



Gold Standard[®]
for the Global Goals

TEMPLATE

DEVIATION REQUEST FORM

PUBLICATION DATE **16.07.2020**

Version **3.0**

A. To be completed by Gold Standard

1| Decision

1.1 | Date – 30/09/2020

1.2 | Decision - Rejected

The request for deviation is hereby rejected. Please note that the proposed deviation is not in line with the requirements stated in the Rule Update: Requirements and Guidelines for carrying out usage surveys for projects implementing improved cooking devices (23/08/2017).

- B. To be completed by the Project Developer/Coordinating and Managing Entity and/or VVB requesting deviation** (Please submit complete deviation request form in Microsoft Word format)

2| Background information

Mirador deviation request

Deviation Reference Number	DEV_156	
Date of decision	30/09/2020	
Date of submission	24/08/2020	
Project/PoA/VPA	<input type="checkbox"/> Project	ID – GSXXXX
	<input checked="" type="checkbox"/> PoA	ID – GS1988
	<input type="checkbox"/> VPA	ID – GSXXXX
Project/PoA/VPA title	Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America	
Location of project/PoA/VPA	Honduras (VPA 1 - issued) Guatemala, Nicaragua (VPA 2, VPA 3 - in process for inclusion)	
Scale of the project/PoA/VPA	<input type="checkbox"/> Microscale <input type="checkbox"/> Small scale <input checked="" type="checkbox"/> Large scale	
Gold Standard Impact Registry link of the project/PoA/VPA	https://registry.goldstandard.org/projects/details/1691	
Status of the project/PoA/VPA	<input type="checkbox"/> New <input type="checkbox"/> Listed <input type="checkbox"/> Certified design <input checked="" type="checkbox"/> Certified project	
Title/subject of deviation	Exemption from Rule Update dated 23/08/2017, Level C monitoring requirement	
Specify applicable rule/requirements/methodology and version number	(1) Rule Update: Requirements and Guidelines for carrying out usage surveys for projects implementing improved cooking devices Publication Date: 23/08/2017 (2) Clarification on Application of Requirement and Guidelines for Usage Rate Assessment Publication Date: 06/07/2020	
Specify the monitoring period for which the request is valid (if applicable)	(1) VP11: Start date 01/12/2019 End date 30/11/2020 (2) VP12: Start date 01/12/2020 End date 30/11/2021 (3) VP13: Start date 01/12/2021 End date 30/11/2022	
Submitted by	Contact person name: Esther Adams	
	Email ID: eadams@proyectorimirador.org	
	Organization:Proyecto Mirador	
	Project participant: Yes <input checked="" type="checkbox"/> NO <input type="checkbox"/>	
Validation and Verification body (VVB opinion shall be included, where required by the applicable	Yes <input type="checkbox"/> NO <input checked="" type="checkbox"/> If yes; VVB name:	

Mirador deviation request

rules/requirements or request is submitted by the VVB).	Auditor name:
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3| Deviation detail

3.1 | Description of the deviation:

Use the space below to describe the deviation and substantiate the reason for requesting deviation from applicable rules/requirements. Please include all relevant information in support of the request. You are requested to follow the principles for guidelines for requesting deviations, given in the Deviation Approval Procedure.

PP requests exemption from Level C, CMS monitoring requirement to substantiate >90% usage in stove age groups 1 & 2.

Mirador's first two age groups of stoves have usage rates above 90%, and the GS Rule Update allows projects to report abandonment rates above 90% only if the Level C monitoring requirement is met. Level C requires CSM (SUMS) data, and thus far we have not included such data in our reporting. While the path of least resistance would be to undertake such a study, the time, cost and difficulty involved cannot easily be justified by the value of the increase in ERs claimed.

To illustrate, a simple SUMS study bears an external cost of \$6,500 for equipment and data analysis. Adding to that the internal and external resources needed for project management, deploying the devices, processing the data, and reporting for GS compliance, we estimate the total cost to be closer to \$15,000. During the 10th Verification Period recently closed, reporting our actual abandonment figures of 4% and 7% for Year 1 and 2 stoves gained us only 231 VERs (0.084% of total credits). At a conservative value of \$6/VER, that leaves us only \$1,386 to offset the cost of the study. So, we view the monitoring requirement as a stiff penalty that is difficult to accept given the time, energy and money we have poured into our monitoring program.

While the increase in ERs clearly does not justify the cost, the alternative — to report artificially high abandonment rates of 10% — would effectively devalue our carbon credits and erode the trust of our buyers, presenting a Catch-22. Ultimately, the rule penalizes the projects that have worked hardest to lower their abandonment rates, even when it is clear the monitoring approach is accurate. The sole burden of cost is on the project developer, who is asked to take a financial loss in order to avoid the arbitrary devaluation of its credits. The Rule Update is an example of what we like to call "methodology creep," in which frequent and substantial changes to Gold Standard rules and methodology make the barriers to project development increasingly high as time moves forward.

As the 4th stove project certified by the Gold Standard, Mirador has spent over a decade building what is arguably the most robust monitoring program in the stove world. In this process, no parameter has been more important than the abandonment rate to gauge the success of our project. Every operational change and technological improvement we have made over time has been driven by the central motivation to improve abandonment rates. Through direct follow up with our beneficiaries, and the meticulous tracking of monitoring data, we have steadily improved these figures. We are proud of the low abandonment rates we have achieved today and, to be frank, disheartened by the insinuation that our monitoring approach lacks integrity.

Extensive data is tracked for each stove, with maintenance and household data recorded at multiple intervals throughout its lifecycle —before, during and after installation—using our Salesforce.com database. Our stoves are installed *in situ*, and

they cannot be moved, which enables us to track each stove’s progress with certainty. Most stoves receive two visits in the first year of operation, and most also receive a third visit in the second year. Because we are in direct contact with our beneficiaries, in their homes, we are in a unique position to assess abandonment. Our sample size for the first two age groups of stoves is more than 10,000% of the Gold Standard’s minimum requirement of n=30. We are absolutely confident that our abandonment data, for those two age groups in particular, is correct.

As listed in the Monitoring Report, here are some of the cues we look for onsite to indicate an abandoned stove.

- The beneficiary states they have stopped using the stove
- The stove mouth, chimney or plancha have been removed or modified
- The chimney has deteriorated beyond the point of efficiency
- The stove is otherwise no longer reasonably intact as built
- The stove appears to be out of use (i.e., the stove is cold at the time survey is taken, and clothes/dishes/other household items are sitting on top of it, etc.)
- The beneficiary has moved out of the house
- Traditional cookstove or project cookstove other than the Dos por Tres is in primary use (note that minimal use of other stove types for isolated cooking tasks is factored into ER calculations as leakage)
- Ash is not present, indicating the stove has not been used

Below is a table put together by Rob Bailis, PhD, of the Stockholm Environmental Institute, showing the upper and lower bounds of our abandonment rate values within a 95% confidence interval, based on abandonment data submitted to the Gold Standard for the 10th verification. As you can see, the sample sizes are huge for the younger cohorts, so the CI is extremely tight around the mean.

(Conversely, sample sizes closer to the GS minimum requirement, such as we have for years 4, 5 and 6, produce a much wider CI — but paradoxically, those age groups are not called into question by the Rule Update.) I have attached the data file in case you wish to review Rob’s analysis (see “VP10 Dropoff Data_Rob Bailis.xlsx”).

Age group	Stove age at time of survey (range)	Monitored	Total # of Surveys	Avg. stove	95% CI of drop-off rate	
		(Cumulative) Dropoff %		age at time of survey (in years)	lower bound	upper bound
Age 0-1 (Year 1)	1-365 days	4.0%	13764	0.501	3.6%	4.3%
Age 1-2 (Year 2)	366-730 days	6.8%	3857	1.500	6.1%	7.7%
Age 2-3 (Year 3)	731-1095 days	14.9%	1508	2.501	13.2%	16.8%
Age 3-4 (Year 4)	1096-1460 days	14.0%	50	3.506	5.8%	26.7%
Age 4-5 (Year 5)	1461-1825 days	37.5%	88	4.503	27.4%	48.5%
Age 5-6 (Year 6)	1826+ days	53.8%	52	5.747	39.5%	67.8%

Aside from any financial considerations, it bears mentioning that Mirador has performed SUMS studies in the past and experienced a great deal of unexpected difficulty. First, I will describe cultural issues that arose on two occasions, in two different communities.

In 2017 Mirador commissioned Olivier LeFebvre to carry out a health study that included the use of SUMS devices to monitor cooking times. In the community of La Esperanza, Copan Ruinas, even after careful selection and preparation, the study participants were largely unwilling to collaborate. One community leader commented that the numbers on the SUMS devices were the "mark of the beast" and that those devices were related to the Antichrist. Despite providing an economic incentive to extremely poor families who had initially wanted to participate, of the 24 families selected, only 7 allowed us to place the device.

In 2018, a similar exercise was carried out in the community of Nejapa, El Níspero, Santa Barbara. Again we were met with outright rejection of the devices by several families, who believed the devices were "going to listen or watch them," despite our clearly explaining the limited function of the devices.

During that 2018 study, we also experienced mechanical failure of the devices, wherein over 50% of the devices failed. This necessitated a second-stage, follow-up study in order to remedy the unexpected decrease in sample size, driving the cost well above our original budget.

In addition, SUMS data can be complex and difficult to analyze. In an email to Mirador dated 26 June, 2020, Rob Bailis, a seasoned veteran of field studies, gave his unfiltered assessment:

"SUMS data can be really tough to analyze even for seasoned researchers. For my India study, we spent more time installing SUMS, replacing burned out units, and trying to make sense of the data than we spent on any other aspect of the project (KPTs, emissions, exposures, 3 rounds of HH surveys, etc). Total pain in ass..."

It may also bear mentioning that our emission reduction calculations are based on absolute fuelwood consumption, rather than cooking times. Thus, SUMS data would not affect ERs in any way other than to confirm whether a stove is abandoned or in use. KPT data is of material importance, not time in use.

Given the uniquely robust and accurate monitoring program we have in place, Mirador requests exemption from Level C, CMS monitoring to substantiate usage over 90% in stove age groups 1 & 2.

VVB opinion (if applicable):

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3.2 | Assessment of the deviation:

Use the space below to describe how the deviation complies with the requirements, and accuracy, completeness, conservativeness, as applicable is ensured. Please include all relevant information in support of the request.

The “Rule Update: Requirements and Guidelines for carrying out usage surveys for projects implementing improved cooking devices” is accounted for as follows:

The weighted average usage rate across the total stove population for which ERs are claimed is below 90%. However, stove age groups 1 & 2 show usage above 90%. We understand that the clarification issued 06/07/2020 requires Level C – Best Practice if we are to report usage above 90% for any age group. However, most stoves receive two visits in the first year of operation, and most also receive a third visit in the second year. Because we are in direct contact with our beneficiaries, in their homes, we are in a unique position to assess abandonment. Our sample size for the first two age groups of stoves is more than 10,000% of the Gold Standard’s minimum requirement of n=30. Thus, we can say with confidence that our abandonment data, for those two age groups in particular, is correct.

On approval of this deviation request, PP will continue to report our monitored abandonment rates rather than reduce arbitrarily to 90%. We will continue to monitor in compliance with Level B – Good Practice. Accordingly, the requirements for both Level A and Level B are observed, as detailed below.

A. Mandatory Monitoring Requirements

Step 1. Defining stove use and non-use

Stove is considered out of use if the visual or verbal check reveals any of the following:

- The beneficiary states they have stopped using the stove
- The stove mouth, chimney or plancha have been removed or modified
- The chimney has deteriorated beyond the point of efficiency
- The stove is otherwise no longer reasonably intact as built
- The stove appears to be out of use (i.e., the stove is cold at the time survey is taken, and clothes/dishes/other household items are sitting on top of it, etc.)
- The beneficiary has moved out of the house
- Traditional cookstove or project cookstove other than the Dos por Tres is in primary use (note that minimal use of other stove types

for isolated cooking tasks is factored into ER calculations as leakage)

- Ash is not present, indicating the stove has not been used

Step 2. Household Usage Survey

- Kitchen Observation – Mirador surveyors visit each household and interview the beneficiary in person.
- Interview with the primary cook – At each household visit, the primary cook is interviewed if present, verbal responses are corroborated by visual check and hand-on assessment of the cookstove, and stove stacking is accounted for when applicable.
- Photos of the cooking area – At each household visit, Mirador supervisors take a photo of the cook next to the Dos por Tres. Photos are stored in our Salesforce.com monitoring database and correlated to each household record such that the photos can be downloaded in whole or in part, with household data attached, at any time.
- GPS Coordinates – GPS location is noted and automatically entered into our Salesforce.com monitoring database at the time of each household visit.

Step 3. Verification Checks

- Rule update requires that the project developer telephone a randomly selected 5-10% of the surveyed households to verify that homes were visited by surveyors and the recorded responses are correct. While this may make sense for a smaller sample size, Mirador collected 19,319 usage surveys in the 10th VP, indicating we would be required to call between 966 and 1,932 households, which is not practical. Understanding that the spirit of this rule is to ensure our supervisors are performing their duties with accuracy, we have several safeguards in place to ensure this is the case.
 - Mirador's IT Manager and Director of Supervisors track every supervisor by GPS tracking software that shows where each supervisor is at a given time, as well as maintains a permanent record of which households were visited and how long the supervisor spent in each home. This information is reviewed daily and supervisors are contacted if anything looks amiss.
 - When a home is closed, and thus a survey cannot be collected, it is marked as closed. When a home is open, a survey is collected. The GPS tracking software makes it is easy to tell if a supervisor has not spent enough time in an open household to perform a complete survey, thus protecting against false data collection.
 - Supervisors collect a GPS mark at each household which is tied to the survey record in Salesforce.com. Each survey

record is in turn correlated with the main household record for each stove.

- Supervisors perform repeat visits to each village, and typically a household is surveyed 3 times post-construction. If there are inconsistencies between data from one visit to the next, it is likely to be caught by a supervisor.
- The sheer number of detailed, on-site usage surveys we conduct indicates a much higher level of attention to detail than most projects are able to replicate. Talking with beneficiaries on the phone cannot provide the same assurance that the stove is in use, regardless of how beneficiaries respond.

B. Good Practice Monitoring Requirements

Field team training and supervision:

- Mirador supervisors undergo a 2-3 day intensive training workshop, plus a full month of training before they are allowed to collect surveys without another supervisor or manager present.
- Mirador maintains consistency by ensuring all supervisors are trained directly by the Director of Supervisors, using consistent training materials; and all supervisors are trained in use of the Salesforce.com monitoring system and use the same survey form.
- In Salesforce.com, the survey form itself ensures supervisors are not left to guess whether a stove is in use. Detailed questions are included and based on those answers, the system (based on predetermined rules) makes the decision as to whether or not the stove is in use. This is recorded automatically in a calculated field that is used for reporting abandonment to the Gold Standard.
- Mirador's Director of Supervisors and IT Manager work together to continually monitor and review field staff and provide re-training on data collection practices as necessary.

End-user Training and follow up visits:

- When it comes to beneficiary training, Mirador is a leader in the cookstove arena. As stated earlier in the Monitoring Report, "Proyecto Mirador's Monitoring System includes extensive training of stove beneficiaries at various stages in the stove construction process, including Community Meetings staged by the Ejecutor before construction; a home visit by an inspector to determine the correct stove location and assess appropriateness of the household prior to construction; direct training at the time of construction; and multiple follow-up visits after construction. Mirador has invested in a sophisticated, highly customized electronic monitoring system built on the Salesforce.com platform to monitor all aspects of our

operations and to bring us closer to our clients. We are constantly refining our design, construction and supervision practices to optimize efficiency and guarantee successful stove adoption.”

Awareness campaign:

- Beneficiaries are informed of the benefits of proper use and maintenance at each pre-construction Community Meeting, then individually trained at construction, and again individually trained (and the maintenance process fully reviewed) at each subsequent supervisory visit.
- Each beneficiary receives a *Cinco* maintenance tool to perform the 5 steps needed to keep their stove in good order and functioning efficiently.
- Additionally, a Use and Maintenance brochure is left behind with each beneficiary, reminding them of the maintenance steps and use of the *Cinco*.
- All training and follow up visits are recorded permanently in our Salesforce.com database.

VVB opinion and recommendation (if applicable):

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3.3 | Impact of the deviation:

Use the space below to describe the impact of the deviation on project design, safeguarding principles assessment, SDG assessment, emissions reductions, monitoring frequency, data quality, potential risk or any other relevant aspect of the project. Please substantiate the impact assessment with relevant and verifiable data/information.

This deviation upholds every aspect of the project design and monitoring plan as written and accepted in the PoA and VPA project documentation and reflects the monitoring plan submitted and approved for VP9 and VP10, which are the two verification periods issued thus far under GS4GG. There is no impact on SDG assessment or safeguarding principles.

Monitoring frequency is not affected; PP will continue to supervise households and monitor usage on a continuous basis. Continued execution of our robust monitoring system, with in-person visits and electronic tracking in Salesforce.com, ensures data quality is sound.

Emission reductions are impacted minimally. For example, and as explained in 3.1 above, during VP10 Mirador would have lost only 231 VERs (0.084% of total credits) by reporting 90% usage for Years 1-2.

Imposing an artificially abandonment rate would jeopardize the credibility of our project and the figures we report; it would also erode the sense of trust we have cultivated with our long-term buyers. Much like the Gold Standard, Mirador prides itself on the accuracy of its reported figures and in this case, the “conservative” approach of imposing an arbitrarily low usage rate does not stand the test of accuracy.

Mirador has shown itself to be trustworthy and robust, with our monitoring system far surpassing the minimum requirements. If the GS has implemented the Rule Update out of concerns that the usage rates of other projects are overreported, not only will this affect buyers’ perception of individual projects, but it could in turn erode buyers’ trust in the standard. We are concerned that the GS is dictating an arbitrary system that is substandard to the system we have implemented. If there is no reason to doubt Mirador’s reported figures, we request that the Gold Standard honor its commitment to accuracy and allow us to proceed with the monitoring program in place, exclusive of CMS monitoring.

VVB opinion (if applicable):

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3.4 | Documents:

List of documents provided

VP10 Dropoff Data_Rob Bailis.xlsx

Usage data from VP10, with statistical analysis by Rob Bailis, PhD, showing upper and lower bounds of 95% CI for each age group.