

# NS-210 - Energy Efficiency Improvement in the Tea and Coffee Sector in Rwanda

## Rwanda

### NAMA Seeking Support for Preparation

#### A Overview

A.1 Party

Rwanda

A.2 Title of Mitigation Action

Energy Efficiency Improvement in the Tea and Coffee Sector in Rwanda

A.3 Description of mitigation action

This Nationally Appropriate Mitigation Action (NAMA) targets mitigation through the promotion of energy efficiency activities in the Tea and Coffee sector in Rwanda based on specific incentives and demonstration projects. Both industries are private sector based, and the promotion of energy efficiency will focus on energy intensive activities in the tea and coffee industry pertaining to thermal energy and electrical energy requirements, namely roasting, drying, processing and packaging. Envisioned actions under the NAMA would be to: demonstration of selected energy efficient technologies in existing production; to establish an energy efficiency standards for all new factories; promote international eco-labelling; promote energy management, auditing and reporting; and national best practice sharing.

Emission reductions:

The NAMA is expected to achieve a net emission reduction of up to 143,000 tCO<sub>2</sub>e for the period 2016-2030 through a series of technical and non-technical interventions.

Sustainable Development benefits:

The mitigation actions support Rwanda's national development and poverty reduction policies and strategic visions and goals. It is envisioned that significant sustainable co-benefits of the NAMA include:

- Reduced consumption of carbon intensive fuels (fossil fuel based electricity and heavy fuel oil) and lower consumption of wood based fuels.
- Improved the quantity and quality of tea and coffee due to improved roasting/drying techniques.
- Reduce the cost of production and a more sustainable value chain.
- Best practices sharing to other industries and new businesses that are being established (replication potential).
- Increased exports, and upstream economic benefits.
- Improvements in the tea and coffee sectors will increase employment opportunities and income generation.
- Cross sectoral opportunities with the agricultural sector will

encourage the development of a vibrant agro-processing industry and improved cultivation of tea and coffee.

Private Sector involvement:

The tea and coffee sector is currently private sector driven, and consists of ‘estates’ or industrial blocs (plantations integrated to a processing unit), tea/coffee grower cooperatives (for labourers), tea/coffee growers association (for owners), and small holders. The NAMA will integrate the interests of all stakeholders in raising awareness and knowledge management for energy efficiency activities. Thus, encouraging private sector investments in the energy efficiency activities, and more efficient growing and processing practices.

A.4 Sector

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

Other

A.5 Technology

<input type="checkbox"/> Bioenergy	<input type="checkbox"/> Cleaner fuels
<input checked="" type="checkbox"/> Energy Efficiency	<input type="checkbox"/> Geothermal Energy
<input type="checkbox"/> Hydropower	<input 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 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 checked="" 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 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	Rwanda – Ministry of Infrastructure (MININFRA)
B.1.1	Contact Person 1	Mrs. UWERA Mireille
B.1.2	Address	KG 7 Ave., P.O. BOX 24, Kigali, Rwanda
B.1.3	Phone	+250788509527
B.1.4	Email	mireille.uwera@mininfra.gov.rw
B.1.5	Contact Person 2	Mr. Jean Claude MUTABAZI
B.1.6	Address	
B.1.7	Phone	
B.1.8	Email	jclaud.mutabazi@mininfra.gov.rw

- 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 preparation of the mitigation action

C.1 Number of months for completion 15

D Currency

D.1 Used Currency

AED

Conversion to USD: 1

E Cost

E.1.1 Estimated full cost of preparation 285000

E.1.2 Comments on full cost of preparation

The full cost of preparation covers the cost of preparation for the NAMA Design and Document, and a comprehensive Feasibility Study for energy efficiency and savings. As well as institutional level Capacity Development Support for NAMA finance and MRV.

Note that the Climate Change Focal Point (Rwanda Environmental Management Authority) and the National Implementing Entities will provide in-kind programme management, institutional coordination, and procurement services during the preparation phase of the NAMA. This in-kind contribution is not included in the estimated full cost of preparation.

F Support required to prepare the mitigation action

F.1.1 Amount of Financial support 195000

F.1.2 Type of required Financial support

Grant

Loan (sovereign)

Loan (Private)

Concessional loan

Other

Guarantee

Equity

Carbon finance

F.1.3 Comments on Financial support

Preparation of NAMA Design and Document:

This consists of the activities and cost of full NAMA design and it's documentation, including the institutional framework, implementation planning, financial structuring, support required, and MRV system design and management. (USD 110,000)

Feasibility Study:

The full feasibility study will focus on the best in class technologies available internationally for implementation in the tea and coffee sector and possible interventions in each of the tea and coffee processing units, to include a sectoral wide technology use survey. (USD 85,000)

F.2.1 Amount of Technical support

F.2.2 Comments on Technical support

F.3.1 Amount of capacity building support 90000

F.3.2 Type of required capacity building support

Individual level

Institutional level

Systemic level

F.3.3 Comments on Capacity Building support

Other

Workshop for institutional capacity building for climate finance and financial structuring in priority sectors of NAMAs seeking support for implementation. Focus is on meeting general international requirements, and specific requirements of selected support facilities. (USD 45,000)

Workshop for institutional capacity building for MRV systems and their structuring in priority sectors of NAMAs seeking support for implementation. Focus is on the institutional framework for MRV and the tracking of mitigation actions, finance and sustainable benefits in a performance based methodology. (USD 45,000)

F.4 Financial support required

F.5 Technological support required

F.6 Capacity support required

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

G.1 Relevant National Policies

The planned NAMA is in line with all relevant national and sectoral policies, which are as follows:  
A) Key policy linkage to the national Green Growth and Climate Resilience strategy with a focus on low carbon development to 2020 and a vision for 2050. The key linking programmes are:  
- Programme 7: Green Industry and Private Sector Development; Action 1: Resource Efficient Industries (key indicators = GHG emissions, water usage); Action 3: Promoting Green Technologies (key indicator = No. of new green technologies employed).  
B) Rwanda National Export Strategy:  
The NAMA will support the need for improved investments in factories, both in terms of expanding factory capacity, support product diversification and particularly contribute towards 'Improving operational efficiency of washing stations' and 'Increase production levels'.  
C) NAEB's Strategic Plan (2013-2018):  
The NAMA will directly support the strategic objectives of 'enhancing value and assuring quality of export commodities' and increasing their demand and price on national, regional and international markets, improve business operating environment and enhance inter-institutional coordination.

G.2 Link to other NAMAs

H Attachments

H Attachments

**Title Description**

H.1 Attachment description

H.2 File

Browse...

I Support received

I.1 Outside the Registry

I.2 Within the Registry

**Support provided SupportType Amount Comment Date**