VERIFICATION AND CERTIFICATION REPORT

Overlook International Foundation

Enhanced Distribution of efficient wood stoves in Honduras

SGS Climate Change Programme
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Enhanced distribution of efficient wood stoves in Honduras	
Organisation:	**Client:**
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Final Monitoring Version and Date:	V3, 07/02/2011

Summary:

SGS United Kingdom Ltd has performed the first periodic verification of the project 'Enhanced distribution of efficient wood stoves in Honduras' (GS Ref no. GS690). The verification includes confirming the implementation of the monitoring plan of the registered PDD GS 690 and the application of the monitoring "Methodology for Improved Cook-stoves and Kitchen Regimes, V.01". A site visit was conducted during December 8-12-2010 to verify the data submitted in the monitoring report. SGS confirms the following has been reviewed;

(a) The registered PDD, including the monitoring plan and the corresponding validation report;

(b) Monitoring report;

(c) The applied monitoring methodology;

(d) Relevant decisions, clarifications and guidance from the Gold Standard; and,

(e) All information and references relevant to the project activity's resulting in emission reductions

The objective of the project 'Enhanced distribution of efficient wood stoves in Honduras' is to substitute traditional inefficient firewood-stoves (*fogon stoves*) by installing improved state of the art wood stoves (*La Justa Model 2x3*). While deploying these efficient wood stoves, the project brings significant health improvements by reducing indoor air pollution, given that the project's design features include an energy efficient stove including a chimney that takes the smoke out of the house, as opposed to the baseline stove that in most cases vents smoke inside the house. In addition, the project's stove is culturally and socially compatible with rural Honduran cooking patterns and it has been engineered to make a more efficient use of heat-energy, which significantly reduces consumption of firewood needed in the baseline scenario, therefore resulting in reductions of greenhouse gas (GHG) emissions that are real, measurable and give long-term benefits to the quality of life at the host communities as well to mitigation of climate change.

SGS confirms that the project is implemented in accordance with the validated and registered Project Design Document. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the project's GHG emissions and the resulting GHG emission reductions reported and related to the valid and registered project baseline and monitoring and its associated documents. Based on the information seen and evaluated we confirm that the implementation of the project has resulted in **12,368** tCO2e emission reductions during the period 01/05/2009 to 30/11/2010.

Subject:	
GS Verification	
Verification Team:	
Siddharth Yadav – Lead Assessor Anshuman Shukla – Assessor Tim Longwell – Expert, Local Assessor	☒ No Distribution (without permission from the Client or responsible organisational unit)

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Abbreviations

CAR	Corrective action request
CL	Clarification request
PM	Proyecto Mirador
VERs	Gold Standard Voluntary Emission Reductions
DOE	Designated operational entity
DNA	Designated national authority
FAR	Forward action request
GS	Gold Standard
GHG	Greenhouse gas(es)
IPCC	Intergovernmental Panel on Climate Change
NRB	Non renewable biomass
PDD	Project Design Document

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1. Introduction

1.1 Objective

SGS United Kingdom Ltd has been contracted by Overlook International Foundation to perform an independent verification of its first monitoring period for the GS project "Enhanced distribution of efficient wood stoves in Honduras". GS projects must undergo periodic audits and verification of emission reductions (similar to GS projects) as the basis for issuance of Certified Emission Reductions (CERs).

The objectives of this verification exercise are, by review of objective evidence, to establish that:

- The monitoring report conforms with the requirements of the monitoring plan in the registered PDD and the approved methodology; and,
- The data reported are complete and transparent.

1.2 Scope

The scope of the verification is the independent and objective review and ex post determination of the monitored reductions in GHG emission by the project activity. The verification is based on the validated and registered project design document and the monitoring report. The project is assessed against the requirements of the Gold Standard.

SGS has, based on the recommendations in the Validation and Verification Manual, employed a risk-based approach in the verification, focusing on the identification of significant reporting risks and the reliability of project monitoring.

The verification is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Project Activity and Period Covered

This engagement covers emissions and emission reductions from anthropogenic sources of greenhouse gases included within the project boundary of the following project and period.

Title of Project Activity:	Enhanced distribution of efficient wood stoves in Honduras.
Gold Standard Registration Number:	GS 690
Monitoring Period Covered in this Report:	01/05/2009 to 30/11/2010
Project Participants:	Proyecto Mirador LLC, Santa Barbara, Honduras Overlook International Foundation, Kentfield, California, USA
Location of the Project Activity:	The project area encompasses installation of La Justa 2X3 cooking stoves across four provinces in the western highlands of Honduras: Santa Barbara (SBA), Copan (COP), Lempira (LEM) and Intibucá (INT)

2. Methodology

2.1 General Approach

SGS' approach to the verification is a two-stage process.

SGS completed a strategic review and risk assessment during the process of defining the periodic verification checklist. This comprised:

- Activities associated with all the sources contributing to the project emissions and emission reductions, including leakage if relevant;
- Protocols used to estimate or measure GHG emissions from these sources;
- Collection and handling of data;
- Controls on the collection and handling of data;
- Means of verifying reported data; and
- Compilation of the monitoring report.

The Periodic Verification Checklist is based on the risk assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

Using the Periodic Verification Checklist, SGS verified the implementation of the monitoring plan and the data presented in the Monitoring Report for the period in question. This involved a site visit and a desk review of the monitoring report. This verification report describes the findings of this assessment.

2.2 Verification Team for this Assessment

Name	Role
Siddharth Yadav	Lead Assessor
Anshuman Shukla	Assessor
Timothy Longwell[1]	Expert & Local Assessor

2.3 Means of Verification

2.3.1 Review of Documentation

The validated PDD, the monitoring report submitted by the client and additional background documents related to the project performance were reviewed. A complete list of all documents reviewed is attached in section 8 of this report.

[1] Prof. Timothy Longwell was involved in the elementary studies, but his involvement did not involve any financial benefits received from the Project Proponent at any stage of the project.

2.3.2 Site Visits

As part of the verification, the following on-site inspections have been performed by members of the assessment team

Location: Santa Barbara province, Honduras.	
Date: 09/12/2010 – 11/12/2010	
Coverage:	**Source of Information / Persons Interviewed**
1. Assessment of the implementation and operation of the project activity as per the registered PDD. Overall management of Proyecto Mirador, LLC, Industry research, project research coordination	Richard Lawrence, Director, Overlook International Foundation & Proyecto Mirador Foundation. Dee Lawrence, Co-Director, Overlook International Foundation & Proyecto Mirador Foundation
2. Review of information flows for generating, aggregating and reporting the monitoring parameters. Overseeing Honduras administration and management.	Doña Emilia Mendoza, President, Proyecto Mirador, LLC.
3. Management of PM supervisors and Contratistas, Overseeing of stove building operations, stove research and development.	Elder Mendoza, Chief Operations Officer, Proyecto Mirador, LLC .
4. Review of 2007 baseline study, 2009 NRB study and 2010 Fuel wood consumption study.	Robert Bailis, PhD, Assistant Professor, Yale School of Forestry & Environmental Studies Contributing author to the Gold Standard Kitchen Methodology
5. Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan.	Doña Emilia Mendoza Elder Mendoza Elder Herezano, Supervisor, Proyecto Mirador Supervises stove technicians; training of beneficiaries; conducts monitoring surveys Freddy Pineda, “Contratista” - Third party entrepreneur trained extensively under PM regimes, Supervises Stove Technicians Maynor Gutierrez, Stove Technician, Builds stoves under Freddy Pineda (Contratista described above)
6. A cross-check between information provided in the monitoring report and data from other sources such as surveys and sales receipts;	Richard Lawrence, Esther Adams, Doña Emilia Mendoza
7. A check of the monitoring plan and observations of monitoring practices against the requirements of the PDD and the selected methodology;	Richard Lawrence Dee Lawrence, Doña Emilia Mendoza Elder Mendoza.

8. Review of calculations and assumptions made in determining the GHG data and emission reductions; 9. Identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.	Doña Emilia Mendoza, Esther Adams,

2.4 Reporting of Findings

As an outcome of the verification process, the team can raise different types of findings

In general, where insufficient or inaccurate information is available and clarification or new information is required the team shall raise a Clarification Request (CL) specifying what additional information is required.

Where a non-conformance arises the team shall raise a Corrective Action Request (CAR). A CAR is issued, where:

I. Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;

II. Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;

III. Issues identified in a FAR during validation to be verified during verification have not been resolved by the project participants.

The verification process may be halted until this information has been made available to comply with the requirements of the Gold Standard. Failure to address a CL may result in a CAR. Information or clarifications provided as a result of a CL may also lead to a CAR.

A clarification request (CL) will be raised if information is insufficient or not clear enough to determine whether the applicable GS requirements have been met. All CARs and CLs raised during verification shall be resolved prior to submitting a request for issuance.

Corrective Action Requests and Clarification requests are raised in the Periodic Verification Checklist. The Project Developer is given the opportunity to “close” outstanding CARs and respond to CLs and Observations.

Forward Action Requests (FARs) may be raised during verification for actions where the monitoring and reporting require attention and/or adjustment for the next verification period. Observations may be raised which are for the benefit of future projects and future verification actors. These have no impact upon the completion of the verification activity.

All CARs, CLs and FARs for this verification period are included in this report.

2.5 Internal Quality Control

Following the completion of the assessment process and a recommendation by the Assessment Team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.

3. Verification Findings

3.1 Project Implementation - General

Referring to the project information on the on the GS websitehttps://gs1.apx.com/mymodule/ProjectDoc/EditProjectDoc.asp?id1=690, the project has been registered as a GS project activity against methodology "Methodology for Improved Cook-stoves and Kitchen Regimes V.01"on 29/06/2010. This verification is conducted for the monitoring period from 01/05/2009 to 30/11/2010.

During the first monitoring period the installation of the new La Justa 2x3 stoves takes place in accordance with project's description in the registered PDD. The project area encompasses the following four provinces in the western highlands of Honduras: Santa Barbara (SBA), Copan (COP), Lempira (LEM) and Intibucá (INT). The geographical range of project activities covers the following provinces:

Province	Municipalities	Approximate population
Santa Barbara	28	342,054
Copan	23	288,766
Lempira	28	288,766
Intibucá	17	179,862

QA/QC procedures, as detailed in the registered Project Design Document have been followed during the implementation of the project. However, the discrepancies in the monitoring of parameters and monitoring approach in the monitoring report that are not consistent with the registered PDD in terms of unit and measurement procedures are discussed. The data/parameters that are monitored for the calculation of emission reductions are also discussed in the following sections:

Data and Parameters Monitored

ID 8 / Stove Sales

The sale of the stoves during the said monitoring period were verified through hard copies of the original records. CL#4 was raised on the monitoring and reporting procedures implemented for the project because the MR and PDD had different terms used for people involved in maintenance of stove sales database. The MR says that the electronic database for stove installation will be maintained by PM's community organizers while the PDD stated that the database would be maintained by an inspection and monitoring specialist. The difference was between "community organizers" and "inspection and monitoring specialist" and their respective roles were not clearly specified.

In response, the PP said that the project monitoring protocols were modified from when the PDD was registered. Under current practice, PM Supervisors provide stove installation records to the Administrative Assistant in Honduras, who compiles and computerizes the records and reports them monthly to the Program Manager in the California office where the master sales database is maintained. The same supervisors were previously referred to as inspection and monitoring specialist in the PDD. Overall, the supervisors are responsible for overseeing the construction and dissemination of stoves; conducting the training of stove beneficiaries at every level; conducting and reporting the Leakage and Sustainability Surveys; as well as reporting all stove sales data to the offices located in Honduras and Santa Barbara.
Having verified the organisational structure in PM, the modified protocols in practice and after interviewing the related personnel, the distinction between the two working titles was clear and CL#4 was closed out.

CL#4 was also raised because the first MP covering the period from 01/05/2009 up to 30/11/2010 reported sales of 6727 stoves. This included an estimated 500 stoves installed for the month of November 2010. Since the total number of stoves installed during the MP is a critical parameter for calculation of emission reductions, the PP was asked to provide the exact number of stoves installed during the month. It was verified through checking the original logs/manual records on site that the number of stoves installed during the month of November 2010 was 394. As a result of this, the number of stoves during the MP was reduced from 6727 to 6621 which was then used for the calculation of emission reductions /11/, /12/.

As a result of CL#4 the following modifications were made in the MR:

- The QA/QC Procedures described in MR Parameter ID 8 were modified to reflect current practice.
- MR Parameter ID 8 was amended to 6,621 stoves installed during the First Monitoring Period as a result of replacing the estimated number of stoves during the month of November 2010 with an exact verifiable number of stoves installed for the month.

The project participants also amended the monitoring report to clarify that the Inspection and Monitoring Specialists referred to in the PDD would now be known as 'Supervisors' in future verifications.

ID8, was also found to have different parameters for recording information in the PDD and MR. In the description of measurements and procedures to be applied, the PDD proposed to include a set of questions, one of which was not mentioned in the MR. The question was regarding the model of gas stove prior to the installation of the La Justa 2x3. The MR neither mentioned the model of stove used prior to the installation of La Justa 2x3 nor did it mention the stove being installed. CL#3 (1) was raised. The PP replied saying that the start of the crediting period was delayed in order to ensure that the La Justa 2x3 was the only stove that was installed since the GS credits would be applicable only to the La Justa 2x3. The issue "Type/Model of Stove" had been thoroughly addressed in all documentation and they believed that it was thoroughly understood that the project is only concerned with the La Justa Model 2x3 stove, which had result in the mention of the model name from the survey regarding stove sales. Therefore, it was not necessary to include it in the monitoring plan. The model of stove used before the installation of the La Just 2x3 was the traditional fogon stove in all the households and therefore the question regarding the "model of stove prior to the installation of La Justa 2x3" was not deemed necessary. This justification was accepted on the basis of the interviews conducted by the SGS team on site and CL#3 (1) was closed out. CL#3 was raised in two parts, the second of which was related to ID12 and is discussed in the relevant section on ID12 regarding possible leakage effects.

ID 9 / The mass of woody biomass consumed during cooking in the project in year y.

The MR v1 reported a value of 2.73 mtCO_2e /year. This figure was reported on the basis of the Biannual Fuelwood Consumption Study (Aging Stove KT). This value, however, is the annual emission reduction per stove per year (as mentioned in the emission reduction calculations). CAR#6 was raised and the PP was asked to provide the actual value of the woody biomass consumed in tonnes. ID 9 mentions the data unit as tonne (mass of woody mass consumed during cooking in year y). However, the value reported is 2.73MT CO_2e/ year which is incorrect since this was the ER achieved per stove per year in the first year of its operation.. A value of 5.826 woody biomass in kg/household/day /14/, /15/ has now been applied. Multiplying it by 365 gave a total of 2,126.47 kg fuel wood consumed per household per year. The MR was also modified accordingly. CAR#6 was closed.

For data collection the client uses surveys in Spanish and had provided English translation of the surveys. During site visit it was found that the English translation did not correspond to the original Spanish questionnaire. CL#7 was raised. The PP was asked to provide the correct translation of the format and also a clarification of the impact of the error if any, due to the missing text in the translations. The correct translation of the questionnaire was provided /19/. There is no impact of the error because the correct values are transcribed from the Spanish document.

ID 10 / $EF_{pj,bio,co2}$ CO_2 emission factor for use of the biomass fuel in the project scenario

This parameter represents the CO_2 emission factor for use of the biomass fuel in the project scenario. The emission factor of 98.3 g/MJ was obtained in laboratory testing of La Justa 2x3 model stoves. Data was obtained by use of the net calorific value (NCV) of wood 18.6 MJ/kg. There has not been any change in the value of this parameter since the ex-ante determination (project's registration) and therefore this value is accepted. Biennial measurement (once in two years) is deemed sufficient in order to monitor the temporal changes, if any.

ID 11 / Continued use of stoves over time

The monitoring of this parameter requires measuring the drop off or the abandonment rate of the installed La Justa 2x3 stoves through surveys or visual observation. The PDD states that this shall be done through a survey of 50 beneficiaries who had stoves installed within the first 12 months of the crediting period. Abandonment of installed stoves comprises of either a complete reversal to the traditional fogon stove or altering the design of the installed stove which in most cases includes the removal of combustion chamber, or changing the orientation of the installed chimney. This affects the efficiency of the stove since the original configuration has been used in Kitchen Tests and is paramount to the calculation of emission reductions. Any deviation from the original configuration is treated as abandonment and renders a stove unsuitable for use in emission reduction calculations. As reported in the MR a total of 1787 households were surveyed in 2009 and 2010; of these only 28 stoves were found to be out of use. This indicated a drop off rate of 1.57%. However, the PP had used a figure of 3% (conservative) as the drop off rate and used it in the emission reduction calculations.

SGS reviewed the figures presented in version 1 of the monitoring report, however in order to arrive at reasonable assurance on the reported abandonment rate, SGS staff (assisted by staff from University of Zamorano) carried out surveys during site visit for verification assessment. SGS team selected a random sample and initially surveyed 30 households, and found that 3 households had made alterations to the stove (mainly Chimney was modified); since this abandonment rate was higher than the reported figure of 3% ; SGS teams decided to increase the population size further to 117 households in 3 different regions (populations). During the surveys it was found that a total of 9 out of 117 households had either altered the configuration of the La Justa 2x3 or had given up its use altogether (one case reported). To be conservative, any modification or alteration of the La Justa stove was classified as abandoned stove. This figure arrived through SGS surveys on site is a higher percentage (and therefore conservative) than the monitoring approach to measure actual drop off rate used in the emission reduction calculations in version 1 of the monitoring report, which is in accordance with the registered PDD.

CL#8 was raised on this issue, regarding the QA/QC procedures. ID11 state that the questionnaire for the household drop off rate will include the query "Is your La Justa 2x3 still in use". A clarification on the monitoring and reporting of data and the later transcription to the monitoring report was sought alongside a further clarification on the dates of the surveys. In response the PP provided details of the dates when these surveys were done (/17/ /18/) which were verified by SGS and were found to be correct. Furthermore, with regard to SGS findings wherein a higher drop off rate was found; the PP agreed to adjust the parameter ID11 to reflect a 7.5% drop off rate for entire population (installed stoves). The number of households selected for surveys (sample) factors in the diversity of the population and the size of population reported during the first monitoring period. The total emission reduction calculation was updated accordingly to reflect the verified dropoff rate (/16/). As a result of the CL requested by SGS regarding the tracking of the drop off rates going forward, PP decided that drop off should be tracked as part of the Maintenance Surveys conducted by Stove Technicians in a majority of households 4 to 6 weeks after stove installation. A column was has been added to the Maintenance Surveys to read, "Mark **X** if the La Justa 2x3 has been altered or is no longer in use." All future Leakage and Sustainability Survey would also include the survey collection date and that date will be tracked and reported continuously going forward.

Another minor confusion regarding the frequency of the surveys was also addressed in CL#8. As per the GS methodology, SGS initially understood that surveys for drop off rates and for calculation of woody biomass are to be done Biannually (twice a year) when, in fact, the requirement is once in two years (Biennially).

Page 24 of the Methodology, item #3, where "biannually" states the following:
"A Usage Survey should be undertaken not less frequently than bi-annually (every two years) for sales made in the first year of the project…"

A suggestion for correction in the GS methodology was made and the MR was modified accordingly to use biennial surveys instead of biannual surveys. CL#8 was closed.

CL5 was raised because the emission reduction calculation was not very clear in terms of the total emission reductions achieved by the project. The revised monitoring report (version 3) is now supported by the detailed emission reduction calculations. Also refer to the discussion on CL4 and file'*ER calculations_ Rev.103009 Ex ante estimation of emission reductions (revised)'.*

ID 12 / Leakage

This parameter includes possible leakage effects due a number of factors including rebound effects, use of alternative high emission fuel, use of an alternative second stove in the household and the length of time the La Justa 2x3 stoves are used each day. The compilation of data is based on the queries listed in the survey questionnaires /10/.

CL#3 (2) was raised because ID12 has 5 parameters mentioned in the PDD whereas the MR incorporates two extra parameters. The PDD mentions monitoring of a) Rebound effects, b) Stimulation of increased amount of a high emission fuel, c) promotion of new stove type stimulates substitution of cooking fuel or stove type with relatively high emissions, d) loss of space heating causes users to use alternative sources of (and thus, a greater amount of) fuel, and e) traditional stoves are reused. In addition to these five parameters, the MR also mentions monitoring statement regarding a) other types of stoves present in the household, and b) length of time this stove is in use each day. The QA/QC procedures for ID12 in the MR also do not mention using these two add-ons and say that questions would include assessment of statements regarding parameters a-e when it should in fact, now be a-g. In response the PP said that during the Registration Review process with the Gold Standard, there were frequent questions regarding whether or not there was a "Presence of old stove in the household" and "Length of time the stove was on each day. SGS teams confirmed during the site visit that the auxiliary stoves were only in use for 20-25 minutes mainly for roasing coffee beans, while La Justa 2x3 is used throughout the day (about 8 hours). The interviewed households also confirmed that the auxiliary stoves (mainly gas based) were used in the baseline too, and there is no change in the cooking regime. In SGS' opinion the existence of auxiliary stoves does not contribute to excess emissions because these were also present before LA Justa 2X2 was installed.

The typo in the QA/QC section of MR Parameter ID 12 was be adjusted to read "a-g" instead of "a-e". This justification provided and correction in the MR was accepted and CL#3 (2) was closed out.

During the site visit it was observed that the reported households were using the installed La Justa 2x3 but some of these also had a functional fogon stove/auxiliary fossil fuel based stove. CI#9 was raised where the PP was asked as to explain the issue in the context of the use of the second stove in the baseline scenario. The use of stoves requiring high emission fuels and the length of time these auxillary stoves are used was also raised. In response, the PP said that in the project scenario where an auxiliary stove is present, the auxiliary stove is in use an average of 22.26 minutes per day. This was based on 388 households surveyed /10/ in the MP. Out of these 388 households, 90 had access to an auxillary stove and they were used an average of 22.26 minutes each day. The users stated that installation of La Justa 2x3 actually has resulted in lower usage of the auxillary stove because of the increased efficiency and ease of use of the La Justa 2x3. It was cross checked with the households surveyed during the site visit that the use of the fogon was negligible and the use of fossil fuel based stoves was less than 2 hours weekly; primarily for roasting of coffee beans. Hence the figures used by PM are conservative.

In order to address this issue more efficiently the PP has proposed to include an extra question in the surveys /9/:

- *Q18. Before installing the Justa stove, how long did you use the other stove (gas or electric)?*
- *(More / Less / Same)*

Together with Questions #16 and #17 in the questionnaire, which address the existence of auxiliary stoves in the project scenario, they hope to assess whether or not the installation of the La Justa 2x3 stimulates higher use of the auxiliary stove.

ID 13 / Leakage due to transportation

This parameter takes into account the total number of kilometres driven by PM employees and is also presented as %. A value of 43,088 km driven within the First Monitoring Period was verified against the data sets available on site. Ratio of the total annual number of miles driven by Proyecto Mirador employees to total stoves built presents a percentage figure /10/. During verification it was found that the distance was actually being tracked in kilometres rather than miles and CL#10 was raised in this regard. The data unit reported in MR (% ratio) was also not consistent with the proposed unit in the PDD (miles). As a result of this clarification the PP agreed to revert to the original unit mentioned in the PDD and report the distance in kilometres as opposed to miles. The emissions arising due to the transportation of La Justa stoves are accepted as 'de minimus' considering that much of the mileage incurred by the project is neutralised by the corresponding reduction in fuel spent in the practices of transporting wood in the baseline scenario. Also, the stoves are made locally, with materials sourced from within the project boundary.

ID14, ID15 and ID16 / Sustainability indicators:

The Gold Standard Passport, Section G. 'Sustainability Monitoring Plan' states that the project has no negative indicators and therefore no mitigation measures were proposed. The content of the sustainability monitoring plan was validated by SGS and accepted by the Gold Standard while registering the project.

The monitored parameters discussed in the monitoring report version 3 are as follows:

1) ID14 - Assess agreement with statements in Sustainability Monitoring Plan Sections Passport Issues 1, 7, & 9. Air Quality, Livelihood of Poor, Human & Institutional Capacity. Surveys, are undertaken on an ongoing basis. This is carried out and administered by Proyecto Mirador's Supervisors and Community Organizers /08/, /09/. The requirement for monitoring of these issues (1,7 & 9) is two years after the installation of stoves and therefore although the issues were checked during the onsite visit and the impact of implementation of project on air quality, livelihoods and institutional capacity was positive, these are not dealt in detail in this report. .

2) ID15 - Monitoring Plan sections regarding wider social and economic impact of the project including passport issues - 6. Quality of Employment, 10. Quantitative employment and income generation, 12. Technology Transfer (to stove builders).

   This included surveys of employees, management report on number of employees, and copies of training materials used by employees /22/, /23/, /24/. The PP provided the annual written report of number of employees and record of employee surveys. GS passport's Sustainability Monitoring Plan, Section G, which includes an assessment of #6, Quality of Employment (reported by means of an annual employee survey), and #10, the Quantitative Employment and Income generation of the project, (addressed in an annual report on the quantity and type of jobs created by the project). Regarding technology transfer, it was proposed that all the employees who construct stoves would undergo a paid training period.

During the site visit, SGS team witnessed the stove construction by local staff trained specifically under the supervision of Proyecto Mirador management and technical support staff. SGS confirms that the project has contributed to technology transfer locally within the region.

SGS Teams questioned Proyecto Mirador staff regarding their qualitative aspects of employment as outlined in section G (page 27) in order to confirm the statement made by Proyecto Mirador management. SGS can confirm that the implementation of the project has resulted in increase in employment and the employees confirmed that the working environment and job conditions are considerably better than the pre-project scenario.

During the site visit SGS Team visited 117 households and confirmed that the implementation of the project continues to have a positive impact on sustainable development. SGS further confirms that a positive score is achieved as per parameter no. 6, 8, 10, 12 of the monitoring requirements, which is detailed in the sustainability monitoring plan.

3) ID16 - social and economic impact of the project including, 7. Livelihood of the poor (wood is collected or bought), 12. Technology Transfer to users (do they know how to maintain and use their stove properly) Sustainability assessment surveys /08/ were done to assess the parameter. In addition, 904 households were surveyed to determine what health problems existed before and after stove installation. Among those who reported having health issues when using the *fogon,* the vast majority reported improved health after receiving the La Justa 2x3.

In the current MR accumulated results of 1,788 monitoring surveys have been reported. These include leakage, sustainability and qualitative fuel use data. The results of all the 1,788 surveys have been compiled and reported in ANNEX MR-10: "MR10_Monitoring Data Combined.xls" /14/. As part of sustainability monitoring and as has also been mentioned in GS passport, the PP proposed to do an annual employee survey (this would be done through employee questionnaire as mentioned above). The results of the survey and the actual survey were verified during site visit /11/, /12/, /13/. As part of the passport MP, section G #12 regarding technology transfer which includes training on stove use, technology, and installation, it was also verified that training has been provided to all the stove beneficiaries on an on-going basis. PM employees involved in stove installation have also undergone a paid training period. It was verified that there is no negative impact because of the implementation of the project. Overall, all of the sustainability indicators monitored had either a neutral or a positive impact.

CL#1 was raised by SGS to seek a clarification on the inclusion of sustainability indicators. There are no negative impacts of the project as reported in the registered PDD and the gold standard passport. As part of the clarification the PP was also asked to provide a summary of the improvement of the surveys undertaken and the improvement in the format during the monitoring period. In response the PP said that they included parameters ID14, ID15 and ID16 in the Monitoring Report under the assumption that Sustainability indicators were to be monitored regardless of whether or not negative impacts to sustainability were observed. Since there were no negative impacts on sustainability they proposed to remove these three parameters (ID14, ID15, and ID16) from the Monitoring Report. However, in order to guarantee their awareness of any negative sustainability indicators that may arise in the future they would still continue to include questions #1-13 in their surveys (/08/, /09/). They also mentioned that during the course of their application to the Gold Standard, the surveys used to monitor sustainability parameters have gradually improved for greater logic and clarity, and to ensure that all monitored parameters are covered as efficiently and completely as possible. Their response was found to be acceptable by the verification team and CL#1 was closed out. It was also suggested to the PP that there was no need to remove these parameters from the MR since they gave more clarity to the sustainability analysis and overall project implementation.

Parameters available at validation

ID 2/ $B_{bl,y}$ - The mass of woody biomass consumed during cooking in the baseline scenario

CAR#2 was raised because: a) ID2 which was the woody biomass consumed per household per year had different values reported in the PDD and the MR, and b) the value of emission reduction achieved per stove per year had been mentioned in the PDD as 2.23 $mtCO_2e$/year per stove but the value is reported as 2.73 $mtCO_2e$/year per stove in the Monitoring Report version 1.

The PP justified the change in value being due to an increase in the stove efficiency of the La Justa 2x3 which was proved in the Aprovecho 2009 study. The values reported in the PDD were obtained for an earlier model of the La Justa which was not as efficient as the model currently being installed. The PP also mentioned that the MP included only the period during which the latest model of the stove La Justa 2x3 was installed and none of the earlier models were installed during this period.

The value that was registered in the PDD was 3.97 tonnes per household which was based on the kitchen test (KT) that was done during the Yale 2007 study by Dr Rob Bailis, Yale University and this is now replaced with the data obtained in the 2010 Paired Fuelwood Consumption Study as described in Section A.5 of the Monitoring Report.

A value of 2.23 $mtCO_2e$/year per stove was based on Yale 2007 study, this study was done on an earlier model of La Justa that was less efficient than the current model of La Justa 2x3. As a result of factoring in stove efficiency improvements of model 2x3, applying emission factors measured in laboratory tests (Aprovecho, April 28, 2009), and adjusting for an NRB fraction explored and quantified within the Yale 2007 Study as well as the Yale 2009 Study the new value obtained was different from the earlier value and points to a better efficiency for the new La Justa 2x3 stove.

A Forward Action Request was issued by the Gold Standard in the final Registration Review document in order to ensure a more accurate estimation of emission reductions for Verification. The later study - Fuelwood Consumption Study conducted in 2010 used a paired sample n=55, to measure actual fuelwood consumption using the La Justa 2x3. This included the new model of La Justa 2x3. The value 3.87 tonnes per household, which is reflected in the Monitoring Report, was calculated using the results of the 2010 Paired Fuelwood Consumption Study, by taking the average fuel wood consumption for the baseline scenario expressed in kg per day, multiplying by 365 days/year and converting to metric tonnes. This new value was reflected in the new `emission reduction calculations. CAR#2 was closed out.

> During Onsite Verification, SGS teams asked Professor Bailis to comment on the increase from 2.23 to 2.73 $mtCO_2e$/yr per stove. The detailed explanation of the issues discussed with Prof Bailis is provided in the findings overview summary of this report under CAR2.
>
> The change in the reported figure is for the following two main reasons:
> 1. The 2010 Paired Fuelwood Consumption Study suggests a number of 2.73 which is based on the 90% confidence interval and thus more closely conforms to Gold Standard Methodology, with a much larger sample size in the study.
> 2. The Yale 2007 Study measured the difference between the traditional *fogon* and the original La Justa, as the La Justa 2x3 had not yet been developed. The 2010 Paired Fuelwood Consumption Study reflects the current model La Justa 2x3 which was shown in lab tests (Aprovecho, 2009) to be more efficient than the original La Justa.

The above justification was accepted by SGS and CAR 2 was closed.

ID 1/ $X_{nrb,bl,y}$: The non-renewable fraction of the woody biomass harvested in the project collection area in year y in the baseline scenario. A value of 59% was applied based on Yale 2007 and Yale 2009 study. There is no change in this value applied for the current monitoring period.

ID 3/ $EF_{bl,bio,co2}$: The CO_2 emission factor for use of the biomass fuel in the baseline scenario. A value of 87.6 g/MJ is the emission factor measured in laboratory testing of traditional fogon stoves. Aprovecho Stove Test (28 April 2009) was used as the source of the data. There is no change in this value applied for the current monitoring period.

ID 4/ $EF_{bl,bio\ nonCO2,CH4}$: The CH_4 emission factor for use of the biomass fuel in the baseline scenario. Based on the Aprovecho Stove Test (28 April 2009) 0.47 g/MJ was the measured emission factor in laboratory testing of traditional fogon stoves. There is no change in this value applied for the current monitoring period.

ID 5/ $EF_{bl,bio,nonCO2,N2O}$: The N_2O emission factor for use of the biomass fuel in the baseline scenario. This was measured to be 0 based on the Aprovecho Stove Test (28 April 2009). There is no change in this value applied for the current monitoring period.

ID 6/ $EF_{pe,bio,co2}$: The CO_2 emission factor for use of the biomass fuel in the project scenario. 98.3 g/MJ was the measured emission factor in laboratory testing of La Justa 2x3 model stoves in the Aprovecho stove test (28 April 2009). There is no change in this value applied for the current monitoring period.

ID 7/ $EF_{pe,bio\ nonCO2,CH4}$: The CH_4 emission factor for use of the biomass fuel in the project scenario. 0.05 g/MJ was the measured emission factor in laboratory testing of traditional fogon stoves in the Aprovecho stove test (28 April 2009). There is no change in this value applied for the current monitoring period.

3.2 Remaining Issues, CAR's, FAR's from Previous Validation or Verification

The following issues were raised by the GS while registering this project:

".....given that the Aprovecho study (2009) clearly shows that the new design of the La Justa stove is of greater performance - in order to be in line with the Gold Standard principle of conservativeness, PP shall either conduct a new sampling filed study as part of the first Monitoring Period to derive actual emission reductions from the field, or claim emission reductions based on the results obtained in the Kitchen Tests with the previous model even though stoves of a new design are installed, since these would then be conservative. Furthermore, the calculation of emission reductions is based on the mean wood fuel savings (comparing mean wood fuel consumptions with respectively the Fogon baseline stove and the La Justa improved stove) when the methodology requires the use of the lower bound of the confidence interval for the baseline stoves and of the upper bound of the confidence interval for the improved stoves. PP shall therefore revise the calculation of the emission reductions accordingly.

Note that on p.31 of the PDD, Table 6 provides the results of the Kitchen Tests. The mean wood fuel consumption per household per day provided is 10.875 kg. However, as per the Aprovecho study, this corresponds to a consumption derived from a laboratory simulation of Hondurian practice. The Kitchen Tests returned a mean value of 9.1 kg of wood per household per day. PP shall revise Table 6 accordingly.
As already discussed in the section on Kitchen Survey above, the Kitchen Tests have been performed on the basis of a single cluster, in a sample of households from the town of Atima characterised by different socio-economic conditions than the rest of the considered region. This will potentially need revision as per the outcome on the discussion on clustering. But in addition to the clustering discussion, the fact that wood fuel savings were derived based on only 20 baseline households and 20 project households although the Kitchen Tests are not based on paired sampling (i.e. households monitored with the baseline stove and households monitored with the improved stove were not the same) potentially calls for complementary sampling. PP shall therefore provide all data obtained for the Kitchen Test in order for the reviewers to be able to assess whether the sample size was appropriate enough".

The issues raised in the FAR and the corresponding corrective actions undertaken by the project proponent on each parameter are discussed and closed in the sections above.

This is the first periodic verification, there are no remaining open issues.

3.3 Compliance of the monitoring plan with the monitoring methodology.

The monitoring plan of the registered project is in accordance with the applied methodology V.01. The project boundary, data handling and transfer process, plancha design, installation and operation was included in the monitoring report and verified by the SGS assessment team with the actual situation and description in the registered PDD.

The Project proponent has proposed to expand the project boundary; however this issue is outside the scope of current verification (Monitoring Period 1).

3.4 Completeness of Monitoring

Monitoring of reductions in GHG emissions to result from the registered project have been implemented in accordance with the monitoring plan contained in the registered PDD. The monitoring mechanism is effective and reliable.

3.5 Accuracy of Equipment

The construction, design and installation of the plancha were verified on site and were found to be accurate and reproducible. Accuracy in the design is important since the plancha is hand made and any variation in the design might not only lead to decreased rate of emission reduction but also a higher abandonment rate. No CAR regarding the accuracy of equipment was raised. There is no involvement of any other instrument at any other stage of monitoring or design.

3.6 Accuracy of Emission Reduction Calculations

The calculation of emission reductions as reported in monitoring report version 2 and the supporting annexes is found to be correct. The details of the main issues raised during the verification assessment are attached as UK Findings document.

The details of the reported and the verified values for all parameters are listed in section 4, 'Calculation of Emission Reductions'.

According to the assessment in Section 3.1l and the supporting annexes it has been confirmed by the assessment team that:

(a) All the data requested for ERs calculation of this monitoring period were monitored and recorded in a complete manner.

(b) All the reported data in MR Version 02 and ERs spreadsheet have been checked against the original reading records including sales record.

(c) The method and formulae for calculation of baseline emissions, project emissions, leakage and emission reductions as mentioned in the registered PDD have been followed in MR Version 02.

(d) The emission factors and default values have been applied correctly

3.7 Quality of Evidence to Determine Emission Reductions

Critical parameters used for the determination of the Emission Reductions are discussed in section 3.4 above. All the data recorded is in compliance with the monitoring report.

3.8 Management System and Quality Assurance

The project activity was managed according to that in the registered PDD and QA/QC procedure for each parameter was followed according to the approved monitoring plan. The sustainability surveys done that were based on questionnaires are an important part of project development with questionnaires being developed continually and the results being compiled to monitor usability and abandonment rate. It was agreed that parameters ID14, ID15 and ID16 do not require to be removed from the Monitoring Report as it is deemed important for the project activity.

3.9 Data from External Sources

The external data that is being used in the project are reported in the section 3.1 above.

4. Calculation of Emission Reductions:

As outlined in Table 2, section E.4 of the monitoring report, an emission factor of 2.73 $mtCO_2e$/year per stove is applied in the first year for the average number of stoves in operation on a monthly basis (adjusted for aging and dropoff). The calculations are detailed in in ANNEX MR-01: "MR01_Financing Plan rev.011210.xls (15/), for the First Monitoring Period (1 May 2009 – 30 November 2010).

Total emission reductions achieved during the First Monitoring Period: 12,368 CERs

A total of 6,621 stoves built in the First Monitoring Period wese verified on a conservative basis, factoring a 7.5% abandonment rate, and a further applying a degradation rate of 3%.

The calculation of the emission reductions for stoves in operation for 12 months or less utilizes 2.73$mtCO_2e$/year as set forth in ANNEX MR-15: "ER Calculations Rev.112410.xls /12/." For stoves in operation for more than 12 months the calculation utilizes 2.65 $mtCO_2e$/year, a reduction of 2.93% is applied.

CL#5 was raised as the calculations leading up to an ER were not very clear as to how a value of 12,701 tCO_2 (MR v1) for the period was derived. The reduction calculations section (E.4) showed the reductions achieved in the given monitoring period but the spreadsheet the section referred to was not linked to the monitored parameters (fields). A detailed calculation sheet (supporting spreadsheet) was required. In response the PP said that the Monitoring Report v.1 reported the total emission reduction calculation as 12,701 tCO_2. This value was based on an estimated total of 6,727 stoves built in the First Monitoring Period, and assumed a Year 1 drop off rate of 3%. During Onsite Verification the actual number of stoves was confirmed to be 6,621. Further to that, SGS based on its own onsite research with assistance from Zamorano University modified the drop off rate for Year 1 of the Crediting Period (1 May 2009 – 30 April 2010) to 7.5%. The PP therefore, modified their calculation of total emission reductions based on 6,621 stoves and a 7.5% abandonment rate for Year 1. Based on these changes the total ER claimed for the MP was of 12,368 tCO_2. The calculations are in the attached spreadsheet "01_Financing Plan rev.121610.xls" (/15/) (see "Monthly Results" worksheet, cell U57). The value of 12,368 tCO_2 is calculated on a monthly basis, not an annual average. The abandonment rate for stoves in operation for their first 12 months is 7.5% and for stoves in operation for more than 12 months and less than 24 months is 3%. The calculation of the emission reductions for stoves in operation for 12 months or less utilizes 2.73$mtCO_2e$/year as set forth in Annex 8 "ER Calculations Rev.112410.xls" (/12/). For stoves in operation for more than 12 months the calculation utilizes 2.65 $mtCO_2e$/year, a reduction of 2.93%. The calculations were verified using the provided spreadsheets and were found to be correct. CL#5 was closed out.

5. Recommendations for Changes in the Monitoring Plan

There is no recommendation for changes made in the approved monitoring plan during this periodic verification.

6. Overview of Results

Have on-site inspections been performed that may comprise, inter alia, a review of performance records, interviews with project participants and local stakeholders, collection of measurements, observations of established practices and testing of the accuracy of monitoring equipment?

Yes. The members of the assessment team visited the sites and undertook interviews, collected data, audited the implementation of procedures, checked calibration certificates and checked data, inter alia.

The results of the site visits are recorded in the verification checklist. The evidences have been checked and collected. The revised monitoring report is attached with this verification report.

The monitoring methodology has been correctly applied and the monitoring report and supporting references are complete and transparent. There are no further recommendations for changes to the monitoring methodology for any future crediting period.

Determine the reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the GS project activity, based on the data and information using calculation procedures consistent with those contained in the registered project design document and the monitoring plan.

The data used in anthropogenic emission reduction calculation is consistent with those contained in the registered PDD and monitoring plan. The difference in the estimated figures and the original value is discussed transparently and is justified.

Identify and inform the project participants of any concerns related to the conformity of the actual project activity and its operation with the registered project design document. Project participants shall address the concerns and supply relevant additional information.

"No such non conformity of the actual project activity and its operation with the registered project design document has been observed."

7. Verification and Certification Statement

SGS United Kingdom Ltd has been contracted by Overlook International Foundation to perform the verification of the emission reductions reported for the Gold Standard project "Enhanced distribution of fuel efficient wood stoves in Honduras", project number: GS 690 for its first monitoring period from 01/05/2009 to 30/11/2010.

The verification is based on the validated and registered project design document and the monitoring report for this project. Verification is performed in accordance with the Gold Standard rules and decisions. The scope of this engagement covers the verification and certification of greenhouse gas emission reductions generated by the above project during the above mentioned period, as reported in the monitoring report version 2, dated 21/01/2011.

The management of the Overlook International Foundation is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project Monitoring Report (v2, 21/01/2011). Calculation and determination of GHG emission reductions from the project is the responsibility of the management of the Proyecto Mirador The development and maintenance of records and reporting procedures are in accordance with the monitoring report.

It is our responsibility to express an independent GHG verification opinion on the GHG emissions and on the calculation of GHG emission reductions from the project for the period 01/05/20009 – 30/11/2010 based on the reported emission reductions in the Monitoring Report version 2 dated 21/01/2011 for the same period.

Based on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these, SGS planned and performed our work to obtain the information and explanations that we considered necessary to provide sufficient evidence for us to give reasonable assurance that this reported amount of GHG emission reductions for the period is fairly stated.

SGS confirms that the project is implemented as described in the validated and registered project design documents. Based on the information we have seen and evaluated, we confirm the following:

Project Title:	Enhanced distribution of fuel efficient stoves in Honduras
GS Reference Number:	GS 690
Registered PDD and Approved Used for Verification:	PDD v4, 15/06/2010
Monitoring Report:	V.02 dated 21/01/2011
Applicable Period:	01/05/2009 – 30/11/2010
Total GHG Emission Reductions Verified:	12,368

Signed on behalf of the Verification Body by Authorized Signatory

Signature: 

Name: Siddharth Yadav

Lead Assessor

Date: 16th February 2011

Signature: 

Kaviraj Singh

Technical Reviewer

Date: 16th February 2011

8. Document References

1. Efficient stoves PM PDD v[1].4 061510 Proyecto Mirador Project description (CDM template)
2. ER calculations_ Rev.103009 Ex ante estimation of emission reductions (revised)
3. GS Passport Project description (Gold Standard template)
4. Yale 2007 Study (KS and KT) Study conducted by the Yale School of Forestry and Environmental Studies as the basis of the Kitchen Survey and Kitchen Performance Test
5. Yale 2009 Study (NRB) Study conducted by the Yale School of Forestry and Environmental Studies as the basis of the fraction of NRB
6. Aprovecho 2x3 Study Study by Aprovecho Research Center on La Just 2x3
7. LSCR Local Consultation Stakeholders Review
8. MR07_Leakage-Sustainability Survey SPANISH
9. MR08_Leakage-Sustainability Survey English
10. MR14_Leakage Assessment
11. MR09_Sales Record 050109-113010
12. ER Calculations Rev. 112410.xls
13. Monitoring data
14. MR10_Monitoring Data Combined.xls
15. MR01_Financing Plan rev. 121610
16. PM Fuel Usage Study Data 101510.xls
17. MR03_PM Fuel Usage Study Summary Report 101510
18. MR04_PM Fuel Usage Study Data Sheet SPANISH
19. MR05_PM Fuel Usage Study Data Sheet ENGLISH
20. Blank Data Sheet ENGLISH
21. MR11_Employee Questionnaire Summary 2010
22. MR12_Employee Questionnaire
23. Confidential Salary List
24. MR13_Quantitative Employment
25. Monitoring Report version 1 dated 30th November 2010
26. Monitoring Report version 2 dated 22 January 2011
27. Monitoring Report version 3 dated 7th February 2011
28. Registered PDD dated 15th June 2010
29. MR02_PM Fuel Usage Study Data 101510
30. MR06_PM Fuel Usage Study Guidelines

9. Findings Overview

Findings Overview Summary

	CARs	CLs	FARs
Total Number raised	2	8	

Date:	10/12/2010		Raised by:	Siddharth Yadav/Anshuman Shukla (SY/AS)	
Type:	CL	Number:	1	Reference:	MR v.1

Lead Assessor Comment:

The monitored parameters ID14, ID15 and ID16 are not mentioned in the GS methodology V.01 or in the registered PDD. There are no negative impacts observed for parameters specified in the GS Passport. Please clarify if there are any changes since the registration and why have these parameters been included in the MR when they are not required by the applied methodology or mentioned in the registered PDD? Please provide a summary of the improvement of the surveys undertaken and the improvement in the format during the monitoring period.

Project Participant Response: **Date:** 17/12/2010

PP included parameters ID14, ID15 and ID16 in the Monitoring Report under the assumption that Sustainability indicators were to be monitored regardless of whether or not negative impacts to sustainability were observed. It is now clear to us that if no evidence of negative impacts exists, the parameters do not need to be indicated in the Monitoring Report. We have seen no such evidence, and we therefore propose to remove these three parameters (ID14, ID15, and ID16) from the Monitoring Report in v.2. However, we will still continue to include questions #1-13 in our surveys in order to guarantee our awareness of any negative sustainability indicators that may arise in the future, and parameters will be added according to Methodology if such a risk should arise.

During the course of our application to the Gold Standard, the surveys we use to monitor sustainability parameters have gradually improved for greater logic and clarity, and to ensure that all monitored parameters are covered as efficiently and completely as possible.

Items #1 - 13 on the attached file “15_Leakage-Sustainability Survey ENGLISH.doc” show (in translated form) the questions we use to monitor sustainability. The original Spanish version is also attached for reference (see “16_Leakage-Sustainability Survey SPANISH.doc”).

Proposed Modifications

- *We propose to remove Parameters ID 14, ID 15 and ID 16 from the MR due to the absence of evidence for negative impacts on sustainability.*

Documentation Provided by Project Participant:

15_Leakage-Sustainability Survey ENGLISH.docx (see questions #1-13 for sustainability indicators)
16_Leakage-Sustainability Survey SPANISH.docx

Information Verified by Lead Assessor:

PP has monitored the sustainability indicators through the survey forms. These forms were checked during the site visit and it was found that the questionnaires have been improved to make them user friendly. The reported impact to sustainability development indicators due to the installation of new La Justa stoves was verified by SGS through interviews during the site visit. The socio economic impact of the new stoves on the users are positive.
Monitoring of sustainability indicators is a good practice; and SGS recommends that these parameters may be reported in future monitoring reports to ensure transparency for the wider group.

Reasoning for not Acceptance or Acceptance and Close Out:	**Date:** 05/01/2011
CL1 was closed. OBS: A table summarising the changes to survey questionnaires including dates may be inserted at the end of questionnaire for clarity purposes	
Acceptance and Close out by Lead Assessor:	**Date:** 05/01/2011

Date:	10/12/2010		Raised by:	SY/AS		
Type:	CAR	Number:	2		Reference:	MR v.1
Lead Assessor Comment:						
a) ID2, which is the woody biomass consumed during the cooking in baseline scenario has got different values reported in the PDD and MR. PDD states the value as 3.87 tonnes per household while the value changes to 3.97 tonnes woody biomass per household in the MR. Please include the justification of the change under the section on comments under ID2/$B_{bl,y}$ b) In the registered PDD an estimated emission reduction of 2.23 MT CO_2e/year/stove installed was reported. However, because of the 2010 paired fuel wood consumption study this value also changes to 2.73 MT CO_2e/year/stove installed. Please clarify the reasons for increase in the values because this change has a significant impact on the reported emission reductions.						
Project Participant Response:				**Date:** 1712*/2010*		

To be clear, question (a) above reflects a reversal of the values: the PDD states the value of 3.97 tonnes, whereas the MR states 3.87 tonnes (and not the reverse as is stated above).
Aside from that error, the general background for the difference in reported values between the PDD and the MR is as follows:
The emission reduction calculations in the PDD, as well as the reported value for Parameter ID 2 in the PDD, were based on an estimate of the reduction in GHG emissions of 2.23 $mtCO_2e$/year per stove, which takes the baseline wood consumption of the Yale 2007 Study, factors in the stove efficiency improvements of model 2x3, applies emission factors measured in laboratory tests (Aprovecho, April 28, 2009), and adjusts for an NRB fraction explored and quantified within the Yale 2007 Study as well as the Yale 2009 Study.
The parameters referred to in questions (a) and (b) above, as reported in the PDD, were based on this hybrid approach that merged lab testing on the original La Justa and La Justa 2x3 with older baseline data from the Yale 2007 report, which was conducted before the La Justa 2x3 was developed.
In order to ensure a more accurate estimation of emission reductions for Verification, a Forward Action Request was issued by the Gold Standard in the final Registration Review document as follows:

> *PP shall conduct a new Kitchen Test prior to first request for issuance in order to confirm the assumed annual emission savings per stove. This study will be a paired-sample test. The goal is to measure daily fuel consumption over a 4-day period in 50 households. First, stoves will be monitored before adoption of the La Justa 2x3, while the family uses a traditional fogon, and several weeks after the adoption of the La Justa 2x3, when the family is accustomed to its use.*

Accordingly, we completed a paired sample, n=55, Fuelwood Consumption Study in 2010 to measure actual fuelwood consumption using the La Justa 2x3. The raw data was provided with v.1 of the First Monitoring Report (see Monitoring Report ANNEX 2: 02_PM Fuel Usage Study Data 101510.xls), and the study was summarized in Monitoring Report ANNEX 3: 03_PM Fuel Usage Study Summary Report 101510.pdf.
Due to the large sample size (n=55) and paired sample format, and due to the fact the study includes only stoves that match the current model La Justa 2x3, the 2010 study can be considered the most accurate representation of fuelwood reduction. The study carefully accounted for household size (adjusted for age and gender) and wood moisture (humidity). According to the FAR, we are using the 2010 Paired Fuelwood Consumption Study as our final basis for emission reduction calculations.
Keeping the above explanation in mind, we will now proceed to address questions (a) and (b) above more specifically:

(a) The value 3.97 tonnes per household (which was reported in the PDD) of woody biomass consumed in the baseline scenario was based on the hybridized approach used in the PDD as described above. The value 3.87 tonnes per household, which is reflected in the Monitoring Report, is calculated using only the results of the 2010 Paired Fuelwood Consumption Study, by taking the average fuelwood consumption for the baseline scenario expressed in kg per day, multiplying by 365 days/year and converting to metric tonnes.

During the Onsite Verification, Robert Bailis, PhD, of the Yale School of Forestry & Environmental Studies, was asked to further comment on the change from 3.97 to 3.87 tonnes per household. His analysis can be summarized as follows:

> When we apply a t-test to the values 3.87 vs. 3.97 in this scenario, the result is that there is no statistical significance to the difference between these two numbers. A 90% Confidence Interval is 0.7 for the number 3.87, whereas the variation between the two numbers is only 0.1. Therefore, the variation falls well within the CI and should not be considered statistically significant.
>
> The sample size in the 2010 Paired Fuelwood Consumption Study is larger, the samples are paired, and the result is a narrower CI than in the 2007 baseline study. Therefore, the value of 3.87 tonnes, which was based on the 2010 Paired Fuelwood Consumption Study, can be considered accurate and should be accepted without qualification.

(b) In accordance with the Forward Action Request cited above, the value 2.23 $mtCO_2e/yr$ as reported in the PDD was abandoned altogether in the MR in favor of new data based solely on the 2010 Paired Fuelwood Consumption Study. The new value of 2.73 $mtCO_2e/yr$ is reflected in the updated Emission Reductions spreadsheet (see Monitoring Report ANNEX 8: "08_ER Calculations Rev. 112410.xls," worksheet labeled "ER-La Justa Improved," Cell C7).

During Onsite Verification, Professor Bailis was asked to comment on the increase from 2.23 to 2.73 $mtCO_2e/yr$ per stove. A summary of his comments is as follows:

> 2.23 $mtCO_2e$ (as reported in the PDD) was based on mean fuelwood savings, and the CI was very broad due to the small sample size. The Gold Standard was willing to accept mean savings and thus deviate from its policy of accepting fuelwood savings based on the upper and lower bounds of the CI. However, with the 2010 Paired Fuelwood Consumption Study in place, we now have the number 2.73 which is based on the 90% CI and thus more closely conforms to Gold Standard Methodology, with a much larger sample size in the study.
>
> Furthermore, the Yale 2007 Study measured the difference between the traditional *fogon* and the original La Justa, as the La Justa 2x3 had not yet been developed. The 2010 Paired Fuelwood Consumption Study reflects the current model La Justa 2x3 which was shown in lab tests (Aprovecho, 2009) to be more efficient than the original La Justa.

Page 4 of the PDD summarizes the reasons for the increase in efficiency between the original La Justa and the La Justa 2x3 as follows:

> First, the grate in the stove mouth has been raised slightly in order to raise the fuel off the stove floor, thus making the wood burn more thoroughly and efficiently. Second, the dimensions of the steel cooktop (plancha) have been changed, allowing the plancha to heat up faster and distribute the heat more evenly than before. In addition, the plancha has been lowered closer to the level of the wood ash insulation in order to use the firepower of the stove more efficiently. Also, a maintenance tool called the Cinco has been introduced to help stove users carry out the basic cleaning and maintenance of the stove.

For all the reasons described above, the results of the 2010 Paired Fuelwood Consumption Study can be considered the most accurate available and thus, 2.73 $mtCO_2e/yr$ should be considered the most accurate estimate of emission reductions per stove.

Proposed Modifications

There are no proposed revisions to the Monitoring Report in response to CAR02.

Documentation Provided by Project Participant:

"02_PM Fuel Usage Study Data 101510.xls" – Raw Data for 2010 Paired Fuelwood Consumption Study *"03_PM Fuel Usage Study Summary Report 101510.pdf"* – Summary of 2010 Paired Fuelwood Consumption Study *"08_ER Calculations Rev.112410.xls"* – Calculations for Emission Reductions per Stove (see worksheet labelled "ER La Justa Improved," cell C7)
Information Verified by Lead Assessor:
SGS interviewed Prof. Rob Bailis on 10/12/2010 to assess the reasons for the change in the values of the woody biomass consumed during the cooking in baseline scenario as reported PDD and MR (3.97 & 3.87 respectively); and also the difference in the value of estimated emission reduction of 2.23 MT CO_2e/year/stove in the PDD against a value of 2.73 MT CO_2e/year/stove used in the calculation of actual emission reductions. The justification provided by Prof. Bailis (as above) and the project proponents is accepted.

Reasoning for not Acceptance or Acceptance and Close Out:	**Date:** 05/01/2011
CAR 2 closed	
Acceptance and Close out by Lead Assessor:	**Date:** 05/01/2011

Date:	10/12/2010		Raised by:	SY/AS		
Type:	CL	Number:	3		Reference:	MR v.1

Lead Assessor Comment:

1) ID8, which refers to the monitoring of stove installation in a given year has different parameters for recording information in the PDD and MR. In the description of measurements and procedures to be applied the PDD says that the information collected from each household would be: Installation record

Date of installation

Location of installation
Model/type of stove installed
Model of use prior to installation of the La Justa Model 2x3
Name of beneficiary

The MR on the other hand says that the information collected from each household would be:

Installation record
Date of installation
Location of installation
Name of beneficiary
Note presence of old stove in the household, if applicable.

The MR, therefore does not mention the model or type of stove installed. Although, the stoves that are being installed are La Justa model 2x3, but it should not have been omitted from the MR for consistency and clarity.

2) ID12 which assess agreement with statements regarding possible leakage effects has 5 parameters mentioned in the PDD whereas the MR incorporates and extra two parameters. The PDD mentions monitoring of a) Rebound effects, b)Stimulation of increased amount of a high emission fuel, c) promotion of new stove type stimulates substitution of cooking fuel or stove type with relatively high emissions, d) loss of space heating causes users to use alternative sources of (and thus, a greater amount of) fuel, and e) traditional stoves are reused. In addition to these five parameters, the MR also mentions monitoring statement regarding a) other types of stoves are present in the household, and b) length of time the stove is in use each day. Can you please explain as to why these parameters have not been included in the PDD when they have been found to be important enough to be mentioned in the MR? The QA/QC procedures for ID12 also do not mention using these two add-ons and say that questions would include assessment of statements regarding parameters a-e.

Project Participant Response:	**Date:** 18/12/2010

1) All relevant information is consistent in the PDD and the MR.
    a) The model/type of stove installed will always be the La Justa 2x3, the model for which Gold Standard credits will be applied. We delayed the start of the Crediting Period to 1 May 2009 in order to ensure that the 2x3 was proven and ready. The issue "Type/Model of Stove" has been thoroughly addressed in all documentation and we believe it is thoroughly understood that the project is only concerned with the La Justa Model 2x3 stove. Therefore, we believed it was unnecessary to include it in the monitoring plan.
    b) As the PDD and all test results therein utilize a baseline of the traditional fogon stove and the entirety of our cluster uses a fogon stove, we felt the question "Model of use prior to installation of the La Justa Model 2x3" to be unnecessary when we created the monitoring plan. All stoves we replace are the traditional fogon stove and this has been handled so completely in all other aspects of the documentation that it is thoroughly understood and unnecessary to include in the monitoring plan.

2) During the Registration Review process with the Gold Standard, there were frequent questions regarding whether or not there was a "Presence of old stove in the household" and "Length of time the stove was on each day." In considering what to include in our monitoring plan, and in trying to anticipate any further issues, we believed that we should make an effort to obtain this information during the monitoring period in order to meet Gold Standard requirements.

Although we acknowledge the differences that exist in ID 12 between the PDD and the MR, we feel the changes have been heretofore accurately explained and do not see it as necessary or appropriate to revert the MR to match the PDD. *We propose to leave the MR as-is rather than revert to the PDD, as explained in our responses to (1) and (2) above.*
During Onsite Verification, it was also pointed out that ID 12 included a typo in the QA/QC section, which referred to "statements a-e" while in fact the statements were numbered "a-g." The QA/AC section will thus be changed in the MR Parameter 12 accordingly.

Proposed Modifications

- *The QA/QC section of MR Parameter ID 12 shall be adjusted to read "a-g" instead of "a-e" as described above.*

Documentation Provided by Project Participant:	
N/A	
Information Verified by Lead Assessor:	
While the reasons provided by the project participant are accepted, **a justification of all the changes to the registered PDD incl. monitoring parameters plan should be inserted in the 'comments' section under each parameter of the revised monitoring report** for clarity and transparency purposes	
Reasoning for not Acceptance or Acceptance and Close Out:	**Date:** 05/01/2011
CL3 is closed	
Acceptance and Close out by Lead Assessor:	**Date:** 05/01/2011

Date:	10/12/2010		Raised by:	SY/AS		
Type:	CL	Number:	4		Reference:	MR v.1
Lead Assessor Comment:						
a) ID 8 which monitors the sale and installation of stoves has different QA/QC procedures in the MR and PDD. The MR says that the electronic database for stove installation will be maintained by PM's community organizers while the PDD says that the database would be maintained by an inspection and monitoring specialist. Is there a difference between "community organizers" and "inspection and monitoring specialist"? b) The value reported in the MR v1 is 6727 stoves for the first monitoring period which is 19 months. This includes an estimated installation of 500 stoves for the month of November 2010. Please provide the actual verifiable numbers.						

Project Participant Response:	**Date:** *20/12/2010*

a) Office protocols have been amended since the PDD. Under current practice, PM Supervisors provide stove installation records to the Administrative Assistant in Honduras, who compiles and computerizes the records and reports them monthly to the Program Manager in the California office where the master sales database is maintained.

In general, the responsibilities of the Inspection and Monitoring Specialist as described in the PDD are carried out by PM employees whom we now call "Supervisors." (They were previously referred to as Inspection and Monitoring Specialists in the PDD.) Our Supervisors are responsible for overseeing the construction and dissemination of stoves; conducting the training of stove beneficiaries at every level; conducting and reporting the Leakage and Sustainability Surveys; as well as reporting all stove sales data to the Honduras office.
Community Organization plays a critical role in the dissemination of stoves and the training of beneficiaries. This function is managed by Emilia Mendoza and Elder Mendoza (PM's President and COO, respectively; no family relation) with involvement from the Supervisors who carry out the associated organizational work and training.
We differentiate between Supervisors and Community Organizers in the MR to account for the fact that tasks related to community organization may fall under the purview of either Supervisors or top-level management. The nomenclature differs from the PDD because the job titles and protocols have been modified since the PDD was approved.

b) Upon submission of the Monitoring Report we had not yet tallied a final count of stoves installed during the month of November 2010. During the onsite visit (9-11 December 2010) we received the final number for November, which we have verified to be 394. This makes for a final total of 6,621 stoves installed during the First Monitoring Period (1 May 2009 – 30 November 2010).

The Sales Record has been updated accordingly and is attached as "09_Sales Record 050109-113010.xls."

Proposed Modifications

- *The QA/QC Procedures described in MR Parameter ID 8 shall be modified to reflect current practice, with proposed wording as follows: "PM Supervisors shall provided complete stove installation records by month to PM's Honduras office, where the records will be compiled, computerized, and in turn reported monthly to the California office where the Master Sales Database will be maintained."*
- *MR Parameter ID 8 shall be amended to reflect the verifiable total of 6,621 stoves installed during the First Monitoring Period.*
- *The MR shall be amended to clarify that the Inspection and Monitoring Specialists referred to in the PDD are now known as Supervisors.*

Documentation Provided by Project Participant:

09_Sales Record 050109-113010.xls - Final sales record showing 6,621 stoves installed during the First Monitoring Period.

Information Verified by Lead Assessor:

The number of stoves reported by the project proponents was checked against the manual/electronic records available on site. A total of 6,621 stoves have been installed by PM during MP1. The CL4 shall be closed after the project proponent has provided the revised monitoring report and the same has been checked by the verification team.
A justification for the changes should be specified under the 'comments' section of the monitoring report.

Reasoning for not Acceptance or Acceptance and Close Out: CL4 OPEN	**Date:** 06/01/2011

Monitoring report version 2 dated 21/01/2011 was provided. The reported figures and text is correct. CL4 closed

Acceptance and Close out by Lead Assessor:	**Date:** 22/01/2011

Date:	10/12/2010		Raised by:	SY/AS		
Type:	CL	Number:	5		Reference:	MR v.1
Lead Assessor Comment:						

The emission reduction calculation are not very clear as to how a value of 12,701 tCO_2. The reduction calculations section (E.4) shows the reductions achieved in the given monitoring period but the spreadsheet is not linked to the monitored parameters (fields). Please give a detailed calculation sheet (supporting spreadsheet).

Project Participant Response:	**Date:** 17/12/2010

The Monitoring Report v.1 reported the total emission reduction calculation as 12,701 tCO_2. This value was based on an estimated total of 6,727 stoves built in the First Monitoring Period, and assumed a Year 1 dropoff rate of 3%. During Onsite Verification the actual number of stoves was confirmed to be 6,621. Further to that, SGS based on its own onsite research with assistance from Zamorano University modified the dropoff rate for Year 1 of the Crediting Period (1 May 2009 – 30 April 2010) to 7.5%.
We have thus modified our calculation of total emission reductions based on 6,621 stoves and a 7.5% abandonment rate for Year 1, which brings us to a verifiable final total of 12,384 tCO_2. The calculations are attached in the spreadsheet "01_Financing Plan rev.121610.xls" (see "Monthly Results" worksheet, cell U57). The value of 12,384 tCO_2 is calculated on a monthly basis, not an annual average. The stoves in operation by month are reduced by the abandonment rate for stoves that are one year old and stoves that are in their second year of operation (Abandonment Rate). The emissions reductions are further reduced to account for a reduction in the efficiency of the stoves that are one year old and for stoves that are in their second year of operation (Degradation Rate). To be specific, the abandonment rate for stoves in operation for their first 12 months is 7.5% and for stoves in operation for more than 12 months and less than 24 months is 3%. The calculation of the emission reductions for stoves in operation for 12 months or less utilizes 2.73$mtCO_2e$/year as set forth in Annex 8 "08_ER Calculations Rev.112410.xls." For stoves in operation for more than 12 months the calculation utilizes 2.65 $mtCO_2e$/year, a reduction of 2.93%.
To understand the sensitivity of the Degradation Rate, if you decrease Year 1 efficiency from a 3% drop to 5% drop, then the impact on $mtCO_2e$/life of the stove would fall by 0.435% over the life of the stove. A further decrease from 3% to 7% in Year 1 would decrease $mtCO_2e$ over life of the stove by 0.87%.

Proposed Modifications

- *The value 12,384 tCO_2 shall replace all occurrences of the previous value of 12,701 tCO_2 in the MR.*
- *The MR shall be amended to reflect the above explanation for the calculation of emission reductions and tables updated accordingly.*
- *The 10-year Emissions Reduction projections shown on Page 7 of the MR shall be updated and the table left in place unless it is recommended by SGS that the table be eliminated.*
- *Replace MR Annexes 01 and 08 with updated files. (Note: Annex 08 has not been modified since submission of the MR v.01; only the file name was updated with the correct modification date.)*

Documentation Provided by Project Participant:

"01_Financing Plan rev.121610.xls" (see worksheet labelled "Monthly Results," cell U57)
"08_ER Calculations Rev.112410.xls" (see worksheet labelled "ER La Justa Improved" cell C7)

Information Verified by Lead Assessor:

Based on the on site surveys undertaken by verification team, an overall abandonment rate of 7.5% was agreed for the MP1 (reported monitoring period). The justification for application of an abandonment rate of 3%less to stoves less than 24 months is not clear as this was not verified during the site visit.
The 10-year emission reduction projects can be retained in the monitoring report but the scope of verification is MP1 only and therefore SGS shall state clearly that the datasets falling outside MP1 have not been verified.

Reasoning for not Acceptance or Acceptance and Close Out:	**Date:** 21/01/2011

As outlined in Table 2, section E.4 of the monitoring report, an emission factor of 2.73 $mtCO_2e$/year per stove is applied in the first year for the average number of stoves in operation on a monthly basis (adjusted for aging and dropoff). The calculations are detailed in in ANNEX MR-01: "MR01_Financing Plan rev.011210.xls, for the First Monitoring Period (1 May 2009 – 30 November 2010).

A total of 6,621 stoves built in the First Monitoring Period was verified on a conservative basis, factoring a 7.5% abandonment rate, and a further applying a degradation rate of 3%

The calculation of the emission reductions for stoves in operation for 12 months or less utilizes 2.73$mtCO_2e$/year as set forth in ANNEX MR-15: "MR15_ER Calculations Rev.112410.xls." For stoves in operation for more than 12 months the calculation utilizes 2.65 $mtCO_2e$/year, a reduction of 2.93% is applied.

Acceptance and Close out by Lead Assessor:	**Date:** 21/01/2011

Date:	10/12/2010		Raised by:	AS/SY		
Type:	CAR	Number:	6		Reference:	MR v.1

Lead Assessor Comment:

ID 9 mentions the data unit as tonne (mass of woody mass consumed during cooking in year y). However, the value reported is 2.73MT CO_2e/ year. A correction is required.

Project Participant Response:	**Date:** *DD/MM/YYYY*

We acknowledge the error and have now recalculated the mass of woody biomass consumed in cooking based on the results of the 2010 Paired Fuelwood Consumption Study.
Please refer to the file 02_PM Fuel Usage Study Data 101510.xls, "Summary" worksheet, Cell K59. We take the value from Cell K59, which is 5.826 kg/household/day, and multiply it by 365 to get the total of 2,126.47 kg fuelwood consumed per household per year. The MP will be changed accordingly.

Proposed Modifications

- *The "Value of Monitored Parameter" for Parameter ID 9 in the MR shall be amended to reflect the value of 2,126.47 as explained above.*

Documentation Provided by Project Participant:

"02_PM Fuel Usage Study Data 101510.xls" – Raw Data for 2010 Paired Fuelwood Consumption Study *(see worksheet labelled "Summary," Cell K59, and multiply this value by 365.*

Information Verified by Lead Assessor:

The corrective action proposed by the PP is accepted. The monitoring report has been modified to reflect the corrected figures.

Reasoning for not Acceptance or Acceptance and Close Out:	**Date:** 22/01/2011

Date:	10/12/2010		Raised by:	*SY/AS*		
Type:	CL	Number:	7		Reference:	MR v.1

Lead Assessor Comment:

A discrepancy in text for the translated data collection form (For ID 9) was observed against the forms used on site. For surveys the correct form (Spanish) has been used. Please clarify the impact of the error.
The correct translation of the format should be provided with the monitoring report.

Project Participant Response:	**Date:** 17/12/2010

We have verified the English translation of the data sheet and the correct version shall be attached as "17_Blank Data Sheet ENGLISH.doc."

Documentation Provided by Project Participant:

17_Blank Data Sheet ENGLISH.doc

Information Verified by Lead Assessor:

The proposed correction is accepted. The revised monitoring report should be submitted. There is no impact of error because the original document used for surveys is in Spanish. CL7 closed

Reasoning for not Acceptance or Acceptance and Close Out: The contents of the formats and the guys who undertook the training were competent to perform survey and tests in household where the stoves were installed. Issue closed out.	**Date:** 22/01/2011

Date:	10/12/2010		Raised by:	SY/AS	
Type:	CL	Number:	8	Reference:	MR v.1
Lead Assessor Comment:					
a) ID 9, ID11 require measurement through biannual surveys, it is unclear whether the biannual surveys were conducted. b) The QA/QC procedures on ID11 state that the questionnaire for the household drop off rate will include the query "Is your La Justa 2x3 still in use". Please clarify how is 'the number of stoves still in use' monitored and reported. Clarification is needed on the dates of the surveys.					
Project Participant Response:				**Date:** *DD/MM/YYYY*	

a) There is a grammatical error in Parameters ID 9 and ID 11 in that the surveys should in fact be conducted "biennially" (once every two years) rather than "biannually" (twice per year). This error stems originally from the Gold Standard Methodology for Improved Cook-stoves and Kitchen Regimes v.01, Page 24, where the word "biannually" is used repeatedly for studies that are undertaken once every two years. Please see Page 24 of the Methodology, item #3, where "biannually" is defined as follows:

> "A Usage Survey should be undertaken not less frequently than bi-annually (every two years) for sales made in the first year of the project…"

We acknowledge the error and propose to modify ID 9 and ID 11 in the MR to read "biennially" rather than "biannually" for clarity. We further suggest that the Gold Standard take steps to ensure clarification of the Methodology, particularly as a new version of the Methodology is shortly to be approved.
Regarding ID 9 (tonnes of woody biomass), we have conducted the first such study in July-September 2010 and it is reported as the 2010 Paired Fuelwood Consumption Study (see "02_PM Fuel Usage Study Data 101510.xls" and "03_PM Fuel Usage Study Summary Report 101510.pdf").
Regarding ID 11 (continued use of stoves over time), SGS with onsite assistance from Zamorano University personally verified a dropoff rate of 7.5% for first-year stoves during the Onsite Verification in December 2010. Correspondingly, Parameter ID 11 shall be adjusted to reflect a 7.5% dropoff rate for first-year stoves, and a 3.0% dropoff rate for stoves in their second year of operation. The total emission reduction calculation has been updated accordingly to reflect the verified dropoff rate (see "01_Financing Plan rev.121610").

b) PM opened a discussion in-house as to the best method of tracking dropoff rates going forward. It was previously agreed with SGS that the question, "Is your La Justa still in use?" would be added to the ongoing Leakage and Sustainability Survey to track dropoff. However, after further discussion it was determined that, as families are not approached to complete a Leakage and Sustainability Surveys if their La Justa is not in use, adding this question would not provide an accurate indicator of dropoff rates.

Instead, it was decided that dropoff should be tracked as part of the Maintenance Surveys conducted by Stove Technicians in a majority of households 4 to 6 weeks after stove installation. Thus, a column has been added to the Maintenance Surveys to read, "Mark **X** if the La Justa 2x3 is no longer in use." The Maintenance Surveys are routinely compiled in the Honduras office and computerized, then reported to the California office which will track dropoff rates according to the data provided. In this way actual dropoff rates can be consistently and accurately assessed with as large a sample size as possible.
As to the dates of the surveys reported in MR Annex 4: "04_Monitoring Data Combined.xls," we were not tracking survey dates until after 30 November 2010. All surveys listed in this file were conducted and reported during the First Monitoring Period. However, we do not have specific dates for each survey.
The file "04_Monitoring Data Combined.xls" was compiled from a group of files sent directly from our Honduras office (roughly every month) and no data has been added, replaced or excluded.
"04_Monitoring Data Combined.xls" reflects data that has simply been combined and sorted. Our Leakage and Sustainability Survey now includes the survey collection date (see 15_Leakage-Sustainability Survey ENGLISH.docx) and that date will be tracked and reported continuously going forward.

Proposed Modifications

- ID 9 and ID 11 in the MR shall be amended so that the respective studies are "biennial" rather than "biannual."

Documentation Provided by Project Participant:

"02_PM Fuel Usage Study Data 101510.xls"
"03_PM Fuel Usage Study Summary Report 101510.pdf"
"04_Monitoring Data Combined.xls"
"15_Leakage-Sustainability Survey ENGLISH.docx"

Information Verified by Lead Assessor:

a) Corrctive action is accepted because the Gold Standard Methodology for Improved Cook-stoves and Kitchen Regimes v.01, Page 24, states the word "biannually" used for studies that are undertaken once every two years. Page 24 of the Methodology states ".....bi-annually (every two years) for sales made in the first year of the project…"
b)OBS: The above suggested approach of tracking the dropoff through Maintenance Surveys conducted by Stove Technicians in a majority of households 4 to 6 weeks after stove installation may not be the best approach given that the drop off after 4-6 weeks will not be tracked.
The proposed correction on the insertion of survey collection date is accepted. CL8 closed

Reasoning for not Acceptance or Acceptance and Close Out: The contents of the formats and the guys who undertook the training were competent to perform survey and tests in household where the stoves were installed. Issue closed out.	**Date:** 22/01/2011

Date:	10/12/2010		Raised by:	SY/AS		
Type:	CL	Number:	9		Reference:	MRv1

Lead Assessor Comment:

ID12, c: how is the issue of the usage of a second stove in the baseline scenario addressed?
How is the issue of the stimulation of use of a high emission fuel in the baseline scenario, length of time auxiliary stoves are used each day addressed?

Project Participant Response:	**Date:** *DD/MM/YYYY*

We have no reason to suspect that the installation of the La Justa 2x3 stimulates higher use of a non-wood fuel. Nevertheless, we have added a question to our Leakage and Sustainability Surveys as follows (please see "15_Leakage-Sustainability Survey ENGLISH.docx"):

18. Before constructing the Justa stove, how long did you use the other stove (gas or electric)? (More / Less / Same)

Together with Questions #16 and #17, which address the existence of auxiliary stoves in the project scenario, we can now assess based on real data whether or not the installation of the La Justa 2x3 stimulates higher use of the auxiliary stove.
Our monitoring surveys collected during the First Monitoring Period (see "11_Leakage Assessment.xls") show that, among the households in the project scenario where an auxiliary stove is present, the auxiliary stove is in use an average of 22.26 minutes per day. The usage is so minimal that it seems entirely unlikely that usage could have been considerably lower in the baseline scenario (and in any case it is mathematically impossible that the difference could exceed 22.26 minutes per day). In fact, based on a small number of the amended surveys conducted thus far, we are finding that the installation of the La Justa 2x3 actually results in *lower* usage of the auxiliary stove, presumably due to the increased efficiency and ease of use of the La Justa 2x3. This parameter will be monitored and reported at next Verification along with all other Leakage data.

Proposed Modifications

There are no proposed revisions to the Monitoring Report in response to CL09.

Documentation Provided by Project Participant:

"15_Leakage-Sustainability Survey ENGLISH.docx" (see Question 18)
"11_Leakage Assessment.xls" (see sheet labelled "Leakage Assessment," Line 1792, for summary)

Information Verified by Lead Assessor:

CL 9 is closed based on the interviews conducted during the site visit. During the interviews it was confirmed that there has been a reduction in usage of non wood fuel after La Justa 2X3 was installed.

Reasoning for not Acceptance or Acceptance and Close Out: The contents of the formats and the guys who undertook the training were competent to perform survey and tests in household where the stoves were installed. Issue closed out.	**Date:** 06/01/2011
CL9 CLOSED	
Acceptance and Close out by Lead Assessor:	**Date:** 06/01/2011

Date:	10/12/2010		Raised by:	SY/AS		
Type:	CL	Number:	10		Reference:	MR v.1

Lead Assessor Comment:

ID13: Leakage due to transportation: The data/ parameter description is not in accordance with the registered PDD. Please clarify and make changes accordingly.

Project Participant Response: **Date:** 20/01/2011

Pursuant to our discussion with SGS we have agreed to revert the "Data unit" in MR Parameter ID 13 to agree with the PDD, with one exception: rather than assess "miles" as written in the PDD we will instead specify "kilometers" in the MR as it came to our attention during Onsite Verification that vehicle usage is actually being tracked in kilometers.
We will include an explanation in the "Comments" section of the MR similar to the following: "PM reported 0 leakage in the Gold Standard approved PDD. PM will continue to assume 0 leakage from transportation going forward if the transportation does not increase significantly beyond the relative increase in project activity."
Much of the mileage incurred by the project is offset by the corresponding reduction in fuel spent in the practices of gathering and transporting wood.

Proposed Modifications

- *Change the "Data unit" in MR Parameter ID 13 to read "kilometers"*

Documentation Provided by Project Participant:

"11_Leakage Assessment" (see worksheet labelled "Transportation")	
Information Verified by Lead Assessor:	
Reasoning for not Acceptance or Acceptance and Close Out: The contents of the formats and the guys who undertook the training were competent to perform survey and tests in household where the stoves were installed. Issue closed out.	**Date:** 22/01/2011
The actual values can be reported in kilometres while conversion in miles should also be reported in the revised monitoring report to ensure compliance with the registered PDD. Revised monitoring report version 2 dated 21/01/2011 was checked. CL10 CLOSED	