

Project information	
Title	African Improved Cooking Stoves Programme of Activities
UN number	5342
Validation/Verification contract number of Earthood	CDM.VER.18.20
Monitoring period	Fifth Monitoring Period 25/10/2016 - 24/10/2017
Assessment team	Team Leader, Verifier, Methodological expert, technical expert: Deepika Mahala Trainee Verifier: Shifali Guleria Local Expert: Adeola Ijeomi
Technical Reviewer and Technical expert to TR	Shreya Garg
Managing Director Name, Signature & Date	Dr. Kaviraj Singh 25/01/2019
Issues from CDM EB	Response from Earthood
<p>1. As per paragraph 120 (b) the PS-PoA (version 01.0), the eligibility criteria shall cover conditions to avoid double counting, such as unique identifications of product and end-user locations. The approved revised PoA-DD, page 23, also requires the recording of name/identification of end user. However, as per the CAR ID 11, the database which is described in the file "5342 MP5 B1 ER sheet" (in worksheet "CPA Distribution data") does not list the actual end users.</p> <p>Without the database containing identification of end-user, it would not be possible to, inter alia:</p> <ul style="list-style-type: none"> (i) Identify source of the emission reduction as it is not clear whether the stoves remain under the CPA or PoA boundary; (ii) Check whether a particular household has more than one cook stoves as the baseline fuel consumption which is fixed ex-ante is determined for each household assuming that there is one stove in the household; and (iii) Draw proper samples since the location of the stove (at end user) remains unclear. <p>With the above observation, the DOE is requested to explain how it has verified:</p> <ul style="list-style-type: none"> a) The implementation of the PoA, in particular the management system, in line with the revised and approved PoA-DD in 	<ul style="list-style-type: none"> a) The implementation of the PoA, in line with the PoA management system, was verified by interviewing the Envirofit associates involved in the process and review of the CPA distribution records available in Lagos Office, Nigeria. The verification team during the site audit, visited and interviewed the actual end users to check the correctness of information (ICS unique serial number, ICS model, user details) for monitored samples. <p>CME surveyed 135 households. Out these 135, 5 were actually found to own more than one stove during the survey which have been discounted as discussed in paragraph below. All the samples visited by DoE were found to own one stove, which was same as monitoring results, thus on this basis the monitoring results were accepted. After the review query received from UN, the details of end users of these 135 monitoring samples were checked in the database for multiple entries. 18 samples out of 135 households were identified where the respective user had multiple stoves listed in the database. The monitoring result says these 18 households owned only one stove. The verification team had visited 2 of these 18 samples during the on-site visit and observed only one ICS in these households. Further, the end user was interviewed by the verification team to also confirm that they have only 1 project ICS in their house. However, based on multiple entries found during this review of database, the IDs having</p>

<p>regard to the database not recording name/identification of end user and correctness of the database. It is noted that the CME's sampling revealed that five sampled households own another ICS. However, it is observed that according to the worksheet "CPA Distribution data", the other ICS found in three of these five sampled households are under different customer. As an example, in sampled household with ICS serial number EC1J036202 (under customer name MURUF SITU in city KADUNA), the other ICS found in the household has serial number of EC1J037096. However, according to the worksheet "CPA Distribution data", ICS with serial number EC1J037096 is registered under customer name BABATUNDE AROWOLO in city LAGOS.</p> <p>b) The emission reduction calculation, in particular the correct determination of number of stoves as the database does not record the information of the end user, hence raising concern on whether all stoves claimed under the emission reductions have been distributed to end users under the CPA or PoA boundary.</p> <p>c) The sampling conducted by the CME, with regard to whether the selected samples were representative of the population, as it is not clear how the samples were drawn (i.e. whether from the "CPA Distribution Data" which does not list actual end users, or from other data).</p> <p>Please refer to paragraphs 340, 358 (a) of VVS-PoA (version 01.0), paragraph 24(b) of Standard for Sampling and surveys for CDM project activities and programmes of activities (version 07.0)".</p>	<p>same user details have been discounted as discussed in the later part of this response.</p> <p>The three instances referred by UNFCCC in the review finding (monitored samples EC1J036202, EC1J035107 and EB1A027867) refers to situation where two ICSs have been reported in one household, but are found listed at different end user and address in the database. In all these cases, the monitoring survey information (additional ICS details) is based on physical observations and interviews conducted by the CME monitoring team. This has been verified by review of the original monitoring survey forms submitted by the CME. The total number of ICSs as per the CPA database are 993 for CPA 004 and 7197 for CPA 005. N_{all} was adjusted by the CME as per the monitoring results for the % of sampled households found to own more than one ICSs. (cell B29 and C29, sheet titled "ER calculations" in the ER excel sheet)</p> <p>Thus, the CME's ex-post monitoring assess the cases where one house has more than one ICS (both with multiple ICS listed on same owner name and address (18 samples) as well as those where there may be more than 1 ICS in a household irrespective of different listing in database (3 samples). As the results of monitoring were used to discount the entire population on proportional basis, its application ensures that only one ICS per household is credited in line with the PoA management system, albeit based on sampling results.</p> <p>Additionally, addressing the review concerns conservatively, the multiple ICS listed on a given name and address (and actual end user's detail is not listed in the database) have been discounted from ER calculations by the CME. The verification team reviewed the discount applied and found it appropriate on account of following:</p> <ol style="list-style-type: none"> 1) All cases with ICS listed on either same name, address and phone number have been discarded from ER calculations. 2) All cases with ICS listed on either same name and address only have been discarded from ER calculations 3) All cases with ICS listed on either same name and phone number only have been discarded from ER calculations
--	--

	<p>4) All cases with ICS listed on either same address and phone numbers only have been discarded from ER calculations.</p> <p>The discarding of the ICSs from the database has been done by considering $Stove_{year}$ as 0 for these ICSs, as checked from column O of sheet titled 'CPA database', ER sheet. Thus, the discounted ICS have been presented transparently in the ER sheet. The monitoring report submitted (as part of request for issuance) initially claimed 21,582 tCO₂. The final emission reductions claimed after discarding are 11,791 tCO_{2e}, thus the total ERs have reduced by ~45%.</p> <p>This aforesaid discounting is additional to the multiple ICS discount applied on the entire ICS population on the basis of ex-post monitoring results (5 households found using more than 1 ICS) resulting in ~3% and ~4% for CPA004 and CPA005 respectively (refer to cell B29, C29, sheet titled 'ER calculation', ER sheet).</p> <p>The revised approach is found to be conservative and thus accepted by the verification team. The approach confirms that only one household claims ERs that have only 01 ICS and only the ICSs for which end user data is available are considered for CERs. For future monitoring periods, a FAR has been raised which mandates the PP/CME to present end user data in the database for all ICSs claiming emission reductions.</p> <p>a) The CME has discounted CERs for all ICS IDs for which were found to have more than 01 ICS for a given name and address (and actual end user's detail is not listed in the database) as explained in detail in a) above. Thus, the final emission reduction calculation now considers only those households for which the end user data is available and within the CPA boundary.</p> <p>At the time of site visit, the verification team interviewed the Envirofit associates involved in dealing with the local partners to understand the Database management. The verification team confirmed that the distribution is done through local distributors who are bound to disseminate the ICS only within the CPA boundary i.e., the geographical boundaries of Nigeria. Thus, it is concluded that the chances of ICS being used</p>
--	---

	<p>outside the project boundary are nil given all multiple ICSs listed on a given name and address have been discounted and for all remaining ICSs the end user address is within Nigeria.</p> <p>b) Samples have been drawn from the Database in the ER sheet. Each ICSs listed in the database is deemed traceable in the field through its unique ID (on the ICS) and contacting the corresponding owner / actual end user (as applicable) given in the database.</p> <p>As explained in a) above, the verification team had visited 2 of the PP's 18/135 samples (now identified to own multiple ICS listed on their name as per the database). The monitoring survey result which is based on actual observation says that these 18 households own one stove. During the on-site visit the verification team observed only one ICS in these households. Further, the end user was interviewed by the verification team to also confirm that they have only 01 project ICS in their house.</p> <p>The verification team checked the random number snapshots submitted by the CME. These snapshots are the screenshots of Online random numbers generated at Stat Trek website/37(VCR)/, The review of the submitted document by verification team confirms that random numbers were generated on 16/02/2018, before commencement of monitoring by CME. 90 random numbers were generated for each CPA (CPA004 and CPA005) separately. The random number range is confirmed to span from 1 to 993 for CPA 04 and 1 to 7197 for CPA 05 thus covering entire population. The random numbers obtained were found to vary from 6 to 989 (total 993 ICSs under CPA004) and from 47 to 7155 (total 7197 ICSs under CPA 005) thus spread across entire population. Thus, the verification team confirms that samples are sourced from the entire database and not a sub-group or subset of the PoA population. The verification team confirmed that the samples monitored pertained to the exact random numbers generated online. Further, as the monitored samples already covers 18 cases where more than one ICS is listed under the given name and address, it is substantiated that sampling was covering entire population. For the current monitoring period emission reductions for only those ICS IDs have been done,</p>
--	---

	for which the end user data is available. For future monitoring periods, a FAR has been raised to ensure that the PP to present end user data in the database for all ICSs claiming emission reductions.
<p>The following documents are revised and resubmitted as part of request for review response for further consideration by CDM EB.</p> <ol style="list-style-type: none">1. Monitoring Report in track change mode2. Monitoring Report(clean)3. Emission reduction calculation sheet4. Verification Report in track change mode5. Verification Report (clean)6. RFI form7. DoE response letter8. CME response letter <p>With this response, we believe that we were able to address the request for review questions raised by CDM EB to your utmost satisfaction.</p>	

Document information						
Version	Date	Description	Prepared by		Reviewed by	
			Name	Date	Name	Date
1.0	27/02/2014	Review and re-approval	Abhishek Mahawar	27/02/2014	Ashok Gautam	27/02/2014
0	13/01/2014	Initial adoption	Abhishek Mahawar	09/01/2014	Kaviraj Singh	13/01/2014