



**Proposed standardized baseline recommendation form  
(Version 02.1)**

**INFORMATION TO BE COMPLETED BY THE TWO SELECTED MEMBERS OF THE PANEL/WORKING GROUP  
OR THE WHOLE PANEL/WORKING GROUP**

<b>Title of the proposed standardized baseline:</b>	Standardized Baseline for Improved Institutional Cookstoves in Ethiopia
<b>Reference number of the proposed standardized baseline:</b>	PSB0046
<b>Name(s) of the Party or Parties to which the proposed standardized baseline applies:</b>	Ethiopia
<b>DNA submitting the proposed standardized baseline:</b>	The Designated National Authority of Ethiopia Environment, Forest and Climate Change Commission (EFCCC)
<b>Name(s) of the proponent(s) of the proposed standardized baseline:</b> <i>(Parties, project participants, international industry organizations or admitted observer organizations)</i>	The Designated National Authority of Ethiopia
<b>History of the submission:</b>	1) 21/06/2018: The first submission was received 2) 26/12/2018: The second submission was received 3) 02/04/2019: The third submission was received 4) 06/08/2019: The fourth submission was received
<b>Date (DD/MM/YYYY) when the recommendation is completed:</b>	20/08/2019
<b>Approach(es) for the development of the proposed standardized baseline:</b>	
<input type="checkbox"/> The approach contained in the “Guidelines for the establishment of sector specific standardized baselines” <input checked="" type="checkbox"/> A methodological approach contained in an approved, proposed new or revised baseline and monitoring methodology <ul style="list-style-type: none"> <li>- AMS-II.G. “Energy efficiency measures in thermal applications of non-renewable biomass”;</li> <li>- AMS-I.E. “Switch from non-renewable biomass for thermal applications by the user”</li> </ul> <input checked="" type="checkbox"/> A methodological approach contained in an approved, proposed new or revised methodological tool <ul style="list-style-type: none"> <li>- TOOL30: Calculation of the fraction of non-renewable biomass</li> </ul> <input type="checkbox"/> The approach contained in the “Guideline: Establishment of standardized baselines for afforestation and reforestation project activities under the CDM”	
<b>Important conditions under which the proposed standardized baseline is applicable:</b>	
1. The scope of the standardized baseline covers the values of baseline woody biomass consumption per capita, the efficiency of pre-project institutional cookstoves, and the fraction of woody biomass that can be established as non-renewable biomass (fNRB) in Ethiopia. The standardized baseline is	

only applicable to cookstoves of the following type of institutions:

- (a) Category 1: Prisons, hospitals/clinics, refugee camps, military barracks;
- (b) Category 2: Restaurants and other food services in rural areas;
- (c) Category 3: Boarding schools, universities;
- (d) Category 4: Day schools; and
- (e) Category 5: Injera bakers using *Mirt* stoves.

2. CDM project activities may apply this standardized baseline under the following conditions:

- (a) The project activity is implemented in Ethiopia;
- (b) The approved CDM methodology applied to the project activity is small-scale methodology AMS-II.G. "Energy efficiency measures in thermal applications of non-renewable biomass" and/or small-scale methodology AMS-I.E. "Switch from non-renewable biomass for thermal applications by the user";
- (c) The standardized values are not applicable to institutions using LPG and/or kerosene in the baseline as a cooking fuel;
- (d) The standardized values are not applicable to standalone renewable energy-based water treatment technologies under AMS-I.E.; and
- (e) To use the default value under Category 5, the average weight of an injera is monitored once at the beginning of the crediting period and once every year, where required on a sample basis. It is demonstrated that weight of each injera is equal to or more than 0.368 kg (i.e. the number of injera per kg of injera baked should be equal to or less than 2.72). In addition, annual average number of injera baked per injera baker should also be monitored.

**Summary description of the proposed standardized baseline:**

- 1. CDM project activities shall use this standardized baseline together with AMS-II.G. "Energy efficiency measures in thermal applications of non-renewable biomass", version 9.0 or later and/or AMS-I.E. "Switch from non-renewable biomass for thermal applications by the user" version 8.0 or later. The following conditions shall apply:
  - (a) **Additionality demonstration:** The project activities that introduce improved institutional cookstoves in Ethiopia under AMS-II.G. or AMS-I.E. are deemed automatically additional, as per the "Methodological tool for demonstration of additionality of microscale project activities";
  - (b) **Baseline emission estimation:** For the estimation of baseline emissions of project activities, the provisions in the methodology AMS-II.G. version 9.0 or AMS-I.E. version 8.0 for determining the values of the parameters listed in Table 1 below do not apply. Instead, standardized values provided in the Table 1 below shall be used.

Table 1. Standardized values for AMS-II.G. and AMS-I.E.

Parameter	Unit	Description	Applicable values	Source										
<i>Bold,p</i> under AMS-II.G.	tonnes/ person/ year	Annual quantity of woody biomass that would have been used per person in the household in the absence of the project activity to generate useful thermal energy equivalent to that provided by the project devices	<table border="1"> <thead> <tr> <th>Institution type</th> <th>Value (tonnes/pers on/year)</th> </tr> </thead> <tbody> <tr> <td>Category 1: Prisons, hospitals/clinics, refugee camps, military barracks</td> <td><b>0.91</b></td> </tr> <tr> <td>Category 2: Restaurants and other food services in rural areas</td> <td><b>0.3</b></td> </tr> <tr> <td>Category 3: Boarding schools, universities</td> <td><b>0.75</b></td> </tr> <tr> <td>Category 4: Day schools</td> <td><b>0.26</b></td> </tr> </tbody> </table>	Institution type	Value (tonnes/pers on/year)	Category 1: Prisons, hospitals/clinics, refugee camps, military barracks	<b>0.91</b>	Category 2: Restaurants and other food services in rural areas	<b>0.3</b>	Category 3: Boarding schools, universities	<b>0.75</b>	Category 4: Day schools	<b>0.26</b>	Based on the data provided in PSB0046
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<i>BC<sub>PJ,PP,y</sub></i> under AMS-I.E.	tonnes/ person/ year	Average annual consumption of woody biomass per person in the pre-project devices during the project activity, if it is found that pre-project devices were not completely displaced but continue to be used to some extent	<table border="1"> <tbody> <tr> <td>Category 3: Boarding schools, universities</td> <td><b>0.75</b></td> </tr> <tr> <td>Category 4: Day schools</td> <td><b>0.26</b></td> </tr> </tbody> </table>	Category 3: Boarding schools, universities	<b>0.75</b>	Category 4: Day schools	<b>0.26</b>							
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<i>Bold,i,j</i> under AMS-II.G.	tonnes/ year	Annual quantity of woody biomass that would have been used in the absence of the project activity to generate useful thermal energy equivalent to that provided by the project device type i and batch j	<p>For Category 5: Injera bakers, the default woody biomass consumption per injera is provided in the table below:</p> <table border="1"> <thead> <tr> <th>Institution type</th> <th>Value (kg/injera)</th> </tr> </thead> <tbody> <tr> <td>Category 5: Injera bakers</td> <td><b>0.307</b></td> </tr> </tbody> </table> <p>In order to <b>convert</b> the woody biomass consumption per injera (i.e. 0.307) <b>to</b></p>	Institution type	Value (kg/injera)	Category 5: Injera bakers	<b>0.307</b>	Based on the data provided in PSB0046						
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$B_y$ under AMS-I.E.	tonnes/ year	Quantity of woody biomass that is substituted or displaced in tonnes	woody biomass consumption per injera baker (tonnes/year), the following equations shall be applied:  $B_{old,i,j} = B_{old,injera} \times n_{injera} \times 1/1000$ $B_y = B_{y,injera} \times n_{injera} \times \frac{1}{1000} \times N_{injera}$ <p>Where:</p> <table border="1"> <tr> <td><math>B_{old,injera}</math></td> <td>=</td> <td>Total woody biomass consumption per injera (kg/injera)</td> </tr> <tr> <td><math>B_{y,injera}</math></td> <td>=</td> <td>Total woody biomass per injera (kg/injera)</td> </tr> <tr> <td><math>n_{injera}</math></td> <td>=</td> <td>Annual average number of injera baked per injera baker</td> </tr> <tr> <td><math>N_{injera}</math></td> <td>=</td> <td>Number of injera bakers in the project activity (number)</td> </tr> </table>	$B_{old,injera}$	=	Total woody biomass consumption per injera (kg/injera)	$B_{y,injera}$	=	Total woody biomass per injera (kg/injera)	$n_{injera}$	=	Annual average number of injera baked per injera baker	$N_{injera}$	=	Number of injera bakers in the project activity (number)	
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$\eta_{old,i,j}$ under AMS-II.G.	fraction	Efficiency of pre-project cookstove	Use <b>0.12</b> for the efficiency of the pre-project device for woody biomass stove replacement projects	Based on the data provided in PSB0046												
$f_{NRB,y}$ under AMS-II.G. and AMS-I.E.	fraction	Fraction of woody biomass that can be established as non-renewable biomass	<b>0.76</b>	Based on the data provided in PSB0046; Calculated according to TOOL30												

**Recommendation to the Board:**

- To approve the proposed standardized baseline  
 Not to approve the proposed standardized baseline

**Reasons for not approving the proposed standardized baseline (if any):**

**Any other issues arising from the review of the proposed standardized baseline:**

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**Document information**

Version	Date	Description
02.1	1 September 2015	Revision to include an editorial improvement.

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<i>Version</i>	<i>Date</i>	<i>Description</i>
02.0	1 December 2013	<p>The document title has changed from “CDM recommendation form for proposed standardized baselines” (F-CDM-PSB-REC) to “Proposed standardized baseline recommendation submission form” (CDM-PSBR-FORM).</p> <p>Revision to:</p> <ul style="list-style-type: none"><li>• Reflect updated requirements in the “Procedure: Development, revision, clarification and update of standardized baselines”;</li><li>• Include an editorial improvement.</li></ul>
01.0	23 March 2012	Initial publication.

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Decision Class: Regulatory  
Document Type: Form  
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