



**Approved baseline and monitoring methodology /
methodological tool clarification response form
(Version 03.0)**

INFORMATION TO BE COMPLETED BY THE SECRETARIAT OR PANEL / WG

Date and number of Panel / WG meeting:	20–24 September 2021 / MP 86
Title/Subject of the request for clarification:	Clarification on how to determine the population who consumes the purified water serviced by the project activity under AMS-III.AV.
Reference number of the request for clarification:	SSC_816
Exact reference (number, title and version) of the methodology or methodological tool to which the request for clarification applies:	AMS-III.AV.: Low greenhouse gas emitting safe drinking water production systems --- Version 6.0
Fast track or Regular track:	<input type="checkbox"/> Fast track <input checked="" type="checkbox"/> Regular track

Summary of the request for clarification

Original text from the CME:

Dear CDM Secretariat,

I'm working for Glory & Tech Co., Ltd which is the CME for PoA 10538 project (Development of a sustainable drinking water supply platform based on clean development mechanism) and have some questions related to the monitoring plan of PoA project.

Q1.

CME supplies drinking water to the local people in Bangladesh including 2 CPAs which are installed total 20 different community-level water supply facilities through CDM PoA project. The local people who use these facilities fetch and carry to their home about 20 litres of drinking water by walking and use by household-level everyday.

As drinking water usage pattern of local people, CME would like to use 2011 'Population & Housing Census' of Bangladesh Government average numbers of household people data as the number of the population who use our facilities.

The '4.2 people per household' is the value of average numbers of people in one household size from 'Population & Housing Census (2011)' by the Bangladesh Bureau of Statistics (BBS). Next national-level census was scheduled to be implemented and issued on a 10-year cycle by BBS, Census data of 2021, but census is not released yet because of Covid-19. Therefore, that of 2011 is the latest official census document in Bangladesh.

The supplementary evidence for estimating the number of the population served is survey results implemented by CME. This shows that the average household size is 5.2 people which has an increased tendency compared to the 2011 census.

Question. May CME use 2011 census data of Bangladesh government (BBS) instead of CME survey result? Which shows less population than CME survey result.

Q2.

In this project, CME is supplying drinking water by installing 10-15 water supply facilities for each CPA.

In accordance with the characteristics that the local people fetch and carry drinking water on foot, the beneficiaries of water supply facilities are residents who are living within a certain distance from each water supply facility. According to the 'UN Research Report (The right to water Fact Sheet No. 35)', a range of certain distance is formed in a radius of 3 km from the center of the water supply facility. (Refer The right to water (UN fact sheet No. 35)).

As a result of the survey conducted during the initial operation stage of this project, it was found that residents live within 40 minutes round trip (estimated one-way distance of 1 km) to the water supply facility by walk to get drinking water every day.

As the facility operation period increases, the range of beneficiaries can expand up to 3 km, as shown in the 'UN Research Report (The right to water Fact Sheet No. 35)'.

Question. Is it O.K. to set the maximum 3km radius of project boundary in PoA-DD based on the 'UN Research Report (The right to water Fact Sheet No. 35)' and;

First Stage: Is it O.K. to start initial beneficiary counting from the 1 km radius? (The beneficiary number count limited within one kilometer (1 km) radius. Drop counting outside of one kilometer.)

Second Stage: Beneficiary count includes up to three kilometer (3 km) which is written in The right to water (UN Fact Sheet No. 35).

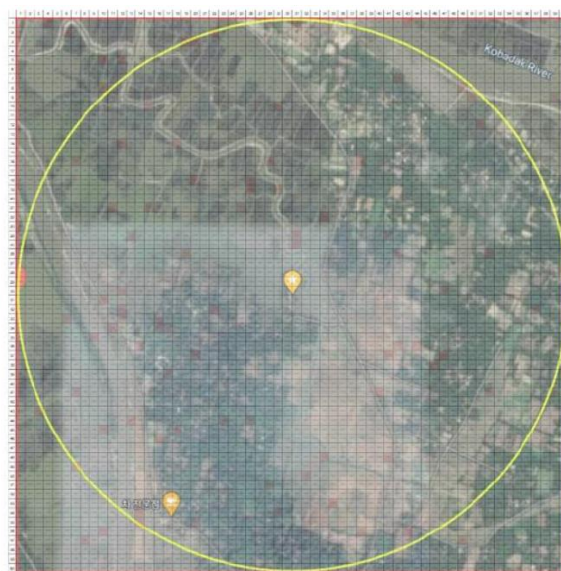
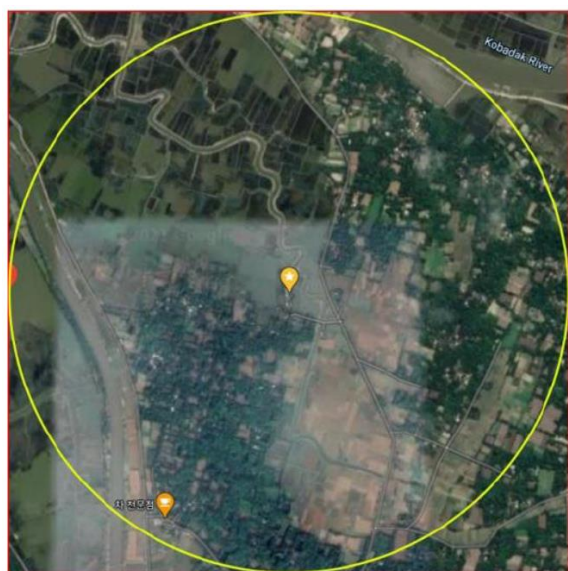
Additional information requested by the secretariat on 14/09/2021 and responses provided by the submitter on 15/09/2021

Additional information: Kindly elaborate on how the annual surveys will be conducted to determine the parameter P_y (Population who consumes the purified water serviced by the project activity in year y).

Response:

The whole list of the target population does not exist in rural Bangladesh. As an alternative for this problem, the survey was conducted to estimate the number of water supply facility users (P_y).

1. CME conducted Simple Random Sampling (SRS) with households within a 1km radius around the water supply facility which is set as the target population.
2. A 1km radius circle has the center as the water supply facility. It was divided into a grid of the same width and length, and unique numbers are assigned.



3. More grids for samples were selected using a random number generator than necessary.
4. The survey of water supply facilities was conducted by visiting each household which locates in the selected grid.

Photo 1

Raruli Baka Main Rd, Bangladesh

Latitude
22.65995446°

Longitude
89.27100548°

Local 01:04:08 PM
GMT 07:04:08 AM

Altitude -48.23 meters
Sunday, 03-14-2021

Photo 2

Raruli Baka Main Rd, Bangladesh

Latitude
22.65995098°

Longitude
89.27100675°

Local 01:04:29 PM
GMT 07:04:29 AM

Altitude -49.93 meters
Sunday, 03-14-2021

Questionnaire

UNFCCC CDM SDW PROJECT FIELD SURVEY QUESTIONNAIRE

Shree A Tark Co., Ltd has created water purification facility and providing Safe Drinking Water (SDW) to people in Bangladesh. The main purpose of the field survey is to collect primary data of the SDW range and to get the SDW project started from 2017/2018. All the information collected by the survey is not used for any other potential purposes. The interview takes only 5 minutes. Please fill out all questions. Your interview will be kept under Bangladesh.

Section 01. Interviewee Information

Interviewee Name: Momen
Phone Number: 01905225458
House Number: Masabpur, Rahaman (Momo)
Family Members: 6
Address: Dhaka, D-10, No. 5/10/10/10/10

Section 02. Safe Drinking Water Usage

No.	Question	Answer
1.	Do you use the SDW water distribution facility?	Yes
2.	Where is the SDW water distribution facility?	Khushia
3.	What is the main purpose of the SDW water?	Drinking
4.	How long does it take to use the SDW water distribution facility?	30 minutes
5.	How many bottles of SDW do you normally take daily?	3
6.	Do you use SDW water distribution facility?	No
7.	Do you use SDW water distribution facility?	No

All the information collected by the interview is not used for any other potential purposes, but only for creating the SDW project from 2017/2018. I fully understand the purpose of the interview and agree to use the personal information for SDW project from 2017/2018. The personal information collected is protected by the law and not shared to third parties.

✓ Yes / No

Date: 14/03/2021

Name: Momen

5. The whole number of water supply facility users was estimated by say-yes-respondent of households. The total estimated number will calculate multiply say-yes-respondent and the number of the average resident of households.

6. CME plans to use more conservative value (a smaller number of the average resident number of household) either 'Population & Housing Census by Bangladesh Bureau of Statistics (2011)' or the survey implemented by CME.

Clarification by the secretariat or Panel / WG

The Meth Panel would like to thank the author of the submission and clarifies that:

Q1: The parameter P_y (Population who consumes the purified water serviced by the project activity in year y) determined using the average number of occupants per household based on the census may not necessarily reflect the population served by the project activity. This is because the regional census that are usually conducted with long intervals between them is unlikely to include more recent and granular information on the population served by the project activity. Furthermore, P_y shall be determined annually according to the monitoring plan whereas the census is conducted less frequently. The CME shall select the figure that is determined in line with the registered monitoring plan that is in compliance with the requirements of the applied methodology, and the standard and guidelines on sampling and surveys.

Q2: The proposed approach to determine the number of households by surveying the households that are included in randomly selected grids within a given radius may not necessarily represent the population that is served by the water supply facility, independent of the size (i.e. 1 km or 3 km). Instead, a sampling frame must be defined to correctly reflect the population that is served by the project activity. Subsequently, an appropriate sampling method (simple random sampling, stratified sampling, cluster sampling, etc) must be selected, where applicable, to account for any heterogeneity in the population that affects their water collection behaviour, for example, in terms of the socio-economic conditions, the geographical features of the area (natural obstacles to reach the water supply facility, such as rivers or forests, that may encourage the population to collect water from another source) and the availability of alternative sources of water. The CME may refer to the sampling guidelines and to the requirements of the sampling standard to select the sampling method and approach to determine a sample size and conduct a survey that would result in a sample that is sufficiently representative of the population. In doing so, the appropriateness of the area covered in the survey may be better assessed in terms of the travelling time rather than the radius – in addition to the UN Fact Sheet 35, the CME may refer to the time to collect drinking water provided by the “Core questions on drinking water, sanitation and hygiene for household surveys: 2018 update”, prepared

by the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene.

Version(s) of the approved methodology / methodological tool to which the clarification is applicable:

AMS-III.AV.: Low greenhouse gas emitting safe drinking water production systems --- Version 6.0

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
03.0	13 May 2016	Revised to include the row "Version(s) of the approved methodology / methodological tool to which the clarification is applicable"
02.0	18 July 2013	Revised to remove the row "Date and signature of the chair and vice chair of Panel/WG (in case of clarification by Panel/WG)"
01.0	4 July 2013	Initial publication. This document supersedes and replaces the following documents: <ul style="list-style-type: none"> • Recommendation Form for Small Scale Methodologies (F-CDM-SSCwg) (Version 01.1) • Recommendation Form for Small Scale A/R Methodologies and Procedures (F-CDM-SSC-AR) (Version 01.1)
Decision Class: Regulatory Document Type: Form, Clarification Business Function: Methodology Keywords: applying methodologies and tools		