



**Approved baseline and monitoring methodology/  
methodological tool clarification response form  
(Version 02.0)**

**INFORMATION TO BE COMPLETED BY THE SECRETARIAT OR PANEL/WG**

<b>Date and number of Panel/WG meeting:</b>	26–29 August 2013, SSC WG 41
<b>Title/Subject of the request for clarification:</b>	Clarification regarding monitoring of annual average animal population in AMS-III.R
<b>Reference number of the request for clarification:</b>	SSC_683
<b>Exact reference (number, title and version) of the methodology or methodological tool to which the request for clarification applies:</b>	AMS-III.R “Methane recovery in agricultural activities at household/small farm level”
<b>Fast track or Regular track:</b>	<input checked="" type="checkbox"/> Fast track <input type="checkbox"/> Regular track

**Summary of the request for clarification**

Original text from PP:

According to AMS-III.R., the annual average animal population should be monitored as below:

Survey methods are used to determine the annual average animal population (NLT), the amount of waste/animal manure generated on the farm and the amount of waste/animal manure fed into the system e.g. biogas digester (It shall be verified if the manure fed to the digester is consistent with the capacity of the system);

**Enquiry:**

According to AMS-III.R., survey methods are used to determine the annual average animal population. The question is raised with regard to whether this parameter could be monitored by distributing monitoring table to the sampled households at the end of the monitoring year to survey the annual average animal population of the whole year.

**Additional information sought from PP on 11<sup>th</sup> July:**

1. Criteria used for selecting sampled households?
2. Qualification of the person conducting the survey, i.e whether the person has knowledge about the project or is qualified to conduct the survey, etc.?
3. How the monitoring form would be distributed and whether surveyors would ask the questions and fill out the form (thus ensuring that the right person responds, is knowledgeable, and provides a credible answer), or whether it is expected that someone in the household would understand the survey, write a response on the form and send it back?
4. May we kindly ask you to share with the secretariat the monitoring table that will be distributed to sampled households during the survey?

**Response from PP on 22<sup>nd</sup> July:**

As per our monitoring plan, a random sampling will be conducted as per sampling guideline. To ensure a random selection, random number generators shall be applied. Each household in the target population is uniquely identifiable by its individual ID number. Each household can thus be allocated a Sample Selection Number in each monitoring period. Applying the random number generators, the households can then be randomly chosen from the defined population up to the required sample size as calculated by the CME. After that, the monitoring team will distribute the survey form to the sampled households and guide the sampled households to accurately fill out the survey form.

Also, the CME will organize the relevant personnel to participate the training before survey before their duty and therefore ensure that each personnel is qualified to survey implementation.

Interview and visual inspection of the sampled households to determine annual average animal population

(Mean Value), multiplied by total households.

Actually, the monitoring table will be designed based on the result of this clarification. Therefore, it is pending now.

According to AMS-III.R., survey methods are used to determine the annual average animal population and soil application of the final sludge. However, there's no detailed requirement for the monitoring frequency and the time spot when to take the sample. We found this is a very important question during our work on monitoring and sampling plan.

According to "Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities", the sampling can be conducted at CPA level or PoA level.

In case of sampling at CPA level, following questions will be happened:

1. Sample size will seriously increase.
2. Sampling costs and work load will seriously increase due to more times of sample, because more times of sample will cause additional large number of monitoring personal and data analysis.

Considering the characteristic of household biogas PoA, we will implement sampling at PoA level. However, the question below appears when designing the sampling plan:

For a PoA, the amount of CPAs gradually increases as time goes on. It is possible that, a part of CPAs has been included in the PoA, but another part has not yet at the beginning of monitoring period. In this case, we have no way to define the sample frame (i.e. all households included in the PoA) at the beginning of each monitoring period, but we can define it at the end of each monitoring period. (For example, the PoA only includes one CPA when registration, but the amount of CPAs may have increased to 10 CPAs at the end of the first monitoring period). Therefore, conducting this survey at the beginning or mid-term of monitoring period is not feasible. Consequently, if so, sampling at PoA level mentioned in the "Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities" may not be applicable for all PoAs.

In addition, the amount of animal raised in each household is relatively stable and animal raising aims at making money, therefore household can clearly remember animal population in recent years. Furthermore, the trained monitoring team will guide the sampled households to accurately fill out the survey form, and therefore ensure that the households understand the survey and provide a credible answer. Thus to sum up, conducting this survey at the end of each monitoring period is relatively suitable to the PoA.

We propose that the two parameters - annual average animal population and soil application of the final sludge in the methodology AMS-III.R could be monitored by a single one sampling survey at the end of the monitoring period.

#### **Clarification by the secretariat or Panel/WG**

The small-scale working group of the CDM Executive Board would like to thank the author for the submission.

The small-scale working group would like to clarify that the sampling plan described in the PDD or PoA-DD or CPA-DD, used to determine parameters like 'Annual average animal population', may include survey at any point in time during the monitoring period, using conservative approach for determination of the number of systems in place and operated during the entire period or during part of it. The sampling plan shall be developed in compliance with the requirements in the "Standard for sampling and surveys for CDM project activities and programme of activities" to describe the sample size or the sample sizing process, the method for sample selection and composing (random, stratified, etc.), and the procedure for data collection and recording (e.g. questionnaire/monitoring table/interview).

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## Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
02.0	18 July 2013	Revised to remove the row “Date and signature of the chair and vice chair of Panel/WG”
01.0	4 July 2013	Initial publication. This document supersedes and replaces the following documents: <ul style="list-style-type: none"><li>• Recommendation Form for Small Scale Methodologies (F-CDM-SSCwg) (Version 01.1);</li><li>• Recommendation Form for Small Scale A/R Methodologies and Procedures (F-CDM-SSC-AR) (Version 01.1).</li></ul>

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