



**Assessment Report for CDM proposed standardized baseline
(Version 02.0)**

(To be used by the UNFCCC secretariat in assessing the quality of a proposed standardized baseline only when requested by eligible DNAs.)

Title of proposed standardized baseline:	Standardized baseline for efficient charcoal production in Senegal
Reference of proposed standardized baseline:	PSB0034
Name(s) of the Party or Parties to which the proposed standardized baseline applies:	Senegal
Name(s) of the proponent(s) of the proposed standardized baseline:	Ministère de l'Environnement et du Développement Durable (MEDD), Direction de l'Environnement et des Établissements Classés Senegal
History of the submission & assessment:	<p>1) 23/11/2015: first submission was received</p> <ul style="list-style-type: none"> the initial assessment was successfully concluded and the proposed standardized baseline (PSB) was uploaded on the UNFCCC website.
<p>Conclusion:</p> <p>(a) The quality assurance and quality control system complied with the provisions and data quality objectives of the valid "Guidelines for quality assurance and quality control of data in the establishment of standardized baselines"</p> <p>(b) The approach used by this proposed standardized baseline complied with one of the approaches referred to in the valid "Procedure for development, revision, clarification and update of standardized baselines":</p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> N/A</p> <p><input checked="" type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p>Using one approved approach:</p> <p><input checked="" type="checkbox"/> The "Guidelines for the establishment of sector specific standardized baselines";</p> <p><input checked="" type="checkbox"/> A methodological approach contained in an approved baseline and monitoring methodology;</p> <p><input type="checkbox"/> A methodological approach contained in an approved methodological tool;</p> <p><input type="checkbox"/> The "Guideline: Establishment of standardized baselines for afforestation and reforestation project activities under the CDM".</p>
Date when the assessment report is completed:	10/03/2016

SECTION A. Summary of Proposed Standardized Baseline

A.1. Scope and application of the proposed standardized baseline

1. The proposed standardized baseline (PSB) is developed for
 - (a) Additionality demonstration;
 - (b) Baseline identification;
 - (c) Baseline emission estimation
2. The sector to which this PSB applies is Household energy supply sector, *which includes charcoal production*
3. The PSB applies to the following measures (*only if SB guideline was used*):
 - (a) Fuel and feedstock switch;
 - (b) Switch of technology with or without change of energy source (including energy efficiency improvement);
 - (c) Methane destruction;
 - (d) Methane avoidance
4. Projects shall use standardized baseline together with the approved methodology(*ies*) “AMS-III.BG.: Emission reduction through sustainable charcoal production and consumption. Version 3.0.”

A.2. Description of the proposed standardized baseline

5. Key data parameters and data sources: check other sources (PDDS)_

Key data parameters <i>(note: e.g. total production of output, kiln technology, fuel type & consumption etc.)</i>	Data sources <i>(note: specify the sources in detail e.g. individual facilities, government documents, literature etc.)</i>
Total charcoal production in 2012 (average).	<ul style="list-style-type: none"> • Knoema, 2015a. UN Statistics Division Energy Statistics Database, 2015. Senegal, charcoal – Final consumption, 2012 • Knoema, 2015b. UN Statistics Division Energy Statistics Database, 2015. Gambia, charcoal – Final consumption, 2012
Regulated charcoal production (renewable biomass).	Republic of Senegal, 2012. Arrêté Ministériel n°1227. 8 February 2012. Dakar, Senegal
Charcoal produced in the informal sector.	BRADES, 2015. Brève présentation du projet d’industrialisation de l’unité de production de biocharbon.docx
Production of charcoal using metal kilns	Republic of Senegal, 2013a. Bilan de la

Key data parameters (note: e.g. total production of output, kiln technology, fuel type & consumption etc.)	Data sources (note: specify the sources in detail e.g. individual facilities, government documents, literature etc.)
	campagne d'exploitation forestière 2012 au 10 mars 2013.docx
Production of charcoal using the traditional kilns	Republic of Senegal, 2013a. Bilan de la campagne d'exploitation forestière 2012 au 10 mars 2013.docx
Fraction of non-renewable biomass (f_{NRB}).	https://cdm.unfccc.int/DNA/fNRB/index.html
Legal requirement for methane destruction (M_d).	DNA of Senegal.
Specific methane generation (SMG).	AMS-III.BG. version 03.0.
Default net calorific value of charcoal ($NCV_{charcoal,default}$).	AMS-III.BG. version 03.0.

6. The scope and coverage of the data:

- (a) The Water & Forests Directorate of the Senegal Ministry of Development and Sustainable Development (MEDD) demonstrated that the Directorate acknowledges that producers do not comply with the mandatory use of Casamance kilns and that there is widespread illegal use of traditional earth mound kilns in the designated areas, in the managed forests..

The data include relevant facilities: The submission describes the technologies used for charcoal production in Senegal.

- (b) The data represent all regions in the country.
- (c) The data represents the charcoal production, consumption and export for year 2012.
- (d) The data represent the charcoal production sector.

7. The DNA submitted the relevant data in the PSB form and supporting documents. Due to the nature of the proposed approach, no data template was required.

8. The PSB applies the following assumptions (and/or conservative approaches) in order to process the data:

- (a) The total amount of charcoal production in Senegal for the year 2012 was calculated as the sum of total consumption of charcoal in Senegal and export to The Gambia. Since there is no production data available in the country, the data for charcoal consumption in Senegal and The Gambia has been sourced from the UN Statistics Division Energy Statistics Database 2015. The UN initiative "Sustainable Energy for All" has published a report entitled "Rapid Assessment and Gap Analysis – Gambia" (Sustainable Energy for All, 2012), in which is it stated that: "In The Gambia the production of charcoal is technically illegal since charcoal production was banned in February 1977 by a Presidential Decree

The Secretariat conducted further research on the charcoal production in the country, however all the additional information referred to the sources listed in the PSB as original data source.

- (b) Most of the charcoal production (88.5%) is done illegally using woody biomass from natural forests (non-renewable).

The Secretariat conducted further research on the charcoal production in the country and confirmed that most of the charcoal production is done informally.

- (c) Charcoal exports to The Gambia for year 2012 were calculated to be 6.8% from the total production. The submission further states that there is no additional information available in the host party.

The Secretariat conducted further research on the charcoal exports to other countries, however no information was found available on the charcoal export in Senegal. The produced charcoal shall be supplied to identified consumers for thermal applications included in the project boundary.

- (d) The regulated charcoal production in Senegal is considered to be using renewable biomass and results in 11.4 % of the total production.

The Secretariat conducted further research on the charcoal production in the country and confirmed that most of the charcoal production is done informally.

- (e) The proportion of charcoal produced using alternative feedstocks, in Senegal is conservatively estimated at 0.1% of the total production.

The Secretariat conducted further research on the charcoal production in the country, however all the additional information referred to the sources listed in the PSB as original data source.

- (f) Non-renewable biomass is used to produce 88.5% of charcoal in Senegal. The submission uses the default value of the parameter $f_{\text{NRB,BL,wood}}$ (required by AMS-III.BG. version 03.0), as 85%.

The Secretariat confirms that the value for $f_{\text{NRB,BL,wood}}$, of 85% has been calculated by the Small-Scale Working Group (Annex 14 to the report of the 37th meeting of the SSC WG), which was endorsed by the DNA of Senegal.

- (g) There is no legal requirement for methane capture and destruction from charcoal production facilities. The submission proposes that the baseline is the lack of destruction of methane emitted during the pyrolysis process. Additionally, the standardized value of the parameter M_d (required by AMS-III.BG. version 03.0) is 0 for Senegal.

The DNA of Senegal has confirmed the above assumptions through an official letter from 2015, which is included in the submission.

- (h) The default values of the parameters Specific methane generation (SMG) and net calorific value of charcoal ($\text{NCV}_{\text{charcoal,default}}$), which are provided by the methodology, have been applied in the PSB.

The Secretariat confirms that the applied values for SMG and $\text{NCV}_{\text{charcoal,default}}$ are in line with AMS-III.BG. v.03.0

SECTION B. Summary of Assessment

B.1. Assessment process

9. The purpose of assessment conducted by the secretariat is: i) to ensure that the QA/QC system implemented by the DNA complies with the provisions and data quality objectives of the “Guidelines for quality assurance and quality control of data used in the establishment of standardized baselines” (hereinafter referred to as QA/QC guidelines); ii) to ensure that the PSB complies with the requirements of *the combination of the methodological approach*

and the approach from the “Guidelines for the establishment of sector specific standardized baselines”

10. The assessment consisted of the following: (*Note: delete irrelevant steps below*)
- (a) Review of the documents submitted,
 - (b) Identification of issues (assessment findings) and draft of the assessment “findings and resolution” note,
 - (c) Communication of assessment findings with DNA and request for their resolution and response,
 - (d) Review of the additional documents provided by DNA,
 - (e) Closing the findings,
 - (f) Conclusion of the assessment report.
11. A desk review was performed on the following data/information submitted as part of the PSB. (*Note: modify the steps and contents below as required. The initial assessment stage is not included*)
- (a) The submission dated 25/11/2015, which was successful in the initial assessment included:
 - (i) PSB form (F-CDM-PSB), version 1.0 dated 25/11/2015
 - (ii) Letter of Approval (LoA) from DNA of Senegal dated 23/11/2015
 - (iii) Confirmation letter by DNA of Senegal on absence of legal requirement for methane destruction dated 23/11/2015
 - (iv) Additional documents

B.2. Assessment opinion:

12. In accordance with the QA/QC guidelines, the secretariat concluded that the all following requirements were met by this PSB:
- (a) QC procedure was implemented to check the data quality during data collection.

The data used is taken from the secondary data sources; which are reviewed and therefore QC system is in accordance with the Guideline: Quality assurance and quality control of data used in the establishment of standardized baselines is followed.
 - (b) All relevant documents and data were available for assessment.
 - (c) The sampling approach complied with the sampling requirement for reliability (95/10 confidence/precision) and “Standard for sampling and surveys for CDM project activities and programme of activities”.

No sampling was undertaken for the proposed standardized baseline.
 - (d) The assumptions and conservative approaches for data processing and calculations were all justified.

The total amount of charcoal production in Senegal for the year 2012 was calculated as the sum of charcoal consumption in Senegal and charcoal export to the Gambia.

(e) There were no confidential data.

All the information presented in the submission was publicly available.

13. The secretariat concluded that the PSB complied with the approach of the “Guidelines for the establishment of sector specific standardized baselines” and the methodological approach contained in AMS-III.BG version 3.0.

Appendix 1. Findings and resolutions

CL No.	Request for Clarification (CL)	Reference to general provisions of guidelines on quality assurance and quality control of data used for sector-specific standardized baselines	Responses and corrective actions of DNA	Conclusion (open/closed)
1				
2				

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	27 May 2013	Initial publication
02.0	01 June 2015	Modified in order to take into account the Board's decision and improve clarity and consistency

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