

To	File
From	Secretariat
Date	28 <sup>th</sup> September 2017
Subject	VF Grievance Investigation: GSF's views on the Perspectives Report

On 27<sup>th</sup> September 2017, atmosfair sent GSF a report titled, “Short study on the VER generation of Vestergaard Frandsen’s LifeStraw Carbon For Water programme with special regard to usage time of water filters” by the Perspectives Climate Group (“Perspectives”). The report was commissioned by atmosfair. As explained below, Perspectives (1) makes several erroneous arguments, (2) ignores a key finding in GSF’s investigation report, (3) raises points that are outside the scope of the grievance investigation, and (4) ultimately provides evidence that supports GSF’s conclusion for no action against GS886.

**I. Perspectives makes several erroneous arguments that must be disregarded.**

a. The Stanford Study approach to defining a user is substantially different from GSF.

GSF Requirements and the Stanford Study define “user” differently. Perspectives’ assumes that the Stanford Study’s reliance on the observation of moisture in filters to indicate usage is correct. It is not. This approach was expressly rejected by Berkeley Air Monitoring Group (BAMG), one of the most credible organizations in this field. BAMG found that the mere observation of moisture to determine usage is inappropriate for this technology in this region. Western Kenya is hot, dry and dusty many months during the year. Given these conditions, the presence of water may suggest – but not assure – usage, but lack of water does not prove lack of use. Similarly, the presence of dust does not mean it has not been used.

Most users do not filter continuously; they filter a few days a week or daily at certain times. Moreover, the taps are hydrophobic, so they do not tend to keep moisture. Some users also reportedly wiped down the filter after use because the water attracted insects and rodents. It is therefore possible that when the surveyors arrived the filter did not appear wet. It is not possible to open the cartridge to see whether the membrane is wet or dry, so a wet or moist filter is not an appropriate indicator to determine use. Accordingly, it is incorrect to assume that a moist filter is the most strict and plausible indicator for defining usage.

GSF’s investigation report will be updated to take a stronger and clearer position on this point.

b. Perspectives mistakes how GSF defines usage.

Surprisingly, Perspectives fails to understand how GSF defines usage and how this is applied in the methodology. The methodology outlines that the emission reductions are estimated based on the monitored water consumption value i.e., the amount of safe water supplied by the project technology and consumed in the project scenario. The maximum water consumption value is capped at 7.5 l/p/d, at the WHO’s “basic needs” for treated water. If the monitored value is less than the cap, the measured value must be used to calculate emission reductions. The capped values cannot be used instead of a monitored value of this parameter.

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Perspectives ignores that the GSF methodology requires VF to measure the amount of clean water actually consumed, up to a maximum cap (7.5l/p/d). Consequently, there will be “users” counted in GS886 who used the filter less frequently or for low amounts of water filtration, but who may have been discarded from the Stanford Study (for example, due to the observation of the filter being dry). GSF’s investigation report will be updated to take a stronger and clearer position on this point.

Perspectives’ also misleads the reader by creating a false impression that the VF survey was poorly designed because “[in GS886] every household that uses the LSF every two weeks is defined as a user (ERM CVS 2012).” This statement is wrong. As recommended in the usage guidelines, there was a series of questions to rule out users who report, *inter alia*, low frequency usage. The usage/non-usage was determined based on a series of questions, not a single question as Perspectives insinuates.

- c. Perspectives fails to provide evidence to support its conclusion that the sample population is “generally representative” of the total population of households that received the Lifestraw filters.

Perspectives maintains that the sample population is “generally representative” of the total population of households that received Lifestraw filters because “the sample group is a sub-group of 80% of the households (women) that received a LSF.” Here, Perspectives makes a number of assumptions that are incorrect.

First, Perspectives’ assumption that pregnant women would be more likely to drink from a filter is unfounded. GSF is not aware of any literature available on this topic and Perspectives does not cite any source. While Dr. Pickering stated in her interview (and Perspectives repeated) that it is logical to assume pregnant women would use the filter more frequently, GSF has learned during its continued investigation that pregnant women may actually prefer to boil water because that is what they trust, and culturally it is known as a safe solution. Perspectives does not cite any evidence to support their conclusion that pregnant women are more likely to use the filter. Even in the developed world pregnancy behavior is extremely complex and it is not reasonable for Perspectives to make such an assumption or claim without evidence.

Second, Perspectives’ assumption that the sample population is “generally representative” is flawed because Perspectives ignores the geographical differences. On page 15 of the report, Perspectives states that we should assume the Stanford results are “similarly representative” because the Stanford survey was of a “sufficient sample size” and that “a quarter of the sub-counties have been sampled.” However, Perspectives fails to address the difference in geographic scope between the Stanford Study and GS886. Along with size, the sample must also be representative of the overall geography. The Stanford Study is not geographically representative of GS886. This point is further discussed below in Section II.

GSF’s investigation report will be updated to take a stronger and clearer position on these points.

d. “Conservativeness” is not an appropriate benchmark in this case.

Perspectives argues that GSF should accept the Stanford Study’s findings because they are the most conservative, and “conservativeness” is one of GSF’s core principles. While it is true that “conservativeness” is one of GSF’s core principles, as proposed by atmosfair and Perspectives, it is the wrong standard in this case. The conservativeness principle applies within the methodological bounds, not in general terms. Stated differently, the conservativeness principle is applied during the methodology’s development, always using the most conservative assumptions.

It may seem that GSF is selectively choosing when to apply conservativeness, but that is not the case. It is very important to emphasize for our stakeholders that GSF cannot apply rules that do not exist within the standard or methodology. Otherwise, GSF will no longer be reliable or trustworthy for project developers and investors. The standard would be undermined by the creation of a perverse environment where market participants could collect data on competing projects to reduce their issuance levels through “conservative” data obtained outside of an approved methodology. The standard and methodology exist to create clarity and predictability for project developers, local stakeholders, and the investment community. The certainty that the scheme provides for all participants must be protected. There should be no deviation unless there is unequivocal evidence that has a rule has been broken and the impact is material. Otherwise, the standard will unravel and the market for that standard will collapse.

e. Perspectives provides no support for its conflict of interest argument.

Perspectives attempts to attack GSF’s conflict of interest argument, but in doing so, demonstrates that it doesn’t understand the argument. Perspectives cherry-picked a few facts from the GSF investigation report about IPA’s strategic interest in chlorine. Most of the facts demonstrating that IPA had an interest in a competing project are ignored, which allows Perspectives to argue that IPA “seems independent and had no direct incentive in over- or underreporting of the usage rate.”

The conflict of interest facts on their face could reasonably lead to the conclusion that IPA had an actual conflict of interest in this case. However, GSF interviewed Dr. Pickering, the lead author of the Stanford Study, and Dr. Null, the lead investigator of the Stanford Study. (It is assumed that Perspectives did not speak to either individual.) GSF spoke to Dr. Pickering and Dr. Null about the conflict of interest, which both strongly denied. However, Dr. Pickering admitted that IPA was not in the best position to collect the data for the WASH Benefits Study due to its interest in GS966. Dr. Null admitted that there could have been some bias at the household level that affected the results due to IPA’s longstanding presence on the ground and its longstanding and well-known support for chlorine. Both researchers admitted that the enumerators presented themselves as IPA employees.

Ultimately, GSF found both Dr. Pickering and Dr. Null to be credible when they explained there was no conflict of interest at the organizational or project management level. However, there is a question about whether there was an issue at the enumerator/household level, which can’t be investigated at this point in time, making an unequivocal finding of no conflict of interest impossible.

Perspectives posits that GSF's conflict of interest argument is weak, but provides no explanation as to why it is weak. Instead, Perspectives tries to turn the argument against VF, stating that "volunteers recruited by Vestergaard Frandsen which received a nominal fee as payment and sub-county coordinators employed by Vestergaard Frandsen carried out the surveys in Vestergaard GS886 which creates a very clear and direct conflict of interest."

Perspectives' attempt to attack VF is undermined by the fact that VF put measures in place to prevent survey bias, including, but not limited to: surveyors identified themselves as from the Ministry of Health, instead of Lifestraw or VF, while their name badges also displayed the Ministry's logo; surveyors were instructed not to wear any clothing that would connect them to Lifestraw or VF; surveyors went off the main road to ensure the mix of homes and income levels; surveyor training for observation, how to avoid leading questions, and how to identify inconsistencies in responses; and surveyor assessments were made available to the verification team. In addition, the DOE and EXP conducted QA/QC checks on surveyors.

Accordingly, Perspectives' argument is without merit.

f. Perspectives' accusation that VF did not randomly sample is wrong.

Perspectives accuses VF of not using random sampling for MR1 and MR2. This is not true. If VF couldn't demonstrate random sampling to the DOE, then it would have been a Corrective Action Request. In fact, the DOE confirmed that there was random sampling in its verification reports.

g. Perspectives misrepresents the BAMG report.

It is important for GSF to provide context for the BAMG report. BAMG carried out a comprehensive investigation by:

- Comparing the WHO Toolkit for Monitoring and Evaluating Household Water Treatment and Safe Storage Programmes with VF documents and the MR-2 survey;
- Reviewing scientific literature on water filtration studies;
- Performing interviews with household water treatment and safe storage experts from organisation such as WHO, CDC, USAID, Nexus carbon and others; and
- Performing interviews with VF enumerators and auditors.

A summary of usage question types was produced to compare to VF-MR2's questions based on feedback from the interviews, the review of VF documents and the WHO Toolkit. The VF-MR2-Survey questions were then analyzed against the summary and WHO Toolkit. BAMG also received feedback from the VF team, including interviews with surveyors to understand the field context of the questions and to assess whether the usage calculations were justified. BAMG then performed additional processing steps to correct the identified issues such as outlier identification and frequency of water filter use.

Based upon in-depth interviews and surveys of water filtration experts, a review of literature on water filtration studies, and the WHO toolkit, BAMG recommended (and applied) the indicators/question that includes both reported usage and observed usage indicators to assess the

VF surveys. The report also provides the detailed justification for inclusion and exclusion of specific questions/indicators.

Perspectives either misunderstands the report or selectively chooses statements from the BAMG report to support its conclusion. For example, in criticizing the usage rate for MR2, Perspectives states that the “recommended rate does not take into account that 5% of the households did not have the LSF hanging properly.” However, the BAMG report clearly documented the justification for excluding this criteria in section 3.6, the footnotes of Table 6, Table 7 and in the conclusion section. Perspectives only includes the tables, stating that this criteria should have been considered in final recommendations without referring to the justification and discussion in the BAMG report.

Another example is Perspectives’ reliance on the WHO expert who suggested that the respondent would be classified as a user if he or she responded in the affirmative to all of the questions and observations listed in the table provided in Figure 2 on page 11. However, Perspectives ignores the section of the BAMG report that states that “[a]ssessing usage for the LSF by observation, however, is limited because of a lack of visual checks to confirm usage simply due to the filter design and field context; however, evidence should still be provided to confirm how filter design and field context can prevent these essential observations. For this reason, some of the WHO Toolkit indicators and expert opinions were not applicable.”

It is also important to clarify how VF and GSF applied the recommendations from BAMG. The GSF TAC decided at that time that BAMG’s recommendation should be applied to existing survey information, taking account of bias in survey data due to leading questions. Re-surveying the area was likely to lead to further bias and complexities. Perspectives now implies that that the MR and VR for MP2 state that the new questions were applied and a re-survey conducted, and this is misleading because no re-survey occurred. While we agree that no new survey was conducted, we disagree that VF was attempting to mislead. On pages 8 and 9 of the MR2 report, VF clearly states that “[t]he use of these indicators resulted in a recommended rate for Uy of 74.98%. **These questions were based on what was available from previous Vestergaard surveys.** The reviewers also issued recommendations for future assessments of usage.” (emphasis added). In other words, VF acknowledges that no new survey was conducted. In addition, pages 28 and 29 of the DOE’s VR2 report state that “[t]he VF-MR2-Survey was the primary source of data for this parameter.” Both VF and the DOE were clear that no new survey was conducted.

## **II. Perspectives ignores how turbidity might have influenced the data.**

Perspectives does not address how turbidity might have influenced the discrepancies in the data. Perhaps it is because the Stanford Study did not address it. However, the Christenson paper, which reported on the WASH Benefits Study pilot study and was cited in GSF’s investigation report, admitted that “water sources in our study areas are not very turbid, and reaction to (and appropriateness of) chlorine dispensers may be different in areas where turbidity could interfere with the efficacy of the chlorine.” (Christensen et al., 2015, Page 446<sup>1</sup>).

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<sup>1</sup> Christensen et al., 2015; Pilot Cluster Randomized Controlled Trials to Evaluate Adoption of Water, Sanitation, and Hygiene Interventions and Their Combination in Rural Western Kenya  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4347353/pdf/tropmed-92-437.pdf>

The issue here is that the WASH Benefits/Stanford Study focused on a small piece of a much larger project area. As demonstrated above by the Christenson paper, the Stanford Study area has lower turbidity overall and this could affect usage rates. GSF has reviewed several additional studies about turbidity in Western Kenya and they substantiate that the level of turbidity changes across Western Kenya.<sup>2 3 4</sup> Therefore, this point cannot be ignored or dismissed. Instead, it is one material factor supporting the conclusion that the data is incomparable. GSF's investigation report will be updated to take a stronger and clearer position on this point.

### **III. Perspectives attacks on GSF's Requirements are irrelevant because they fall outside the scope of the grievance investigation.**

Throughout the report Perspectives attacks GSF's Requirements. While GSF always welcomes constructive feedback, such comments are inappropriate in this context. The purpose of the grievance investigation is to determine whether GS886 misreported its usage rates. Any negative comments regarding GSF Requirements fall outside the scope of this investigation. The following points raised in the Perspectives report are outside the scope of this investigation and must be raised with GSF separately:

- On page 2, it seems as if Perspectives tries to undermine suppressed demand by calling it "so-called suppressed demand." It is unclear why Perspectives would try to undermine suppressed demand while simultaneously acknowledging its widespread use in the same paragraph. It should be noted that Perspectives helped GSF develop the suppressed demand methodology in past.
- Perspectives attacks GS886 for its frequent community outreach campaigns. GS886 intentionally designed its program to have frequent education and outreach campaigns. Due to the frequency of these campaigns, a survey was always going to come soon after. The idea that GSF would discourage frequent community outreach is nonsensical on its face. It is important to note that for the third monitoring period, EXP conducted the survey 2 months after the conclusion of the last education campaign and found a similar usage rate to VF.
- Perspectives strongly criticizes VF's use of self-reported data. There are three flaws in this argument. First, GS886 relied on both self-reported information and also observation, for example the user had to correctly demonstrate how to filter water to count as a user. Second, most carbon offset projects – regardless of standard (CDM, VCS, etc.) – rely on self-reported data. For example, atmosfair relies on self-reported data for its projects. It seems Perspectives is raising a broader concern that is not GSF-specific and, therefore, not appropriate for consideration here. Third, the purpose of the third party audit is to provide a check against self-reported data. VF properly hired a DOE for all of its verifications, and even hired an additional third party (EXP) to provide a check on VF surveys.

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<sup>2</sup><http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2672.2004.02309.x/full>

<sup>3</sup>[http://www.watersanitationhygiene.org/References/EH\\_KEY\\_REFERENCES/WATER/Water%20Treatment/POU%20Water%20Treatment/POU%20Treatment%20General/Household%20Based%20Water%20Treatment%20Trial%20\(BMJ\).pdf](http://www.watersanitationhygiene.org/References/EH_KEY_REFERENCES/WATER/Water%20Treatment/POU%20Water%20Treatment/POU%20Treatment%20General/Household%20Based%20Water%20Treatment%20Trial%20(BMJ).pdf)

<sup>4</sup><http://jwh.iwaponline.com/content/ppiwajwh/6/1/67.full.pdf>

These points must be disregarded because they are outside the scope of the grievance investigation.

#### **IV. The Perspectives report supports GSF's conclusion for no action against GS886.**

Throughout the report Perspectives admits that VF followed GS Requirements:

- Page 3-4. Perspectives admits that GS methodological sampling requirements go further than the comparison best practice and that VF followed that methodology.
- Page 14. Perspectives admits that VF followed GS Requirements, including the BAMG guidance, for MR3.
- Page 18. Perspectives admits that VF followed GSF's usage guidelines.

Perspectives offers no new evidence against GS886. Its report merely reiterates atmosfair's opinion that GSF should revise the issuances to align with the findings from the Stanford Study. Despite attempting to discredit VF's survey design and execution, Perspectives admits throughout the report that VF followed GSF's rules. Rather than providing support for atmosfair's argument that GSF should cancel credits from GS886, the Perspectives report supports GSF's conclusion for no action against GS886 because VF followed GSF Requirements. GSF's investigation report will be updated to take a stronger and clearer position on this point.

#### **V. Differences in Data Explained**

The Stanford Study does not explain the differences between VF's data and their findings. This is likely because the Stanford researchers did not collect the VF data with the intent to publish it. Rather, they were collecting it as part of the broader baseline study for the WASH Benefits Study. Although atmosfair describes the Stanford Study as an in-depth scientific analysis, according to Dr. Pickering and Dr. Null, they stumbled upon their findings and decided to publish them because they thought the data was interesting. It was not a planned study and that is likely why there is no analysis in the article.

GSF believes the differences in the data is due to the following factors:

- The difference in turbidity across GS886's project area;
- The definition of a user/non-user; and
- The Stanford Study's focus on pregnant women.

#### **VI. Conclusion**

Perspectives made several errors and omissions in their report validating atmosfair's position. However, GSF believes that the discussion has afforded GSF the opportunity to strengthen its investigation report. GSF will update its investigation report with the findings enumerated herein.