

# NS-207 - Developing a Sustainable Charcoal Value Chain in Rwanda

## Rwanda

### NAMA Seeking Support for Preparation

#### A Overview

A.1 Party

Rwanda

A.2 Title of Mitigation Action

Developing a Sustainable Charcoal Value Chain in Rwanda

A.3 Description of mitigation action

This Nationally Appropriate Mitigation Action (NAMA) targets mitigation in the LULUCF / Forestry sector in Rwanda and focuses on the improving the sustainability of charcoal production, transportation and retail including the stakeholders involved, plus policy framework and institutional framework. The NAMA will compliment and strengthen on-going and proposed activities related to improved forest management (e.g. under REDD+ program) and distribution of efficient cookstoves (existing CDM PoAs and cookstove programs). In this context the charcoal value chain is predominately private sector oriented in Rwanda, strengthening the value chain will make the private sector activities more sustainable.

Emission reductions:

For the projected NAMA period of 2016 – 2030, the direct estimated net GHG emission reductions are approximately 5,770,000 tCO<sub>2</sub>e based on carbon sequestration potential from avoided deforestation.

Sustainable Development Benefits:

These mitigation actions result in significant, meaningful and measureable reductions in GHG emissions while concurrently supporting Rwanda's national development and poverty reduction policies and strategic visions and goals. Specific sustainable co-benefits of the NAMA include:

- Measurable decrease in demand of wood resources leading to reduced deforestation, improved soil conditions, waterway conditions from decreased runoff, and forest health.
- Decreased air pollution as improved kilns can significantly reduce air pollution from the carbonisation process.
- Improving productivity in production leading to lower costs of operation.
- Limiting the impact of extreme energy poverty, via better use of resources.
- Improved and more efficient access to markets for producers, distributors, and consumers.

Private Sector Participation:

The existing charcoal value chain in Rwanda is predominately an

informal private sector driven system. Informal is terms of individuals or groups of individuals acting together. One of the core goals of the NAMA is to increase the number of formal private sector enterprises (companies & cooperatives) within the value chain. It is envisioned, that fairer payments for charcoal producers and increased tax revenues, would be utilized to strengthen the value chain, thus enhancing private sector participation and resource sustainability.

A.4 Sector

<input 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 checked="" type="checkbox"/> Forestry
<input type="checkbox"/> Waste management	

Other

A.5 Technology

<input type="checkbox"/> Bioenergy	<input checked="" 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 type="checkbox"/> Project: Investment in machinery
<input checked="" type="checkbox"/> Strategy	<input checked="" 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 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

Rwanda – Ministry of Natural Resources (MINIRENA) - Rwanda Natural Resources Authority (RNRA)

B.1.1 Contact Person 1

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B.1.13 Comments

C Expected timeframe for the preparation of the mitigation action

C.1 Number of months for completion 24

D Currency

D.1 Used Currency

AED

Conversion to USD: 1

E Cost

E.1.1 Estimated full cost of preparation 471000

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 Survey. 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 361000

F.1.2 Type of required Financial support

- Grant  
 Loan (sovereign)  Guarantee  
 Loan (Private)  Equity  
 Concessional loan  Carbon finance  
 Other

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 its documentation, including the institutional framework, implementation planning, financial structuring, support required, and MRV system design and management. (USD 110,000)  
 Comprehensive Survey:  
 The comprehensive survey will build on the existing surveys, reports and studies existing in Rwanda on charcoal and woodfuels (e.g. WISDOM Study) and focus on updating the relevant information to the most current scenario and align them to proposed approach under the NAMA which takes a holistic approach in tackling the charcoal value chain. (USD 251,000)

F.2.1 Amount of Technical support 20000

F.2.2 Comments on Technical support

The technical support will involve establishing a pilot program on efficient kiln based charcoal production and operated for a minimum of 6 months to track consumption of biomass, and understand the real time challenges faced by the stakeholders associated with charcoal production, transportation and retail of charcoal. (USD 20,000)

F.3.1 Amount of capacity building support 90000

F.3.2 Type of required capacity building support

- Individual level  
 Institutional level  
 Systemic level

Other

### F.3.3 Comments on Capacity Building support

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 12: Sustainable Forestry, Agroforestry and Biomass Energy; Action 1: Improved Afforestation/Reforestation (Key indicators = Survival rates and area coverage of trees planted); Action 2: Improved Forest Management (key indicator = % degraded forests rehabilitated); Action 4: ICS promotion and charcoal licensing (key indicator = % Dissemination and use of ICS)

B) Biomass Energy Strategy (BEST)

The NAMA will focus on identifying synergies with focus areas under the BEST namely,

1) increased and sustainable supply of wood fuels and professionalizing the charcoal value chain , 2) increased efficiencies in the use of wood and charcoal, 3) promotion of alternative cooking fuels (LPG, peat, biogas) and 4) increased capacity of Government agencies dealing with biomass.

C) National Energy Policy, 2011:

The NAMA directly contributes to the 2 of 3 components of the biomass strategy namely, producing more biomass through better management of plantations and removal of restrictions on cutting and transport of wood and charcoal, and saving biomass through more efficient charcoal production and improved stoves (for both wood and charcoal)

D) SE4All, Rwanda, 2015

The NAMA will contribute to biomass target in the SE4All which notes that renewables shall account for 80% of the share of all cooking fuels in Rwanda by 2030

E) Update and Upgrade document for Rwanda Supply Master Plan for fuelwood and charcoal, 2013 and the WISOM Rwanda Study:

G.2 Link to other NAMAs

The two documents provides a sound basis for the development of the NAMA program.

H Attachments

H Attachments  
H.1 Attachment description  
H.2 File

**Title Description**

Browse...

I Support received

I.1 Outside the Registry  
I.2 Within the Registry

**Support provided Support Type Amount Comment Date**