

Gold Standard Secretariat responses to comments provided by Atmosfair and Germanwatch on the GS 886 - Lifestraw deployment in Kenya - 2nd verification

Specific observations on the 2nd verification of the project activity “GS 886- Lifestraw deployment in Kenya”

1. Why did the DOE suggest assuming unlimited availability of resources, including firewood and time, in the question asking for baseline practices of water purification, given that this may not lead to a plausible baseline scenario?

The Secretariat included this comment as part of the 3-week issuance review feedback sent to the PP and DOE. The DOE has clarified that the ‘question’ used by the third party hired to carry out surveys at the time of monitoring for first issuance was - “Before receiving LifeStraw Family, if the time and money it takes to gather or buy wood and boil your water were not a problem, would you have boiled it to make sure it was safe? Yes or no? If No explain.” Based on this question, the percentage of users that would have boiled water as a form of water treatment was obtained to be 80% and was recorded in the monitoring report. It was observed by the DOE, during the first verification, that this was a very close-ended question and hence the DOE asked the beneficiaries (chosen randomly) as part of the first verification, the following question - “Before receiving LifeStraw Family, if time, money, and resources were limitless, how would you make sure your water was safe?” to which 80% of the respondents said that they would boil water. This corresponded with the value derived by the third party hired by the PP to carry out surveys at the time of monitoring for first issuance. During the current verification, the DOE asked an even more clear question - “If you did not have the Lifestraw Family now, what would you do to make your water safe?” and 70% of the respondents said that they would boil water. Since this data was not required to be updated for the current monitoring period (as per the registered PDD it should be updated every 2 years) and also since the sample size chosen by the DOE to interview the households was not statistically robust, this value has not been considered in the emission reduction calculations. The DOE has raised a FAR for future verifications requiring the PP to use a similar open-ended question to update this value, required prior to the next issuance. Based on interviews carried out by the DOE during the first and second verification, the DOE has provided the following information to further justify the fact that boiling water would have been the preferred option in the baseline -

- A considerable proportion of households were not treating water before the intervention, and when asked what option they would choose, the first choice was boiling, **as this was most widely known option across the area**. This is a very important aspect that one may not realize but the fact is that if someone is actually not aware of what all the options available are in the world to treat water then the obvious choice would be **‘boiling’**, which is the most common means of treating water since ages across the world. Less poor households (living in better dwellings) suggested they would buy one of the chlorine-based water treatment products such as Waterguard or PUR

- There are also regional differences. Where turbid water is used, people prefer boiling plus sieving with a cloth. In peri-urban areas or areas in their proximity, access to chlorine based water treatment products is easy but in more remote areas boiling with fuelwood is more easily accessible
- Some women noted that they or especially children do not like the taste of water with chlorine, therefore prefer boiling
- Part of the respondents suggest a mix of different options – normally boiling and one of chlorine-based options
- Based on knowledge of the project area, there are also other initiatives being implemented in parallel such as community chlorine dispensers. As these expand, the proportion of project beneficiaries choosing non-boiling water treatment options may also expand.

2. Does the Gold Standard consider the following in the registered PDD still valid, after taking into consideration the above points: “The PP can potentially use BWBT [Baseline Water Boiling Test] from households that drink boiled water in pre-project scenario and apply it to households that drink untreated water. [...] This merging does not lead to conservative emission reductions but given the suppressed demand aspect this deviation can be accepted.” However, the MR only finds an insignificant reduction of fuel consumption. This shows that in the pre-project scenario, virtually no households were drinking boiled water. This renders the claimed emissions reduction not only “not conservative”, but even spurious and should therefore not be acceptable to the Gold Standard.

GS Secretariat - This issue was discussed with the PP as part of the 3-week issuance review feedback and the PP confirmed that the value of a 1.3% reduction in wood fuel consumption mentioned earlier was an error and that there is actually a 24% reduction in fuel use and 30% of the households reported a reduction in wood fuel usage. The Gold Standard has also checked the calculations and we can confirm that there was an error in the calculations where a 1.3% reduction in wood fuel consumption was calculated. This error has been corrected in the revised calculations, which show a 24% reduction in wood fuel consumption.

However, please carefully note that this data is not directly used in emission reduction calculations, which are actually based on the amount of water filtered and treated water still boiled.

As part of the monitoring surveys conducted over this monitoring period requesting issuance, the PP asked the households the following questions –

- a. How many pieces of wood did you use every day before LifeStraw?
- b. How many pieces of wood do you use now?

Two factors that were taken into account for the wording of the questions included:

- i. When piloting the question, the PP found that households were unable to estimate or quantify the amount of wood fuel used for specific purposes. Because it is common practice when using a 3-stone fire that fuel burning activities are done in sequence (the same wood pieces that are used for one activity will continue to burn and be partially used for others activities). People are better able to quantify the total volume of wood that they bought, gathered and used in a day.
- ii. In addition, with the increased emphasis on trying to create non-leading questions, the PP felt questions geared specifically to boiling or including the word “*boiling*” prompted respondents and introduced a potential bias to the larger survey results.

During the survey training, surveyors were instructed that if a change in wood fuel use had occurred that was not a result of having LifeStraw that they were not to account for this change. Based on calculations from subtracting the wood fuel used after receiving LifeStraw from the original amount of wood fuel used, the PP determined that there was an overall saving of 24%. The survey results clearly show that wood fuel is indeed available and used by households in the project area. The high NRB fraction in the project collection area does not imply that no wood fuel is available but that sources of wood fuel supply (forests, woodlands etc.) are dwindling.

It is also worth noting that these figures only represent households from the total project population where there was actual boiling of raw water using wood fuel in the baseline. The survey was conducted by the PP in 14,059 households spread across the 32 districts in project region to collect this data. Considering households under Suppressed Demand, for which a hypothetical baseline is assumed, this percentage reduction in wood fuel consumption would be much higher as reflected in emission reductions claimed by the project activity.

3. We see the shown defaults of the chosen baseline scenario in conflict with the overall principle of conservativeness. Given this principle, how will the DOE factor the findings of only 1.3% reduction of fuel consumption into the CO₂-emission reduction calculations?

Please see the response to question above.

4. How were answers of users indicating partial use (e.g. every two weeks) reflected in the calculation of emission reductions (see VR MP2 page 31)?

The monitoring report states that as long as the users reported using their water filtration unit at least once in 2 weeks, and filtered some amount of water, this was considered to be in use and not reflected in the drop-off rates. In any case, this is appropriate since the emission reductions are calculated for the amount of water actually treated using the water filters in the project scenario irrespective of frequency of use.

5. Which values were obtained for the accuracy of sampled data (e.g. standard error, acceptance number etc.)?

The mean values of the monitored data were used for calculating the emission reductions as the 90% confidence rule is met after obtaining the standard deviation and standard error values and the DOE confirms this in the verification report. The following parameters are derived using sampling –

- a. Amount of creditable water treated per person per day
- b. Amount of treated water still boiled
- c. Number of persons per household
- d. Amount of fuelwood used to boil 1 litre of water in the baseline (BWBT)
- e. Percentage of users that would boil water as a form of water treatment

6. How were outliers considered in the calculation of emission reductions? It is not clear whether the percentage of outliers observed during the survey was extrapolated to the total population of water filter users.

The outliers have not been considered in the emission reduction calculation process. In most cases, removing the outliers is conservative. The DOE has confirmed that processing of the data set to remove outliers is appropriate and those steps were carried out correctly. Regarding the second part of the question; since the monitored values of the parameters obtained from the survey of the sample group is then applied to the entire population, the percentage of outliers would get adjusted across the entire population.

7. How did the DOE come to a conclusion on water filter usage after is has found that it is “inherently difficult to understand during interviews or surveys whether household responses about their uses of filtered water are honest: “[...] interviewees were often jumping ahead of providing information on the uses of water before they were even asked the question.”(see VR MP2, page: 11) Why did the DOE not apply additional auditing practices to cross check users responses? For example the DOE could have asked users to demonstrate the backwashing function of the filter as Vestegaard Fransen requested it during the surveys.

This issue was discussed with the DOE as part of the 3-week issuance review feedback and the DOE confirms that additional auditing practices were applied consistently throughout the verification. The DOE asked the households to backwash the filters and in case the water filter was in use and backwash was not possible, the DOE asked the beneficiaries to explain how the backwash process worked. Only when the correct procedure was explained, was it accepted that the unit is in use.

8. Why were the sustainability indicators 7 (livelihood of the poor: decrease in firewood and charcoal consumption for cooking (boiling water)) and 8 (access to affordable and clean energy services) not changed to neutral, since the monitoring of indicator 1 (air quality) has

revealed that there is virtually no reduction in wood or charcoal consumption due to a decrease in boiling water for water sanitation?

This issue was discussed with the PP as part of the 3-week issuance review feedback and the PP confirmed that there is a 24% reduction in fuel wood use just based on households from the total project population where there was actual boiling of raw water using wood fuel in the baseline and hence the positive scores for both these parameters are justified.