



Partnership for Market Readiness

Expression of Interest

April, 2016



A. Expression of interest

Partnership for Market Readiness (PMR)

Expression of interest in participating in the PMR

Countries seeking support from the PMR are requested to prepare a cover letter, including a short statement confirming the country's interest in participating in the PMR. The cover letter should be accompanied by an Annex containing the following information:

1. NAME OF THE GOVERNMENT AGENCY SUBMITTING EXPRESSION OF INTEREST:
MINISTRY OF MAHAWELI DEVELOPMENT & ENVIRONMENT – SRI LANKA

2. Name and contact information of designated PMR Government focal point

Focal point:

Dr. Sunimal Jayathunga

Email : sunimal68@hotmail.com

Phone: +94 11 2883481, +94718574058

Address: 1st Floor, No: 980/4 A, Wickramasinghe Place, Ethul Kotte, Colombo, Sri Lanka

Website: <http://www.climatechange.lk>

Technical partner:

H.M.Buddika Hemashantha

Email : buddika@carbonfund.lk

Phone: +94 11 207 8210, +94 770 320 110

Address: 1st Floor, No: 980/4 A, Wickramasinghe Place, Ethul Kotte, Colombo, Sri Lanka

Website: www.carbonfund.lk

3.Domestic mitigation action:

Please outline what are the purposes and main objectives of your country's mitigation strategy

a- Provide an overview of domestic mitigation policies and plans and the status of the implementation- at both the national and sub-national levels.

Among its neighbors in the region, Sri Lanka stands out for its environmental stewardship, and for being one of the most progressive, clean and sustainable nations. Sri Lanka's CO₂ emission from fossil fuel combustion was about 0.86 tons of CO₂ per capita in 2013, far below the world average value of 4.44, and lower than most of its neighboring countries.

Sri Lanka currently spends 50% of its total export income (approximately US\$ 5 billion per year) to import fossil fuels, and over 40% of Sri Lanka's primary energy is dependent on imported fossil fuels, mainly coal, fuel oil and petroleum. Given that Sri Lanka heavily relies on imported fossil fuels to meet the growing energy demand, diversifying energy generation away from imported fossil fuels is critical to accommodate fluctuations in international oil and coal markets to improve the country's fiscal resilience. According to Sri Lanka's previous

Long Term Generation Expansion Plan (LTGEP 2013-2032)¹, coal-based power is considered the least cost option based on the capital costs and economic lifespan of the plants, and is expected account for 70% of the total generation mix by 2025, which would significantly raise the country's dependence on coal imports.

Sri Lanka's growing fossil fuel dependence has also led to increased air pollution and greenhouse gas (GHG) emissions. As an island nation, Sri Lanka recognizes its high vulnerability to the impact of climate change. Model simulations under different scenarios indicate a past warming trend of about 0.75°C per century in annual mean temperatures over the South Asia region. Future temperature projections suggest anomalies may reach 4°C–5°C by the 2080s for high-emission scenarios. Conservative estimates of the impact of climate change on the Sri Lankan economy indicate a 1.2% loss of annual GDP by 2050 by directly impacting several economic sectors, such as power, transport and agriculture.

Renewable energy provides an opportunity for Sri Lanka to limit import dependence and vulnerability to fossil fuel price shocks, and mitigate climate change impacts. The Government of Sri Lanka (GoSL) has announced its aspirational goal of being energy self-sufficient by 2030. It has also set an ambitious target of achieving 20% energy in its generation mix from Non-Conventional Renewable Energy (NCRE) sources by 2020. Following this announcement, Ceylon Electricity Board (CEB) lowered the share of coal based power in the total generation mix to 52% in its new LTGEP (2015-2034) and included 20% energy from NCRE. To achieve and maintain this objective, it is estimated that Sri Lanka will need to increase installed NCRE capacity from the current 442 MW to about 1,000 MW by 2020 (replacing 600 MW of coal plants), and 1,900 MW by 2034.

In its Intended Nationally Determined Contributions (INDCs) submitted to United Nations Framework Convention on Climate Change (UNFCCC) on October 22, 2015, Sri Lanka has committed to achieve emission reductions of 4.88 million tCO₂ by 2030 from the energy sector, a 4% reduction compared to the 2010 baseline. The cumulative emission reduction for the period of 2015-2030 will be 74.56 million tCO₂ from the energy sector. In addition, Sri Lanka has set a voluntary target to achieve 3.33 million tCO₂ reduction in 2030, and cumulative emission reductions of 30.21 million tCO₂ for the period of 2015-2030 through future NCRE development under international external support, which would further reduce emissions by 16% against the 2010 baseline.

Sri Lanka's National Climate Change Policy provides guidance and direction for all stakeholders in meeting the challenge of climate change. The policy articulates the guiding principles for energy, transport, industry, waste management, and agriculture and livestock. Resource mobilization including international resources to support implementation of the national climate change policy is key to accelerate mitigation measures in these sectors, including the use of market/ non-market mechanisms. The national policy and strategic framework for development and growth in Sri Lanka between 2010 and 2016, aims at accelerating growth, with particular emphasis on the achievement of equitable development.

¹ LTGEP is the master plan document for Sri Lanka's electricity generation and expansion. It is updated every two years by Ceylon Electricity Board.

Sri Lanka has taken several other policy measures to address climate change, including Climate Change Vulnerability Profiles; Water, Health, Agriculture and Fisheries, Urban Development, Human Settlements and Economic Infrastructure in 2010, Technology Needs Assessment and Technology Action Plans for Climate Change Mitigation and Adaptation in 2014, the National Action Plan for Haritha Lanka Programme in 2009 and Urban Transport Master Plan 2032 based on the National Transport Policy in 2009.

Further, Nationally Appropriate Mitigation Action (NAMA) on Energy Generation and End Use Sectors is being implemented, and the NAMA on Transportation is being prepared, in addition to the afore mentioned, the Long Term Electricity Generation Expansion Plan 2015-2032 and the National Solid Waste Management Strategy 2000, the Corporate Plan 2014-2018 by the Central Environmental Authority and various legal amendments made by government entities related to environment are being implemented.

The Climate Change Secretariat, Ministry of Mahaweli Development & Environment is responsible for coordinating climate change action within Sri Lanka. CCS works with several other stakeholders to implement its climate change actions, including Ceylon Electricity Board (CEB), an integrated utility, fully owned by the government and engaged in generation, transmission, and distribution of electricity; Public Utilities Commission of Sri Lanka (PUCSL), regulator for the energy and water sectors; Sustainable Energy Authority (SEA), which develops and implements policy for renewable energy expansion, energy efficiency, and energy conservation, including the provision of an institutional framework to promote development of renewable energy projects through private investment; and Sri Lanka Climate Fund (SLCF), which aims to catalyze private investment for mitigating and adapting to climate change projects in commercially viable ways, and build local capacity to access to international climate finance.

b- Briefly identify the key sectors targeted by the mitigation strategy.

Sri Lanka's INDCs primarily focus on emission reductions in the energy sector, which is the largest emitter of GHG in the country. Business as Usual (BAU) annual energy demand growth rate is 2.3% which will double the overall demand by year 2046. A detailed energy sector plan has already been developed by Sri Lanka to meet the energy demand while moving away from BAU emission scenarios. Its energy sector targets are:

- **Unconditional Target:** Annual emission reduction from existing hydro, Non-Conventional Renewable Energy (NCRE) and future hydro developments of 4.88 million tCO₂ by 2030, a 4% reduction against the 2010 baseline
- **Conditional Target:** Emission reduction through future NCRE developments of 16% in 2030 compared to the likely demand in 2030, which amounts to 3.33 million tCO₂ in 2030

Sri Lanka's INDC also outlines plans for emission reductions from four other sectors:

- **Transport Sector:** Sri Lanka aims to establish energy efficient and environmentally sustainable transport systems by 2030. 25%-40% of public transport will be green fuelled. Intended actions include reducing unproductive transport systems, encouraging use of public transport through measures such as improving efficiency and quality, introducing electric railway system, and exploring economic instruments to incentivize eco-friendly transport.
- **Industrial sector:** Sri Lanka plans to reduce sector emissions through modernization of factories and facilitation for adopting recognized standards. Intended actions include fuel switching, industrial energy efficiency and suitable tax structures to promote sustainable technologies.
- **Waste Sector:** Total waste generated in Sri Lanka is between 6500-7000Mt per annum, of which only 39% is collected. About 60% of total generated waste is biodegradable. Sri Lanka plans to promote source separation, recycling, composting and waste-to-energy actions, and increase the collection rate to 50-65% by 2030.
- **Forestry Sector:** Sri Lanka plans to raise forest cover to 32% from the current level of 29.6% through management of mangrove and wetland ecosystems, conservation of natural forests, restoration of degraded forests in underutilized lands and urban forestry. In addition, measures to prevent deforestation and forest degradation will also be taken.

4- Market Instruments²: Please briefly outline experience to date with relevant market instruments as well as future plans.

- Provide a brief description of experience to date with market-based instruments, e.g., type of instrument, dates of implementation, scope, and key outcomes

Clean Development Mechanism

Sri Lanka's National Policy on Clean Development Mechanism aims to contribute to sustainable development by developing and establishing the institutional, financial, human resources and legislative framework necessary to participate in Clean Development Mechanism (CDM) activities and develop a mechanism for trading Certified Emissions Reductions (CER). As Designated National Authority, the Climate Change Secretariat has awarded several letters of approval to CDM projects that meet the criteria for sustainable development.

² Without prejudging future developments on market instruments, this question refers to instruments providing a price signal that create an incentive to use or invest in climate-friendly technologies and/or processes. Such market instruments can include domestic instruments (e.g. emissions trading and non-GHG based schemes such as renewable energy and energy efficiency trading systems) and international market instruments such as reformed CDM, sectoral and NAMA crediting.

Table 2: Letters of Approval awarded under CDM

CDM	NUMBER	MW/YEAR	TCO₂EQ/ YEAR
Registered projects	22	178	605,236
CERs issued	8	60	882,536

CDM was intended to encourage sector investments in climate-friendly development activities and improve project viability for sectors such as:

Energy efficiency in industry and manufacturing: E.g. Modernization of factories, green buildings and reduction in power transmission losses

Waste heat recovery: E.g. in sectors such as steel, ceramic and cement

Renewable energy: E.g. Wind, solar and mini hydro power plants

However, Sri Lanka's CDM market continues to be underdeveloped. PMR support can catalyze the rapid development of CDM markets in Sri Lanka by:

- Building institutional capacity to develop CDM markets
- Improving data management and validation processes
- Building awareness and confidence in the CDM process, especially with banks and financial institutions

Sri Lanka Carbon Offset Scheme (SLCOS)

Sri Lanka has instituted domestic carbon standards through its Carbon Offset Scheme (SLCOS) for regulation and registry of projects that provide carbon offsets. SLCOS is a national offset scheme, which enables green projects to benefit from climate finance for the emission reductions. The scheme is executed by the Sri Lanka Climate Fund, a public-private partnership established by the Ministry of Mahaweli Development & Environment, Government of Sri Lanka. The objectives of the scheme are:

- Enhance the credibility, transparency and quality of emission reductions efforts within Sri Lanka
- Introduce an effective, user friendly, quality assurance system
- Create a transparent validation, verification, certification and registration system
- Facilitate responsible GHG emitters for voluntary offsets
- Innovate paths in carbon crediting to businesses, non-profits and government entities that engage in on the ground climate action

Projects that meet SLCOS eligibility criteria are registered and are eligible to receive SCERs (Sri Lankan Certified Emission Reductions). However, further development and information dissemination is required to improve uptake of the scheme. PMR can facilitate this process by:

- Improve systems for registry and data management
- Help identify measures to improve tradability of carbon offsets to improve uptake of the scheme
- To the extent that one (or more) specific market instrument is already identified for future implementation, please provide a brief overview of the status of development/implementation and its relevance to the country's overall mitigation strategy.

Carbon Partnership Facility

With World Bank support, Sri Lanka is currently exploring the possibility of market instruments in the energy sector through scaled-up carbon crediting activities (SCA). The Carbon Partnership Facility will:

- Support institutional development and capacity building to access international climate finance
- Support the development of sectoral methodology and MRV systems for NCRE target using result-based climate financing

The SCA is intended to support Sri Lanka to reduce its greenhouse gas emissions from the power sector by promoting renewable power generation. SCA provides a methodology to monitor, report and verify the generation of emission reductions from the expansion of renewable power that includes wind, solar and biomass plants. Methodological aspects of the SCA are currently under discussion.

PMR support can ensure readiness for the successful execution of the scaled-up carbon crediting activities by:

- Assessing sectors with high potential to benefit from carbon crediting activities
- Building institutional capacity within domestic institutions to manage carbon markets
- Guiding development of suitable financial instruments, if necessary

5. Support from the PMR: Please provide a short summary of your current assessment of the capacity needs and gaps for which support from the PMR is being sought. To the extent that one (or more) specific market instrument is identified, please outline the type of support that your country may be seeking from the PMR.

PMR can help improve the efficacy and uptake of existing schemes (Clean Development Mechanism and Sri Lanka Carbon Offset Scheme) and facilitate development of the domestic carbon markets. Proposed PMR support activities include:

1. National MRV Systems and registry tracking

Sri Lanka has implemented an excel based carbon registry and tracking under Sri Lanka Carbon Crediting Scheme. Sri Lanka's current participation in World Bank's CPF & some NAMAs with the support of UNDP is expected to strengthen the support for MRV in the energy sector. Development of an effective national MRV system helps to streamline monitoring, reporting, and verification of the mitigation activities in different sectors. At present, Sri Lanka's MRV systems not well developed due to under developed carbon markets (also demand issue), limited institutional capacity and low awareness of SLCCS processes.

PMR support can help strengthen Sri Lanka's MRV systems, thereby encouraging investments in climate-friendly development activities, by:

- Improving data management and validation processes
- Building institutional capacity to develop domestic carbon markets and effectively engage in international markets (e.g. through bilateral offset schemes)
- Building awareness and confidence in the SLCCS process, especially with banks and financial institutions
- Identify sectors that show the greatest potential for development of domestic carbon offsets market (e.g. energy efficiency in industry and manufacturing, waste heat recovery, renewable energy)

2. Institutional/regulatory capacity building for:

Institutional capacity building would be required across stakeholders for creating effective domestic carbon markets. Capacity to develop necessary regulations and policies that support development, implement and enforcement of market instruments is needed. Considering this, Sri Lanka is expecting support from PMR for:

- Facilitating private investment in green growth
- Creating an enabling environment and institutional framework
- Developing domestic carbon markets

3. Sri Lanka Carbon Offset Scheme (SLCOS)

Sri Lanka has instituted domestic carbon standards through its carbon crediting Scheme (SLCCS) for regulation and registry of projects that provide carbon offsets. Projects that meet SLCCS eligibility criteria are registered and are eligible to receive SCERs (Sri Lankan Certified Emission Reductions). The SLCOS could support generating voluntary offsets for achieving Sri Lanka's carbon neutrality goals. It also incentivizes projects for blue-green development under Sri Lanka Next. Expansion of carbon footprint registry can accelerate green growth and facilitate the achievement of INDCs. The Sri Lanka climate

Fund provides carbon footprinting certification services ranging from organization to product footprints in line with GHG Protocol, ISO 14064 -1 & 2 and PAS 2050 carbon footprinting standards. The Sri Lanka Carbon crediting Scheme requires further strengthening through:

- Research on mitigation potential in Sri Lanka to target sectors with the greatest potential
- Development & design of market-based instruments that supports the scheme
- Improving data management to build a national registry
- Help identify measures to improve tradability of carbon offsets to improve uptake of the scheme

6. Institutional setting: How would you plan to coordinate the PMR efforts at the domestic level, i.e. which Ministry would lead, and which government agencies would be involved.

The project will be implemented under the Ministry of Mahaweli Development & Environment. Climate Change Secretariat (CCS) will act as the coordinating entity and lead PMR efforts in Sri Lanka. Sri Lanka Climate Fund (SLCF) will be the technical partner and will prepare the market readiness proposal for Sri Lanka under guidance of CCS. In addition, SLCF will help CCS in implementing MRP.

7. Stakeholder participation: Are there intentions/plans /processes to engage non-governmental stakeholders (e.g. private sector)? If so, please provide brief description.

It is proposed that an Inter-Ministerial Working Group (IMWG) consisting of the Ministry of Mahaweli Development and Environment, Ministry of Power and Renewable Energy, Ministry of Finance, Ministry of Industries, and any other relevant stakeholders be constituted. The IMWG will determine the role of market-based instruments on climate change policy, undertake sectoral analysis of the viability of market-based instruments, facilitate development of national/sectoral MRV, help select market-based instruments according to sectoral needs/preferences, and participate in pilot activities.

The stakeholder engagement and consultation process is to be finalized by the Climate Change Secretariat. Sri Lanka Climate Fund, being technical partner for the PMR activities in Sri Lanka, will be assisting CCS to develop market readiness proposal (MRP), to implement the MRP, and to coordinate with stakeholders.

8. Initiatives by other bilateral and multilateral development partners: Please outline any initiative(s) pursued with other international partners underway in your country that is (are) relevant to market readiness support (e.g., low carbon development strategies, MRV, etc).

The Carbon Partnership Facility will be implemented by the World Bank. Sri Lanka is also in the process of developing and implementing Nationally Appropriate Mitigation Actions (NAMAs). In addition, Sri Lanka has instituted a Joint Credit Mechanism (JCM) with Japan.

