CLEAN DEVELOPMENT MECHANISM

ASB0002-2017

Standardized baseline

Fuel switch, technology switch and/or methane destruction in the charcoal sector of Uganda

Version 01.0

United Nations
Framework Convention on
Climate Change

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1. Introduction

1. This standardized baseline provides standardized values and a positive list for fuel switch, technology switch and/or methane destruction in the charcoal production sector of Uganda.

2. Scope, applicability, and entry into force

2.1. Scope and applicability

2. The scope of this standardized baseline covers standardized values of parameters used for baseline emissions calculation and a positive list for fuel switch, technology switch and methane destruction in the charcoal sector.

3. This standardized baseline is developed using a combination of (a) the approach contained in the "Guidelines for the establishment of sector specific standardized baselines" and (b) a methodological approach contained in small-scale methodologies AMS-III.BG "Emission reduction through sustainable charcoal production and consumption" and AMS-III.K "Avoidance of methane release from charcoal production." It applies to the following measures: fuel and feedstock switch, switch of technology with or without change of energy source, and/or methane destruction.

4. This standardized baseline is applicable to CDM project activities implemented in the Republic of Uganda.

5. The CDM project activities can apply this standardized baseline under the following conditions:

   (a) The standardized baseline can only be used in conjunction with the latest approved version of the small-scale methodology AMS-III.BG "Emission reduction through sustainable charcoal production and consumption" or AMS-III.K "Avoidance of methane release from charcoal production". It is not intended to apply both methodologies combined to any individual charcoal producing installation that is part of a project activity;

   (b) All the applicability conditions of the small-scale methodology AMS-III.BG or AMS-III.K shall apply;

   (c) The produced charcoal is supplied to identified consumers for thermal applications included in the project boundary, as defined in the small-scale methodology AMS-III.BG;

   (d) In case of project activities that avoid release of methane from existing open-ended charcoal production methods, project participants shall follow the provisions of AMS-III.K if applicable.

2.2. Entry into force and validity

6. This standardized baseline enters into force upon adoption by the CDM Executive Board on 1 November 2017. This standardized baseline is valid from 1 November 2017 to 31 October 2020.

3. Normative references

7. This standardized baseline is based on the request for update of the approved standardized baseline ASB0002 “Fuel switch, technology switch and methane destruction in the charcoal sector of Uganda, submitted by the DNA of Uganda.

8. For more information regarding the approved standardized baselines as well as their consideration by the CDM Executive Board please refer to <http://cdm.unfccc.int/methodologies/standard_base/index.html >.

4. Definitions

9. The definitions contained in the latest version of the approved small scale methodology AMS-III.BG “Emission reduction through sustainable charcoal production and consumption” or AMS-III.K “Avoidance of methane release from charcoal production.” shall apply.

10. The definitions contained in the Glossary of CDM terms shall apply.

5. Parameters, values and positive list

11. The provisions in the methodologies AMS-III.BG or AMS-III.K for determining the values of the parameters listed in Table 1 below do not apply. Instead, project participants shall use the standardized values provided in the Table 1 below.[1]

Table 1 Standardized values

Parameter	Unit	Description	Standardized Values	Source
$f_{NRB,BL,wood}$	Fraction	Fraction of biomass of type *i* used in the absence of the project activity that can be established as non-renewable biomass	0.88	Default values of fraction of non-renewable biomass can be retrieved at: <http://cdm.unfccc.int/DNA/fNRB/index.html>
M_d	tonne of CH_4/tonne of raw material	Factor to account for any legal requirement for capture and destruction of methane in the charcoal production facility	0	Based on the data provided in ASU_002
$SMG_{y,b}$	tonnes CH_4/t charcoal	Specific methane generation for the baseline charcoal generation process in the year *y if AMS-III.BG is applied*	0.030	Based on AMS-III.BG.

[1] The standardized baseline can be used together with future versions of methodologies AMS-III.BG or AMS-III.K, as long as the requirements related to the parameters mentioned in table 1 do not change.

Parameter	Unit	Description	Standardized Values	Source
SMG_b	tonnes CH_4/t wood	Specific methane generation factor for the baseline charcoal generation process *if AMS-III.K is applied*	0.011	Based on data provided in ASU_002.
CF	-	Default wood to charcoal conversion factor	6	Based on AMS-III.BG.
NCV_{wood}	TJ/t	Default net calorific value of wood	0.015	Based on AMS-III.BG.
$NCV_{charcoal,default}$	TJ/t	Default net calorific value of charcoal from coconut husks, bamboo and other purely woody source of biomass	29.5	Based on AMS-III.BG.
	TJ/t	Default net calorific value of charcoal from other sources such as mixed agricultural wastes	19.47	Based on AMS-III.BG.
$EF_{projected\_fossilfuel}$	tCO_2/TJ	Emission factor for the substitution of non-renewable woody biomass by similar consumers	81.6	Based on AMS-III.BG.

12. The provisions on the demonstration of additionality in the methodologies AMS-III.BG or AMS-III.K do not apply if the project participants are able to demonstrate that the project activity corresponds to the positive list specified in Table 2 below.

Table 2. Positive list of technologies

Name of the technology	Description
Casamance Kiln	The Casamance kiln is an earth mound kiln equipped with a chimney. The chimney allows a better control of air flow. The hot flue gas is partly redirected into the kiln which enhances pyrolysis. The Casamance kiln may include a collapsible chimney set up from several parts that facilitates its transportation.
Adam retort sedimentary kiln	The Adam retort sedimentary kiln is a retort kiln. It redirects the flue gases back to the carbonization chamber. It burns the volatiles and the tar components almost completely. The retort is suitable for semi-industrial production.
Carbo twin retort	This kiln is a semi-continuous production module. It consists of two carbonization chambers. The pyrolysis vapours from one chamber are combusted to heat the other chamber.

Name of the technology	Description
Pyro 7 retort sedimentary kiln with or without briquetting process	This kiln is also a retort kiln. It uses two chambers: one for pre-combustion, one for the production of charcoal. It is usually made of metal. It also incorporates air flow control and a chimney.
Sam 1 retort kiln	The Sam1 Brick Retort is a retort kiln. It redirects the flue gases back to the carbonization chamber. The fire box is within the retort, reducing heat losses.
Namibian metallic retort kiln	This kiln is a retort kiln made from a metallic drum. It redirects the flue gases back to the carbonization chamber. It burns the volatiles and the tar components almost completely.

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