanka
CRIPAD	Climate Resilience Improvement Project Additional Financing
CCSL	Climate Resilient Action Plans for Coastal Urban Areas, Sri Lanka
CENEP	Clean Energy and Network Efficiency Improvement Project.
COP	Conference of Parties
CF	Climate Financing
CRTSP	Colombo Rapid Transit System Project
EU	European Union
EOAZ	Establish & Operate an Agro Zone
ESCAMP	Ecosystem Conservation and Management Project
EBFSMP	Encouragement of Bicycle Use and Feasibility Study on Cycle and Motor Cycle Paths
ETSNC	An Electric Train System Between Negombo And Colombo
EFL	Environmental Foundation Ltd.
FRDP	Forest Resources Development Project
FQS	Improving food quality and safety of Sri Lankan fruits and vegetables
FDI	Foreign Direct Investment
GCF	Green Climate Fund
GEF	Global Environment Fund
GHG	Green House Gas
GoChina	Government of China
GoKA	Government of Korea
GoSL	Government of Sri Lanka
HND	Hatton National Bank
IWMI	International Water Management Institute
IRCRCCOT	Increasing the resilience of coastal and riverine communities to climate change and other threat.
IWNSD	Integrated Waste Management System at Dumped
IWMPO	Improving Waste Management to Protect the Ocean
JICA	Japan International Cooperation Agency
KIAE	Katunayake International Airport Expansion
MCSWMP	Metro Colombo Solid Waste Management Project
LKWSSIP	LK Water Supply and Sanitation Improvement Project

Mn	Millions
MCUDP	Metro Colombo Urban Development Project
MGUI	Management of Groundwater Use in Irrigation
MOF	Magroves for the future
NCF	Nordic Climate Facility
NAMA	Nationally Appropriate Mitigation Action
NDCs	National Determined Contributions
NGOs	Non-Governmental Organizations
PAMWCP	Protected Area Mgt. and Wildlife Conservation Project
PSBMBT	Promoting Sustainable Biomass Energy Production and Modern Bio-Energy Technologies.
PRE	Promoting Renewable Energy as A Drive for Sustainable Development and Mitigation of Climate Change in Sri Lanka
REREDP	Renewable Energy for Rural Economic Development Project
RSPGS	Rooftop Solar Power Generation Systems in Sri Lanka
RDRP	Restoration of Degraded Areas Inside & Outside the Protected Area Network to Enhance Resilience
RVEP	Reduce Vehicle Emission Project
SDGs	Sustainable Development Goals
STDP	Sustainable Tourism Development Project
SLHDP	Sri Lanka -Second health sector development project
SLHSDP	Sri Lanka Health sector development project
SLTERL	Sri Lanka Tsunami Emergency Recovery Programme
SLAMP	Sri Lanka Agricultural Sector Modernization project
SPFBSL	Sustainable Production in The Food and Beverage Industry in Sri Lanka
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNECOSOC	The United Nations Economic and Social Council
UNDP	United Nations Development Program
USD	United States Dollar
USAID	United States Agency for International Development
WB	World Bank
WFP	World Food Programme
WTO	World Trade Organization

List of Figures, Tables & Graphs

Figures

Figure 01: Methodology of the Scoping Study

Figure 02: Sri Lanka's Nationally Determined Contributions (NDCs)

Figure 03: Scenario for Institutional Relations and Financial Flows for Climate Financing in Sri Lanka

Figure 04: Mitigation Sector Funded Projects

Figure 05: Sample Financing of Adaptation Sectoral Projects

Tables

Table 01: Climate Action Related Policies in Sri Lanka

Table 02: Sri Lanka NDCs against Business-as-Usual

Table 03: GHG Emissions Reduction Targets for Mitigation

Table 04: Summary of Financing National REDD+ Programs in Sri Lanka

Table 05: Status of Innovate Climate Financing Tools Adopted by the Banking Sector in Sri Lanka

Table 06: Interlinkages between Sri Lanka's NDCs and the SDGs

Graphs

Graph 01: Sample Survey Findings: Project Financing for Mitigation Sectors

Graph 02: Sample Survey Findings: Project Financing for Adaptation Sectors

Graph 03: Sample Survey Findings: Analysis of Project Financing for Mitigation & Adaptation Sectors

Graph 04: Sample Survey Findings: Analysis of Project Financing for Mitigation & Adaptation Sectors from 1990-2020

Table of Contents

1. Introduction	7
1.1 Background	7
1.2 Scope of the Study	7
1.3 Methodology of the Study	8
1.4 Remarks	9
2. Climate Change Policy Overview and Nationally Determined Contributions (NDCs)	9
2.1 Climate change policies and institutional structure	9
2.2 Sri Lanka's Nationally Determined Contributions (NDCs)	11
2.3 Status of Implementation of the NDCs and the Readiness Phase (2017-2019)	13
3. Summary of findings	14
3.1 Climate Financing Examples in Sri Lanka	14
3.1.1 GCF Financing for Climate Action in Sri Lanka	14
3.1.2 Financing the National REDD+ Strategy/Action Plan	14
3.2 Current and Proposed Institutional Arrangements to Mobilize Domestic/National Private Sector Climate Finance	15
3.3 Existing Low carbon, Climate Resilient Financial Products/Schemes	16
3.3.1 Green Financing Tools for Financing Institutions in Sri Lanka	16
3.4 Past and Ongoing External Support Provided to Banks for Low Carbon, Climate Resilient Development	17
3.4.1 Sample Survey on Climate Financing for Mitigation	17
3.4.2 Sample Survey on Climate Financing for Adaptation	19
3.4.3 Results from the Sample Survey	30
3.5 Existing Incentives for Low Carbon, Climate Resilient Development	21
3.5.1 Financing Solar Power in Sri Lanka	21
3.5.2 Soorya Bala Sangramaya (Battle for Solar Energy)	22
4. National Climate Financing Champions	22
4.1 Identification of the Proposed National Champion	22
4.2 Sustainable Finance Roadmap	23
4.3 Sustainable Banking Initiative	23
5. Additional Findings	24
5.1 Climate financing and climate co-benefit	24
5.2 Potential of Green Bonds	24
5.3 Linkages between NDCs and the Sustainable Development Goals	24
6. Overall Summary and Recommendations	26
6.1 Planning to Meet Challenges of Climate Vulnerability	26
6.2 Creating Awareness on Implementing the NDCs	26
6.3 Formulating a Cohesive Climate Financing Strategy	26
6.4 Building Convergence between the SDGs & NDCs for Financing Sustainable Development	27
6.5 Capacity Building for Innovative Green Sustainable Climate Financing	27
References	28

1. Introduction

1.1 Background

In December 2015, the Paris Agreement on Climate Change was adopted, outlining a global action plan to avoid dangerous climate change by limiting global warming to below 2°C above pre-industrial levels. Countries have put forward Nationally Determined Contributions (NDCs), articulating their climate mitigation and adaptation ambitions. Delivering on the Paris Agreement will require countries to effectively implement these INDCs, as well as increase their ambition over time. The Paris Agreement on Climate Change emphasised the importance of making available financial resources to support the implementation of policies, strategies, regulations and action plans for climate change mitigation and adaptation. While international climate finance to the Asia and the Pacific region are among the largest, the extent of overall climate finance in the region is far below the estimated needs.

Mobilizing adequate climate finance resources requires identifying innovative and alternative sources of funding, including leveraging private-sector financing. National public finance institutions – including Central Banks and National Development Banks - have a key role to play in overcoming these challenges and guiding investments towards low-carbon sustainable development alternatives. These public financial institutions are effective ‘change agents’ for advancing environmental sustainability solutions because of the influence they exert through the impact of their policies. Practical challenges to private sector engagement include the high up-front investments needed for the transition to low-emission and energy-efficient alternatives; managing the perceived and political, technology and policy risks; and the lack of an enabling policy environment with clear signals to the private sector.

To address this, and to strengthen the capacity of financial institutions in the Asia-Pacific region to develop an enabling policy environment that promotes private investments in climate change mitigation and adaptation initiatives, UNESCAP developed a regional project on *Innovative Climate Finance Mechanisms for Financial Institutions in the Asia-Pacific Region* that will be implemented in five countries, including Sri Lanka.

The project seeks to achieve its objective through a three-pronged strategic approach that includes:

- i. Analytical research to identify and develop best-practices
- ii. Capacity development through on-line and in-person activities, including targeted national advisory services delivered to key partners
- iii. A networking component, including (a) development of a group of thought-leaders and project champions who will, through online and in-person meet, share information, support implementation and strategize the next steps to ensure the sustainability of the project completion, and (b) a regional outreach and cooperation component

The Centre for Environment and Development (CED) partnered with ESCAP to implement the early activities of the project within Sri Lanka including conducting the National Scoping Study on Climate Change, initiating outreach to engage necessary stakeholders and organising national workshops. CED is an ECOSOC accredited organisation which is legally incorporated in Sri Lanka and operates as a campaigner, concept builder, think tank, watchdog and research and policy institute at local, national and international levels.

1.2 Scope of the Study

The scoping study seeks to survey the overall climate finance landscape in Sri Lanka. It plans to map existing and potential flows of climate finance from a variety of sources, which could count towards any burden share that Sri Lanka may acquire. It further aims to identify potential issues and implications for Sri Lanka in meeting the terms of future international climate finance agreements. The scoping study will be limited to available information and data in an environment where climate financing is still at an inception stage in the country.

- i. The development of the scoping study included the following activities: Mapping of a preliminary list of potential financial institutions, technical experts, policymakers and/or other key stakeholders and identify “champions” in innovative climate financing;

- ii. Mapping of climate finance-related initiatives by other UN agencies, multilateral development banks, bilateral donors, etc.;
- iii. Mapping the role and actions of other stakeholders in the field of climate finance for the past 2/3 years;
- iv. Mapping the landscape of climate finance in Sri Lanka based on the current institutional infrastructure and the future vision of desired outcomes;
- v. Mapping existing incentives for low carbon development;
- vi. Mapping priority strategic areas for intervention, entry points and institutional arrangements at the policy level;

1.3 Methodology of the Study

The methodology to conduct the scoping study – undertaken between February to November 2017 – consisted of:

1. Desk study to collect information and data on climate financing policies and policy framework, institutional framework and arrangements, projects and investments, partnerships, etc.;
2. Consultations with experts in the field of climate change, sustainable development, banking and finance to ascertain the climate financing environment, status and potentials in Sri Lanka;
3. The 1st national workshop in April 2017 as an early consultation of experts and sectoral representatives to seek guidance;
4. Circulation of customised questionnaires amongst banks and financial organisations, government organisations, UN and other multilateral agencies, NGOs, the private sector and other stakeholders to determine the current level of understanding and application of internationally identified climate financing tools;
5. Presentation of preliminary understanding on innovations in climate finance environment in Sri Lanka at the first regional workshop and learning from the partner countries and stakeholders;
6. Interviews of representatives from financial agencies, government agencies, UN and multilateral agencies, private sector organizations, NGOs, and other stakeholders to learn specific climate financing project information: previous and future;
7. Identification and mapping of climate financing initiatives amongst public and private sector banking institutions and other organisations;
8. Identification and mapping of priority strategic areas for intervention and institutional arrangements at the policy level;
9. Drafting of scoping study based on overall findings with infographics to depict the climate financing landscape in Sri Lanka and formulation of case studies and fact sheets;
10. 2nd national workshop to discuss and finalize the scoping study and establish a follow-up and way forward;
11. Completion of the project.

Figure 1: Methodology of the Scoping Study



1.4 Remarks

Sri Lanka is at an inception stage with regard to climate financing and reflective of the lack of consensus at the international level. Also, there is no central depository of information on projects addressing climate change and the financing details. However, while conducting the scoping study, it was evident that a wide range of projects with climate co-benefits could be traced. Yet, with minimal financial reporting with clear classification, it was not possible to identify the climate co-financing component of these projects. Overall, tracing climate financing history in the country without proper records and reports presented an enormously difficult task. Also, it must be noted that most organisations were reluctant to share financial details which does not correspond with the Right to Information Act of Sri Lanka.

This scoping study was mainly focuses on the Nationally Determine Contributions (NDCs) by Sri Lanka in accordance with the Paris Agreement. The NDCs to date remain barely known to the banks, financial and business sectors and even policy makers of the country at large. As the understanding of the NDCs were low during the period of this scoping study, the project had to spend time creating awareness and understanding amongst banking and private sector organizations to draw responses on climate financing activities and potentials.

The emergence of financing the sustainable development agenda presents greater prospects. With growing understanding of the Sustainable Development Goals (SDGs), the financial and business sectors appear to show greater interest in innovative financing for sustainable development projects with climate co-benefits. However, in the absence of a policy coherence between NDCs and SDGs at country level, the study team also embarked on conducting a mapping of interlinkages between these two agendas.

2. Climate Change Policy Overview and Nationally Determined Contributions (NDCs)

2.1 Climate change policies and institutional structure

The National Climate Change Policy contains a vision, mission, goal and a set of guiding principles followed by broad policy statements under Vulnerability, Adaptation, Mitigation, Sustainable Consumption and Production, Knowledge Management and General Statements.

The goal of the National Climate Change Policy is “adaptation to and mitigation of climate change impacts within the framework of sustainable development”. The objectives of the policy are to;

- Sensitise and make aware the communities periodically on the country’s vulnerability to climate change.
- Take adaptive measures to avoid/minimise adverse impacts of climate change to the people, their livelihoods and ecosystems.
- Mitigate greenhouse gas emissions in the path of sustainable development and promote sustainable consumption and production.
- Enhance knowledge on the multifaceted issues related to climate change in the society and build their capacity to make prudent choices in decision making.
- Develop the country’s capacity to address the impacts of climate change effectively and efficiently. Mainstream and integrate climate change issues in the national development process.

The Ministry of Mahaweli Development and Environment (MMD&E) provides the climate policy lead through the Climate Change Secretariat of Sri Lanka (CCS). CCS is the Designated National Authority (DNA) to approve and authorise participation by entities in CDM projects in Sri Lanka. The main function of the DNA is to assess the potential CDM projects to determine if they will assist Sri Lanka in achieving its sustainable development goals and issue approval letters to project participants in CDM projects.

The following table provides a landscape of policy strategies and plans related to climate action in Sri Lanka.

Table 1: Climate Action Related Policies in Sri Lanka

No.	Activity	Period
1	National Forest Policy	1995
2	Forestry Sector Master Plan	1995-2020
3	National Air Quality Management Policy	2000
4	National Solid Waste Management Strategy	2000
5	Initial National Communication developed in 2000	2000
6	National Policy on Wildlife Conservation	2000
7	National Environmental Policy	2003
8	National Watershed Management Policy	2004
9	National Wetlands Policy	2006
10	National Land Use Policy	2007
11	Sector Vulnerability Profiles: Water, Health Agriculture and Fisheries, Urban Development, Human Settlements and Economic Infrastructure	2007-2016
12	Forest Ordinance	2009
13	Fauna and Flora Protection Ordinance	2009
14	Technology Action Plans for Haritha Lanka Programme in 2009	2010-2020
15	Nationally Appropriate Mitigation Action (NAMA) on Energy Generation and End Use Sectors	2010
16	National Climate Change Policy (2016 - 2025)	2011
17	Second National Communication	2011
18	National Climate Change Adaptation Strategy (NCCAS)	2011-2016
19	Technology Needs Assessment and Technology Action Plans for Climate Change Adaptation (for food, health, water sectors)	2011-2016
20	Urban Transport Master Plan 2032 based on the National Transport Policy	2013-2035
21	NAMA on Transportation (Draft)	2015

22	National Climate Change Adaptation Plan of Sri Lanka	2015-2024
23	The Long-Term Electricity Generation Expansion Plan	2015-2032
24	National Adaptation Plan (NAP) for Climate Change Impact in Sri Lanka	2016-2025
25	National Biodiversity Strategic Action Plan (NBSAP)	2016-2022
26	National REDD+ Investment Framework and Action Plan (NRIFAP)	2018-2023

2.2 Sri Lanka's Nationally Determined Contributions (NDCs)

Sri Lanka is a country highly vulnerable to adverse effects of climate change and comparatively has very low greenhouse gas emissions. Therefore, its NDCs seek to strengthen the global efforts of both mitigation and adaptation. In response to challenges posed by climate change, Sri Lanka has taken several positive steps by introducing national policies, strategies, and actions in order to address climate change induced impacts, amongst which are the National Climate Change Policy of Sri Lanka.

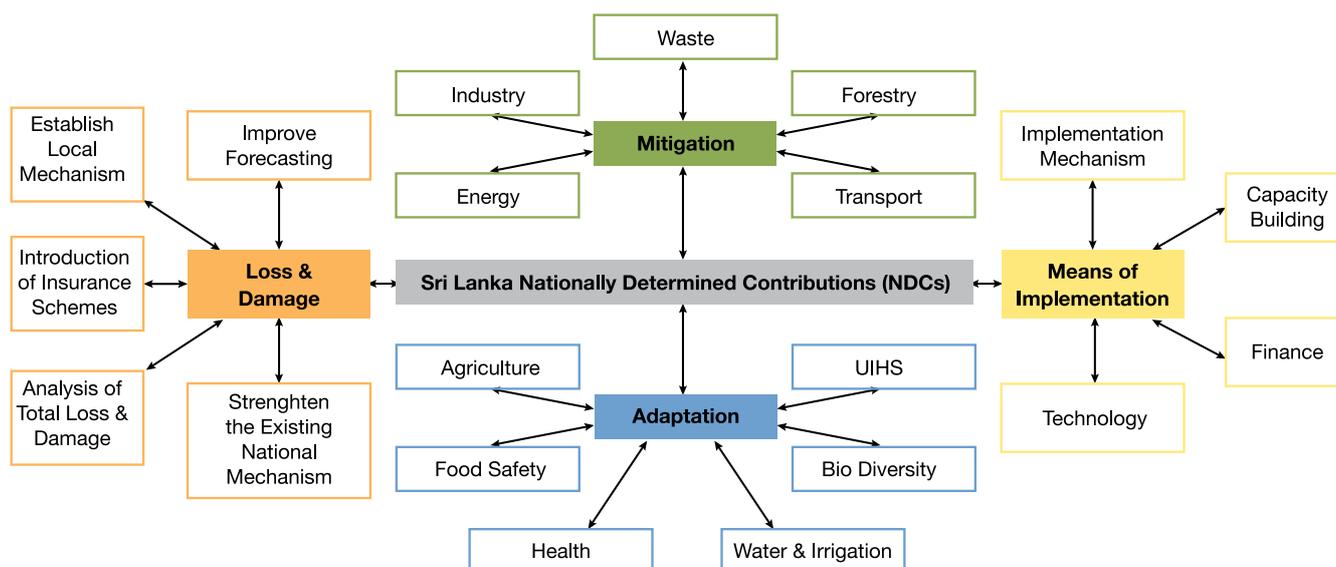
The Ministry of Mahaweli Development and Environment (MMD&E) in Sri Lanka, as the National Focal Point to the United Nations Framework Convention on Climate Change (UNFCCC), submitted its Nationally Determined Contributions (NDCs) in accordance with Decision 1/CP.21 of the 21st session of the Conference of the Parties to the UNFCCC.

Sri Lanka's NDCs include instruments for mitigation, adaptation, loss and damage and means of implementation. Further mitigation and adaptation focuses on 12 sectors and consists of unconditional as well as conditional NDCs. The baseline year is set as 2010 as per Business-As-Usual(BAU) scenario on indicating quantifiable information on these sectors and target period for implementing NDCs is 2021-2030. In addition, in 2017, the Readiness Plan for the Implementation of INDCs in Sri Lanka has been developed for the country to prepare for full scale implantation of INDCs.

Sri Lanka's NDCs comprise of the following four areas:

- **Mitigation** - Reducing GHG emissions against the Business-As-Usual (BAU) scenarios in the sectors of energy (electricity generation), transportation, industry, waste, and forestry. The key contributors to GHG are Carbon Dioxide (CO₂), Methane (CH₄) and Nitrous Oxide (N₂O).
- **Adaptation** - Building resilience in most vulnerable communities, sectors and areas to adverse effects of climate change. Adaptation will focus on human health, food security (agriculture, livestock, and fisheries), water and irrigation, coastal and marine, biodiversity, urban infrastructure and human settlement, tourism and recreation. Adaptation initiatives that derive mitigation co-benefits will be prioritised.
- **Loss and Damage** - To address issues related to loss and damage resulting from extreme weather events, a local mechanism will be developed in accordance with the Warsaw International Mechanism for Loss and Damage.
- **Means of Implementation** - External support for finance, technology development and transfer and capacity building for the above sectors are considered in the implementation process of the NDCs of Sri Lanka.

Figure 2: Sri Lanka's Nationally Determined Contributions (NDCs)



The mitigation action targets on reducing GHG emissions against the BAU scenario are set for the sectors of energy, transportation, industry, waste and forestry. Intended emissions reduction of the energy sector is targeted for 20% (16% conditionally and 4% unconditionally) and by 10% in the other four sectors. Possible emissions reduction actions have been identified in each sector too and they will be implemented from 2020 to 2030.

In implementing actions to achieve mitigation targets in the energy and transportation sectors are highlighted in national NDCs. Energy sector mitigation plans lead with the Nationally Appropriate Mitigation Action (NAMA). This focuses on energy generation through renewable energy sources such as wind, solar and hydro. Development of an Urban Transport Master Plan and new emission standards are key approaches designed to fulfill transport targets. Colombo Rapid Transit System Project and Reduce Vehicle Emission Project are major ongoing projects to achieve the targets in transport sector. Increasing forest cover from 29% to 32% by 2030 is the ultimate target set for forestry sector in INDCs and this is contributed to by the Sri Lanka community forestry program. The National Solid Waste Management Strategy, which introduces the life cycle assessment by 2025 is an input approach to minimise GHG emissions in industry and waste management sectors under the umbrella of National Climate Change Policy of Sri Lanka, which is referred by setting mitigation measures in NDCs.

The most vulnerable seven sectors affected by climate change in terms of adaptation are (i) health, (ii) food security, (iii) water, irrigation, (iv) coastal and marine, (v) biodiversity, (vi) tourism and recreation, and (vii) urban infrastructure and human settlements.

Development projects in health have been initiated to improve the standards of the public health system. This project intends to enhance resilience to combat climate induced vector borne diseases and reduce food and water borne diseases. Recommendations are also made within NDCs to take action in these sectors.

To ensure food security while reducing GHG emissions, three major areas of agriculture, livestock, and fisheries have been empowered. This action also falls under food security sector in NDCs. The government has identified several NDCs where climate change will impact on food availability, food accessibility, food utilisation and food system stability. The Sri Lanka Agricultural Sector Modernization Project has proposed to address these issues and reduce vulnerabilities.

Another cross-cutting sector of Sri Lanka's NDCs is water and irrigation. Quality and equitable water supply and water safety management are expected targets in these areas. Restoring and rehabilitation of irrigation systems for efficient water usage, water resource management and modification of irrigation techniques are focuses of the irrigation sector within NDCs and its proposed action plan.

Specific NDCs have been proposed to increase the resilience of coastal and riverine communities. Sea water level monitoring mechanisms, enhanced coastal green belt coverage and preparation of coastal zone risk management maps are some of the action plans introduced through the INDCs.

The Ecosystem Conservation and Management Project and Protected Area Management and Wildlife Conservation Project are ongoing large-scale projects targeted at achieving NDC targets of biodiversity. Urban infrastructure and human settlements are mainstreamed to enhance resilience by minimising physical damage during disasters as well as through the development of green and environmentally friendly building guidelines.

Although the targets and action plans for mitigation and adaptation in the NDCs are well defined, clear financial allocations and fund-raising mechanisms remain undefined. Therefore, a set of well-planned programs are required to implement actions determined by NDCs with the support of proper financing mechanisms.

2.3 Status of Implementation of the NDCs and the Readiness Phase (2017-2019)

The readiness phase till 2020 has been designed to enable full-scale implementation of chosen NDCs. A host of groundwork and preparation is required to ensure successful implementation of NDCs to achieve the set GHG emissions reduction targets by 2030.

A readiness plan for the implementation of the NDCs has been developed in consultation with the relevant stakeholders led by line ministries that cover the 14 sectors identified. The sector specific line ministries and other stakeholders have provided information and recommendations on the implementation of the NDCs, the need to identify policy gaps, institutional gaps and the need for improvements in human and technical capacity, as well as financial and technical support to implement the NDCs by 2020.

Sri Lanka's total GHG emissions represent less than 0.1% of global emissions and per capita emissions are 0.6 tCO₂e. The base year of its NDCs is 2010, with a target period of 2021-2030. It sets out to reduce GHG emissions against BAU scenario unconditionally by 7% (Energy sector 4%, and 3% from other sectors), and conditionally 23% (Energy sector 16%, and 7% from other sectors) by 2030. Sri Lanka includes a quantitative estimation of financial needs for adaptation alone in their NDCs, requiring USD 0.4 billion.

Table 2: Sri Lanka NDCs against Business-as-Usual

NDC Type	Target	Base Year	Target period
Business as Usual	7% Unconditional; 23% Conditional	2010	2021-2030

Five major sectors have been identified under mitigation: energy (electricity generation), transport, industry, forestry, and waste (Figure 1). NDCs for mitigation intend to reduce the GHG emissions against BAU scenario by 20% in the energy sector (4% unconditionally and 16% conditionally) and by 10% in other sectors (transport, industry, forestry, and waste) by 3% unconditionally and 7% conditionally by 2030.

Table 3: GHG Emissions Reduction Targets for Mitigation

Sector	GHG Emission Reduction (target year 2030)		
	% (Gg)	Unconditional reduction	Conditional reduction
Energy	20% (39, 383 Gg)	4% (9,173 Gg)	16% (30,210 Gg)
Transport	10%	3%	7%
Industry	10%	3%	7%
Forest	10%	3%	7%
Waste	10%	3%	7%

While Sri Lanka proposed fair and ambitious mitigation approaches, it faces challenges in addressing adaptation and loss and damage due to its vulnerability to climate change and natural disasters.

3. Summary of findings

3.1 Climate Financing Examples in Sri Lanka

Information on projects financed with the main objective of addressing climate change are limited. These findings are mainly from external financing sources that have direct references to the international climate change agreements.

3.1.1 GCF Financing for Climate Action in Sri Lanka

On 7th June 2017, the Green Climate Fund (GCF) approved a USD 38.1 million grant to GOSL through UNDP for “Strengthening the resilience of smallholder farmers in the Dry Zone to climate variability and extreme events through an integrated approach to water management”. With co-financing of USD 14.0 million by GOSL, the total financing for the project will be USD 52.1 million.

This project intends to improve integrated water management within the Dry Zone of Sri Lanka to strengthen the resilience of smallholder farmers in the face of rising temperatures and extreme weather events attributable to climate change.

Persistent rural poverty afflicts Sri Lanka, making smallholder farmers who cultivate under village irrigation schemes poorer than those who have access to major irrigation. This makes them more vulnerable to impacts of climate change. Unseasonal rain and low water availability are driving down agricultural production, increasing food deficit and indebtedness and also contaminating surface water. Village irrigation schemes have been damaged through flooding, siltation and the impact of extreme weather events all of which also threaten access to safe drinking water.

This project plans to improve the irrigation sector in the Northern and Eastern Provinces by investing in community irrigation water infrastructure, scaling-up decentralised drinking water systems and strengthening early weather warnings, flood-response and water management.

The GCF investment will build on baseline government investment in rural water management, reaching 77,500 people in smallholder households directly and 1,179,800 beneficiaries indirectly.

3.1.2 Financing the National REDD+ Strategy/Action Plan

The government of Sri Lanka has reinforced its commitment to develop a national REDD+ strategy as a vital part of its contribution to combat climate change in line with the conclusions of the Paris Agreement. The Forest Department is moving forward together with the Department of Wildlife Conservation and the Climate Change Secretariat under President Maithripala Sirisena to increase forest cover from 29.7% to 32%.

Sri Lanka became a UN-REDD Program partner in 2009 and received approval for funding at the 8th meeting of the UN-REDD Program Policy Board, with a request for some minor changes. The document was resubmitted in September 2012. The proposed national REDD+ roadmap is designed to achieve the following five outcomes:

- Outcome 1: National consensus reached on the Sri Lanka REDD + program
- 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

A roadmap for the National REDD+ strategy development was formulated in 2015 through which Sri Lanka’s vision for REDD+ was developed with representation of key national and sub-national stakeholder groups. Drivers of deforestation and forest degradation, identified in 2014, were analysed in 2015 to identify options for potential strategic REDD+ Policies and Measures (PAMs). The PAMs were then prioritised through a stakeholder-defined

multi-criteria process.

A financial mechanism was then designed to access and manage potential REDD+ funds from international sources. A study on fund management was completed with recommendations to design a financial mechanism to access and manage potential REDD+ funds from external sources, which will be incorporated into the National REDD+ strategy. Ongoing support is being provided to analyse the tenure implications of prioritised PAMs. High-level support for REDD+ was further strengthened through a dialogue with key government policy makers including the Secretary of the Ministry of Mahaweli Development and Environment (MMDE).

Table 4: Summary of Financing National REDD+ Programs in Sri Lanka

Financial Summary (USD) ⁴			
UN Agency	Approved Programme Budget ⁵	Amount Transferred ⁶	Cumulative Expenditures up to December 2015 ⁷
FAO	2,410,000	2,410,000	1,032,977
UNDP	915,000	915,000	568,322
UNEP	413,318	413,318	130,979
Indirect Support Costs (7%)	256,682	256,682	111,110
Total	4,000,000	4,000,000	1,843,389

3.2 Current and Proposed Institutional Arrangements to Mobilize Domestic/National Private Sector Climate Finance

The financial system in Sri Lanka comprises the major financial institutions, namely the Central Bank of Sri Lanka (CBSL), Licensed Commercial Banks (LCBs), Licensed Specialized Banks (LSBs), Licensed Finance Companies (LFCs), Specialized Leasing Companies (SLCs), Primary Dealers (PDs), Pension and Provident Funds, Insurance Companies, Rural Banks, Stock Brokers, Securities Market Intermediaries, Unit Trusts and Thrift and Credit Co-operative Societies; the major financial markets, such as the Foreign Exchange Market, Money Market, Capital Market and the informal financial market; and the financial infrastructure which is the legal framework related to the financial system and the payment and settlement.

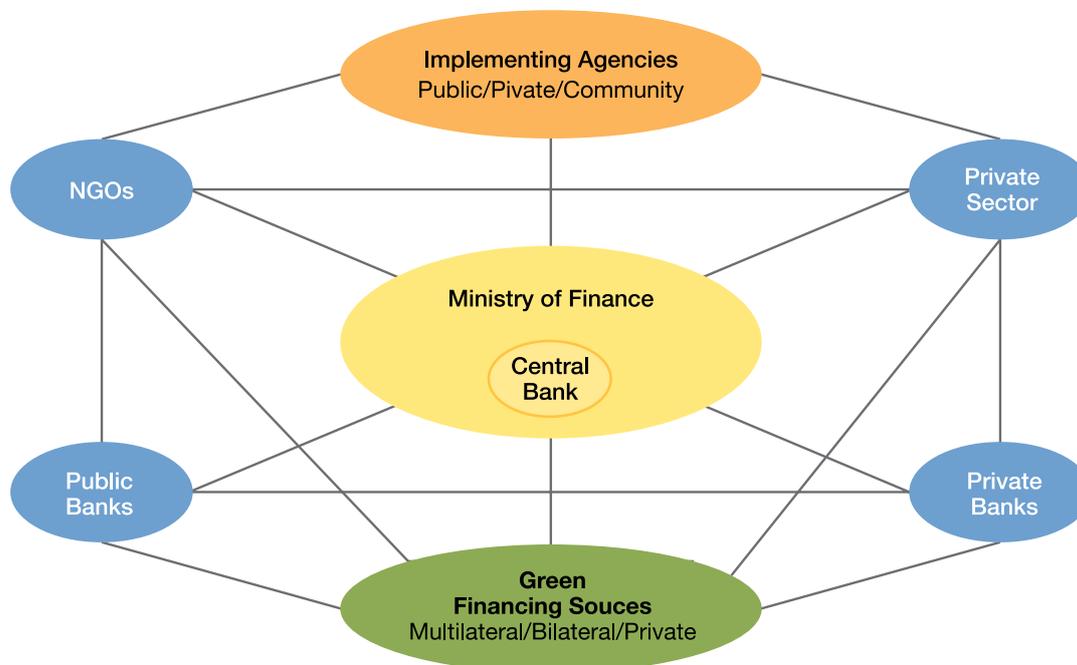
The banking sector in Sri Lanka, which comprises of LCBs and LSBs, dominates the financial system and accounts for 58 percent of the total assets of the financial system as at the end of 2014. Banks play a critical role within the Sri Lankan financial system, as they are engaged in provision of liquidity to the entire economy, while transforming the risk characteristics of assets. Banks are also engaged in providing payment services, thereby facilitating all entities to carry out their financial transactions. On the other hand, banks can create vulnerabilities of systemic nature, partly due to a mismatch in the maturity of assets and liabilities and their interconnectedness. Therefore, the soundness of banks is important, as it contributes towards maintaining confidence in the financial system and any failure may have the potential to impact on activities of all other financial and non-financial entities and finally the economy.

Climate financing flows and institutional relations are based on the financial system in Sri Lanka. Lending portfolios of banks and financial institutions are analysed and monitored based on the industry and sub sector classifications provided by the Central Bank of Sri Lanka. However, these classifications do not necessarily lend themselves to track sustainable or climate financing and therefore, it becomes difficult to discern climate financing from the total portfolio. However, funding made available for dedicated purposes such as solar refinancing schemes is traceable. The work of the Climate Change Secretariat and Sustainable Energy Authority has established a clear focus for financing of solar projects. The credit lines provided by foreign Development Finance Institutions have also contributed to this focus.

Commercial banks have still not been integrated adequately into financing targets in the NDCs, but have already entered the renewable energy financing market. However, projects financing climate co-benefits involve a wider range of stakeholders from across government agencies, the private sector, NGOs, international agencies and practitioners at the local level.

Despite having a plethora of policies, strategies and plans reinforcing climate action, Sri Lanka does not have a clearly defined climate financing policy framework and does not yet have a climate financing strategy to achieve the NDCs. In this respect, a clear institutional structure for climate financing does not exist as well. The following figure is a scenario designed by the scoping study team to demonstrate possible institutional relationships in financial flows related climate financing in Sri Lanka.

Figure 3: Scenario for Institutional Relations and Financial Flows for Climate Financing in Sri Lanka



3.3 Existing Low carbon, Climate Resilient Financial Products/Schemes

Climate financing in the banking sector is at an inception phase in Sri Lanka, as highlighted above, and needs greater understanding of the benefits and requires incentives to attract greater voluntary commitment. Banks investing on climate financing needs assurance and insurance that the investment they make derives dividends. A conducive environment for green and sustainable financing is based on policy and regulatory frameworks that encourages greater climate resilient investment. With Sri Lankan policy makers gradually realizing that climate change has become a serious challenge to development, climate resilient and sustainable planning of development policies, strategies and programs is becoming more possible.

3.3.1 Green Financing Tools for Financing Institutions in Sri Lanka

The results in Table 5 were drawn from a survey conducted as part of this scoping study. The target group includes public and private banks including the Central Bank of Sri Lanka. The results demonstrate the lack of readiness amongst the banking sector to adopt green climate financing at this stage.

Table 5: Status of Innovate Climate Financing Tools Adopted by the Banking Sector in Sri Lanka

Financial Tools	Status	Comments
1. Disclosure of climate-related financial risks	No	Currently not available in Sri Lanka
2. Credit ceilings and Climate Related Stress Testing	No	Sri Lankan banks currently do not provide ceiling for carbon intensive polluting activities. The national legislative and policy framework must provide strict guidelines in order for financing sustainable development in Sri Lanka. In fact, incentive for low carbon projects must be provided by the policy framework to create a market demand, as no exemptions are available also for low carbon projects in banks.

3. Directed Green Credit Policy Instruments	No	Not yet commenced. However, most banks in Sri Lanka at their discretion have initiated Green Banking initiatives and some have made use of international credit lines for green energy.
4. Green Differentiated Reserve Requirements	No	No requirement in Sri Lanka yet
5. Green Differential Capital Requirements	No	No such system in Sri Lanka yet
6. Acceptance of Carbon Certificates as part of Commercial Banks' Legal Reserves	No	No system in Sri Lanka yet
7. Green Quantification Easing and Reserve Management	No	No system in Sri Lanka yet
8. Green Finance Guidelines and Frameworks	Yes	However, Sri Lanka Banks' Association is in the process of formalizing a standard procedure to follow the internationally recognized principles of sustainable banking in the banking sector.
9. Signatory to UN Principles on Responsible Investing or any other social impact investment standard?	No	The directory of signatories of the Principles for Responsible Investment does not identify Sri Lanka as a signatory country?
10. Other financial tools (e.g. Risk sharing)	No	Not available in Sri Lanka yet
11. Other low carbon, climate resilience related products and services	Yes	Various products and initiatives have been launched by banks at their discretion including funding for green projects, E-waste programs, private sector investment in renewable energy and energy efficiency projects, etc.

3.4 Past and Ongoing External Support Provided to Banks for Low Carbon, Climate Resilient Development

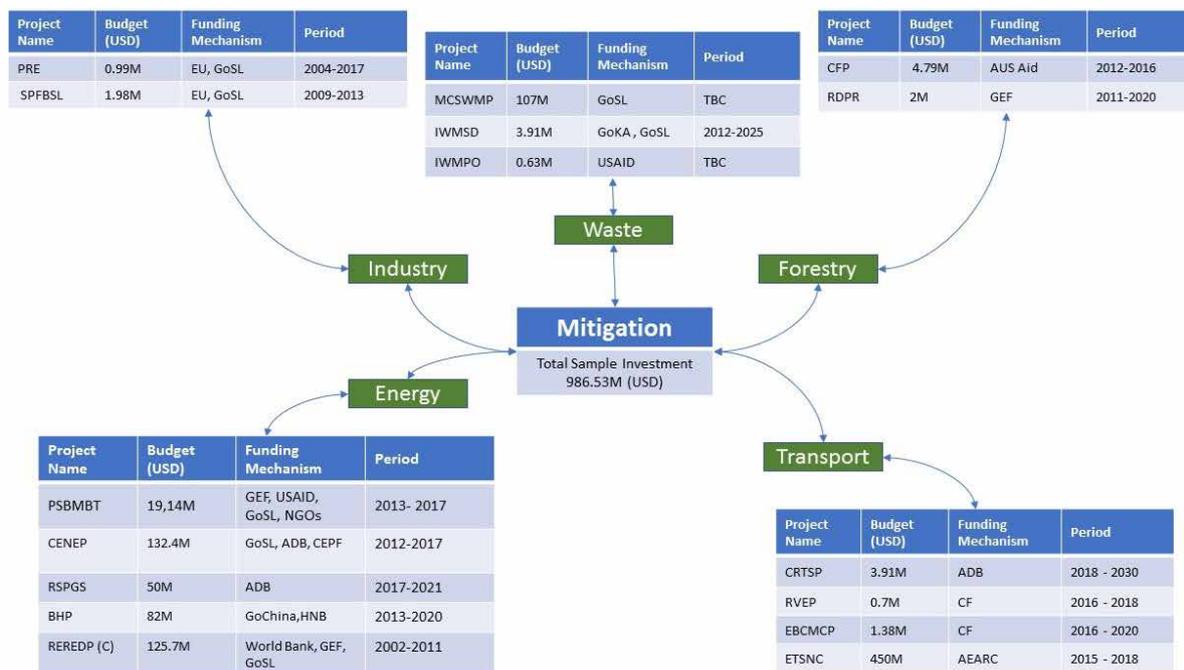
Sri Lanka does not have a registry for climate financing or a depository for projects implemented and planned to address climate mitigation and adaptation. The lack of clarity on what constitutes climate financing and a lack of proposer system of evaluating projects financing climate action is a major gap in analysing the status of climate financing in the country.

Figures 4 and 5 provide sample landscapes of financing for projects in line with mitigation and adaptation in the NDC. Information was drawn from a study based on the leads gained during the series of interviews and meetings held by the scoping study team. The featured projects were selected to have a climate co-benefit and only demonstrate a possible scenario of how financing for climate resilient and sustainable development has evolved during past three decades.

3.4.1 Sample Survey on Climate Financing for Mitigation

The sample survey found projects aimed at mitigation in transport, industry, forestry and waste financed by World Bank, Global Environmental Facility(GEF) under UNDP, Australian Development Agencies, Asian Development Bank(ABD), European Union, China and Korea with co-financing also from Sri Lanka.

Figure 4: Mitigation Sector Funded Projects



Abbreviations for figure 4

PSBMBT	Promoting Sustainable Biomass Energy Production and Modern Bio-Energy Technologies.
CENEP	Clean Energy and Network Efficiency Improvement Project.
BHP	Broadlands Hydropower Project
REREDP	Renewable Energy for Rural Economic Development Project
RSPGS	Rooftop Solar Power Generation Systems in Sri Lanka
CRTSP	Colombo Rapid Transit System Project
EBFSMP	Encouragement of Bicycle Use and Feasibility Study on Cycle and Motor Cycle Paths
RVEP	Reduce Vehicle Emission Project
ETSNC	An Electric Train System Between Negombo And Colombo
PRE	Promoting Renewable Energy as A Drive for Sustainable Development and Mitigation of Climate Change in Sri Lanka
SPFBSL	Sustainable Production in The Food and Beverage Industry in Sri Lanka
CFP	Sri Lanka Community Forestry Programme
RDPR	Restoration of Degraded Areas Inside & Outside the Protected Area Network to Enhance Resilience
MCSWMP	Metro Colombo Solid Waste Management Project
IWMSD	Integrated Waste Management System at Dumped
IWMPO	Improving Waste Management to Protect the Ocean

The European Union has granted approximately USD 3 million towards promoting renewable energy as a driver for sustainable development, mitigation of climate change and sustainable production in the food and beverages sector. Climate mitigation financing in the transport sector has been significant. Approximately USD 500 million to improve railway systems from Colombo to Negombo has been extended by the Airport Express Air and Rail Co. Ltd. (AEARC) of Malaysia as long-term loan to the Sri Lankan Government. The Colombo Rapid Transit System Project and the project to Reduce Vehicle Emissions are major ongoing projects to achieve the targets in transport sector.

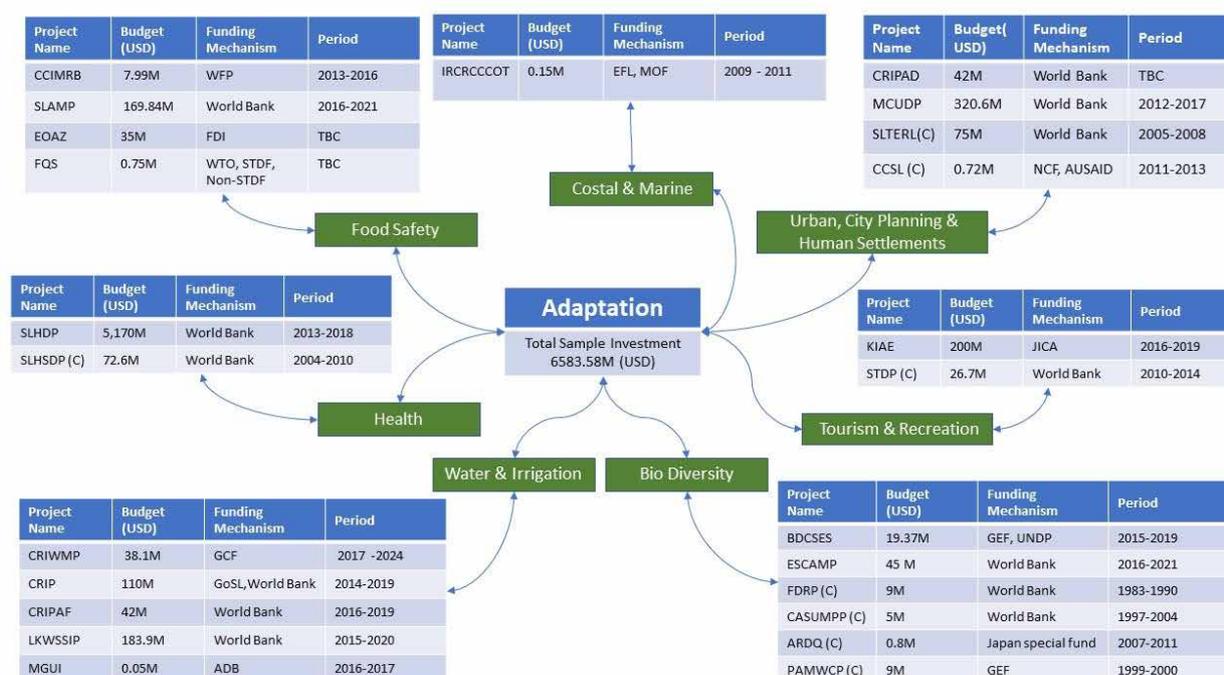
Metro Colombo Solid Waste Management Project (MCSWMP) and Integrated Waste Management System in Dompe (IWMSD) are ongoing projects funded by Government of Sri Lanka in partnership with Government of South Korea with financing of about USD 111 million. This will reinforce the National Solid Waste Management Strategy and introduce lifecycle assessments by 2025 to minimise GHG emissions in industry and waste management as articulated in the National Climate Change Policy.

Furthermore, the Australian Development Agency and Global Environment Facility (GEF) has invested in the forestry sector. Nearly USD 7 Million appears to be invested towards increasing forest cover from 29% to 32% by 2030 through community forestry programs.

3.4.2 Sample Survey on Climate Financing for Adaptation

The seven sectors focusing on adaptation i.e. health, food security, water and irrigation, coastal and marine, biodiversity, tourism and recreation, and urban infrastructure and human settlements are mapped with sources of finance in Figure 5. Financing for these sectors mainly comes from the World Bank, Global Environmental Facility (GEF) under UNDP, Japan International Cooperation Agency (JICA), Asian Development Bank (ABD) with co-financing from the government of Sri Lanka.

Figure 5: Sample Financing of Adaptation Sectoral Projects



Abbreviations for figure 5

FRDP	Forest Resources Development Project (closed project)
CASUMPP	Conservation and Sustainable Use of Medicinal Plants Project
ARDQ	Aquatic Resource Development and Quality Improvement (Closed project)
BDCSES	Enhancing biodiversity conservation and sustenance of ecosystem services in environmentally sensitive areas
PAMWCP	Protected Area Mgt. and Wildlife Conservation Project (closed project)
ESCAMP	Ecosystem Conservation and Management Project
SLHDP	Sri Lanka -Second health sector development project
SLHSDP	Sri Lanka Health sector development project
CRIWMP	UNDP Green Climate Fund (Climate Resilient Integrated Water Management Project)
MGUI	Design and pilot Testing of performance-based Management of Groundwater Use in Irrigation
CRIP	Climate Resilience Improvement project

CRIPAF	Climate Resilience Improvement Project Additional Financing
LKWSSIP	LK Water Supply and Sanitation Improvement Project
FQS	Improving food quality and safety of Sri Lankan fruits and vegetables
SLAMP	Sri Lanka Agricultural sector Modernization project
EOAZ	Establish & Operate an Agro Zone
CCIMRB	Addressing climate change impacts on Marginalized Agricultural Communities Living in the Mahaweli River basin of Sri Lanka
CRIPAD	Climate Resilience Improvement Project Additional Financing
MCUDP	Metro Colombo Urban development project
SLTERL	Sri Lanka Tsunami ERL
CCSL	Climate Resilient Action Plans for Coastal Urban Areas, Sri Lanka

The maximum amount of financing appears to be made in the health sector. USD 5242.6 million has been invested to meet the potential health hazards associated with climate change. These have come from the World Bank as loans towards health sector development projects.

For the water and irrigation sector, the Green Climate Fund has granted USD 38.1 million through the Climate Resilient Integrated Water Management Project (CRIWMP) in dry zone of Sri Lanka. Research also found about USD 336 million financial investment through World Bank partnerships and other non-banking services for projects on water resilience improvement. ADB in collaboration with the International Water Management Institute (IWMI) invested around USD 50,000 to carry out a project on irrigated ground water management in Sri Lanka.

The World Trade Organization (WTO), World Bank and World Food Program (WFP) have invested in food security. USD 213.59 million has been allocated to the Sri Lanka Agricultural Sector Modernization Project by the World Bank to establish and operate agro zones.

The biodiversity sector has received about USD 90 million from Japan, World Bank and GEF under several project areas such as conservation and sustenance of ecosystem services of forests and protected areas, enhancing biodiversity and development of forest resources.

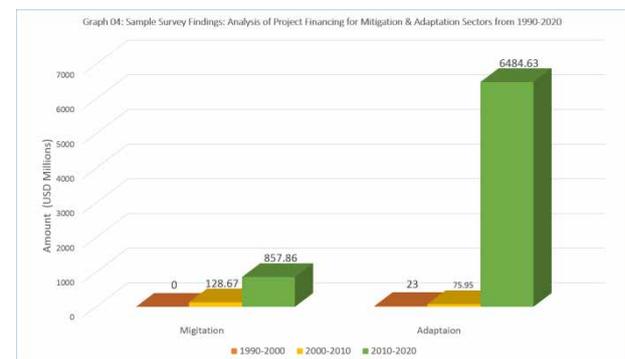
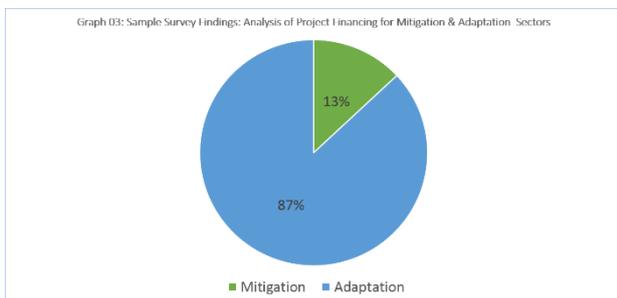
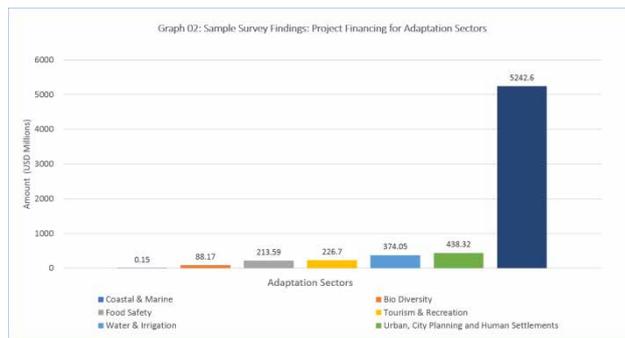
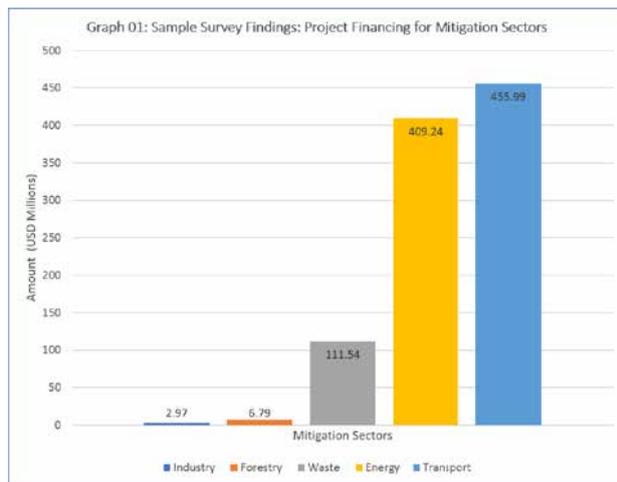
The survey also found financing allocation of around USD 438 million in the infrastructures and human settlements sector. The Metro Colombo Urban Development Project (MCUDP) and Climate Resilient Action Plans for Coastal Urban Areas Sri Lanka (CCSL) are ongoing projects funded by the World Bank and Norwegian Climate Facility (NCF) respectively.

In the tourism and recreation sector financing of around USD 226.7 million had been made available. A larger portion of financing comes from JICA for the Katunayake International Airport Expansion (KIAE) project.

The survey could not find much investment in coastal and marine sector. Although specific procedures and actions have been proposed and implemented by the government to increase the resilience of coastal and marine and riverine ecosystems, the level of financing and financing mechanisms have not been made clear.

3.4.3 Results from the Sample Survey

The survey sample ranges from 1990-2020 covering three decades. It is noteworthy that most of the investment in climate mitigation and adaptation has happened since 2010 demonstrating a realisation of the need to plan for climate resilient development. According to the above sample survey on climate co-benefit investments, the financial allocation towards adaptation is far greater than that for mitigation. This demonstrates that Sri Lanka has recognised climate vulnerability and has started to address the challenges. A comparative analysis on the sample survey on mitigation and adaptation financing is provided in graphs 1-4 below.



3.5 Existing Incentives for Low Carbon, Climate Resilient Development

Renewables are now implemented around the world as a core component of the global energy mix. As of 2016, solar power produces 1% of total electricity generated in the world, following a growth acceleration of 33% per annum. In Sri Lanka, 1.2 of national electricity needs are met by solar power.

3.5.1 Financing Solar Power in Sri Lanka

A clear majority of countries appear to focus on investing in solar power energy generation projects. Similar to national governance bodies, private sector investors have also stepped up their commitments to renewable energy in the last few years, with an increase in commitment from commercial and development banks involved in financing renewables.

The scope of engagement in solar power projects for existing banking entities are different. Combined financing investments with overseas banking agents or domestic peer bankers are a common engagement practice. For example, DFCC Bank, Commercial Bank of Ceylon and Hatton National Bank partnered as co-financiers with the European Investment Bank to source green funding for the 10MW utility-scale grid connected solar power project in Hambantota.

Moreover, specific lending portfolios exist for solar projects. Reduced interest rates, debt financing eligibilities with more flexible collateral criteria and increased tenor periods are significant features of those lending systems. For example, since 2014, Pan Asia Bank’s “Solar Loan Scheme” offered credit facilities up to LKR 03 million at a special interest rate with a repayment period up to 7 years with the intention of increasing accessibility and affordability to a larger segment of households in the country. The Commercial Bank of Ceylon has also initiated concessionary rates on Green Energy Loans from June 2017. This special rate starts from 14% and offers up to LKR 25 million repayable in seven years to small and medium enterprises (SMEs) and entrepreneurs that wish to invest in energy saving, energy efficiency or off-grid renewable energy projects, especially investments in solar power. Sampath Bank also offers loans targeted at the renewable energy sector which currently amounts to almost 3% of its loan portfolio.

In 2015, the banking industry collaborated with Sri Lanka Banks Association and launched the Sri Lanka Sustainable Financing Initiative to explore opportunities for industry alignment and capacity building in environmental and social risk management. These initiatives will result in strategic economic benefits to the country through the development of renewable energy sources particularly in solar energy.

3.5.2 Soorya Bala Sangramaya (Battle for Solar Energy)

The Ministry of Power and Renewable Energy has launched a new community based power generation titled 'Soorya Bala Sangramaya' (Battle for Solar Energy) in collaboration with Sri Lanka Sustainable Energy Authority (SLSEA), Ceylon Electricity Board (CEB) and Lanka Electricity Company (Private) Limited (LECO.) The initiative aims to promote the establishment of small solar power plants on the rooftops of households, religious places, hotels, commercial establishments and industries. It is expected to add 200 MW of solar electricity to the national grid by 2020 and 1000 MW by 2025.

Under this program, consumers will have the ability to generate and use electricity in their premises and sell surplus energy to the national grid or store it for future consumption. Based on usage, consumers can select from the following three options:

i. **Net Metering:** The customer generates electricity using solar panels fixed on their rooftops which are connected to the grid through a net metering system, paying only for the net amount of electricity consumed. If production exceeds consumption, the balance can be carried forward for future use up to 10 years. No fee will be paid for the excess electricity produced. Existing net metering customers can switch to other schemes if they wish to. However, the accumulated electricity units prior to the signing of new agreement shall not be carried forward.

ii. **Net Accounting:** If electricity generation is greater than consumption, the consumer will be paid for the excess amount. If consumption is greater than generation, the consumer shall pay for the excess consumption according to the existing electricity tariff structure.

iii. **Net Plus:** The total electricity generation from the solar rooftop system will be purchased by the utility. The bill for electricity consumption will be paid to the utility as usual. The utility will pay the solar electricity producers for the excess electricity exported with effect from the date of agreement signed with the utility. The installed capacity of the generating facility shall not exceed the contract demand of the producer. The contract period is 20 years.

4. National Climate Financing Champions

4.1 Identification of the Proposed National Champion

The Central Bank of Sri Lanka (CBSL) has been identified as the potential "National Champion" in the process of climate financing. The Central Bank's 2017 Roadmap states that it will promote Green Financing by enhancing awareness to encourage enterprises to protect the environment, conserve resources and to achieve carbon neutrality. Banks will also be encouraged to provide financial facilities to green enterprises with the intention of protecting the environment. In line with the international appetite to promote green financing, the Central Bank has also joined the Sustainable Banking Network (SBN) of the International Finance Corporation (IFC), which is a knowledge and capacity building platform for financial regulators and banking associations of emerging markets on sustainable finance. As a member of the SBN, the Central Bank will focus on sustainable banking practices to help banks effectively manage environmental and social risks in the projects they finance and support businesses that are greener, climate friendly and socially inclusive.

Established in 1950 under the Monetary Law Act No.58 of 1949 (MLA), the Central Bank of Sri Lanka (CBSL) is the apex institution in the financial sector in Sri Lanka. The Central Bank of Sri Lanka undertakes the following four agency functions for the Government of Sri Lanka.

- i. Foreign Exchange Management
- ii. Public Debt Management
- iii. Regional Development
- iv. Management and Administration of the Employees' Provident Fund

Since its inception, the Central Bank has been responsible for regulating the financial system of the country. Several key legislative enactments provide powers to the Central Bank to carry out its functions to achieve its primary objectives of economic and price stability and financial system stability. Under these powers, the Central Bank issues directions for the establishment and operations of all categories of financial institutions under its supervisory and regulatory purview. In addition, the Central Bank has been empowered to carry out certain agency functions under other legislative enactments.

- i. Legislative Enactments:
- ii. Regulations, Directions, Rules, Guidelines, Circulars and Operating Instructions
- iii. Licensing, Registration, Appointment and Authorization Procedures

4.2 Sustainable Finance Roadmap

The CBSL has signed a Memorandum of Understanding (MoU) with International Finance Corporation (IFC), a member of the World Bank Group, to enhance and develop environmental and social risk management and sustainable financing practices for Sri Lanka's financial sector. Under this partnership, the Central Bank will collaborate with IFC's Sustainable Banking Network (SBN) to develop a 'Sustainable Finance Roadmap' to guide the local banking and finance industry, strengthen the capacity of the banking sector to implement such practices, facilitate knowledge sharing with other SBN members; and promote green investment in the country. The Central Bank will promote 'Green Financing' by enhancing awareness to encourage enterprises to protect the environment, conserve resources and to achieve carbon neutrality. Banks will also be encouraged to provide financial facilities to green enterprises with the intention of protecting the environment.

4.3 Sustainable Banking Initiative

The Sri Lanka Banks Association's (SLBA) Sustainable Banking Initiative (SLBA-SBI) has been created with the aim of developing a platform where banks can work together on sustainability issues. On 15 November 2015 CEOs of eighteen Banks operating in Sri Lanka signed a document containing eleven Sustainable Banking Principles. These principles were developed and agreed by an Environment and Social (E&S) Committee consisting of members from the participating banks. This constituted Phase I of the SLBA-SBI.

This milestone has led to the active support of the CBSL in encouraging and advancing the sustainability agenda within banks. The CBSL organised a Sustainable Finance Work-Shop in February 2017 to build consensus among key stakeholders and explicitly acknowledged the SLBA-SBI.

Phase II of the SLBA-SBI kicked-off on 15 August 2017 with a workshop aimed at systematically developing and implementing strategies for effectively putting the Eleven Principles into practice. The working groups are preparing to contribute to this in terms of documents, training, facilitating e-Learning and case studies. This phase will continue until the end of February 2019. Financial support for SLBA-SBI comes from the four European Development Finance Institutions (DFIs); (i) DEG – Deutsche Investitions und Entwicklungsgesellschaft mBH, a subsidiary of KfW Banking Group (ii) OEB – Oesterreichische ische Entwicklungsbank AG (iii) Proparco a subsidiary of Agence Francaise de Developpement (AFD), and (iv) FMO – The Dutch development bank.

5. Additional Findings

5.1 Climate financing and climate co-benefit

In Sri Lanka, there is no clear definition or collective understanding of what constitutes climate financing. There is no central depository of information on projects addressing climate change and the financing details. However, while conducting this scoping study, it was evident that a wide range of projects with climate co-benefits are already underway, even though it was difficult to identify the climate co-financing components

In 2015, the Multilateral Development Banks (MDBs) collectively committed more than USD 25 billion in climate finance, and have financed more than USD 131 billion in climate action in aggregate since 2011. As a group, the MDBs have been applying jointly developed methodologies for climate finance accounting, adding transparency to efforts to track global development finance flows that deliver climate co-benefits. In 2015, Common Principles for tracking mitigation and adaptation activities were developed together with the International Development Finance Club (IDFC), and a set of guidelines was established and applied to set a common approach for reporting on climate co-financing flows that are invested alongside MDBs' climate finance activities. The total climate co-finance committed in 2015 was more than USD 55 billion, representing a cumulative total of USD 80 billion when combined with climate finance from the MDBs. While 18 percent of climate finance by the MDBs was committed to South Asia, it is not clear how much Sri Lanka received.

5.2 Potential of Green Bonds

Green bonds are yet to embrace the Sri Lankan financial market. According to an article by Mainstreet Partners published by the World Economic Forum, the issuance of 'green bonds' could nearly double to 150 billion dollars in 2017. These environmental bonds are fixed income instruments whose proceeds are predominantly allocated to financing renewable energy, pollution prevention and conservation, among other things. Launched by multilateral institutions such as the World Bank and EIB, the green bond market has proliferated in the first half of 2017. Around \$55 billion of labelled green notes were issued, an increase of 38% year-on-year from the \$40 billion issued in the first six months of 2016.

The Export-Import Bank of India (Exim), India's export finance institution, is planning to support Sri Lanka through its recently launched 5-year green bond issue of USD 500 million. The issue attracted subscription of around 3.2 times which was led by strong demand across 140 accounts. Exim will use the net proceeds from the sale of the notes to fund Eligible Green Projects in countries including Bangladesh and Sri Lanka. The green bond issue was priced at 147.50 basis points over US Treasuries (UST) at a fixed coupon of 2.75 per cent p.a., cutting through the current secondary trading levels of similar bonds and achieving a pricing tighter than the Bank's own US\$ 500 million Reg S bonds issued in February 2015 for a 5.5 year tenor.

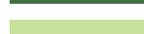
Sri Lanka must learn from the experience from India. IFC, a member of the World Bank Group, has invested INR 6.67 billion (\$103 million) in L&T Infrastructure Finance Company Ltd. by subscribing to the first official green bonds in India. This is in line with IFC's strategy to support renewable energy infrastructure in the country and also develop the capital markets. IFC also has, with the Tata Group, created the first private sector "Green Investment Bank" in India – Tata Cleantech Capital Limited – and has given \$170 million in wholesale investments to financial intermediaries that support the climate change program in the country. In addition, IFC has invested about \$1.2 billion in climate-friendly projects through direct investments in India, in the last five years.

5.3 Linkages between NDCs and the Sustainable Development Goals

Sri Lankan policy makers have yet to align the Sustainable Development Goals (SDGs) and the NDCs. The scoping study conducted a preliminary mapping of the interlinkages between the two. This study aims to lay the foundation for an integrated approach and the Table 6 demonstrates the degree of alignment that already exists between NDC sectors and SDG targets.

Table 6: Interlinkages between Sri Lanka's NDCs and the SDGs

SDGs Goals	NDCs for Mitigation Sectors					NDCs for Adaptation Sectors						
	Energy	Transport	Industrial	Forestry	Waste	Health	Food Security	Water & Irrigation	Coastal & Marine	Biodiversity	Urban, City Planning & Human Settlements	Tourism & Recreation
SDG 1												
SDG 2												
SDG 3												
SDG 4												
SDG 5												
SDG 6												
SDG 7												
SDG 8												
SDG 9												
SDG 10												
SDG 11												
SDG 12												
SDG 13												
SDG 14												
SDG 15												
SDG 16												
SDG 17												

	Primary SDG is Goal 13 on Climate Action for the NDC Sectors
	Secondary SDG Goals for the NDC Sector
	Key SDG for the NDC Sector
	No relation with the SDG Goal for the NDC Sector
	Cross cutting SDG Goal across all NDC Sectors

The 12 sectors under mitigation and adaptation in the NDCs have full scale integration with SDG 13 on climate action. Also, SDG 17 on global partnerships to implement national sustainable actions by financing, technological support and capacity building cuts across all NDC sector intentions and corresponds with NDC sector 14 on means of implementation.

The targets of SDG 3 on healthy lives and well-being), SDG 6 on water and sanitation, SDG 11 on sustainable cities and human settlements, and SDG 12 on sustainable consumption and production are highly integrated with all NDC mitigation sectors and a large part of the adaptation sectors. However, the NDCs appear not to be strongly based on social equity and gaps exist in linkages with goal 5 on achieving gender equality and empower all women and girls and SDG 10 on reducing inequality within and among countries. Its approaches towards social coherence and integrity are less developed, especially in industry, forestry, transportation, energy and waste under mitigation.

The above analysis demonstrates the need for policy and strategy integration of Sri Lanka's NDCs with the SDGs. Financing the sustainable development agenda is inclusive of climate action. On the other hand, if challenges posed by climate vulnerabilities are not adequately addressed in economic planning, sustainable development is unlikely to be feasible. For this, alignment between climate financing and financing the sustainable development agenda is critical.

6. Overall Summary and Recommendations

6.1 Planning to Meet Challenges of Climate Vulnerability

i. In the last decade and a half, natural disasters in Sri Lanka have increased in frequency and intensity, with major flooding, prolonged drought and flash floods in 2016-2017 alone, making climate change a reality and urgent priority. In the last 15 years, Sri Lanka has experienced a range of natural disasters including tsunamis, landslides and the collapse of a garbage dump and in the wake of this new realization that Sri Lanka must be prepared to face the constant challenges of climate related disasters and other vulnerabilities economic development planning must be aligned towards sustainability.

ii. Development planning in Sri Lanka is prone to working in siloes. Economic development planning and climate sustainability planning continue to be on two separate tracks and require convergence in order to address the economic challenges presented by climate vulnerability. Policy makers must be made aware that all investment plans must ensure climate resilient and sustainable development if economic prosperity is to be achieved.

iii. Public, private and civil society sectors must work collectively towards addressing common challenges and climate financing must be promoted through public-private-civil society partnerships to ensure sustainable futures.

6.2 Creating Awareness on Implementing the NDCs

Even though the policy framework for climate change is quite advanced and well prepared, Sri Lanka does not have a clear plan of action for climate financing. The following aspects related to financing the NDCs needs attention:

i. NDCs provide an overall national guideline for climate commitments. However, there is a lack of awareness and understanding stemming from the national policy level that results in a lack of integration into the national finance policy adequately.

ii. The lack of awareness on the NDC by the stakeholders and particularly amongst the banks and financial sector limits their participation in climate financing.

iii. There is a lack of understanding of opportunities for climate financing and the current approach is on financing solar and few other renewable energy projects including micro hydro and wind, therefore limiting the implementation of the NDCs.

6.3 Formulating a Cohesive Climate Financing Strategy

Sri Lanka does not have a clear policy or strategy for climate financing. While projects are funded with climate co-benefits, there is a lack of clarity on what constitutes climate financing specially amongst the financial sector. The lack of a cohesive financing strategy presents an obstacle towards monitoring and evaluating the actual climate financing activities in the country. The following aspects must be considered in building a climate financing strategy for Sri Lanka:

i. Sri Lankan policy makers need to clarify what constitutes climate financing and how to assess climate co-benefits in development financing projects. A national policy decision in line with emerging international agreements and development assistance would help financiers and implementers engage in climate financing more positively.

ii. The use of green financing tools is low in the Sri Lankan banking and finance sector. A climate financing strategy will help the CBSL to formulate and enforce green financing regulations and incentives adequately.

iii. CBSL is formulating a Sustainable Banking Roadmap with support from IFC's Sustainable Banking

Network. In parallel, Sri Lanka Bank's Association (SLBA) has established a Sustainable Financing Initiative and successfully engaged 18 leading banks to agree to a set of 11 sustainable banking principles. A national climate financing strategy can be drawn in collaboration with these processes for a convergent outcome.

6.4 Building Convergence between the SDGs & NDCs for Financing Sustainable Development

The Government of Sri Lanka (GoSL) is a signatory and party to both the 2030 Agenda for Sustainable Development and the Paris Climate Agreement. Goals 13 of the SDGs relates to climate action and has multiple linkages with other goals. Therefore, planning and implementing the NDCs must be convergent with the national SDG action plans.

i. A mapping between the 17 SDGs and the 14 NDCs has been conducted by the CED scoping study team to demonstrate the interlinkages between the two agendas. A more detailed mapping between the 169 SDG targets and NDC subsectors can help the policy planning to identify the overlapping areas for climate co-benefit financing.

ii. GoSL recently adopted the Sustainable Development Act and will soon institute the Sustainable Development Council. Similarly, it is expected that the Climate Change Commission will be established legally through an act of parliament. These agencies will have the primary responsibility of implementing the SDGs and the NDC in Sri Lanka and must establish a clear working relationship for convergent outcomes.

iii. Financing the sustainable development agenda has already gained wide acceptance amongst all stakeholders and public-private partnerships are starting to emerge. The private and financial sectors have already started to establish their priority investment areas and want to graduate from corporate social responsibility (CSR) to sustainable business investments. The NDCs must present itself with this opportunity and enhance the climate co-benefits financing.

6.5 Capacity Building for Innovative Green Sustainable Climate Financing

The financial sector in Sri Lanka has not proactively engaged in climate financing and is gearing up towards venturing into innovate green financing. The sector currently lacks the requisite understanding, experience, exposure and expertise in climate financing and needs external support for capacity building.

i. The sector currently lacks an understanding of the NDCs and has only a basic awareness of the SDGs. Greater guidance is needed on theoretical on embedding sustainability in business processes. This can be delivered through collaboration between the GoSL, financial sector associations, multilateral agencies like ESCAP, and knowledge partners like CED and individual financial institutions.

ii. The CBSL is identified as the national champion to lead the climate financing and sustainable development financing process in Sri Lanka. The mandate of the CBSL as the financial regulator in the country must be extended towards improving the capacity of commercial banks and other financial institutions to engage effectively in green climate sustainable financing. It is expected that the sustainable banking roadmap of CBSL can provide the necessary background for innovative green financing to take off in Sri Lanka.

iii. The Sustainable Finance Initiative (SFI) of the SLBA provides an ideal platform for collaboration amongst the banking sector to foster a new generation of sustainable financing principles and voluntary agreements. It is recommended that wider collaboration is established through this project to engage SLBA and CBSL towards building the requisite capacity of banks, financial institutions and financial sector professionals on innovating green climate financing.

References

1. ADAPTATION FUND. 2017. Addressing Climate Change Impacts on Marginalized Agricultural Communities Living in the Mahaweli River Basin of Sri Lanka. Available: <https://www.adaptation-fund.org/project/addressing-climate-change-impacts-on-marginalized-agricultural-communities-living-in-the-mahaweli-river-basin-of-sri-lanka/>.
2. ASIAN DEVELOPMENT BANK 2007. Sri Lanka: Protected Area Mgt. and Wildlife Conservation Project. www.adb.org: Asian Development Bank.
3. ASIAN DEVELOPMENT BANK. 2011. Aquatic Resource Development and Quality Improvement Project. Projects [Online]. Available: <https://www.adb.org/projects/documents/aquatic-resource-development-and-quality-improvement-project>.
4. ASIAN DEVELOPMENT BANK. 2016. Design and Pilot Testing of Performance-Based Management of Groundwater Use in Irrigation. Available: <https://www.adb.org/results/design-and-pilot-testing-performance-based-management-groundwater-use-irrigation>.
5. ASIAN DEVELOPMENT BANK. 2017. Sri Lanka: Clean Energy and Network Efficiency Improvement Project. Projects [Online], 2017.
6. CENTRAL ENVIRONMENTAL AUTHORITY. 2013. The Construction of Integrated Waste Management System at Maligawatta, Dompe. Latest Projects [Online].
7. CEYLON 1938. Fauna and Flora Protection Ordinance
8. CLEAN AIR 2000 ACTION PLAN IMPLEMENTATION COMMITTEE 2000. National Policy on Air Quality MANAGEMENT.
9. COLOMBO PAGE. 2017a. Asian Development Bank grants \$ 50 million to develop rooftop solar power systems in Sri Lanka. Leading News from Sri Lanka [Online]. Available: http://www.colombopage.com/archive_17B/Sep27_1506522208CH.php.
10. COLOMBO PAGE. 2017b. United States partners with Sri Lanka to protect oceans by improving waste management. Available: http://www.colombopage.com/archive_17B/Sep27_1506524556CH.php.
11. FOREST DEPARTMENT SRI LANKA 1995. National Forest Policy of Sri Lanka. In: LANKA, F. D. O. S. (ed.).
12. FORESTRY PLANNING UNIT, M., LANDS AND FORESTRY 1995. Sri Lanka Forestry Sector Master Plan: National Forestry Policy and Executive Summary, Colombo, Sri Lanka, Forestry Planning Unit, Ministry of Agriculture, Lands, and Forestry.
13. DAILY FT SRI LANKA. 2015. \$ 450 m investment planned for 42-km Colombo-Negombo electric train system; township. Available: <http://www.ft.lk/article/473883/--450-m-investment-planned-for-42-km-Colombo-Negombo-electric-train-system--township>.
14. DEPARTMENT OF WILDLIFE CONSERVATION 1990. National Policy on Wildlife Conservation In: CONSERVATION, D. O. W. (ed.).
15. DEPARTMENT OF LAND USE POLICY PLANNING 2007. National Land Use Policy of Sri Lanka.
16. GLOBAL ENVIRONMENTAL FACILITY. 2015. Enhancing Biodiversity Conservation and Sustenance of Ecosystem Services in Environmentally Sensitive Areas.
17. MAHANAMA, P. K. S., HEWAWASAM, T., JAYASINGHE, A.B., ABENAYAKE, C.C., DE SILVA, C., KUMARASINGHE, S., BARTHELOT, K.S., BANDARA, D. AND SENANAYAKE, L. 2015. Climate resilient action plans for Coastal urban areas in Sri Lanka (CCSL). www.fukuoka.unhabitat.org: University of Moratuwa (UOM). Norwegian Institute for Water Research (NIVA). United Nations Human Settlement Programme (UN- HABITAT). Batticaloa Municipal Council (BMC). Negombo Municipal Council (NMC).
18. MANGROVES FOR THE FUTURE. 2009. Increasing the resilience of coastal and riverine communities to climate change and other threats, by conserving the ecosystems of the Maya Oya and associated coastal wetlands in Sri Lanka. Available: <https://www.mangrovesforthefuture.org/grants/large-grant-facilities/sri-lanka/increasing-the-resilience-of-coastal-and-riverine-communities-to-climate-change-and-other-threats-by-conserving-the-ecosystems-of-the-maya-oya-and-associated-coastal-wetlands-in-sri-lanka/>.
19. MINISTRY OF FORESTRY AND ENVIRONMENT. 2002. National strategy for solid waste management. In: ENVIRONMENT, M. O. F. A. (ed.).
20. MINISTRY OF ENVIRONMENT & NATURAL RESOURCES 2003. National Environmental Policy Sri Lanka. In: RESOURCES, M. O. E. N. (ed.).
21. MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES AND CENTRAL ENVIRONMENT AUTHORITY. 2005. National Policy on Wetlands. Ministry of Environment and Natural Resources
22. MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES 2009. The Forest Ordinance. In: Ministry of Environment and Natural Resources (ed.). Ministry of Environment and Natural Resources.
23. Natural Resources and Central Environment Authority.
24. SENEWIRATNE, H. 2016. USD 700mn from JICA for KIA expansion project. Available: http://www.island.lk/index.php?page_cat=article-details&page=article-details&code_title=140453.

25. SLEUBC 2017. To Establish and Operate an Agro Zone. <http://www.sleubc.com/assets>: Sri Lanka European Union Business Council (SLEUBC).
26. SRI LANKA, 2000. Initial National Communication under the United Nations Framework Convention on Climate Change. Colombo, Sri Lanka government.
27. STANDARD AND TRADE DEVELOPMENT FACILITY 2016. Improving SAFETY AND QUALITY OF FRUITS AND VEGETABLES IN SRI LANKA. <http://www.standardsfacility.org/>: Standard and Trade Development Facility
28. SVP DEVELOPMENT TEAM. 2011. SRI LANKA: Sector Vulnerability Profile: Urban Development, Human Settlements, and Economic Infrastructure. In: ENERGY, M. O. E. A. R. (ed.).
29. SWITCH ASIA. 2012. Sustainable Production in the Food & Beverages Industry. Food & Beverages [Online]. Available: <http://www.switch-asia.eu/projects/food-beverages-industry/>.
30. SWITCH ASIA. 2017. Promoting Renewable Energy as a Driver for Sustainable Development and Mitigation of Climate Change in Sri Lanka. Sri Lanka Renewable Energy [Online]. Available: <http://www.switch-asia.eu/projects/sri-lanka-renewable-energy/>.
31. THE OFFICIAL GOVERNMENT NEWS PORTAL. 2017. Govt. initiates Metro Colombo Solid Waste Management Project. Development-Provincial [Online]. Available: <https://www.news.lk/news/item/2362-govt-initiates-metro-colombo-solid-waste-management-project/>
<https://drive.google.com/file/d/0B6Q7hCpymaTzbEJDTm0xSDZXWkk/view>.
32. THE WORLD BANK. 1993. Forest Resources Development Project. Available: <http://projects.worldbank.org/P010180/forest-resources-development-project?lang=en&tab=overview>.
33. THE WORLD BANK. 2004. Conservation and Sustainable Use of Medicinal Plants Project. Available: <http://projects.worldbank.org/P035828/conservation-sustainable-use-medicinal-plants-project?lang=en>.
34. THE WORLD BANK. 2011. Sri Lanka Tsunami ERL. Available: <http://projects.worldbank.org/P094205/sri-lanka-tsunami-erl?lang=en>.
35. THE WORLD BANK. 2013. Renewable Energy for Rural Economic Development. Available: <http://projects.worldbank.org/P076702/renewable-energy-rural-economic-development?lang=en&tab=newsmedia>.
36. THE WORLD BANK. 2016a. Climate Resilience Improvement Project Additional Financing. Available: <http://projects.worldbank.org/P157392?lang=en>.
37. THE WORLD BANK. 2016b. Climate Resilience Improvement Project Additional Financing. Available: <http://projects.worldbank.org/P157392?lang=en>.
38. THE WORLD BANK. 2016c. Sri Lanka - Ecosystem Conservation and Management Project (English). Available: <http://documents.worldbank.org/curated/en/104461468185345971/Sri-Lanka-Ecosystem-Conservation-and-Management-Project>.
39. THE WORLD BANK. 2017a. Climate Resilience Improvement Project (CRIP). Available: <http://projects.worldbank.org/P146314?lang=en>.
40. THE WORLD BANK. 2017b. LK Water Supply and Sanitation Improvement Project. Available: <http://projects.worldbank.org/P147827?lang=en>.
41. THE WORLD BANK. 2017c. Metro Colombo Urban Development Project. Available: <http://projects.worldbank.org/P122735/metro-colombo-urban-development-project?lang=en>.
42. THE WORLD BANK. 2017d. Sri Lanka - Second Health Sector Development Project. Available: <http://projects.worldbank.org/P118806/second-health-sector-development-project?lang=en>.
43. THE WORLD BANK. 2017e. Sri Lanka Agriculture Sector Modernization Project. Available: <http://projects.worldbank.org/P156019?lang=en>.
44. UNDP. 2016. UNDP Announces New Fund to Support Dry Zone Communities in Sri Lanka. Available: <http://www.lk.undp.org/content/srilanka/en/home/presscenter/pressreleases/2016/10/19/undp-announces-new-fund-to-support-dry-zone-communities-in-sri-lanka-.html>.
45. UNDP SRI LANKA. 2012. Sri Lanka Community Forestry Programme. Environment & Energy [Online]. Available: http://www.lk.undp.org/content/srilanka/en/home/operations/projects/environment_and_energy/sri-lanka-community-forestry-programme-.html.
46. UNFCCC Project Idea for Technology 1: Restoration of degraded areas inside and outside the protected area network to enhance resilience. tna_project_idea_sri_lanka_adaptation_study_on_identifying_and_. Climate Technology Center and Network
47. UWMP 2004. National Watershed Management Policy Sri Lanka in: ENVIRONMENT, M. O. (ed.).
48. WATER POWER AND DAM CONSTRUCTION. 2010. Contract signed for Broadlands hydro project, Sri Lanka.