

# NS-269 - Appropriate Mitigation Actions in Energy Generation and End Use Sectors in Sri Lanka

## Sri Lanka

### NAMA Seeking Support for Implementation

#### A Overview

A.1 Party

Sri Lanka

A.2 Title of Mitigation Action

Appropriate Mitigation Actions in Energy Generation and End Use Sectors in Sri Lanka

A.3 Description of mitigation action

Sri Lanka is highly dependent on imported oil to meet its energy needs with 49% of the primary energy supply coming from imported fuel, where 12% of the total government budget is used for electricity generation alone. This is leading to a heavy reliance on imported fossil fuels and increased GHG emissions. The National Energy Policy of Sri Lanka seeks to diversify supply mix with renewable energy resources whilst seeking to reduce energy demand through demand side management. The Renewable Energy Resources Development Plan seeks to achieve 20% from renewable energy re-sources by 2020 and 30% by 2030 as part of the national strategy to reduce GHG emissions through appropriate mitigation actions (NAMA). Energy Management Plan (EnMAP) seeks to achieve energy savings from the promotion of EE measures. Often the GHG savings and the cost-benefits of these low carbon interventions are not systematically quantified and their benefits remain obscure and done on ad-hoc basis. It is difficult for sub-national entities to assess the impact of their NAMA interventions at the sectors and sub-sectors level.

In order to fill these gaps, the development of a robust, transparent and functional NAMA framework along with clear inventory and MRV system with supporting governance and oversight (NAMA Secretariat, NAMA Coordinating Entity, NAMA Implementing Entity, MRV Committee, NAMA Institutional mechanism, NAMA Approval procedure and NAMA Registry) is needed. Such framework will systematically quantify GHG savings and benefits of the mitigation interventions using a bottom up approach to aggregate from the provincial and sub-sector levels to the national and sectors level. Furthermore, such a transparent framework will open up opportunity to access regional and international climate funding. In order to achieve this, the project will support appropriate climate change mitigation actions in the energy generation and end-use sectors as part of the initiatives to achieve the voluntary GHG mitigation targets of Sri Lanka

To test and verify the framework, this project will seek to overcome the regulatory, institutional, technical, financial and social barriers for the scaling up of RE and EE NAMA through the dissemination of 1,000 bio-digesters, 1,300 high efficiency motors in tea factories, and 205 solar PV net metering systems with battery storage. Furthermore, the project will:

1. Develop a robust provincial inventory system that could be updated periodically and aggregated at the national level using web-based EnerGIS database management system
2. Develop a decision making tools such as MACC tools for analyzing and prioritizing a pipeline of bankable NAMA that could be implemented
3. Leverage public, private and CSOs resources through the NAMA Implementing Entity for the implementation of bankable RE and EE NAMAs based on viable and cost effective business models to incentivize value chain actors to reduce supply risks and create demand and
4. Develop a robust and transparent MRV system that are accurate, reliable and credible and avoid double accounting.

A.4 Sector

<input checked="" type="checkbox"/> Energy supply	<input type="checkbox"/> Transport and its Infrastructure
<input type="checkbox"/> Residential and Commercial buildings	<input type="checkbox"/> Industry
<input type="checkbox"/> Agriculture	<input type="checkbox"/> Forestry
<input type="checkbox"/> Waste management	

Other

A.5 Technology

<input checked="" type="checkbox"/> Bioenergy	<input type="checkbox"/> Cleaner Fuels
<input checked="" type="checkbox"/> Energy Efficiency	<input type="checkbox"/> Geothermal energy
<input type="checkbox"/> Hydropower	<input checked="" type="checkbox"/> Solar energy
<input type="checkbox"/> Wind energy	<input type="checkbox"/> Ocean energy
<input type="checkbox"/> Carbon Capture and Storage	<input type="checkbox"/> Low till / No till
<input type="checkbox"/> Land fill gas collection	

Other

A.6 Type of action

<input checked="" type="checkbox"/> National/ Sectoral goal	<input checked="" type="checkbox"/> Project: Investment in machinery
<input type="checkbox"/> Strategy	<input type="checkbox"/> Project: Investment in infrastructure
<input type="checkbox"/> National/Sectoral policy or program	<input type="checkbox"/> Project: Other

Other

A.7 Greenhouse gases covered by the action

<input checked="" type="checkbox"/> CO2	<input checked="" type="checkbox"/> CH4
<input type="checkbox"/> N2O	<input type="checkbox"/> HFCs
<input type="checkbox"/> PFCs	<input type="checkbox"/> SF6

Other

B National Implementing Entity

B.1.0 Name

Sri Lanka Sustainable Energy Authority

B.1.1 Contact Person 1	Mr. Harsha Wickramasinghe, Deputy Director General
B.1.2 Address	Block 5, 1st Floor, BMICH, Baudhaloka Mawatha, Colombo 7
B.1.3 Phone	009411- 2 677 445
B.1.4 Email	harsha@energy.gov.lk
B.1.5 Contact Person 2	
B.1.6 Address	
B.1.7 Phone	
B.1.8 Email	
B.1.9 Contact Person 3	
B.1.10 Address	
B.1.11 Phone	
B.1.12 Email	
B.1.13 Comments	

**C Expected timeframe for the implementation of the mitigation action**

C.1	Number of years for completion	04
C.2	Expected start year of implementation	2015

**D Currency**

D.1	Used Currency	<input type="text" value="AED"/> Conversion to USD: 1
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**E Cost**

E.1.1	Estimated full cost of implementation	1790411
E.1.2	Comments on full cost of implementation	
E.2.1	Estimated incremental cost of implementation	
E.2.2	Comments on estimated incremental cost of implementation	

**F Support required for the implementation the mitigation action**

F.1.1 Amount of Financial support	1790411
F.1.2 Type of required Financial support	<input type="checkbox"/> Grant <span style="float: right;"><input type="checkbox"/> Guarantee</span> <input type="checkbox"/> Loan (sovereign) <span style="float: right;"><input type="checkbox"/> Equity</span> <input type="checkbox"/> Loan (Private) <span style="float: right;"><input type="checkbox"/> Carbon finance</span> <input type="checkbox"/> Concessional loan <input type="checkbox"/> Other <input type="text"/>
F.1.3 Comments on Financial support	Requested financial support need for 1. To establish the MRV framework in the country 2. To build the capacity of relevant parties 3. To implement the pilot projects such as Solar, Biogas and HEM 4. To establish the provincial level GHG inventory
F.2.1 Amount of Technological support	
F.2.2 Comments on Technological support	
F.3.1 Amount of capacity building support	
F.3.2 Type of required capacity building support	<input checked="" type="checkbox"/> Individual level <input checked="" type="checkbox"/> Institutional level <input checked="" type="checkbox"/> Systemic level <input type="checkbox"/> Other <input type="text"/>
F.3.3 Comments on Capacity Building support	
F.4 Financial support for implementation required	<input type="checkbox"/>

F.5 Technological support for implementation required

F.6 Capacity Building support for implementation required

#### G Estimated emission reductions

G.1 Amount 16126

G.2 Unit

G.3 Additional information (e.g. if available, information on the methodological approach followed) Amount of emission reduction applies to end of the project

#### H Other indicators

H.1 Other indicators of implementation

1. Three pilot projects such as Bio Gas, Solar PV and HEM
2. MRV Framework
3. NAMA National Registry system

#### I Other relevant information

I.1 Other relevant information including co-benefits for local sustainable development

#### J Relevant National Policies strategies, plans and programmes and/or other mitigation action

J.1 Relevant National Policies

1. National Climate Change Policy
2. National Action Plan for *Haritha* (Green) Lanka Strategy and Action Plan (HLSAP)
3. EnMAP of Sri Lanka Sustainable Energy Authority (SLSEA) 6

J.2 Link to other NAMAs

#### K Attachments

K Attachments

K.1 Attachment description

K.2 File

#### L Support received

L.1 Outside the Registry

Global Environment Facility under GEF Cycle 5

L.2 Within the Registry

Support provided	SupportType	Amount	Comment	Date
Global Environment Facility (GEF) Trust Fund	Financial	1,790,411	Support Received under GEF Cycle 5	8/14/2017 4:03:15 PM