



**Component project activity design document form for
CDM component project activities**

(Version 04.0)

Complete this form in accordance with the Attachment "Instructions for filling out the component project activity design document form for CDM component project activities" at the end of this form.

COMPONENT PROJECT DESIGN DOCUMENT (VPA-DD)

Title of the VPA

Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America – Renewed VPA for Distribution of Dos por Tres Cookstoves in Honduras

Version number of the VPA-DD

06

Completion date of the VPA-DD

25 March, 2016

Title of the PoA to which the VPA is included

Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America

Host Party

Honduras

Estimated amount of annual average GHG emission reductions: 426,606

SECTION A. General description of VPA**A.1. Title of the proposed or registered PoA**

Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America

A.2. Title of the VPA

Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America – First VPA for Distribution of Dos por Tres Cookstoves in Honduras

Version 06, completed 25 March 2016

A.3. Description of the VPA

According to the eligible project types available under the Gold Standard, this project shall be classified as *End-user Energy Efficiency Improvement*, defined as the reduction in the amount of energy required for delivering or producing non-energy physical goods or services.

Under this VPA, Proyecto Mirador's Dos por Tres improved cookstove (ICS) technology is implemented for household applications. The objective is to perpetuate and expand a successful improved cookstove project that utilizes carbon finance to provide a market based solution that addresses the problems of deforestation, indoor air pollution, global warming and slow economic development in the poor, rural communities of Honduras. The project will monetize certified carbon savings to accelerate the dissemination of fuel-efficient stoves in rural Honduras where degraded conditions of forests, indoor air pollution and rural poverty exceed acceptable levels.

The project began operation as a Gold Standard project under a PDD limited to Honduras. The First VPA continued the same project activity under a Gold Standard PoA. Under this VPA, Proyecto Mirador will continue to build the Dos por Tres stove wherever similar baseline conditions exist within Honduras. Future VPAs may be drafted to include other countries and/or other stove types wherever baseline conditions differ significantly.

Proyecto Mirador began building stoves in 2004 with the objective of reducing respiratory illness caused by inhalation of toxic wood smoke (29 known carcinogens) from cookfires. During annual visits as translators with a medical clinic, the Lawrence family learned about the effects of smoke from cookfires when they saw the large number of women and children seeking help for respiratory related diseases. To solve the problem, they partnered with Doña Emilia Mendoza, Director, to found Proyecto Mirador, LLC, a U.S. based 501(c)3 non-profit organization that is also registered as a non-profit in Honduras.

Since inception Mirador has installed over 45,000 stoves for individual families, built an efficient and scalable organization, and overcome the challenges of executing a successful stove project.

While Mirador does not invest in promotion or advertising, news of the Dos por Tres stove has had tremendous grassroots support spread through word-of-mouth endorsements by local government, community leaders, religious organizations and stove users. Mirador now has a 2-year waiting list for stoves in communities all over Honduras.



Figure 1: New Dos por Tres stove



Figure 2: Traditional fogón stove

To scale the project, Proyecto Mirador pioneered a *Programa de Ejecutores*, a franchise-like social enterprise system in which entrepreneurs are paid to build stoves on behalf of Proyecto Mirador. To build more stoves Mirador only has to add more *Ejecutores*. Mirador first reviews its solicitations to select and allocate areas and quotas to each *Ejecutor*. Each *Ejecutor*, after being rigorously trained by Mirador, collects the stove construction materials from Proyecto Mirador, organizes his or her team of stove builders, works closely with local municipalities to establish a construction schedule, builds stoves and provides training to stove beneficiaries. Our *Ejecutores* earn far in excess of a typical professional wage, but each is subject to Mirador's rigorous verification and future quotas are dependent on quality performance under Mirador regimes.

The stoves are highly successful from the perspective of health improvement and wood savings, and this VPA seeks to increase production of Dos por Tres stoves in Honduras going forward. The current model of relying on charity to underwrite the organization is not sustainable. Long-term and stable funding does not exist for the significant expansion of stove distribution. Relying on additional donor support is not a viable long-term option. In the long run, carbon finance is a realistic source of sustainable funding that will enable the enhanced distribution of Dos por Tres stoves to proceed. Mirador shall market Gold Standard carbon credits from verified reductions of unsustainably harvested fuelwood in order to provide long-term, sustainable funding.

Under this VPA, Mirador will use proceeds from the sale of Gold Standard premium carbon credits from stoves installed from 1 May 2016 forward (see Section A.12 for further clarification on dates), as well as residual carbon credits generated from stoves previously installed, to supplement the donated equity capital. With the help of carbon finance Mirador will continue to accelerate distribution of Dos por Tres stoves in other areas of Honduras. The use of carbon finance will ensure Mirador can continue under a self-sustaining, market-driven business model rather than one that relies extensively on charitable donations.

All stove beneficiaries are clearly informed of Proyecto Mirador's ownership of the carbon savings from each stove. To accomplish this, Mirador distributes a Use & Maintenance Brochure to each stove beneficiary at the time of stove construction. The Use & Maintenance Brochure includes a statement regarding rights to ownership of emission reductions, which reads as follows (English translation): "By accepting a new stove from Proyecto Mirador, you agree that the CO₂ reductions created by the stove are the property of Proyecto Mirador." This caveat is also explained at the community meetings Mirador conducts in each village prior to starting construction.

Figure 3 below shows the original La Justa stove; **Figure 4** shows the Dos por Tres cookstove which Mirador has adapted to maximize emissions reductions and support broader dissemination of the stoves.



Figure 3: Original La Justa stove



Figure 4: Dos por Tres stove

When wood burns it releases a number of compounds into the atmosphere, including CO₂, methane, nitrous oxide, and particulate matter consisting of both elemental carbon (or soot) produced in flaming fires and organic carbon produced in smouldering fires. Elemental carbon (EC) has a global warming potential 680 times that of CO₂. By burning fuel efficiently and completely, the Dos por Tres reduces the amount of soot or black carbon found in Particulate Matter and Products of Incomplete Combustion (PICs) as well as reduces the amount of Particulate Matter and PICs produced overall.

Globally, indoor air pollution kills more people each year than malaria and causes almost as many deaths as unsafe water and sanitation.¹ In traditional wood burning stoves, wood fuel emits substantial amounts of 26 hazardous air pollutants. Fine respirable particles less than 2.5 microns are able to penetrate deep into the lungs. These compromise the body's defense systems and its ability to filter and remove toxic particles. Women and children are the most harmed by inefficient stoves because they do most of the cooking. Because women also care for the children, the children also suffer a high level of exposure. Indoor air pollution also has an effect on unborn children similar to smoking during pregnancy.

The aim of our project is to serve as a model for other organizations that wish to initiate similar stove projects, thus bringing the numerous benefits of fuel-efficient cookstoves to potentially millions of people.

A.4. Entity/individual responsible for the operation of VPA

Proyecto Mirador Foundation (CME)

¹ WHO/UNDP, "Smoke, the Killer in the Kitchen," 14 October 2004.
<http://www.who.int/mediacentre/news/statements/2004/statement5/en/>

A.5. Technical description of the VPA

Under this VPA, Proyecto Mirador builds exclusively Mirador’s improved “Dos por Tres” stove model, which is based on the original La Justa stove developed by Aprovecho Research Center in 1995. The Dos por Tres includes a few important structural modifications that set it apart from the La Justa: 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. From the user’s point of view the Dos por Tres is functionally the same stove and Mirador staff have observed that it has been positively received and easily assimilated by the beneficiaries. *Dos por Tres*, or 2 x 3, translates in Honduran slang to “in an instant” and relates to quick wood savings and improvements in health and home cleanliness. A study completed by Nordica MacCarty of Aprovecho Research Lab on April 28, 2009 has shown that the Dos por Tres generates even greater wood savings than the original La Justa. Laboratory tests show that the Dos por Tres reduced Carbon Monoxide emissions and particulate matter by 79%, CO₂ by 43%, and CH₄ by 94% compared to traditional stoves (McCarty, N., April, 2009).

In 2012 a Design Change was approved by the Gold Standard (under the original Proyecto Mirador PDD) that quantified the operative non-renewable biomass (NRB) factor as 77%. It was confirmed in 2015 that there has been no significant change in the Project Area since NRB was last assessed in 2011, and that if anything the NRB factor would have increased since then (Rob Bailis, PhD, 2015). Nonetheless, we have adjusted our figure downward to 69% in order to stay aligned with other validated Gold Standard projects in Honduras and ensure conservativeness.

Mirador donates to each beneficiary the steel cooktop (*plancha*), the chimney and chimney top, the six custom ceramic pieces for the stove mouth or firebox, and the installation and training. These components are sourced and processed or manufactured locally in Santa Barbara Province. Beneficiaries contribute the remaining components, including cement, rebar, bricks, adobe blocks, and/or wood ash, all of which are items commonly available in the rural villages of Honduras. This cost-sharing arrangement is part of Mirador’s philosophy of “*No Cuesta, No Cuida*,” which asserts that beneficiaries will better care for their donated stove if they invest some of their own resources in its acquisition. Beneficiaries must agree to remove old stoves at the time the new Dos por Tres stoves are installed. Mirador Supervisors confirm in person that this has been done and if not, assist the beneficiaries with removal.

A.6. Party(ies)

Name of Party involved (host) indicates host Party	Private and/or public entity(ies) VPA implementer(s) (as applicable)	Indicate if the Party involved wishes to be considered as VPA implementer (Yes/No)
Honduras	Proyecto Mirador LLC, Santa Barbara, Honduras (with administrative offices in Greenbrae, California, USA)	No
Honduras	Proyecto Mirador Foundation, Greenbrae, California, USA	No

A.7. Geographic reference or other means of identification

VPA boundary is Honduras. Honduras is a non-Annex 1 party to the 1992 UN Framework Convention on Climate Change. This VPA shall cover the construction of the Dos por Tres cookstove exclusively, and only as appropriate, wherever baseline conditions are similar and cluster definition is met.



Project Area: Honduras

Target area: Project shall target areas of Honduras wherever inefficient, traditional *fogón* cookstoves are in widespread use.

Fuel collection area: Most beneficiaries either collect fuelwood close to home or purchase it from local vendors who collect it locally, though some purchase wood from vendors who import the wood from other areas of the same country. Fuel collection area shall mirror VPA boundary.

Fuel production area: Most beneficiaries either collect fuelwood close to home or purchase it from local vendors who collect it locally, though some purchase wood from vendors who import the wood from other areas of the same country. Fuel collection area shall mirror VPA boundary.

A.8. Duration of the VPA

A.8.1. Start date of the VPA

May 1, 2009

A.8.2. Expected operational lifetime of the VPA

21 years (7 years x 3 crediting periods)

A.9. Choice of the crediting period and related information

20 million people cook with biomass on traditional *fogón* or other rudimentary cookstoves across Central America,² indicating demand is not likely to diminish in the decades to come. Furthermore, Dos por Tres stoves are projected to have a 5-7 year life and eventually will need replacement. A renewable crediting period is chosen. VPA has operated since 2009 and is expected to operate for a total of four crediting periods (total 28 years) including 3 renewals under PoA provisions. This will ensure that Proyecto Mirador can continue to expand at reasonable growth rates while responding to sustained demand with quality materials, excellent construction regimes, and optimum monitoring practices.

A.9.1. Start date of the crediting period

May 1, 2016

A.9.2. Length of the crediting period

7 years, renewable

A.10. Estimated amount of GHG emission reductions

The table below shows the total estimated emission reductions of the project activity in the 7-year crediting period (1 May 2016 – 30 April 2023), with year end adjusted to 30 November to match the project verification cycle.

Emission reductions during the crediting period

Years	Annual GHG emission reductions (in tonnes of CO₂e) for each year
Year A (May 1, 2016 – Nov. 30, 2017)	574,103
Year B (Dec. 1, 2017 – Nov. 30, 2018)	406,231
Year C (Dec. 1, 2018 – Nov. 30, 2019)	425,989
Year D (Dec. 1, 2019 – Nov. 30, 2020)	443,476
Year E (Dec. 1, 2020 – Nov. 30, 2021)	455,436
Year F (Dec. 1, 2021 – Nov. 30, 2022)	477,299
Year G (Dec. 1, 2022 – Apr. 30, 2023)	203,707
Total number of crediting years	7
Annual average GHG emission reductions over the crediting period	426,606
Total estimated reductions (tonnes of CO₂e)	2,986,241

A.11. Public funding of the VPA

There is no public funding available, utilized or planned for use by the VPA.

A.12. Confirmation for VPA

The VPA will neither be registered as an individual Gold Standard activity nor is it a part of another Registered PoA. All residual emission reductions for stoves built under the previous Gold Standard crediting period effective May 1, 2009, will be subsumed by the VPA and credits shall be generated under the approved Gold Standard PoA.

² Wang, Xiaoping, et. al., “¿Qué Hemos Aprendido del Uso de Biomasa para Cocinar en los Hogares de America Central?” World Bank; Energy Sector Management Assistance Program (2013), p. 2

Should the VPA implementer undertake another VPA project activity in the same region, then CME will ensure that there is no duplication or double counting between VPAs. This will be done by cross-checking the Salesforce.com based data management system to check for duplicates and removing any households found to participate in multiple VPAs within the PoA. This cross-check will occur in real time during the stove distribution process.

A.13. Contact information of responsible persons/ entities for completing the CDM-VPA-DD-FORM

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SECTION B. Environmental analysis**B.1. Analysis of the environmental impacts**

In the view of the Project Participants, and according to the stakeholders who attended the Design Consultation Meeting by Webinar on 22 January 2013, as well as the stakeholders who attended the LSC meeting on 18 December 2008 in preparation for Gold Standard certification under the initial PDD (the project which later became the First VPA), there are no significant negative environmental impacts of the project activity. In view of the project's consistently positive contributions to environmental health and sustainability, a detailed environmental impact assessment need not be conducted. The Sustainability Matrix submitted with the Passport, as well as comprehensive stakeholder comments from the Design Consultation Report pasted in the PoA, offer sufficient proof of the decidedly positive environmental impact of the project.

The project activity consists of only end-use energy efficiency measures that provide environmental benefits. The *Dos por Tres* stove, as the project technology used in this Renewal VPA, is constructed from locally, readily available, inexpensive materials, and is engineered to vent toxic smoke with a chimney, cook faster and use half the wood of traditional fogón stoves. Thus, the stove reduces CO₂ emissions and the time devoted to wood collection and/or money spent on wood. Project technology for future VPAs will follow a similar pattern.

Biodiversity

The project reduces the demand for biomass required for cooking stoves thus reducing the rate of deforestation connected to wood consumption. In addition, the reduction in use of these inefficient stoves will yield a reduction in emissions from fuel combustion thus improving air quality and reducing the emission of harmful gases that contribute to climate change.

Air Quality and Environment

Project beneficiaries using improved cookstoves reduce their wood consumption. The reduction in fuel usage will also save project beneficiaries time and income. This means that biomass users who gather wood will see a reduction in the amount of fuel that they have to collect, leaving that time available for other activities. Biomass users that purchase their fuel will be able to direct more of their income to other needs.

This means that less harmful pollutants are emitted, an important improvement as indoor air pollution has been proven to have direct correlation with respiratory illness and mortality rates, especially among women and children, worldwide. From an economic perspective, the project will contribute to the scale-up of local business and organizations, with the potential to create jobs in manufacturing, retail, marketing and distribution.

No negative impacts can be identified.

B.2. Environmental impact assessment

Since no environmental impact assessment is needed, this section is left blank.

SECTION C. Local stakeholder consultation**C.1. Solicitation of comments from local stakeholders**

Ongoing research and stakeholder consultation are vital components of a successful Gold Standard project. Having solid “on-the-ground” resources is a critical advantage for Mirador. During the process of ongoing supervision and training, Mirador’s Supervisors note any recommendations from beneficiaries as to functional or procedural improvements. These recommendations are collected by Supervisors and Ejecutores; recommendations are explored and researched when warranted; and adjustments are implemented if appropriate. As Mirador expands into new areas, local leaders and NGOs are informed and consulted on an ongoing basis. When relevant, stakeholder feedback is channeled through the Ejecutores or Supervisors to Mirador management and reviewed by the Director and Chief Operating Officer as appropriate.

The LSC is conducted at the VPA level. The First VPA held its LSC in 2008 in establishment of the PDD. Since 2012 separate community stakeholder meetings have been held in advance of stove construction in every single village where stoves are built. Over 500 such meetings took place in 2014 alone. This means Mirador has conducted stakeholder meetings throughout all the Departments of Honduras where stoves are built, giving local government leaders, business owners, educators, beneficiaries and others the opportunity to learn about Mirador and voice any concerns. Stakeholder feedback is documented and Mirador responses are tracked on an ongoing basis using an electronic database.

C.2. Summary of comments received

Stakeholders in Honduras have responded favourably to all of Proyecto Mirador’s Gold Standard project activities and have not raised objections to the project’s expansion. Comments include requests for greater access to new technologies for communities; offers for logistical and material support; and acknowledging the many sustainable development and health benefits of the project. We also receive comments related to stove performance and address them with follow-up visits on an ongoing basis.

Comments and questions collected during PoA Design Consultation Meeting, in which VPA project activity was described extensively, also indicated a favorable outlook; all feedback is specifically stated in the Design Consultation Report. Because the PoA was so recently approved, and because Mirador’s system includes ongoing, in-depth stakeholder interaction and response, we have determined that an LSC is not necessary for VPA Renewal.

Ongoing interactions with stakeholders are documented and maintained in our Salesforce.com database. The system includes follow-up tracking to make sure all comments are addressed appropriately and adequately. The majority of comments are positive, while all comments requiring further action are tracked, addressed appropriately, and documented in Salesforce.com.

Most comments received from beneficiaries have been complaints about construction that required corrective action; all were issues are remediated by a Technician or Supervisor, as appropriate, and responses are documented on an ongoing basis.

Mirador has not received any negative feedback as regards the project’s impact to the communities it serves.

C.3. Report on consideration of comments received

Stakeholder Feedback from the PoA Design Consultation meeting, in which VPA project activity was described extensively, emphasized the project's benefits to the environment, local economies and public health. Mirador did not receive any feedback that would indicate modification to the design of the Programme. All comments and questions are noted in the Design Consultation Report.

In regards to our ongoing Stakeholder Consultation process, the overwhelming majority of comments Mirador receives are positive. Mirador documents all negative comments from beneficiaries and addresses each case individually to determine the source of the problem. Generally these comments indicate construction issues, stove placement relative to roof slope and wind direction, or proper stove use and maintenance. The solutions to construction and maintenance problems are usually obvious and are remedied in a timely manner and as a matter of course. In response to issues resulting from improper stove placement, Mirador has developed a system for inspecting households to determine optimal stove placement prior to installation.

Mirador continually reviews and adjusts its operations in response to feedback from its employees, beneficiaries, local community leaders, and industry partners. Mirador has established a dynamic process by which problems are aggressively handled and innovation is welcomed. Ongoing stakeholder feedback informs our day-to-day operations and is central to the integrity of the Mirador model.

SECTION D. Eligibility of VPA and estimation of emissions reductions

D.1. Reference of methodology(ies) and standardized baseline(s)

This VPA uses the Gold Standard approved baseline and monitoring methodology, *Technologies and Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0*. VPA does not employ a standardized baseline.

Additionally, the following methodological tools are employed in this VPA:

- Additionality of this VPA was demonstrated at the time of submission for registration using the "Tool for the Demonstration and Assessment of Additionality," Version 05, EB39.
- CDM EB 66, Annex 47, "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period" (Version 03.0.1)
- NRB Assessment similar to approach of CDM methodology AMS-II.G
- CDM EB 50, Annex 30: "Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities" (Version 04.1)
- The Gold Standard, Annex Z: "Gold Standard procedures for renewal of crediting period"

D.2. Applicability of methodology(ies) and standardized baseline(s)

The methodology, *Thermal Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0*, is applicable to the VPA and PoA.

The methodology states, under "Section I: Source and Applicability":

This methodology is applicable to programmes or activities introducing technologies and/or practices that reduce or displace greenhouse gas (GHG) emissions from the thermal energy consumption of households and non-domestic premises. Examples of these technologies include the introduction of improved biomass or fossil fuel cookstoves...

Under this VPA, low-emission cook-stoves and regimes (Dos por Tres stoves) replace relatively high-emission baseline scenarios (traditional Honduran *fogón* cookstoves). VPA does not employ a standardized baseline.

The five applicability conditions of the Methodology are met by Mirador as follows:

1. The project boundary is clearly identified as Honduras. Stoves are built *in situ* and a unique household account is created in the electronic database at the time of construction, including a GPS mark, so that if there is another similar activity within the same target area, stoves from the other project cannot possibly be counted under Mirador’s activity. Likewise, Mirador stoves are not portable, so they cannot be confused with stoves disseminated by another project.
2. The Dos por Tres has continuous useful energy outputs of less than 150kW per unit.
3. As a precondition for the installation of the Dos por Tres, beneficiaries are required to remove the traditional stove that is being replaced. Beneficiaries are made aware of the requirement to remove the traditional cookstove at the time they sign up to receive the stove. Also, during Mirador’s training exercises, Stove Technicians require the beneficiary to remove the traditional stove. Every time a Supervisor performs a follow-up visit to a household post-installation, the Supervisor enters basic data related to stove condition and maintenance and verifies user information. That data is entered using a handheld device and is used by Mirador Supervisors and Ejecutores to schedule additional training or repairs, if needed, and to streamline operations. At that time, the Supervisor checks to verify the traditional *fogón* has been destroyed and records the result, making a note on the account to follow up if that has not yet happened.
4. PP clearly communicates to all beneficiaries, verbally (in training sessions) and in writing (in the Use & Maintenance Brochure), that the ownership of emission reductions shall reside with the CME. Agreement to acknowledge Mirador’s ownership of ERs is a precondition to receiving a stove.
5. Project activity is not making use of a new biomass feedstock in the project situation, so the 5th applicability condition does not apply to Mirador.

D.3. Sources and GHGs

	Source	Gas	Included	Justification/Explanation
Baseline	Smoke from cookfires	CO ₂	Yes	Main emission source
		CH ₄	Yes	Relevant source of emissions
		N ₂ O	Yes	Relevant source of emissions
Project Activity	Smoke from cookfires	CO ₂	Yes	Main emission source
		CH ₄	Yes	Relevant emission source
		N ₂ O	Yes	Relevant source of emissions

VPA is confined to Honduras, located within the geographical boundary of the registered PoA.

D.4. Description of the baseline scenario

The baseline scenario reflects that each household uses a traditional *fogón* stove prior to becoming a project beneficiary, and assumes that installation of the new improved stove has not yet occurred. This scenario is captured by assessing fuelwood supply, consumption patterns and environmental behaviors among households that use traditional wood stoves. These data define the baseline situation, which we use to characterize conditions that would prevail in the absence of the project activity. The baseline is defined based on the assumption that, in the absence of Mirador’s activity, all households in the community would continue to utilize the traditional *fogón*. Their fuel consumption is defined in the Kitchen Performance Test, discussed separately, and is applied to the entire population. The stoves are not all installed at the start of the project, but are installed progressively during the crediting period.

Changes in the baseline scenario during the crediting period for this VPA are not expected by the project participants, for the following reasons:

- The traditional *fogón* model of stove is common to prevalent throughout the PoA project area.
- Current demand in the project area among *fogón* users far exceeds Proyecto Mirador’s performance capacity and Mirador does not expect to run out of potential beneficiaries under this baseline scenario.
- Abject poverty in the rural sector is prevalent and Proyecto Mirador will continue to serve the poorest, rural areas of Honduras.

Since the baseline social, economic, and environmental conditions are not likely to consistently improve during the crediting period, a fixed baseline will be used for the duration of the crediting period.

D.5. Demonstration of eligibility for a VPA

With reference to Proyecto Mirador PoA section B.2, eligibility criteria for inclusion of this VPA into the PoA are defined and confirmed as follows:

#	Eligibility Criteria	Description	Means of Verification (as defined in PoA)	Proof of Eligibility (this VPA)
1	VPA Location and Project Boundary	VPA shall involve the distribution of ICS within the geographical boundary of Host Countries defined in the PoA	VPA clearly states VPA project boundary under Section A.7, “Geographic Reference or Other Means of Identification,” and VPA project boundary falls within PoA project boundary. GPS markings are kept for each stove installed and available to DOE for verification to ensure all stoves are within VPA project boundary.	VPA clearly states VPA project boundary under Section A.7, “Geographic Reference or Other Means of Identification.” VPA project boundary is Honduras, which falls within PoA project boundary. GPS markings are kept for each stove installed and available to DOE for verification to ensure all stoves are within VPA project boundary
2	Avoid double counting	VPA shall apply a unique identifier to each cookstove installed and apply	Electronic database is available to DOE for verification containing individual records for each	Stoves are built <i>in situ</i> and a unique household account is created in the

#	Eligibility Criteria	Description	Means of Verification (as defined in PoA)	Proof of Eligibility (this VPA)
		<p>routine data checks and other management protocols that ensure double counting is avoided.</p>	<p>stove, each with a unique identifier automatically generated by database.</p>	<p>electronic database at the time of construction, including a GPS mark. Furthermore, an inspector goes to each house before construction can begin and at that time, verifies that ICS technology is not already present. For those reasons, if there is another similar activity within the same target area, stoves from the other project cannot possibly be counted under Mirador’s activity.</p>
3	Technology	<p>VPAs shall utilize ICS technologies with useful energy output of less than 150kW</p>	<p>Technical report from qualified 3rd party.</p>	<p>Each stove installed has continuous useful energy outputs of less than 150kW per unit, as provided (per Aprovecho, 2009).</p>
4	Start Date	<p>The start date of each VPA shall be the first date of stove construction.</p>	<p>All stove installations are individually tracked on an electronic database that is available to DOE for validation.</p>	<p>Start date of this VPA is May 1, 2009. All installations from the project start date and forward are in the Mirador stove database and available for DOE review.</p>
5	Methodology	<p>VPA uses approved Gold Standard Methodology <i>Technologies and Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0</i>, and satisfies all its requirements.</p>	<p>VPA states methodology used under Section D.1, under “Reference of methodology(ies) and standardized baseline(s).”</p> <p>Applicable requirements of methodology are articulated in Section D.5, “Demonstration of eligibility for a VPA,” and documented throughout VPA.</p>	<p>Section D.1 of VPA states methodology used as “<i>Thermal Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0.</i>”</p> <p>Applicable requirements are substantiated as follows:</p> <ul style="list-style-type: none"> • Project boundary is clearly identified in Section D.1 of VPA

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#	Eligibility Criteria	Description	Means of Verification (as defined in PoA)	Proof of Eligibility (this VPA)
				<p>and agrees with PoA project boundary.</p> <ul style="list-style-type: none"> • VPA confirms that technologies counted in the project are not included in another voluntary market or CDM project activity. • Appropriate mechanisms are in place to prevent double counting (see explanation in this chart, above). • Each stove installed has continuous useful energy outputs of less than 150kW per unit, as provided (per Aprovecho, 2009). • As a precondition for the installation of ICS, beneficiaries are required to remove the traditional stove that is being replaced. • PP clearly communicates to all beneficiaries, verbally (in training sessions) and in writing (in the Use & Maintenance Brochure), that the ownership of emission reductions shall reside with the CME. Use and Maintenance brochure has been supplied to the DOE for confirmation.
6	LSC	VPA shall conduct an LSC that follows the GS LSC guidance	LSC report	The LSC is conducted at the VPA level. The First VPA held its LSC in 2008 in establishment of the

#	Eligibility Criteria	Description	Means of Verification (as defined in PoA)	Proof of Eligibility (this VPA)
				PDD;
7	EIA	EIA shall be conducted if required by the host country	Official documentation confirming EIA conducted	EIA is not required by the host country. Informal environmental assessment is provided at the PoA level.
8	Target group	VPAs shall target household or institutional users of inefficient biomass stoves. Users may or may not include auxiliary non-biomass cookstoves to augment their cooking practices.	Confirmed via baseline kitchen surveys, conducted according to the requirements of the GS methodology.	Kitchen surveys were conducted in 2007 (see Yale 2007 Report) and in 2012 (see Third Verification Report) confirming target users are household users of inefficient biomass stoves. Mirador verifies, before installation, that each stove user is a household user of a traditional <i>fogón</i> .
9	Additionality	VPA must demonstrate that the project meets additionality requirements of the Gold Standard.	VPA demonstrates additionality using the Investment Barrier Analysis. Analysis shall be structured to include three potential sources of income: <ul style="list-style-type: none"> • Equity investment upon expectation of certain returns • Financing institution (bank) in the form of a bank loan • Donations Each potential source of income shall be analyzed from the perspective of three potential project developers: <ul style="list-style-type: none"> • Individual households • Governmental Institutions • Private organizations By exploring the potential of the above three	VPA demonstrates additionality using Investment Barrier Analysis. VPA demonstrates that in the absence of project activity, baseline conditions (installation of the traditional cookstove) would persist.

#	Eligibility Criteria	Description	Means of Verification (as defined in PoA)	Proof of Eligibility (this VPA)
			sources income from those three perspectives, VPA shall show that in the absence of project activity, baseline conditions (installation of the traditional cookstove) would persist.	
10	Ownership of ER credits	<p>VPA shall be developed and implemented by the CME. In case contracted entities are retained to manage future VPAs, the contractual agreements between each partner and the CME will clearly establish ownership of emission reduction credits generated through the PoA as belonging to the CME.</p> <p>VPA shall clearly communicate to all end user beneficiaries, verbally and in writing, that the ownership of emission reductions shall reside with the CME.</p>	<p>VPA-DDs shall be approved by the CME and submitted by CME to DOE for inclusion.</p> <p>VPA is managed by CME. In case contracted entities are retained to manage future VPAs, contracted entities shall confirm to DOE their agreement that emission reduction credits generated by the VPA through the PoA belong to the CME.</p> <p>VPA shall present training brochures and procedural training materials to show that final beneficiaries are clearly informed that the ownership of emission reductions shall reside with the CME.</p>	This VPA is submitted directly by the CME to DOE for inclusion. VPA is managed by CME, so it is clear ERs are owned by CME
11	ODA	If official development assistance (ODA) is provided, it is not contingent on transfer of carbon credits to the donor country providing ODA support.	Completion of ODA Declaration form, if required	ODA Declaration Form has been submitted to the DOE.
12	Sustainable Development	VPA is required to align with Do No Harm Assessment and SD Matrix.	CME shall directly review VPA for compliance and if any negative indicators are present, modifications will be required until all indicators score positive or neutral.	CME confirms that all indicators score positive or neutral. On that basis CME confirms that VPA conforms to CME's SD Matrix and Do No Harm Assessment.

#	Eligibility Criteria	Description	Means of Verification (as defined in PoA)	Proof of Eligibility (this VPA)
13	Prior consideration of carbon revenues	VPA is required to demonstrate that real actions were taken to secure carbon revenue for the project in parallel with its implementation.	Evidence to support this should include one or more of the following: contracts with consultants for services related to GS compliance; draft versions of PDDs; evidence of agreements or negotiations with a DOE for validation services, or earlier correspondence with the Gold Standard regarding the project.	2 documents generated prior to May 1, 2009 start date: (1) Aprovecho 2008 lab test report (baseline vs. project scenario); (2) Contract with 3 rd party consultant dated 26 August 2008 for services related to development of PDD

D.6. Estimation of emission reductions

D.6.1. Explanation of methodological choices

The methodology, *Technologies and Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0*, shall be applied and is applicable to the project since low-emission cook-stoves and regimes (Dos por Tres stoves) replace relatively high-emission baseline scenarios (traditional Honduran *fogón* stoves). The baseline is defined based on the assumption that in the absence of Mirador's activity, all households in the community would continue to utilize the baseline stove. Their fuel consumption is defined in the KT and applicable to the entire population.

Baseline emissions

Baseline emissions calculations used herein are valid according to the steps as described in the *Technologies and Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0*.

The CDM Tool "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period" (Version 03.0.1) is followed for VPA renewal. VPA follows "Step 1 - Assess the validity of the current baseline for the next crediting period." Step 2 is inapplicable as the requirements of Step 1 are satisfied, per the following rationale.

Step 1.1: Assess compliance of the current baseline for the next crediting period

No new national or sectorial policies have been enacted in Honduras since project inception on May 1, 2009 that affect compliance of the baseline. Since issues of non-compliance are inapplicable to the project, the baseline does not need to be updated for the subsequent crediting period.

Step 1.2: Assess the impact of circumstances

Although the number of stove projects operating in Honduras has increased since project inception, including government participation in stove manufacture and distribution, the use of the traditional *fogón* remains overwhelmingly prevalent, especially in rural and peri-urban areas. Mirador only builds Dos por Tres stoves in homes where the baseline stove is the traditional *fogón*. If another improved cookstove is present, the household is ineligible to receive the Dos por Tres. Thus, any limited improvements in circumstances and cultural practice that have occurred since inception will not affect the validity of the baseline.

Stoves are built *in situ* and a unique household account is created in the electronic database at the time of construction, including a GPS mark, so that if there is another

similar activity within the same target area, stoves from the other project cannot possibly be counted under Mirador's activity.

There are three established stove programs currently operating in Honduras in addition to Mirador: Stove Team International, ADHESA and Vida Mejor. Of these only Mirador and Stove Team are dedicated solely to the purpose of stove construction. Stove Team has produced more than 50,000 stoves but those stoves are spread throughout Guatemala, El Salvador, Mexico and Honduras (<http://www.stoveteam.org>). Our estimates are that about 1,500 Stove Team stoves were distributed in the last year in Honduras, all of them in a localized area called Copan Ruinas (sold at ~\$50-\$60 per stove) and that no more than 2,000 ADHESA stoves were made in the last year, localized in the area near Tegucigalpa (sold at \$125 per stove).

The Honduran President, Juan Orlando Hernandez, now distributes stoves through a government sponsored initiative called Vida Mejor, which was established to improve the homes of the nation's poor with cement floors, tin roofs, water filters, water cisterns and stoves. According to the government's website (<http://www.fhis.hn/noticias/58-noticias/579--presidente-hernandez-expone-sobre-vida-mejor-y-honduras-activate-ante-la-oms-y-ops>) 52,000 stoves had been distributed in the past 18 months as of September 2015. Stoves distributed through the Vida Mejor initiative are subsidized with government funds.

For the past 5 years, The Inter American Development Bank and the World Bank have been working to complete a program "Scaling Up Renewable Energy in Low Income Countries" (SREP: <http://www.climateinvestmentfunds.org/cif/node/4991>) that is intended to fund distribution of 50,000 fuel efficient stoves through an organization called Fundación Vida. Fundación Vida is now in the process of signing contracts with stove developers in Honduras for a limited number of stoves to test whether each organization is capable of the effective distribution and monitoring of cookstoves. We would estimate this program to be completed with all funds distributed in the next ~4 years. Fundación Vida generally funds up to 50% of the cost of a stove depending on the normal stove price.

In total, then, and not including Mirador's figures, average distribution of ICS in Honduras amounts to about 50,000 units per year assuming the government's claims are correct. Without a comprehensive training and follow-up program like the one offered by Mirador, the useful life of each cookstove will be significantly less than in Mirador's case, and stoves will need frequent replacement. This is particularly true in the case of portable stoves that are not built *in situ*, such as the ones offered by both Stove Team and Vida Mejor. There are at least 500,000 rural homes in Honduras alone that need to replace their traditional cookstoves with ICS and an unknown number of households in cities that also need them.

Mirador's co-investment model is outstanding in the field as the entire or partial cost of all other stoves is either paid by the user or subsidized by a government program. The government program represents a substantial effort to address the problem, but given the size of the demand, the continued use of the traditional *fogón* is still by far the most likely scenario in the absence of project activity. Furthermore, Mirador's stove represents the most desirable and easily assimilated replacement technology than a portable stove, as the Dos por Tres is, from an operational standpoint, functionally the same as a traditional *fogón*. While further options may continue to appear in the Honduran cookstove market, incomes are likely to remain low in Honduras and we are confident that demand for the Dos por Tres will remain high regardless of any options available by purchase or subsidy.

175 Kitchen Surveys verified by the Gold Standard from 2013 to 2015 confirm that there have been no significant changes in baseline cooking practices since project inception.

Step 1.3: Assess whether the continuation of the use of current baseline equipment(s) or an investment is the most likely scenario.

The Tool states that “This sub-step should only be applied if the baseline scenario identified at the validation of the project activity was the continuation of use of the current equipment without any investment and, the projects proponents or third party (or parties) would undertake an investment later due, for example, to the end of the technical lifetime of the equipment(s) before the end of the crediting period or the availability of a new technology.”

The baseline scenario in this VPA-DD is the continued use of the traditional *fogon* cookstove. In the absence of project activity, beneficiaries would invest in a similar, unimproved *fogon* cookstove at the end of the useful life of the *fogon*.

The only investment Mirador requires on the part of the beneficiary is a small contribution of cheap, locally available materials such as cement, rebar, bricks, adobe blocks and/or wood ash. The investment is required prior to construction and beneficiaries must agree to provide these materials as a precondition to signing up to receive a stove. Mirador’s two-year backlog of solicitations from villages, each with anywhere from 10 to several thousand specific names of people wishing to receive the Dos por Tres, offers proof that beneficiaries are willing to undertake this minimal investment. However, the additional subsidy provided by Mirador (which is made possible by carbon finance) covers the custom stove parts, technical know-how, labor for stove installation, and ongoing supervision and monitoring. Those represent by far the most costly components of the improved cookstove technology, and would be inaccessible and/or unaffordable to beneficiaries in the absence of Mirador’s project activity.

Because Dos por Tres cookstoves are installed continuously throughout the crediting period, it is likely that in many cases the useful life of the *fogon* will exceed the termination of the crediting period for which renewal is requested. However, in any case the most likely scenario in the absence of the project activity is the replacement of the original *fogon* with another traditional *fogon* at the end of the original stove’s useful life.

Step 1.4: Assessment of the validity of the data and parameters

IPCC default values are used for emission factors (both CO₂ and non-CO₂) and are sourced from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories 2.1, Volume 2: Energy.

IPCC default values for Global Warming Potential (GWP) include the most recent update. As per Decision 4/CMP.7, the correct source is the contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007 (Table 2.14).

Baseline test

Baseline values are defined as per the 2010 Fuelwood Consumption Study. Field results are adjusted to account for moisture variation and adult equivalent persons. Any lab testing involves tending to replicate stove use as would be done by cooks.

The KT focused exclusively on typical baseline *fogón* stoves, and involved taking physical measurements of daily wood consumption with the required return visits over a four-day period.

During the KT it was found that households have a degree of typical fuel and stove-type mixing; however, during the KT only the primary fuel—woody biomass—was measured by measuring the amount of wood not used, from a previously measured pile. The effect of fuel mixing reduces the savings made in primary fuel between the baseline and project scenarios. The quantity of secondary fuel is treated as zero. Wood consumption in the baseline study was calculated on a “dry wood basis” to account for variations in fuelwood moisture between households. Based on the above, the option to measure fuel consumption of the primary fuel only was selected for the calculation of the emission reductions.

A secondary baseline study was conducted in 2013 among 117 households to enhance the geographic spread of the baseline and test the validity of the 2010 results. Rob Bailis, PhD, of the

Yale School of Forestry and Environmental Studies, performed the analysis and concluded the following:

The results show that baseline daily consumption was 10.6 kg of dry-wood per household (1.1 kg per person-meal) in 2010 and 10.9 kg of dry-wood per household (1.0 kg per person-meal) in 2013. These differences are insignificant and we can conclude that there has been no variation in baseline fuel consumption in this time period.

The results of the 2013 baseline study thus corroborated those of the 2010 study, further supporting the applicability of Step 1.

As per the provisions of the TPDDTEC v2, Section 7, *Performance Field Tests and Calculation of Emission Reductions*, The baseline and project performance field tests (BFT and PFT) measure real, observed technology performance in the field. Consumption is measured with a representative sample of end users under the defined baseline scenario (in the absence of project technology) and project scenario using the Kitchen Performance Test (KPT). Simple random sampling is employed; testing is transparent, easily replicable and conservative; and the impact of day-to-day variation in cooking practices is accounted for as we calculate emission reductions on absolute fuelwood savings as observed in the KPT over a complete four-day cycle.

Mirador monitors for seasonal variation on an ongoing basis and has found that only 5% of our beneficiaries report that there are days in the year when the stove is not in use. Of those 5%, the average number of days per year when the stove is not in use is just over 9 days. When averaged over the entire population, there is less than half a day per year per household when the stove is not in use. This rounds to zero; thus, adjustments have not been made to the ER Calculations to date. However, Mirador will continue to monitor the number and should a more significant number arise, project days will be adjusted accordingly.

Baseline and project field test data are analysed in combination to estimate the average annual emission reductions or average fuel savings per household. The TPDDTEC dictates that “Whenever the baseline fuel and project fuel are the same (e.g. deployment of improved cook stove for the reduction of non-renewable biomass use), the statistical analysis can be conducted with respect fuel savings per unit.” In order to maximize accuracy and minimize volatility, emission reductions are calculated on the basis of mean fuelwood consumption per person-meal.

All baseline and project field testing is designed to satisfy the “90/30 rule” as described in the methodology.

Since project beneficiaries are using the same fuel in baseline and project scenarios, and are not substituting an alternative fuel, the project is subject to Equation 1 of the TPDDTEC Methodology. Equation 1 states as follows (p. 15):

“When the baseline fuel and the project fuel are the same and the baseline emission factor and project emission are considered the same, the overall GHG reductions achieved by the project activity in year y are calculated as follows:

$$ER_y = \sum_{b,p} (N_{p,y} * U_{p,y} * P_{p,b,y} * NCV_{b,fuel} * (f_{NRB,b,y} * EF_{fuel,CO_2} + EF_{fuel,nonCO_2})) - \sum LE_{p,y} \quad (1)$$

Accordingly, key data are monitored as follows:

$N_{p,y}$	<i>Parameter ID6</i> Cumulative number of project technology-days included in the project database for project scenario p against baseline scenario b in year y
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U_{p,y}	<i>Parameter ID8</i> Cumulative usage rate for technologies in project scenario p in year y, based on cumulative adoption rate and drop off rate revealed by usage surveys (fraction)
P_{p,b,y}	<i>Parameters ID7</i> Specific fuel savings for an individual technology of project p against an individual technology of baseline b in year y, in tons/day, as derived from the statistical analysis of the data collected from the field tests
f_{NRB,b,y}	<i>Parameter ID5</i> Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass
NCV_{b,fuel}	<i>Parameter ID4</i> Net calorific value of the fuel that is substituted or reduced
EF_{fuel,CO₂}	<i>Parameter ID1</i> CO ₂ emission factor of the fuel that is reduced
EF_{fuel,nonCO₂}	<i>Parameters ID2 & ID3</i> Non-CO ₂ emission factor of the fuel that is reduced
LE_{p,y}	<i>Parameters ID9 & ID10</i> Leakage for project scenario p in year y (tCO ₂ e/yr)

D.6.2. Data and parameters fixed ex-ante

The parameters set forth below meet the requirements of the Gold Standard Methodology, *Technologies and Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0*.

Data / Parameter	ID 1/ EF_{fuel,CO₂}
Unit	tCO ₂ /TJ
Description	CO ₂ emission factor of the fuel that is reduced
Source of data	2006 IPCC Guidelines for National Greenhouse Gas Inventories 2.1, Volume 2: Energy (http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf).
Value(s) applied	112 tCO ₂ /TJ
Choice of data or Measurement methods and procedures	IPCC default value
Purpose of data	Calculation of baseline and project emissions
Section 1.01 Additional comment	

Data / Parameter	ID 2/ EF _{fuel,nonCO₂,CH₄}
Unit	tCO ₂ /TJ
Description	CH ₄ emission factor for the fuel that is reduced
Source of data	2006 IPCC Guidelines for National Greenhouse Gas Inventories 2.1, Volume 2: Energy (http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf).
Value(s) applied	0.30
Choice of data or Measurement methods and procedures	IPCC default value
Purpose of data	Calculation of baseline and project emissions
Section 1.02 Additional comment	

Data / Parameter	ID 3/ EF _{fuel,nonCO₂,N₂O}
Unit	tCO ₂ eTJ
Description	N ₂ O emission factor for wood that is reduced
Source of data	IPCC Default value
Value(s) applied	0.004
Choice of data or Measurement methods and procedures	2006 IPCC Guidelines for National Greenhouse Gas Inventories 2.1, Volume 2: Energy (http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf).
Purpose of data	Calculation of baseline and project emissions
Section 1.03 Additional comment	

Data / Parameter	ID 4/ NCV_{fuel}
Unit	TJ/ton
Description	The Net Calorific Value (NCV) of the fuel that is substituted or reduced
Source of data	NCV for Red Oak, per Global Alliance for Clean Cookstoves, "WBT 4.2.4 Spreadsheet" (http://cleancookstoves.org/technology-and-fuels/testing/protocols.html) with reference to Cheremisinoff, N. Properties of Wood. Wood for Energy Production. Ann Arbor, MI, Ann Arbor Science: 31-43. 1980
Value(s) applied	0.0186 TJ/ton
Choice of data or Measurement methods and procedures	NCV for Red Oak
Purpose of data	Calculation of baseline and project emissions
Section 1.04 Additional comment	

D.6.3. Ex-ante calculation of emission reductions

Emission reductions are calculated by comparing daily fuel consumption per person-meal, adjusted for variations in moisture content, in the project scenario vs. baseline scenario. Calculations are based on absolute fuelwood consumption, The quantity of secondary fuel is treated as zero and emission reductions are calculated on the basis of reduction of only the primary fuel.

Non-renewable biomass (NRB) was last reassessed in 2011 as 77% and this figure was approved by the Gold Standard in 2012. It was confirmed in 2015 that there has been no significant change in the Project Area since NRB was last assessed in 2011, and that if anything the NRB factor would have increased since then (Rob Bailis, PhD, 2015). Nonetheless, we have adjusted our figure downward to 69% in order to stay aligned with other validated Gold Standard projects in Honduras and ensure conservativeness.

Projected emission reductions for the second 7-year crediting period, stated below in Section D.6.4, are calculated according to Equation 1 in *Technologies and Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0*, as follows:

$$ER_y = \sum_{b,p} (N_{p,y} * U_{p,y} * P_{p,b,y} * NCV_{b,fuel} * (f_{NRB,b,y} * E_{fuel,CO2} + E_{fuel,nonCO2})) - \sum LE_{p,y} \quad (1)$$

All projections assume the build rates will continue with an expected 5% increase each year. Abandonment, leakage and aging assumptions are based on the most recent data approved by the Gold Standard in connection with the 2014 Verification. A complete emission reduction calculation spreadsheet, is provided to the DOE at the time of Validation. Actual stove build figures are used up to the time of VPA submission to the DOE; estimated stove build figures are applied thereafter.

D.6.4. Summary of the ex-ante estimates of emission reductions

The table below shows the total estimated emission reductions of the project activity in the 7-year crediting period (1 May 2016 - 30 April 2023), with year end adjusted to 30 November to match the project verification cycle.

Year	Leakage (t CO ₂ e)	Emission reductions (t CO ₂ e)
Year A (May 1, 2016 – Nov. 30, 2017)	0	574,103
Year B (Dec. 1, 2017 – Nov. 30, 2018)	0	406,231
Year C (Dec. 1, 2018 – Nov. 30, 2019)	0	425,989
Year D (Dec. 1, 2019 – Nov. 30, 2020)	0	443,476
Year E (Dec. 1, 2020 – Nov. 30, 2021)	0	455,436
Year F (Dec. 1, 2021 – Nov. 30, 2022)	0	477,299
Year G (Dec. 1, 2022 – Apr. 30, 2023)	0	203,707
Total	0	2,986,241
Total number of crediting years	7	
Annual average over the crediting period	0	426,606

Emission reduction projections above are rough estimates based on reasonable rates of expansion projected at the present date. These numbers are imprecise and subject to change due to numerous factors.

D.7. Application of the monitoring methodology and description of the monitoring plan

D.7.1. Data and parameters to be monitored

Data / Parameter	ID 5/ fNRB,b,y
Unit	%
Description	The non-renewable fraction of the woody biomass harvested in the project collection area in year y in the baseline scenario
Source of data	Third party analysis
Value(s) applied	69%
Measurement methods and procedures	2011 NRB Analysis by Berkeley Air Monitoring Group (adjusted downward from 95.4% to 77%). Supported by 2015 confirmation from Dr. Rob Bailis that NRB has likely gone up in Honduras overall since our last assessment. Adjusted downward to 69% to align with recently validated GS1377, VPA3 and ensure conservativeness.
Monitoring frequency	Fixed at the time of revalidation and updated at PP’s option as allowed in Section III.1, item f, of the TPDDTEC
QA/QC procedures	Assessment shall be conducted by a reputable third party forestry expert
Purpose of data	Calculation of project emissions
Additional comment	

Data / Parameter	ID 6 / N_{p,y}																		
Unit	Number of project technology days																		
Description	Cumulative number of project technology-days included in the project database for project scenario p against baseline scenario b in year y																		
Source of data	Salesforce.com installation database																		
Value(s) applied	<p>The value of N_{p,y} is a function of the total stoves in use times days in operation and is updated on a monthly basis in the ER Calculations spreadsheet. Ex ante projections for stove sales are as follows:</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Sales</th> </tr> </thead> <tbody> <tr> <td>Year 1 (Starting from May-16)</td> <td>24,558</td> </tr> <tr> <td>Year 2</td> <td>25,814</td> </tr> <tr> <td>Year 3</td> <td>26,620</td> </tr> <tr> <td>Year 4</td> <td>27,248</td> </tr> <tr> <td>Year 5</td> <td>28,642</td> </tr> <tr> <td>Year 6</td> <td>30,107</td> </tr> <tr> <td>Year 7</td> <td>31,648</td> </tr> <tr> <td>Total</td> <td>194,637</td> </tr> </tbody> </table>	Year	Sales	Year 1 (Starting from May-16)	24,558	Year 2	25,814	Year 3	26,620	Year 4	27,248	Year 5	28,642	Year 6	30,107	Year 7	31,648	Total	194,637
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Year 4	27,248																		
Year 5	28,642																		
Year 6	30,107																		
Year 7	31,648																		
Total	194,637																		
Measurement methods and procedures	<p>The Salesforce.com database will hold the following information to identify each household using project technology:</p> <ul style="list-style-type: none"> - Installation record - Date of installation - Location of installation - Model/type of stove installed - Model of use prior to installation of the Dos por Tres - Name of beneficiary 																		
Monitoring frequency	Ongoing																		
QA/QC procedures	Calculation of emission reductions																		
Purpose of data																			
Additional comment																			

Data / Parameter	ID 7 / P_{p,y}
Unit	Average daily dry wood fuel reduction per person-meal (tonnes/household/day)
Description	Specific fuel savings from an individual technology of project p against an individual technology of baseline b in year y.
Source of data	Kitchen Performance Test
Value(s) applied	0.006168 t/household/day (Weighted average fuel savings, weighted on the basis of number of stoves in operation for each age group)
Measurement methods and procedures	Kitchen Performance Test to determine woody biomass consumed per household in the project scenario, and to determine whether there is a decline in stove efficiency over time as determined by a change in fuel wood usage.
Monitoring frequency	Every 2 years
QA/QC procedures	Ask questions including: "What is your family size" and "What is the age and gender of each household member?" and perform wood weighing over 4 days, similar to the original baseline study, to determine if fuel use patterns have changed. Study will follow industry standard guidelines for KPT. Qualified third party to provide data analysis.
Purpose of data	Calculation of emission reductions
Additional comment	Figure above pertains to stoves in their first year of operation. Figures for Years 1_2 and subsequent, adjusted appropriately for stove aging and degradation, are accounted for in ER Calculations.

Data / Parameter	ID 8/ U_{p,y}														
Unit	% of households														
Description	Abandonment (drop-off) rate (the number of stoves that have fallen out of use in a given age group)														
Source of data	Survey and visual observation														
Value(s) applied	<table style="margin-left: auto; margin-right: auto;"> <tr> <td>Age 0-1</td> <td>7.7%</td> </tr> <tr> <td>Age 1-2</td> <td>5.5%</td> </tr> <tr> <td>Age 2-3</td> <td>5.0%</td> </tr> <tr> <td>Age 3-4</td> <td>6.7%</td> </tr> <tr> <td>Age 4-5</td> <td>25.0%</td> </tr> <tr> <td>Age 5-6</td> <td>25.0%</td> </tr> <tr> <td>Age 6-7</td> <td>25.0%</td> </tr> </table>	Age 0-1	7.7%	Age 1-2	5.5%	Age 2-3	5.0%	Age 3-4	6.7%	Age 4-5	25.0%	Age 5-6	25.0%	Age 6-7	25.0%
Age 0-1	7.7%														
Age 1-2	5.5%														
Age 2-3	5.0%														
Age 3-4	6.7%														
Age 4-5	25.0%														
Age 5-6	25.0%														
Age 6-7	25.0%														
Measurement methods and procedures	Survey of beneficiaries who had stoves installed within the first 12 months of stove age group														
Monitoring frequency	Annual														
QA/QC procedures	Surveys are taken onsite, results are corroborated by visual inspection and tabulated using Salesforce.com database.														
Purpose of data	Calculation of emission reductions														
Section 1.05 Additional comment															

Data / Parameter	ID 9/ LE_{p,y}
Unit	Number of Households
Description	Assess leakage sources including (1) replacement of efficient household heating sources with less efficient fuel; (2) continued use of baseline stove after installation.
Source of data	Ongoing questionnaires.
Value(s) applied	0%
Measurement methods and procedures	Survey, on an ongoing basis, 1 of every 100 new Dos por Tres stove owners. Questionnaires to be administered by Mirador Supervisors.
Monitoring frequency	Ongoing
QA/QC procedures	Surveys are taken onsite via handheld device and tabulated using Salesforce.com database.
Purpose of data	Calculation of leakage
Additional comment	

Data / Parameter	ID 10/ LE_{p,y} - Leakage due to Transportation
Unit	Kilometers
Description	Assess leakage due to transportation
Source of data	Mileage records; Transportation and Maintenance records.
Value(s) applied	Total annual number of kilometers driven by Proyecto Mirador employees.
Measurement methods and procedures	Annual report to assess changes in kilometers driven year to year, to see if mileage is increasing significantly beyond the relative increase in project activity.
Monitoring frequency	Mileage records track miles driven on an ongoing basis for each vehicle, and the results are tabulated annually.
QA/QC procedures	Surveys are taken onsite via handheld device and tabulated using Salesforce.com database.
Purpose of data	Calculation of project emissions
Additional comment	

Data and Parameters used to assess Sustainability:

Data and Parameters used to assess Sustainability	
Data / Parameter:	ID 11 / Number and percentage of individuals
Data unit:	Individuals
Description:	Assess agreement with statements in Sustainability Monitoring Plan Sections, Passport Issues 1, 7, & 9. Air Quality, Livelihood of Poor, Human & Institutional Capacity.
Monitored /Calculated /Default:	Responses to questionnaire.
Value (s) of monitored parameter:	Number of positive responses to questionnaires.
Monitoring equipment	Questionnaire administered by Supervisors.

(type, accuracy class, Calibration frequency, date of last calibration, validity)	
Measuring/Recording frequency:	Survey, on an ongoing basis, a statistically significant number of Estufa Dos por Tres stove owners. (Randomness of the sample will be maintained by surveying every <i>n</i> th beneficiary.) Questionnaires to be administered by Supervisors.
Source of data:	Survey.
Calculation method (if applicable):	Data tabulation and report issued on an annual basis.
QA/QC procedures applied:	Sufficient sample size. Questionnaires administered by both local community organizers and PM.
Any comment:	

Data and Parameters used to assess Sustainability	
Data / Parameter:	ID 12 / Number of individuals
Data unit:	Individuals
Description:	Assess agreement with statements in Passport Sustainability Monitoring Plan sections regarding wider social and economic impact of the project including 6. Quality of Employment, 10. Quantitative employment and income generation, 12. Technology Transfer (to stove builders.)
Monitored /Calculated /Default:	Responses to questionnaire.
Value (s) of monitored parameter:	Positive score
Monitoring equipment (type, accuracy class, Calibration frequency, date of last calibration, validity)	Questionnaire
Measuring/Recording frequency:	Annual
Source of data:	Surveys of employees, management report on number of employees, and copies of training materials used by employees.
Calculation method (if applicable):	Annual written report of number of employees and record of employee surveys. No calculation needed.
QA/QC procedures applied:	

Data and Parameters used to assess Sustainability	
Data / Parameter:	ID 13 / Number and percentages of individuals
Data unit:	Individuals
Description:	Assess agreement with statements in Passport Sustainability, PDD Leakage, and Emissions Monitoring Plans. Sustainability: 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)

Monitored /Calculated /Default:	Responses to Leakage & Sustainability Surveys
Value (s) of monitored parameter:	Positive score
Monitoring equipment (type, accuracy class, Calibration frequency, date of last calibration, validity)	Survey, on an ongoing basis, a statistically significant number of ICS owners. (Randomness of the sample will be maintained by surveying every <i>n</i> th beneficiary.) Questionnaires to be administered by CME.
Measuring/Recording frequency:	Ongoing
Source of data:	Survey
Calculation method (if applicable):	Data tabulation and annual report.
QA/QC procedures applied:	

D.7.2. Description of the monitoring plan

The central aspect of our Monitoring Plan is an electronic monitoring database where all household information, usage, maintenance, leakage and sustainability monitoring data is kept. Data integrity is checked and maintained in the electronic database by the Director of Technology in Honduras on an ongoing basis. Throughout the process by which data is gathered and verified in the field, the office team, under the supervision of the Director of Technology, cross checks and reviews the data with various data de-duplication tools, checking the data for quality, eliminating duplicates if found, and making sure that the required data is being captured on all records. The electronic database is automatically backed up. If any data is modified or changed, a record history is tracked. All VPAs will be tracked by the CME under the same system.

Sales Record/Installation Record/Stove Database

CME shall keep a sales record (installation database) of every stove constructed. Data shall include the beneficiary name, government ID number, stove ID number (serial number), locating information and date of construction for all the households that receive a stove. GPS readings will be tracked wherever possible. CME will use an electronic monitoring system to maintain a database for this VPA. System will accept survey data both on- and offline through a handheld interface. When any type of survey is conducted in a given household, the survey is created electronically from within the household record in the stove database and is thus automatically associated with that household.

The following types of field data will be collected and maintained for each stove record, for all VPAs under the PoA:

- Installation record
- Date of installation
- Location of installation
- Model/type of stove installed
- Model of use prior to installation of ICS
- Name of beneficiary
- ID number of beneficiary
- Unique serial number applied to each stove

Every time a Supervisor performs a follow-up visit to a household post-installation, the Supervisor enters basic data related to stove condition and maintenance and verifies user information. That data is entered using a handheld device and is used by Mirador Supervisors and Ejecutores to schedule additional training or repairs, if needed, and to streamline operations. Also during the visit, the Supervisor checks to verify the traditional

fogón has been destroyed and records the result, making a note on the account to follow up if that has not yet happened.

Monitoring Surveys

The following survey data will be tracked throughout the crediting period and reported at each verification:

Leakage & Sustainability Survey:

Mirador's Supervisors carry out a statistically significant number of extensive surveys in order to assess Leakage ($LE_{p,y}$), as well as Sustainability issues as recorded in the Passport Section G (#1, Air Quality; #7, Livelihood of the Poor; and #9, Human and Institutional Capacity). Results are compiled on an ongoing basis and reported on time for each Verification.

The Leakage and Sustainability Survey is administered to the full range of stove ages for which ERs are claimed, with the sample size large enough to ensure statistical significance for each age group. The Leakage And Sustainability Survey includes a question to determine the presence or absence of auxiliary *fogon* cookstoves and, when a *fogon* is present, the extent to which it is used. Based on the results of the surveys given to the sample population, the value of $LE_{p,y}$ is adjusted to account for the percent of households that have a *fogon* in each age group, adjusted for the average rate of use of the *fogon* relative to the use of the Dos por Tres as per the results of the Leakage and Sustainability Survey.

For newer stoves, survey participants are selected at random by having the electronic monitoring system prompt Mirador Supervisors to conduct a Leakage and Sustainability for every *n*th household that is visited in the regular course of stove monitoring. Thus, households are represented from throughout the project database and throughout the year. For older stoves, households are selected at random from villages that are close to routes used to access villages in the current follow-up visit schedule for stoves in their first 1.5 years of operation. Since stoves are built in diverse areas throughout the project area on an ongoing basis, the sample base will remain wide enough to provide a fully representative sampling for older stoves. In this way the Leakage and Sustainability survey will continue to provide critical information on year-to-year trends in end user characteristics such as technology use, fuel consumption and seasonal variations.

The TPDDTEC provides 5 potential sources for leakage, most of which do not apply to a project that builds permanent, unmovable stoves *in situ* in replacement of traditional stoves that are also built *in situ*. Following is analysis of each source and its applicability in Mirador's case.

(a) The displaced baseline technologies are reused outside the project boundary in place of lower emitting technology or in a manner suggesting more usage than would have occurred in the absence of the project. Baseline stoves are built *in situ* and cannot be relocated, and therefore cannot be reused in another location. Mirador requires as a precondition of installation that the beneficiary agree to destroy the old *fogón*, and Mirador monitors the presence or absence of a *fogón* on every follow-up visit, following strict protocols to ensure the *fogón* is removed if applicable. The continued presence of a *fogón* will be tracked using the Leakage and Sustainability Survey and leakage will be accounted for according to the results.

(b) Non-project users who previously used lower emitting energy sources use the non-renewable biomass or fossil fuels saved under the project activity.

Traditional biomass cookstove use is by far the most common baseline scenario in villages where Mirador builds cookstoves. Given the high percentage of forest cover in Honduras (41.54% of total land area) fuelwood is generally available for harvest or purchase. People who use more efficient fuel types are not doing so for lack of availability of biomass. The non-renewable biomass saved

under the project activity contributes to healthier forests by detracting from forest degradation, but does not incur a risk that users of efficient stoves will convert to biomass.

(c) The project significantly impacts the NRB fraction within an area where other CDM or VER project activities account for the NRB fraction in their baseline scenario.

Although fuelwood reduction does have a mitigating effect on forest degradation, Mirador's construction activities are not at a level that would impact NRB significantly enough to affect other projects. Based on our highest build rate to date (~24,000 stoves/year), we estimate 1000 hectares of forest are protected annually as a result of Mirador's project activity, as compared to a total of 4,648,000 hectares of forest cover in Honduras.³

(d) The project population compensates for loss of space heating effect of inefficient technology by adopting some other form of heating or by retaining some use of inefficient technology.

Mirador's Leakage & Sustainability Survey will include questions to determine whether or not the beneficiaries use/used their project/baseline stoves to heat their homes, and whether or not there is/was an auxiliary heater present in the project/baseline scenario. Leakage will be assessed accordingly.

(e) By virtue of promotion and marketing of a new technology with high efficiency, the project stimulates substitution within households who commonly used a technology with relatively lower emissions, in cases where such a trend is not eligible as an evolving baseline.

Households are only eligible to use the 2x3 if they are using a traditional *fogón* as their baseline stove. Because the 2x3 is built *in situ*, we can verify in every case that it is replacing a less efficient technology.

Usage Survey

Mirador will conduct Usage Surveys as needed to comply with Gold Standard methodology to determine the level continued use of the stove (see Parameter ID 8 – $U_{p,y}$). The quantification of carbon emissions will systematically account for abandonment for each stove age group according to the results of the Usage Survey.

On time for each Verification, a usage parameter will be assessed for each age group that is applied to the total quantity of project technologies of each age group being credited in a given project scenario. Sample sizes will follow the TPDDTEC methodology, which requires that at least 30 surveys be taken of stoves in each age group to determine drop-off, with a minimum total sample size of 100. All interviews will be conducted in person and stoves will be visually observed to confirm operable stove condition and assess use based on observable factors.

The usage parameter for each age group will be applied to calculate a total net number of stoves in operation, which is then used to determine project technology-days ($N_{p,y} * U_{p,y}$). It is assumed that any drop off in the use of ICS is replaced by fuel consumption in the applicable baseline scenario. The Usage Survey will establish a useful lifetime for ICS after which stoves are removed from consideration for ER calculations and no longer credited.

Project Field Test (PFT):

³ Mongabay Environmental News, "Honduras." <http://rainforests.mongabay.com/deforestation/archive/Honduras.htm>

A Kitchen Performance Test (KPT) shall be carried out for both for baseline and project scenarios. CME shall design all emission savings tests to ensure monitoring is representative of typical technology and fuel use practices. KPTs will be conducted on a statistically significant number of households randomly selected from within a geographically and demographically representative variety of villages in order to assess quantitative Fuelwood Consumption. Fuelwood consumption will be assessed according to the 4-day KPT model in order to ensure the most accurate possible calculation of fuelwood consumption at each interval. PP will ask questions including: "What is your family size?" and "What is the age and gender of each household member?" and will also perform wood weighing and humidity measurements over 4 days, similar to the baseline study, to determine if fuel use patterns have changed since installation of the project technology.

For all aging stove KT's and baseline fuelwood consumption studies, raw data is collected and passed on to a neutral third party organization to perform the analysis. As of 2015, Yale School of Forestry and Environmental Studies (YSFES) has performed the analysis of all KPTs for Proyecto Mirador. Data collection procedures for all KPTs strictly follow guidelines prescribed and provided to Proyecto Mirador by YSFES.

Training of Beneficiaries

Proyecto Mirador's Monitoring System includes extensive training of stove beneficiaries at various stages in the process, including Community Meetings staged before construction; direct training at the time of stove construction; and multiple Follow-up Visits after stove construction.

Project beneficiaries are consistently informed that Proyecto Mirador owns all carbon credits issued as a result of emission reductions from all stoves installed. This is first articulated at the Community Meetings staged before stove construction begins in each area, then reiterated when beneficiaries are individually trained. The Mirador Training Brochure, which is given to stove beneficiaries after stove installation, also includes a written statement of Proyecto Mirador's ownership of carbon credits, and the consent of all beneficiaries is required as a precondition to stove installation.

"By accepting a new stove from Proyecto Mirador, you agree that any reductions in CO₂ emissions created by the stove are the property of Mirador."

All Follow-up Visits are scheduled systematically following Proyecto Mirador's schedule stove installation cycle to ensure proper timing for follow-up.

Training, Manual of Procedures and Audit of Proyecto Mirador Representatives

Before conducting any meetings or surveys, our Supervisors as well as our Ejecutores and Stove Technicians are extensively trained. They spend ample time in the field learning to build stoves and learning all aspects of the stove's operation and the management of Proyecto Mirador. A manual of operational procedures ensures that all proceedings are applied uniformly throughout the organization.

All trainings shall be carefully documented, including records of all presentation materials, training minutes, and photographs when possible. Training on stove construction shall be given to the Ejecutores and Technicians as follows:

Ejecutores are trained in the following:

- Human Resource management (to manage teams of Stove Technicians)
- Basic accounting
- Public relations
- Quality assurance

Technicians shall be permitted to build cookstoves only after completing the Training & Certification Workshop under Proyecto Mirador's regimes. This training includes:

- History & objectives of Proyecto Mirador
- Materials used to build stoves
- Obligations & responsibilities of Technicians
- Process of stove construction
- How to properly train stove beneficiaries in correct stove use, maintenance, etc.

The quality of stove construction by each Technician is monitored by direct supervision of the Ejecutor as well as ongoing monitoring by the Director of Operations. Mirador's electronic monitoring system enables Mirador management to identify maintenance issues at the level of the Ejecutor or Technician to spot any issues and appropriate steps are taken to correct. Ejecutores and Technicians are incentivized through higher construction allocations based on their performance.

All aspects of business are subject to audit by Director of Operations and Director of Proyecto Mirador LLC. The objective of the reviews is to ensure that the stove construction, training of the beneficiaries, and the collection of monitoring information are being completed in an accurate and timely manner, as well as to support any ongoing third party verification as part of the Gold Standard certification.

Since ongoing research and stakeholder consultation are vital components of a successful Gold Standard project, having solid "on-the-ground" resources is a critical advantage for Mirador. Recommendations from the beneficiaries as to functional improvements are explored and researched, then implemented if appropriate. Furthermore, as Mirador expands into new areas, local leaders and NGOs are informed and consulted on an ongoing basis. When relevant, stakeholder feedback is channeled through the Ejecutores or Supervisors to Mirador management and reviewed by the Director and Director of Operations as appropriate.

SAMPLING PLAN

A. Sampling Design

CME shall follow all requirements set forth in the Gold Standard methodology *Technologies and Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0* and the CDM EB 69, Annex 4, *Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities*. The objective of the sampling effort is to monitor the value of each parameter (PoA Section B.7.1). Monitoring for all VPAs is ongoing and begins within the first two months of VPA implementation. CME shall carry out all survey procedures so as to ensure monitoring is representative of typical technology and fuel use practices among the target group.

Target population is the total population served under the PoA, defined as household or institutional users of inefficient biomass stoves. For sampling the project population the sampling frame is the sales/project database. For sampling baseline households the sampling frame is Mirador's collection of solicitations from villages that wish to receive the Dos por Tres, with each solicitation containing the names of all interested *fogon* users in each village who wish to have their stoves replaced.

B. Data to be collected

As described above, monitoring is carried out through a series of surveys, each one employing a different method to ensure a representative sample is captured. The sampling method for each survey is described as follows:

Leakage and Sustainability Survey

Applicable Parameters: ID 9, ID 10, ID 12; ID 6 (with respect to seasonal variation)

Survey is administered to every *n*th household (with the value of *n* strategically determined to guarantee a robust sample of 300 or more per year) that receives a household visit from a Mirador supervisor. Every time a Supervisor performs a follow-up visit to a household post-installation, the Supervisor enters basic data related to stove condition and maintenance and verifies user information. That data is entered using a handheld device. For every *n*th household visited, the electronic monitoring system is set to automatically prompt the Supervisor to additionally complete a Leakage and Sustainability survey. Thus the Supervisor has no control over which household is surveyed, the surveys are taken throughout the year by different personnel, and a full geographic and demographic spectra of project beneficiaries are represented. Thus the sample group is representative of the entire target population.

For older stoves, households are selected at random from villages that are close to routes used to access villages in the current follow-up visit schedule for stoves in their first 1.5 years of operation. Since stoves are built in diverse areas throughout the project area on an ongoing basis, the sample base will remain wide enough to provide a fully representative sampling for older stoves.

Usage Survey

Applicable Parameters: ID 8

Sample sizes will follow the TPDDTEC methodology, which requires that at least 30 surveys be taken of stoves in each age group to determine drop-off, with a minimum total sample size of 100.

Sample group will be determined as follows:

Using the electronic database, a supervisory team manager will generate a complete list of villages containing stoves within a given age group. In order to streamline workflow and minimize cost while providing a broad representation of each age group, each list is compared against the locations where all Supervisors are programmed to perform follow-up visits on new installations. Keeping geographic diversity as a primary objective, each Supervisor will be assigned several villages along or near his or her planned routes (spread over the course of several weeks or months as needed in order to ensure broad geographic diversity) in which to perform surveys on older stoves. At any given moment Mirador’s team of Supervisors is divided amongst several departments (provinces); and likewise, each Supervisor will visit and perform follow-up surveys in several departments over the course of a year. Thus the entire project area will be adequately represented by this approach.

Once the villages have been selected, a complete list of beneficiaries is generated showing all households included each installation; then households are chosen completely at random from the list. A rough guideline is to perform a usage survey on 5 homes within any given village, and to survey as many as 15 villages for each group during the course of each year. In any case the minimum sample of size of 30 houses group will be met or exceeded within each age group, and thus the minimum total sample size will easily exceed 100.

Example:

Abandonment Surveys						
Age Group *	0-1	1-2	2-3	3-4	4-5	Total
Number of Surveys	75	75	75	75	75	375 Surveys
Number of Villages	15	15	15	15	15	75 Villages
Surveys per Village **	5	5	5	5	5	
<i>* "Age Group" refers to the age of the stove at the time the survey is collected.</i>						
<i>** As a guideline, try not to exceed 5 surveys in any single village.</i>						

Kitchen Performance Test

Applicable Parameters: ID 7

The KPT is logistically challenging, expensive, and takes several days to perform. As of 2015, installations already exist across 12 Departments that comprise the entirety of Western Honduras. To select households for the KPT completely at random would be impracticable and cost prohibitive given the distances involved. If required to carry out single KPTs in disparate locations, Mirador would need at least two dedicated full-time staff members employed year-round in order to

reach sample sizes that meet the statistical confidence requirements of the KPT. Thus the KPT cannot practicably be carried out using the simple random sampling method.

At the time of PoA renewal, Mirador already has a large base of existing KPT data for stove ages ranging from 1 month to 5.5 years in age. Rather than jettison the existing research, Mirador will continue to aggregate new KPTs to the existing data for each age group, ensuring that a minimum sample size of 100 is observed for each age group prior to Verification. Each time the KPT is performed in a new village, geographic diversity will be carefully considered so that the data for each age group becomes more diverse over time.

Once the requisite sample size of 100 is reached for each age group, a yearly plan similar to the following will be observed thereafter, with the data from each subsequent KPT added to existing data to strengthen the sample in both size and geographic diversity.

Example:

KPTs							
Age Group *	0-1	1-2	2-3	3-4	4-5	5-6	Total
Number of Surveys	10	10	10	10	10	10	50 Surveys
Number of Villages	2	2	2	2	2	2	10 Villages
Surveys per Village **	5	5	5	5	5	5	
<i>* "Age Group" refers to the age of the stove at the time the survey is collected.</i>							
<i>** As a guideline, try not to exceed 5 surveys in any single village.</i>							

SECTION E. Approval and authorization

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Appendix 1. Contact information of VPA implementer(s) and responsible person(s)/ entity(ies) for completing the CDM-VPA-DD-FORM

VPA implementer and/or responsible person/ entity	<input checked="" type="checkbox"/> VPA implementer(s) <input checked="" type="checkbox"/> Responsible person/ entity for completing the CDM-VPA-DD-FORM
Organization	Proyecto Mirador Foundation
Street/P.O. Box	919 Sir Francis Drake Blvd., Suite 201
Building	
City	Greenbrae
State/Region	CA
Postcode	94904
Country	USA
Telephone	415-464-9590
Fax	415-925-1882
E-mail	eadams@proyectomirador.org
Website	www.proyectomirador.org
Contact person	Esther Adams
Title	Program Manager
Salutation	Ms.
Last name	Adams
Middle name	
First name	Esther
Department	U.S. Administrative Office
Mobile	
Direct fax	
Direct tel.	
Personal e-mail	

Appendix 2. Affirmation regarding public funding

N/A - There is no public funding available, utilized or planned for use by the VPA.

Appendix 3. Applicability of methodology(ies) and standardized baseline(s)

Appendix 4. Further background information on ex ante calculation of emission reductions

Appendix 5. Further background information on monitoring plan

Appendix 6. Summary of post registration changes

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01	31 July, 2015	Preliminary submission to DOE
02	6 October, 2015	Official first submission to DOE
03	13 November, 2015	Submission with first round response to DOE
04	28 December, 2015	Final changes in coordination with TR
05	5 February, 2016	Initial submission to GS
06	25 March, 2016	Updates in response to GS findings