Monitoring report form for CDM programme of activities (Version 02.0)

Complete this form in accordance with the instructions attached at the end of this form.

MONITORING REPORT

Title of the PoA	Impact Carbon Global Safe Water Programme of Activities (PoA)	
UNFCCC reference number of the PoA	9948	
Version numbers of the PoA-DD applicable to this monitoring report	3.0	
Version number of this monitoring report	4.0	
Completion date of this monitoring report	24/10/2018	
Monitoring period number	First Monitoring Period	
Duration of this monitoring period	30/05/2014 – 22/05/2017 (both days inclusive)	
Monitoring report number for this monitoring period	1.0	
Coordinating/managing entity	Impact Carbon	
Host Parties	Host Party of the PoA	Is this the host Party of a CPA covered in this monitoring report? (yes/no)
	Rwanda	No
	Uganda	Yes
	Nigeria	No
	Kenya	No
Sectoral scopes	3: Energy Demand	
Applied methodologies and standardized baselines	Methodology: AMS-III.AV. ver.4 Low greenhouse gas emitting safe drinking water production systems Standardized Baseline: N/A	
Amount of GHG emission reductions or net anthropogenic GHG removals achieved by all CPAs covered in this monitoring report in this monitoring period	Amount achieved before 1 January 2013	Amount achieved from 1 January 2013
	NA	64,474 tCO_2e
Amount of GHG emission reductions or net anthropogenic GHG removals estimated ex ante	24,877 tCO_2e	

for this monitoring period in the CPA-DDs for the CPAs covered in this monitoring report	

PART I Monitoring of programme of activities (PoA)

SECTION A. Description of PoA

A.1. General description of PoA

>>

The stated goal of the PoA is the widespread dissemination and use of low-carbon water purification technologies to households, communities, and institutions throughout Rwanda, Uganda, Nigeria, and Kenya.

Households throughout Rwanda, Uganda, and Nigeria lack access to reliably safe drinking water. In Rwanda only 32% of the population use piped water, with only 3.4% having access to piped water within their homes.[1,2] In Uganda, 64% of rural households have access to an "improved water source," including protected springs and piped water schemes; however, none of these systems consistently supply safe water as they are not treated and contamination is frequent, particularly during the rainy season. In Uganda, 43.9% of households boil their water to treat it, with 95.5% of all households using biomass for cooking and boiling water.[3] In Nigeria, according to a NOI Polls Limited results, 47 per cent of Nigerians still cannot access clean drinking water with 83 per cent of Nigerians sourcing their drinking water privately, while only about 9 per cent are connected to the public sewage system in 2013[4]. As per latest report of "Progress on Sanitation and Drinking Water, 2015 Update and MDG Assessment"; In Nigeria (page 69), and Kenya (page 65), around 43% of the rural population don't have access to an improved water source[5].

In the absence of the project activity, the baseline scenario would be the use of non-renewable woody biomass / fossil fuels for boiling water to make it fit for drinking. Therefore, by replacing the use non-renewable biomass/ fossil fuel required for boiling water, the programme water filtration technology(ies) reduces the amount of greenhouse gases (GHG) emitted into the atmosphere.

Impact Carbon is the Coordinating/Managing Entity (CME) of the PoA. The CME works actively with local partners for sales besides direct sales and dissemination. Local partners include, but are not limited to NGOs, local entrepreneurs, government organizations and academic institutes. Distribution channels include both direct sales to clients from CPA implementers and sales through distribution partners. The CME will oversee all distribution efforts to end users and govern that process with partner organizations. Distribution includes the capture of end user information at the time of sale/ installation and appropriate record keeping for the purpose of after sales maintenance / monitoring.

[1] National Policy & Strategy for Water Supply and Sanitation Services, Rwanda Ministry of Infrastructure. Page 7

[2] Water Supply and Sanitation in Rwanda. Turning Finance into Service for 2015 and beyond. AMCOW Page 19

[3] Uganda Demographic Health Survey 2011

[4] http://www.noi-polls.com/root/index.php?pid=153&parentid=14&ptid=1

[5] http://www.unicef.org/publications/files/Progress_on_Sanitation_and_Drinking_Water_2015_Update_.pdf

A.1.1. Corresponding generic component project activities (CPAs)

Title and reference number of the corresponding generic CPA	Version of the PoA-DD	Sectoral scopes	Applied methodologies and standardized baselines
CPA type 1: Small-scale technologies for household water consumption, with no project emissions	3.0[6]	Sectoral scope 3: Energy demand	AMS-III.AV: "Low greenhouse gas emitting safe drinking water production systems" Version 4
CPA type 2: Technologies for Institutional water consumption, with no project emissions	3.0	Sectoral scope 3: Energy demand	AMS-III.AV: "Low greenhouse gas emitting safe drinking water production systems" Version 4
CPA type 3: Technologies for institutional water consumption, with project emissions	3.0	Sectoral scope 3: Energy demand	AMS-III.AV: "Low greenhouse gas emitting safe drinking water production systems" Version 4
CPA type 4: Technologies for community water consumption, with no project emissions	3.0	Sectoral scope 3: Energy demand	AMS-III.AV: "Low greenhouse gas emitting safe drinking water production systems" Version 4
CPA type 5: Technologies for community water consumption, with project emissions	3.0	Sectoral scope 3: Energy demand	AMS-III.AV: "Low greenhouse gas emitting safe drinking water production systems" Version 4

A.1.2. CPAs included in the PoA

Title and UNFCCC reference number of the CPA	Title and reference number of the corresponding generic CPA	Version of the PoA-DD	Crediting period type and duration	Covered in this monitoring report? (yes/no)
Impact Carbon Global Safe Water Programme of Activities (PoA): CPA 1 9948-0001	CPA type 3: Technologies for institutional water consumption, with project emissions	3.0	Renewable 30/05/2014 – 29/05/2021	No
Impact Carbon Global Safe Water Programme of Activities (PoA): CPA 2 9948-0002	CPA type 3: Technologies for institutional water consumption, with project emissions	3.0	Renewable 30/05/2014 – 29/05/2021	Yes
Impact Carbon Global Safe Water Programme of Activities (PoA): CPA 3 9948-0003	CPA type 3: Technologies for institutional water consumption, with project emissions	3.0	Renewable 23/05/2017 – 22/05/2024	No

A.2. Coordinating/managing entity

Impact Carbon

[6] The latest version of the approved PoA-DD is version 7.0. However, the CPAs covered in this monitoring report were included under version 3.0 of the PoA-DD i.e. before approval of PoA-DD version 6.1 through PRC9948-0001 on 08 May 2017.

SECTION B. Implementation of PoA

B.1. Description of implemented PoA

>>

1. Operational and Management Framework

Impact Carbon is the Coordinating and Managing Entity (CME) for the PoA as well as the CPA Implementer for CPA 9948-0002. The Implementation of the PoA follows the following management system framework:

1. The CME provided guidance / training / instructions to sales staff to collect requisite sales data at the point of sale. The sales staff compiled the list of units sold along with required end user information (sales receipt) and transferred the same to the electronic database management system at regular intervals managed by the program manager.

2. The program manager operated and managed the electronic database with information on units sold under the PoA, as received from the sales staff. The database contains the following information for each product:
   - CPA Identifier
   - Contact details (name and phone number if available) of the end users
   - Date of installation
   - Type of users (household or institution)
   - Technology types (UV filter / reverse Osmosis)
   - Unique serial number of the unit installed

3. CME ensured that end users are aware of, and have agreed, that their unit is being subscribed to the PoA. Awareness and agreement is secured through informational material, trainings, social media and in contractual agreements.

4. The program manager and program associate ensures that there is no double counting of any unit in the electronic database by means of the serial number that is uniquely associated with each unit. Any unit included in the electronic database is unique.

5. The CME coordinated all ex-post monitoring activities in the PoA. The CME provided training to the monitoring staff to ensure that the date collection is accurate and correct. In addition the CME;
   - Implemented the monitoring plan,
   - Determined the sample size as per sampling plan and identified the samples to be monitored (the sampling plan has been applied to CPA 2 as detailed in section E.3 below)
   - Ensured the quality of monitoring data obtained through QA/QC
   - Used this data for emissions reduction calculations.

6. CME checked and recorded the following key parameters in a CPA Monitoring Record. Key monitored parameters were:
   - Average person population served by WPS
   - Check if project units are operational and in use
   - Water Quality measurement of WPS units

7. The CME checked and reviewed the monitoring data and calculated the emission reductions based on precision/reliability levels achieved for the monitored parameters supported by external experts.

8. Calculated of emission reductions based on monitoring data collected and preparation of monitoring report.

2. Technology, technical process and equipment

The CPA includes UV water filteration technology units only till the end of the monitoring period. No reverse osmosis system were installed till the end of concerned monitoring perid. For more detail, refer section C below.

B.2. Post-registration changes to PoA

B.2.1. Corrections

>>
N/A

B.2.2. Inclusion of monitoring plan

>>
N/A

B.2.3. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools

>>
N/A

B.2.4. Changes to programme design

>>
Two changes to the programme design have been made to the registered PoA,

PRC request number	Approval Status	Date of Approval	Description
PRC-9948-002	Approved	03 Jul 17	Expansion of PoA Boundary to include Host Country Nigeria
PRC-9948-001	Approved	08 May 17	Expansion of PoA Boundary to include Host Country Kenya

The aforesaid PRC are not relevant to the concerned monitoring report as it only covers CPA 9948-0002 in Uganda.

PART II Monitoring of CPAs

SECTION C. Implementation of CPAs

C.1. Description of implemented CPAs

>> **9948-0002(CPA No. 2)**

a) Purpose of the specific-case CPA(s) and the measures taken for GHG emission reductions or net GHG removals by sinks –

Purpose: This CPA invlolves the distribution & installation of improved water filters in Uganda for use by institutions in rural and urban areas of Uganda. The water filter disseminated under the CPA reduce the end user dependency on the conventional water filtration technique (i.e. boiling). Boiling of water using cook stoves (mostly unimproved), with charcoal and fuelwood, produces GHG emissions and indoor air pollution. The institutional water filter lowers greenhouse gas emissions, and reduces the indoor air pollution (i.e. smoke), thereby reducing health hazards on the users.

Measures taken: The CPA 9948-0002 involves marketing, distributing, and creating awareness for institutional water filters for various institutions in Uganda, such as Schools, Hospitals, Prisons, etc.

b) Description of the technology employed and installed equipment and/or infrastructure, including information requested by the eligibility criteria

The CPA involves Ultraviolet disinfection technology based water purification systems (reverse osmosis devices have not been installed yet under the CPA). These devices use ultraviolet light at short wavelengths to eliminate microorganisms, without changing the taste or composition of the treated water. The specification of the Nandadeep UV filter is given below:

Technology Type	Example Technologies	Filtration Capacity Range	Removal of E. Coli	Lifetime	Wattage	Portable / fixed
Ultraviolet (UV) disinfection device	Nandadeep	300-700 L/hr	>99.9999 (4-log)	10 Years	14	Fixed

The technology distributed in the CPA is suitable within the context of local water consumption practices, and ensures that potable water is always available for institutional consumption. The UV disinfection systems satisfy WHO compliance for the Guidelines for Drinking-Water (lab tested and quality approved). Thus, all technologies that are distributed under this CPA, ensure they adhere to these guidelines. A Total of 580 WPS have been installed till the end of the concerned monitoring period.

Information required by Eligibility criteria

Eligibility criteria # 3, 7, 13 and 15 that require information related to project technology / infrastructure are discussed below:

No.	Eligibility criteria		Assessment for CPAs	
	Category	Conditions to be met	Means of proof	Confirmation
#3	Technology	• The technologies must meet minimum criteria for specific CPA type, as outlined below: • CPA type 3: Technologies for institutional water consumption, with project emissions - Minimum flow rate: 50 L/hr - Minimum capacity/lifespan 219,000 L or 1 year	Technical specification of Nadadeep	Refer table above that shows compliance with the minimum requirements. This has been validated at the

		- Fixed or portable: Fixed - Removal of E.coli: 99 (4-log - Minimum Watts/Voltage: 5		time of CPA inclusion already
#7	Methodology	The water purification technology/equipment must achieve compliance with either: a) the World Health Organization's (WHO) guideline "Evaluating household water treatment options: Health based targets and microbiological performance specifications" OR b) a relevant national standard	Lab test results for Nandadeep UV filter	Refer table above that shows compliance with the minimum requirements. This has been validated at the time of CPA inclusion already
#13	Target Group	The target group will be Households, institutions or communities, as defined by the CPA type: CPA type 3: Institutions	Sales Receipt	Refer Sales database, All units installed are in schools.
#15	Size Limit	The CPA's annual emissions reduction in aggregate remains below the small-scale limit of 60,000 tCO2e reduced per annum throughout the crediting period.	ER sheet	Refer ER shee. In no year the CERs exceed 60k credits.

c) Relevant dates for the specific-case CPA(s) (e.g. construction, commissioning, continued operation periods, etc.);

CPA Reference number	9948-0002
Start Date as per CPA-DD (first purcase of WPS)	19/08/2013
Date of installation of first unit included in the CPA	21/06/2014
Continued operation period	Since 21/06/2014

d) Total GHG emission reductions or net GHG removals by sinks achieved in this monitoring period for the specific-case CPA(s), including information on how double counting is avoided

Each of the installed systems have a unique ID to avoid double counting. This ID is also mentioned in the Salesforce (the data management system in the PoA) along with the name, address, location and contact details of the school / institution where the system is installed. This, ensures that each WPS unit can be uniquely identified and double counting is avoided.

CPA	Emission Reductions tCO_2e[7]
9948-0002	64,474

C.2. Location of CPAs

>>

The geographical boundary of the CPA cover institutions in the Central 1 and Southwest Regions of Uganda where WPS systems have been installed.

[7] No CERs are being claimed for the period 30/05/2014 to 29/05/2015 in absence of monitoring data for that period. All information / monitoring data specified in the monitoring period pertains to the period 30/05/2015 – 22/05/2017. Accordingly the confidence / precision of 95/10 has been applied for a two year monitioring period.

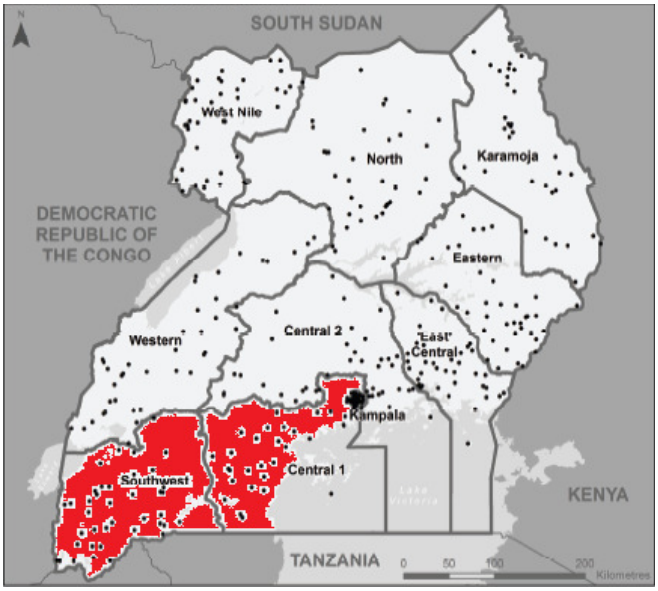

Figure 5 - The physical/geographical boundary of the SSC-PoA (CPA – 2: Uganda): Uganda

The GPS Co-ordinates and location of CPAs are as follows:

CPA 9948-0002

(a) Host Party = Uganda
(b) Region/state/province = Central 1 and Southwest
(c) City/town/community = districts in Central 1 and Southwest Regions of Uganda
(d) Latitude and Longitude

	Latitude	Longitude
Entebbe	0.059953	32.485199
Mbarara	-0.584154	30.635376
Bombo	0.565315	32.54837

C.3. Post-registration changes to CPAs

C.3.1. Temporary deviations from the monitoring plans in the included CPA-DDs, applied methodologies or standardized baselines

>>
N/A

C.3.2. Corrections

>>
N/A

C.3.3. Changes to the start date of the crediting period

>>
N/A

C.3.4. Inclusion of monitoring plan

>>
N/A

C.3.5. Permanent changes to the included monitoring plans, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools

>>
N/A

C.3.6. Changes to project design

>>
N/A

SECTION D. Description of monitoring system of CPAs

>>
The monitoring system under the CPA involves a number of key elements to ensure that the CME has high-quality, unbiased and reliable information regarding the performance of the project for the purposes of calculating ex-post CERs.

Monitored Systems

1. **Total Sales Record:** The total sales record documents the information listed below for the technologies implemented. A carbon waiver including a warranty card has been distributed with each WPS sold.The CME makes every effort to retrieve this information (paper form or electronically (i.e. SMS) but cannot guarantee the collection of information for waivers and warranties with every stove due to challenges such as high rates of illiteracy and logistical challenges. The total sales record has been kept electronically and with supporting evidence from paper records and/or SMS tracking records, and has been provided to the DOE at verification. The Total Sales Record contains:
    a. Unique identification filter serial number
    b. Date of sale and quantity of tank sold with project technology
    c. Address and details of institution, as evidenced by invoices
    d. School population count (number of students / staff)
    e. Type of School (Boarding / Non-boarding)

    Frequency: Continuous

2. **Other performance parameters:** The other monitoring parameters have been determined via ex-post monitoring surveys on sampling basis or using published literature as detailed in section E.2 and E.3 below.

3. **Organizational structure / role and responsibilities of monitoring personnel**

Person	Role
CME database administrator	The database administrator is responsible for updating and maintaining all electronic databases and inclusions. Required competencies include experience with data management systems (eg. Excel, STATA, or SPSS), minimum 2 years working experience in a similar field, and at minimum a Bachelors degree from an institution of higher education.
Monitoring team	The monitoring team will be assigned by the CME to conduct the user interviews and appliance tests during the periodic sampling and reports the results to the database administrator. The skills and experience required for the data collection activities include: ▪ Experience conducting surveys/tests ▪ Experience conducting door-to-door surveys of usage ▪ Local language skills (especially important for input to questionnaire design and interviewing of end users)

	▪ English language skills ▪ Cultural awareness ▪ Numerical proficiency ▪ Data entry skills

SECTION E. Data and parameters

E.1. Data and parameters fixed ex ante

Data/Parameter	Case1 or Case 2
Unit	-
Description	Case 1 or Case 2: Project activities implemented in rural or urban areas of countries with proportion of rural or urban population using an improved drinking-water source equal to or less than 60 % (Case1) or above 60% (Case2).
Source of data	Registered CPA-DD, page 26
Value(s) applied	Case 1
Choice of data or measurement methods and procedures	Registered CPA-DD, page 26 (using official and publicly available statistical data from Uganda Demographic and Health Survey 2011)
Purpose of data/parameter	Determination of Case 1 or Case 2 for baseline and opting for appropriate emission reductions calculations methods
Additional comments	--

Data/Parameter	WH
Unit	Kj/L.^{o}C
Description	Specific Heat of Water
Source of data	Default Value from AMS-III.AV Version 4
Value(s) applied	4.186
Choice of data or measurement methods and procedures	-
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	-

Data/Parameter	T_f
Unit	^{o}C
Description	Final Temperature
Source of data	Default Value from AMS-III.AV Version 4
Value(s) applied	100
Choice of data or measurement methods and procedures	-
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	-

Data/Parameter	T_i
Unit	°C
Description	Initial Temperature
Source of data	Default Value from AMS-III.AV Version 4
Value(s) applied	20
Choice of data or measurement methods and procedures	-
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	-

Data/Parameter	WHE
Unit	Kj/L
Description	Latent Heat of Water Evaporation
Source of data	Default Value from AMS-III.AV Version 4
Value(s) applied	2,260
Choice of data or measurement methods and procedures	-
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	-

Data/Parameter	L
Unit	-
Description	Leakage
Source of data	Default Value from AMS-I.E Version 5
Value(s) applied	0.95
Choice of data or measurement methods and procedures	Methodological default
Purpose of data/parameter	Calculation of leakage emissions
Additional comments	-

Data/Parameter	$R_{y,i}$
Unit	Liters/person/day
Description	Average volume of drinking water per person per day
Source of data	WHO Minimum water quantity needed for domestic use in emergencies.
Value(s) applied	3.5 (for boarding schools, prisons) 2 (for day schools)
Choice of data or measurement methods and procedures	WHO data on the minimum 'survival' allocation for drinking water per a person and water per pupil.[8]

[8] http://www.who.int/water_sanitation_health/publications/2011/WHO_TN_09_How_much_water_is_needed.pdf?ua=1

Purpose of data/parameter	Calculation of QPW_y For Case 1: $QPW_y = \sum_{0}^{i} (T_{y,i} \times N_{y,i} \times R_{y,i} \times 365 \times Water\ Quality_i \times Operational\ Units_i)$
Additional comments	For CPAs the value of QPW_y is subject to a cap derived from the number of total project population for which it can be demonstrated through documentation that the common practice of water purification is or would have been water boiling multiplied by the maximum volume of drinking water per person per day, set at 5.5 litres per person per day. Whilst the cap in the methodology is 5.5 L/person/day, the PoA applies an effective cap of 3.5 l/person/day for boarding schools or prions and 2 l/person/day for day schools, which is more conservative, and a more realistic figure of the quantity of water that would be used for drinking purposes. $N_{y,i}$ multiplied by $R_{y,i}$ shall not exceed the maximum output of the technology [per unit].

Data/Parameter	$EF_{EL,j,y}$
Unit	tCO_2/MWh
Description	Emission factor for electricity generation for source j in year *y* (tCO_2/MWh)
Source of data	As per the "Tool: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation" version 1.0
Value(s) applied	1.3
Choice of data or measurement methods and procedures	Default value from the "Tool: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation", version 1.0: **Scenario A: Electricity system** In this case, project participants may choose among the following options: Option A1: Calculate the combined margin emission factor of the applicable electricity system, using the procedures in the latest approved version of the Tool to calculate the emission factor for an electricity system ($EF_{EL,j/k/l,y}$ = $EF_{grid,CM,y}$). Option A2: Use the following conservative default values: A value of 1.3 tCO_2/MWh if (a) Scenario A applies only to project and/or leakage electricity consumption sources but not to baseline electricity consumption sources; or (b) Scenario A applies to both baseline and project (and/or leakage) electricity consumption sources; and the electricity consumption of the project and leakage from sources is greater than the electricity consumption of the baseline sources. Option A2 is used.
Purpose of data/parameter	To calculate project emissions
Additional comments	To be considered only in the case the water purification device consumes electricity

Data/Parameter	$TDL_{j,y}$
Unit	Fraction
Description	Average technical transmission and distribution losses for providing electricity to source j in year y
Source of data	As per the "Tool: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation" Version 1
Value(s) applied	20%
Choice of data or measurement methods and procedures	Default value from the "Tool: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation" Version 1
Purpose of data/parameter	To calculate project emissions
Additional comments	To be considered only in the case the water purification device consumes electricity

E.2. Data and parameters monitored

Data/Parameter	QPW_y
Unit	Liters/yr
Description	Quantity of purified water in year *y* (litres)
Measured/calculated/ default	calculated
Source of data	Calculated (Refer ER calculator, Worksheet – ER summary, cell E9:G9
Value(s) of monitored parameter	**Year** / **QPW_y (L/yr)** 30/05/2015 – 31/12/2015 / 31,344,618 01/01/2016 – 31/12/2016 / 209,189,559 01/01/2017 – 22/05/2017 / 119,067,876
Monitoring equipment	N/A
Measuring/reading/recording frequency	Biennial
Calculation method (if applicable)	Calculated through Equation (1.a) For Case 1: $QPW_y = \Sigma(T_{y,i} \times N_{y,i} \times R_{y,i} \times 365 \times Water\ Quality_i \times Operational\ Units_i)$
QA/QC procedures	-
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	In the formula above, 365 has been replaced with the number of days the units are eligible for crediting based on their date of deployment and the length of monitoring period.

Data/Parameter	$T_{y,i}$
Unit	Units (Number)
Description	Total distributed water purification systems
Measured/calculated/ default	Measured
Source of data	Sales invoices database
Value(s) of monitored parameter	**Monitoring Duration** / **Total Water Filters units being credited** 30/05/2015 – 31/12/2015 / 200 01/01/2016 – 31/12/2016 / 463 01/01/2017 – 22/05/2017 / 580
Monitoring equipment	Sales receipts

Measuring/reading/recording frequency	continuous
Calculation method (if applicable)	The total number of units by technology type and date deployed is tracked in the Project Database, using Sales Receipts. All units distributed will be recorded. Any unit not recorded in the Project Database will not be credited for emission reductions.
QA/QC procedures	Sales Database is cross-checked with paper records to ensure transparent and robust data. Replacement technologies will be captured in monitoring the number of *Operational Units$_i$.*
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	-

Data/Parameter	$N_{y,i}$
Unit	Persons/equipment
Description	The average population serviced by water purification systems
Measured/calculated/ default	Calculated
Source of data	Sales Receipts / database
Value(s) of monitored parameter	**Monitoring Duration** / **Value** 30/05/2015 – 31/12/2015 / 629 01/01/2016 – 31/12/2016 / 665 01/01/2017 – 22/05/2017 / 659
Monitoring equipment	N/A
Measuring/reading/recording frequency	Continuous
Calculation method (if applicable)	The sales receipt/database is used as a reference source
QA/QC procedures	Sales Database is cross-checked with paper records to ensure transparent and robust data when applicable. $N_{y,i}$ multiplied by $R_{y,i}$ shall not exceed the maximum output of the unit [per unit].
Purpose of data/parameter	Calculation of QPW_y and capping the treated water consumed at 5.5 litres per person per day per paragraph 6 of the methodology For Case 1: $QPW_y = \Sigma(T_{y,i} \times N_{y,i} \times R_{y,i} \times 365 \times Water\ Quality_i \times Operational\ Units_i)$
Additional comments	The value of $N_{y,i}$ is the average of number of people in the institution.

Data/Parameter	Water Quality$_i$
Unit	proportion
Description	Water quality measurement
Measured/calculated/ default	Measured
Source of data	Sampling surveys
Value(s) of monitored parameter	1.0
Monitoring equipment	Aquagenix water testing kit for TC (Thermotolerant Coliform) isolation was used
Measuring/reading/recording frequency	Biennial

Calculation method (if applicable)	Water Quality testing was done on water filtered from project technology, and all of the samples came out to be free from any harmful pathogen. The pathogen so tested during monitoring is TC Coliform (Thermotolerant Strain). Water quality is defined in a relevant national standard or guidelines for drinking water quality. As per Uganda Standard US 201:2008, https://archive.org/details/us.201.2008, section 4.3, E.Coli count /100 ml shall be undetected for maximum 95% samples and a maximum of only 1% of samples shall have a value of 1. As per the monitoring data, for institutional water filters, none of the samples, post treatment reported any E.Coli presence in the treated sample of water. Aquagenx water testing kit (Compartment Bag Test) for testing the presence of E.Coli in the treated water and demonstrate compliance with the national Standard US201:2008, were used. The test requires collecting water samples in five compartments (10 ml, 30 ml, 56 ml, 3ml and 1 ml). Once the water sample is taken, E.Coli growth medium is added to the water sample taken. Thereafter, the sampled water is poured into the 5-compartment bag and then it is sealed and incubated for a period of 24-48 hours. The color of the water sample is read after the incubation period to determine the E.coli quantity per 100ml.
QA/QC procedures	As per the World Health Organizations Guidelines[9] it is more cost-effective and feasible to monitor indicator organisms such as E.coli. Monitoring of proxies such as E. Coli, faecal coliform counts, chlorine levels may be used to assess water quality. CPA implementer shall be responsible for conducting testing. Enumerators will be trained on proper testing procedures and the appropriate testing technology will be used. CPA implementer shall be responsible for conducting testing.
Purpose of data/parameter	Eligibility criteria and Emission Reduction calculations in Equation (1.a). For Case 1: $QPW_y = \Sigma(T_{y,i} \times N_{y,l} \times R_{y,l} \times 365 \times Water\ Quality_i \times Operational\ Units_i)$
Additional comments	-

Data/Parameter	Operational Units$_i$
Unit	Proportion
Description	Monitoring to check the percentage of the monitoring period which technologies are in use (proportion of units found in use)
Measured/calculated/ default	Measured
Source of data	Sampling surveys
Value(s) of monitored parameter	96.97%
Monitoring equipment	N/A
Measuring/reading/recording frequency	Biennial
Calculation method (if applicable)	Monitoring surveys conducted on sample of units per technology type. The survey will then determine what percentage of days of the monitoring period the unit is in use by the end user. The mean of the percentage of operational days of the monitoring period of the samples will be applied for the parameter for each technology type.

[9] WHO 'Guidelines for Drinking-water Quality, Fourth Edition
www.who.int/**water**_sanitation_health/publications/.../dwq_**guidelines**/ Page 41

QA/QC procedures	Enumerators will ensure that the unit present in the school/institution is the same one as in the sales database by checking the unique ID. In the case that the unique ID is not available, enumerators will inquire as to the date of purchase of the unit to ensure that the unit is not a replacement. If the specific unit selected for monitoring has been replaced it will be marked as out of use from the beginning of the monitoring period, and be deemed to be operational for 0% of the relevant monitoring period. Enumerators will be trained as to proper procedures to assess the percentage of the year which the unit is used.
Purpose of data/parameter	Emission reductions calculations Used in Equation (1.a) For Case 1: $QPW_y = \Sigma(T_{y,i} \times N_{y,I} \times R_{y,I} \times 365 \times \text{Water Quality}_i \times \text{Operational Units}_i)$
Additional comments	-

Data/Parameter	$f_{NRB,y}$
Unit	Fraction
Description	Fraction of woody biomass used in the absence of the project activity in year, y, that can be established as non-renewable
Measured/calculated/ default	calculated
Source of data	EB 67 Annex 22 Default Values for Fraction of Non-Renewable Biomass for least Developed Countries and Small Island Developing States, combined with survey, national, or regional data to determine the percent of users using woody biomass and fossil fuel in the baseline scenario (Table 9.7 of UNHS, Household Survey Report 2016/17[10])
Value(s) of monitored parameter	0.8304
Monitoring equipment	N/A
Measuring/reading/recording frequency	Biennial
Calculation method (if applicable)	<table><tr><th>Description</th><th>Value</th><th>Source</th></tr><tr><td>% of users using NRB</td><td>94.2%</td><td rowspan="2">UNHS, HH Survye 2016/17, table 9.7</td></tr><tr><td>% of users using fossil fuels</td><td>5.8%</td></tr><tr><td>f_{NRB} for non renewable biomass (firewood / charcoal)</td><td>0.82</td><td>EB67, Annex 22</td></tr><tr><td>f_{NRB} for foossil fuels</td><td>1.00</td><td>AMS.II.AV</td></tr></table> $f_{NRB,y} = (94.2*0.82) + (5.8*1.00) = 0.8304$
QA/QC procedures	If survey is conducted, enumerators will be trained as to proper procedures to assess the baseline stove and fuel that is being or would have been used to boil water
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	As data specific to Country, regional government was not available, data from different international organization reports has been used.

Data/Parameter	η_{wb}
Unit	Fraction

[10] https://www.ubos.org/wp-content/uploads/publications/03_20182016_UNHS_FINAL_REPORT.pdf

Description	Efficiency of water boiling system being replaced
Measured/calculated/ default	calculated
Source of data	Default values as per AMS-III.AV combined with survey, national, or regional data to determine the percent of users using different types of water boiling systems in the baseline scenario.(CITIZENS' SURVEY ON UGANDA VISION 2040[11])
Value(s) of monitored parameter	0.1172
Monitoring equipment	N/A
Measuring/reading/recording frequency	Biennial
Calculation method (if applicable)	The type of baseline water boiling systems used by target population will be determined via survey, national, or regional data. Parameter will be determined using the following default values from AMS-III.AV:

Baseline Water Boiling System	Default Efficiency Value
Unimproved biomass burning stove (UBBS)	0.1
Other biomass burning stove (OBBS)	0.2
Fossil fuel stove (FFS)	0.5

If more than one system is encountered, a weighted average value shall be applied, calculated through formula below:

η_{wb} = [Default efficiency of UBBS] * [% of UBBS users] +
[Default efficiency of OBBS] * [% of OBBS users] +
[Default efficiency of FFS] * [% of FFS users]

The data from Citizen Survey of Uganda has been used to demonstrate the distribution of various stove types in Uganda:

Stove Type	% of users	Source
Unimproved	85.7%	Table 12, page 23, citizen Survey On Uganda, vision 2040, http://ngoforum.or.ug/wp-content/uploads/downloads/2015/06/Citizens-Survey-on-Uganda-Vision-2040.pdf
Improved	13.5%	
Fossil fuel	0.9%	

As more than one system is encountered, a weighted average of values is applied, per calculation below:
η_{wb} = (0.1*85.7) + (0.2*13.5) + (0.5*0.9) = 0.1172.

QA/QC procedures	-
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	-

Data/Parameter	$EF_{projected\_fossilfuel}$
Unit	tCO_2/TJ
Description	Emission factor as per AMS-I.E procedures when NRB is displaced or the emission factor of the fossil fuel substituted
Measured/calculated/ default	calculated
Source of data	AMS-I.E as referenced by AMS-III.AV Version 4 for f_{NRB} and IPCC default values for fossil fuels, combined with survey, national, or regional data to determine the percent of users using woody biomass and fossil fuel(s) in the baseline scenario.
Value(s) of monitored parameter	80.12

[11] http://ngoforum.or.ug/wp-content/uploads/downloads/2015/06/Citizens-Survey-on-Uganda-Vision-2040.pdf

<table>
<tr><td>Monitoring equipment</td><td>N/A</td></tr>
<tr><td>Measuring/reading/recording frequency</td><td>Continuously or at least biennial as per the monitoring requirements in the methodology.</td></tr>
<tr><td>Calculation method (if applicable)</td><td>The type of baseline fuel used by target population will be determined via survey, national, or regional data.

Parameter will be determined using the following default values from AMS-I.E as referenced by AMS-III.AV Version 4 and IPCC:
<table>
<tr><th>Emission Factor for Baseline Fuels</th><th>Emissions Factor</th><th>Source</th></tr>
<tr><td>EF_{NRB}</td><td>81.6 tCO2/TJ</td><td>AMS-I.E</td></tr>
<tr><td>$EF_{NaturalGas}$</td><td>56.1 tCO2/TJ</td><td>IPCC</td></tr>
<tr><td>$EF_{Kerosene}$</td><td>71.9 tCO2/TJ</td><td>IPCC</td></tr>
<tr><td>EF_{LPG}</td><td>63.1 tCO2/TJ</td><td>IPCC</td></tr>
</table>
If a mixture of woody biomass and fossil fuels is used in the absence of the project activity a weighted average value shall be applied, calculated through the following formula:

$EF_{projected\_fossilfuel}$ = [EF_{NRB}]*[% of users using NRB] +
[$EF_{Natural\ Gas}$]*[% of users using Natural Gas] +
[$EF_{Kerosene}$]*[% of users using Kerosene] +
[EF_{LPG}]*[% of users using LPG]

The data from Citizen Survey of Uganda has been used to demonstrate the distribution of various fuel types in Uganda:
<table>
<tr><th>Fuel Type</th><th>% of Users</th><th>Source</th></tr>
<tr><td>% of users using NRB</td><td>94.2%</td><td rowspan="2">table 9.7 of UNHS, Household Survey Repor 2016/17 https://www.ubos.org/wp content/uploads/publications/03_20182016_UNHS_ FINAL_REPORT.pdf</td></tr>
<tr><td>% of users using fossil fuels</td><td>5.8%</td></tr>
</table>
To apply a conservative estimate of CERs, all fossil fuel used is assumed to be Natural Gas, as this fuel has the lowest emission factor. As more than one system is encountered, a weighted average of values is applied, per calculation below:
$EF_{projected\_fossilfuel}$ = (81.6*0.942 + 56.1*0.058) = 80.12.</td></tr>
<tr><td>QA/QC procedures</td><td>-</td></tr>
<tr><td>Purpose of data/parameter</td><td>Calculation of baseline emissions</td></tr>
<tr><td>Additional comments</td><td>-</td></tr>
</table>

Data/Parameter	Existence of public distribution network of safe drinking water
Unit	Fraction
Description	Existence of public distribution network of safe drinking water in year *y*
Measured/calculated/ default	Measured
Source of data	Survey of institutions to receive water purification unit (Surveys Records)
Value(s) of monitored parameter	0.07
Monitoring equipment	N/A
Measuring/reading/recording frequency	Biennial
Calculation method (if applicable)	Review of monitoring survey or credible national/local reports/letters/announcements

QA/QC procedures	CME/CPA implementer conducting site assessment shall follow method prescribed in the Manual for Sanitation Inspection and Water Quality Analysis. Enumerators shall be trained in method for site assessment and water quality assessment.
Purpose of data/parameter	Eligibility criteria
Additional comments	-

Data/Parameter	$EC_{PJ,j,y}$
Unit	MWh/yr
Description	Quantity of electricity consumed by the project electricity consumption source j in year y
Measured/calculated/ default	calculated
Source of data	Manufacturers' specifications
Value(s) of monitored parameter	0.19 (Assuming a unit with 14 watt hour capacity being used 24 hours a day for 365 days a year)
Monitoring equipment	N/A
Measuring/reading/recording frequency	Annual or at least biennial as per the monitoring requirements in the methodology.
Calculation method (if applicable)	Manufacturers' specifications may be used to calculate electricity consumed by assuming that the technology is operating 24 hours a day all year or applying manufacturers' specification to user reported operation hours
QA/QC procedures	If surveys are conducted annually they will meet 90/10 confidence and precision, if they are conducted biennially they will meet 95/10 confidence and precision.
Purpose of data/parameter	Calculation of project emissions
Additional comments	This is highly conservative as the wattage of installed systems is either 6W or 14W however PE has been calculated assuming a wattage of 14W for all the systems installed.

E.3. Implementation of sampling plan

>>

A single sampling plan was carried out for CPA 2 covered in this monitoring report.

a. List of CPAs to which the single sampling was applied

The CPA 9948 – 0002 was covered in the single sampling plan.

Total number of Institutional WPS installed in the CPA till the end of the monitoring period:

CPA #	**Total WPS Sales**
CPA 2	580

b. Description of implemented single sampling design

(i) Sampling Design

Due to the large number of Water purification systems distributed under the PoA it was not economically feasible to monitor each individual WPS unit distributed. Therefore, representative sampling was undertaken as part of a CPA Sampling Plan. The sampling plan consisted of monitoring the following parameters mentioned in section D.2.:

Sl.No.	Parameter[12]	Description of parameter
1	Water Quality$_i$	Water quality measurement
2	Operational Units$_i$	Monitoring to check the percentage of the monitoring period which technologies are in use.
3	Existence of public distribution network of safe drinking water	Existence of public distribution network of safe drinking water in year y

(ii) Objectives and Reliability Requirements

Based on the registered CPA-DD, page 43, 95/10 reliability level is selected for CPA specific sampling for all the parameters at biennial monitoring frequency.

(iii) Target Population

The target population for the parameters stated above are all Institutional WPS Units recorded in the project database.

(iv) Sampling Frame:

The target population is the Institutional WPS distributed and recorded, which is 580 for the current CPA. As the paramters included for the monitoring are homologous (i.e. similar parameters), it was decided that the sampling plan would be the same for all the parameters tested.

(v) Sampling Method

Simple Random Sampling was applied and samples were randomly selected. As the target population is quite small, compared with the CPA boundaries, and the expanse of project technology sales is restricted to a few places for now, Simple Random Sampling was sought as sampling of choice.

(vi) Sample Size

The following table gives the number of samples covered during the monitoring activity. Refer ER calculator worksheet 'MP#1 Sample Size Calculation' for more details on calculation of sample size for each parameter. The expected parameter values (proportion) have been determined based on project developer's knowledge and experience as per para 12(b) and 12(c) of the Sampling and surveys for CDM project activities and programmes of activities, Version 07.0

Parameter	Total population (N)	Expected results	Reliability	Required Sample Size (n)	Monitored samples
Water Quality$_i$	580	0.95	95/10	30	33
Operational Units$_i$	580	0.95	95/10	30	33
Existence of public distribution network of safe drinking water	580	0.95	95/10	30	30

The WPS were selected randomly by assigning a number to WPS and sorting in increasing order from lower to higher date of installation. Random numbers were generated using online random number generator and the numbers obtained were used the identify the

[12] Monitoring Parameters other than those listed in the table have not been determined via sampling

samples from the population. The samples size were calculated, using the Standard: Sampling and surveys for CDM project activities and programmes of activities, for the concerned parameters. For proportion parameters, a minimum sample size of 30 was selected as per the standard, para 13 requirement. Few additional samples were monitored to cover for non-responses / ensure that the desired precision / confidence is achieved.

c. Collected data (electronic spreadsheets may be attached and referenced)

Data was collected and survey was done by the Impact Carbon team. The team is well trained for the water quality related surveys for Impact Carbon registered projects in Uganda given prior experience of monitoring other water purification project registered for Impact Carbon. Surveyor visited premises, did visual inspection, collected water samples and had interview with project technology end-user. The data collected from the surveys were compiled into the Excel spreadsheet and has been shared with DOE.

The integrity of data is constantly cross checked, including serial numbers, sale date, number of filters purchased and end user contact information, with their original sources to ensure consistency and avoid mistakes. All original surveys and associated data are kept on file with CME.

d. Analysis of the collected data

Data obtained from the surveys were used to estimate proportions and mean values for the parameters described above. The values were then be factored into the emissions reduction calculations.

Parameter	Result
Water Quality$_i$	1.0
Operational Units$_i$	96.97%
Existence of public distribution network of safe drinking water	0.07

e. Demonstration of whether the required confidence/precision has been met;

The following tables demonstrate the status of precision/confidence for each of the monitored parameters:

Water Quality	**1.0000**	**Fraction**
Population Size	580	number
Sample Size	33	number
Proportion for Water Quality	1.000	Fraction
Standard error of proportion for Water Quality	0.000	
Precision for Water Quality	0.00%	%
Result for Water Quality	ok, acceptable	--

Operational units	**0.9697**	**Fraction**
Population Size	580	number
Sample Size	33	number
Proportion for Operational units	0.97	Fraction
Standard error of proportion for Operational units	0.029	
Precision for Operational units	5.86%	%
Result for Operational units	ok, acceptable	--

Safe Water Distribution	0.07	Fraction
Population Size	580	number
Sample Size	30	number
Proportion for UnSafe Water Distribution	0.933	Fraction
Standard error of proportion for UnSafe Water Distribution	0.044	
Precision for UnSafe Water Distribution	9.31%	%
Result for UnSafe Water Distribution	ok, acceptable	--

f. Demonstration of whether the samples were randomly selected and are representative of the population

WPS were selected randomly after arranging them in chronological order by date of sale and assigning a number to each stove. Random numbers were generated using a range from 1 to 580 using online random number generator available at http://stattrek.com/statistics/random-number-generator.aspx and the random numbers received were selected from to identify the samples to the monitored. The approach ensured that the samples picked are random and represent the population.

SECTION F. Calculation of emission reductions or net anthropogenic removals

F.1. Calculation of baseline emissions or baseline net removals

>> Emission reductions are calculated as follows:

Ex ante calculation of emission reductions expected during the crediting period for the CPA is summarized in this section.

Step 1: Calculate the quantity of purified water in year y (QPW_y)

Equation (1.a)

QPW_{y1}	$QPW_y = \Sigma(T_{y,i} \times N_{y,I} \times R_{y,I} \times 365 \times Water\ Quality_i \times Operational\ Units_i)$

Step 2: Calculate the specific energy consumption [SEC] required to boil one litre of water.

Equation (2)

SEC	$= \left[WH \times \left(T_f - T_i\right) + 0.01 \times WHE\right] / n_{wb}$

Step 3: Calculate baseline emissions.

Equation (1)

BE_y	$= QPW_y \times SEC \times f_{NRB,y} \times EF_{projected\ \_\ fossilfuel} \times 10^{-9}$

S. No.	Description	Units	2015	2016	2017	Ex Ante / Ex Post
1	*Ty,i*	***Number***	**200**	**463**	**580**	**monitored ex-post**
2	**Operational rate**	**Fraction**	**96.97%**	**96.97%**	**96.97%**	**monitored ex-post via sampling**
5	**Ry,i**	**L/person/day**	**2.58**	**2.57**	**2.54**	**monitored ex-post**
6	**Ny,i**	**persons/technology**	**629.00**	**665.00**	**659.00**	**monitored ex-post**
7	Days	number	100	272	126	calculated
8	**Water Qualityi**	**Fraction**	**1.00**	**1.00**	**1.00**	**monitored ex-post via sampling**
9	QPWy	L/year	3,13,44,618	20,91,89,559	11,90,67,876	calculated
10	ηwb	Fraction	0.1172	0.1172	0.1172	**monitored ex-post**
11	**Tf**	**C**	100	100	100	Ex Ante
12	**Ti**	**C**	20	20	20	Ex Ante
13	**WH**	**kJ/L - C**	4.186	4.186	4.186	Ex Ante
14	**WHE**	**kJ/L**	2260	2260	2260	Ex Ante
15	SEC	kJ/L	3050.17	3050.17	3050.17	calculated
16	**fNRB**	**Fraction**	**0.8304**	**0.8304**	**0.8304**	**monitored ex-post**
17	**EFprojected_fossilfuel**	**tCO2e/TJ**	**80.12**	**80.12**	**80.12**	**monitored ex-post**
18	**Systems having safe water supply**	**Fraction**	**0.07**	**0.07**	**0.07**	**monitored ex-post via sampling**
19	**BEy**	**tCO2e/annum**	**5,937**	**39,623**	**22,553**	**calculated**
20	PEy	tCO2e/annum	38	86	108	calculated
21	L	tCO2e/annum	297	1,982	1,128	calculated
22	**ERy**	**tCO2e/annum**	**5,602**	**37,555**	**21,317**	**calculated**

F.2. Calculation of project emissions or actual net removals

>>

PE_y	$= T_y \times EC_{PJ,j,y}\ x\ EF_{EL,j,y}\ x\ (1 + TDL_{j,y})$

Per unit PE_y

PEy Assumptions	Value
Watts	14.00
ECPJ,j,y	0.12
EFEL,j,y	1.30
TDLj,y	0.20
PEy	0.19

PE_y over the monitoring period

Description	Units	2015	2016	2017
Ty,i	***Number***	**200**	**463**	**580**
PEy	tCO2e/annum	38	86	108

F.3. Calculation of leakage emissions

>>

Leakage has been calculated using a default 95% leakage adjustment factor to baseline emissions.

F.4. Calculation of emission reductions or net anthropogenic removals

CPA UNFCCC reference number	Baseline GHG emissions or baseline net GHG removals (t CO_2e)	Project GHG emissions or actual net GHG removals (t CO_2e)	Leakage GHG emissions (t CO_2e)	GHG emission reductions or net anthropogenic GHG removals (t CO_2e)		
				Before 01/01/2013	From 01/01/2013	Total amount
9948-0002	68,113	232	3,407	0	64,474	64,474
Total	**68,113**	**232**	**3,407**	**0**	**64,474**	**64,474**

F.5. Comparison of emission reductions or net anthropogenic removals achieved with estimates in the included CPA-DDs

CPA UNFCCC reference number	Amount achieved during this monitoring period (t CO_2e)	Amount estimated ex ante (t CO_2e)
9948-0002	64,474	24,877
Total	**64,474**	**24,877**

F.6. Remarks on increase in achieved emission reductions

The emission reductions achieved in the monitoring period is much more than the value estimated in ex-ante calculation.

Year	Amount achieved during this monitoring period (t CO_2e)	Amount estimated ex ante (t CO_2e)
30/05/2015 – 31/12/2015	5,602	5,614
01/01/2016 – 31/12/2016	37,555	13,169
01/01/2017 – 22/05/2017	21,317	6,094
Total	**64,474**	**24,877**

A Comparison of the ex-ante parameter values that differ from ex-post monitored values is given below:

Parameter	Unit	Ex-ante		Ex-post		
		2015-2016	2016-2017	2015	2016	2017
$T_{y,i}$	Number	325	525	200	463	580
$R_{y,i}$	L/person/day	2	2	2.58	2.57	2.54
$N_{y,i}$	persons/technology	275	275	629.00	665.00	659.00
Water Quality$_i$	[fraction]	0.9	0.9	1.00	1.00	1.00
Operational Units$_i$	[fraction]	0.9	0.9	0.9697	0.9697	0.9697
η_{wb}	Fraction	0.12	0.12	0.1172	0.1172	0.1172
f_{NRB}	Fraction	0.83	0.83	0.8304	0.8304	0.8304
$EF_{projected\_fossilfuel}$	tCO_2e/TJ	80.20	80.20	80.12	80.12	80.12

Thus, the comparison above shows that the ex-post increase in CERs is primarily on account of $R_{y,i}$ and $N_{y,i}$. The $N_{y,i}$ alone has increased ~2.40 times the ex-ante value (=659/275). The increase in $N_{y,i}$ is attributed to the fact the WPS systems are installed in small, medium and large sized schools (student count range: 50 to 4500)

Similarly, weighted average $R_{y,i}$ based on the propration of boarding and non-boarding persons is also 2.5 which is ~25% higher than the ex-ante assumed value of 2.0. While $R_{y,i}$ is an ex-ante fixed parameter, the value has increased ex-post as it has been averaged over the WPS population based on share of boarding and non-boarding population in the project shools/ institutions.
Thus, the combined effect of these two parameters is ~3.00 times the ex-ante value whereas the ex-post ERs that have increased only by 2.59 times the ex-ante values (=64,474/24,877).

Appendix 1: Person/entity responsible for completing the CDM-PoA-MR-FORM (additional)

Organization name	Climate-Secure Services
Address	65, Pragati Apartments, Club Road, Paschim Vihar, West Delhi, Delhi – 110063
Country	India
Telephone	+91 11 2521 3080
E-mail	info@climate-secure.com
Website	www.climate-secure.com
Contact person	Rohit Lohia

- - - - -

Document information

Version	*Date*	*Description*
02.0	7 June 2017	Revision to: • Ensure consistency with version 01.0 of the "CDM project standard for programmes of activities (CDM-EB93-A07-STAN); • Make editorial improvements.
01.0	1 April 2015	Initial publication.

Decision Class: Regulatory
Document Type: Form
Business Function: Issuance
Keywords: monitoring report, programme of activities