Gold Standard for the Global Goals
Transition Annex
(To be used by all GS CDM/VER stand alone projects and PoAs, Micro Scale stand alone projects and Micro PoAs)

Version 1 – September 2017

Gold Standard

KEY PROJECT INFORMATION

Title of Project/PoA/Activity:	PoA: Solar Cooking in Chad VPA-01: Solar cooking in Chad, Iridimi
GS ID of the project/PoA/activity:	PoA: GS 1075 VPA-01: GS 3445
GS Version:	V2.2. & transitioning to GS4GG
Brief description of Project:	The main aim of the program is to replace the demand of fuelwood for cooking with solar cookers. The proposed technology makes use of the abundant solar resource available and provide income for the refugees while decreasing health, safety and environmental risks involved with using biomass for cooking. The solar cookers are distributed with black pots, with each family receiving at least two cookers and two pots, which is sufficient to cook both the staple (e.g. maize meal, sorghum, rice) and a sauce. The PoA was registered under the Gold Standard on 8 January 2016. Since 1 January 2012, solar cookers have been installed in the Iridimi refugee camps and included in VPA-01.
Project type: Energy/Land Use	Energy (Solar Thermal-Heat)
For Renewable Energy Projects – intention to apply RECs Labels (y/n)	N
GS Stream (CDM/VER):	VER
Scale (large/scale/micro):	Micro
GS Registration Date:	PoA & VPA-01: 8 January 2016
GS Crediting period start date:	PoA & VPA-01: 1 January 2012
CDM Registration Date:	N/A
CDM Crediting period start date:	N/A
Project Developer:	FairClimateFund
Project Representative:	Gert Crielaard
Project Participants and any communities involved:	FairClimateFund
Host Country/Location:	Republic of Chad
Methodologies applied:	The Gold Standard Simplified Methodology for Efficient Cookstoves (February, 2013)
SDG Impacts:	1 – SDG 1: No Poverty 2 – SDG 3: Good health and well-being 3 – SDG 7: Affordable and Clean Energy 4 – SDG 13: Climate Action
Estimated amount of SDG Impact (GSVERs and others)	1 – SDG 1: 205,820,921 CFA Francs of saving / year 2 – SDG 3: 97.6% beneficiaries feeling less respiratory & eye deseases 3 – SDG 7: 3,287 households benefiting from cleaner cooking technology 4 – SDG 13: 59,820 tCO2e (over the 7 years - PDD)

NOTE: *This Annex shall be used for all PoAs if the sustainable development assessment is conducted at PoA level. In case sustainable development assessment is conducted at activity level, then this Annex shall be filled for each of the activities.*

SECTION A Sustainable Development Goals (SDG) outcomes

A.1 Relevant target for each of the three SDGs

Table below presents the relevant SDG target(s) for each of the three SDGs addressed by the project.

SDGs	Targets	Selected Indicator	Justification
Goal 1. No poverty	• 1.4. By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro-finance.	• The solar cooking devices enable households to reduce their monthly spendings on fuel for cooking. As such, beneficiary households' monthly spendings will be monitored. The impact will be assessed through the cumulated money saving from all households using the project cookstoves in each project year	• The project enables impoverished households to access better technology through cost-effective and subsidising financial mechanisms. These in essence, provide them with a better access to economic good and service. Energy access can be considered as a basic service and the project improves the quality of this access through the distribution and use of devices using renewable solar thermal energy.
SDG 3. Good health and well-being	• 3.9. By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.	• The frequency of eye and respiratory diseases within each beneficiary household will be monitored in the usage surveys • Stated decreases in eye and respiratory diseases by beneficiay household members, in particular women and girls, indicates that the project contributes to reducing the number of deaths and illnesses from hazardous chemicals and pollution in the air	• The project enable households members in charge of cooking, mostly women, to cooking without inhaliating harful particles and suffering from lung and eye problems by offering a technology not leading to any hazardous air pollution.
SDG 7. Affordable and Clean Energy	• 7.1. By 2030, ensure universal access to affordable, reliable and modern energy services • 7.B. By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least	• Proportion of population with primary reliance on solar cookers among beneficiary households compared to baseline scenario (total number of solar cookers distributed in Iridimi refugee camp) • Total number of improved solar cookers distributed (sales record) in the refugee camp	• By nature, the project contributes to increasing access to an affordable, reliable and modern energy technology since solar cookers use solar energy for cooking

	developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support		
Goal 13. Climate Action	• 13.B. Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities	• Total project emissions reductions	• The project contributes to raising capacity for effective climate change-related management by enabling a net reduction in CO_2e emissions in a least developed country and focusing on women and marginalized communities.

A.2 Explanation of methodological choices/approaches for estimating the SDG outcome

SDG 1. No Poverty

SDG 1 impacts will not be certified as 'Certified Impact Statements' and therefore no specific methodologies for estimation and monitoring will be applied.

The impacts will be assessed through the cumulated money saving from all households using the project cookstoves in year y ($S_{p,y}$).

Indicator

$S_{p,y}$ = N_p x $U_{p,y}$ x $S_{pi,y}$

Where:

N_p = number of households who have received / acquired / using a solar cooker
$U_{p,y}$ = usage rate in project scenario *p* during year *y*
$S_{pi,y}$ = yearly cumulated money saving from an average representative household in year *y*

The below calculation is presented for illustration:

N_p = 4,643
$U_{p,2016\text{-}18}$ = 70,8%
$S_{pi,2016\text{-}18}$ = 62,612 XOF (CFA Francs)

$S_{p,y}$ amounts to around 205,820,921 XOF (313,687 EUR) in total or 68 EUR per household per year as of December 2018.

SDG 3. Good health and well-being

SDG 3 impacts will not be certified as 'Certified Impact Statements' and therefore no specific methodologies for estimation and monitoring will be applied.

The impacts will be assessed through the beneficiaries' perception of health benefits (frequency of respiratory- and eye-related illness).

Indicator

(1) $RDR_{p,y}$ = $RD_{p,y}$

Where:

$RDR_{p,y}$ = % of beneficiary perceiving an improvement in their respiratory diseases during year *y*
$RD_{p,y}$ = number of households experiencing fewer respiratory diseases after adopting solar cooking during year *y*

(2) $EDR_{p,y}$ = $ED_{p,y}$

Where:

$EDR_{p,y}$ = % of beneficiary perceiving an improvement in their eye infections during year *y*
$ED_{p,y}$ = number of households experiencing fewer eye infections after adopting solar cooking during year *y*

The below calculation is presented for illustration:

$RD_{p,y}$ = 99.7%
$RDR_{p,y}$ would amount to around 99.7% of beneficiaries

$ED_{p,y}$ = 99.7%
$EDR_{p,y}$ would amount to around 99.7% of beneficiaries

SDG 7. Affordable and Clean Energy

SDG 7 impacts will not be certified as 'Certified Impact Statements' and therefore no specific methodologies for estimation and monitoring will be applied.

The impacts will be assessed through the additional number of persons having access to clean technology for cooking compared to the baseline scenario (P_{access}).

Indicator

P_{access} = N_p x $U_{p,y}$

Where:

P_{access} = number of additional persons having access to clean cooking technology
N_p = number of households who have received / acquired / using a solar cooker
$U_{p,y}$ = usage rate in project scenario p during year y

The below calculation is presented for illustration:

N_p = 4,643
$U_{p,2016\text{-}18}$ = 70,8%
P_{access} = 3,287

P_{access} amounts to 3,287 beneficiary households as of December 2018.

SDG 13 (Climate Action)

The SDG 13 outcome will be quantified as CO_2e emission reductions and certified as 'Certified SDG 13 Impact Statement' allowing the generation of carbon credits (VERs).

For the calculations and estimation of emission reductions, The Gold Standard Simplified Methodology for Efficient Cookstoves (February, 2013) is used.

Indicator

As per the methodology the below formula was applied to determine the emission reduction values.

$$ER_y = \sum_{0\text{to}1}^{x\text{to}y} N_{P,y} * P_y * U_{P,y} * (f_{NRB,y} * EF_{b,fuel,CO2} + EF_{b,fuel,non\_CO2}) * (1 - DF_{b,Stove,y})$$

Where:

$N_{P,y}$ = Number of project cookstoves of each age group operational in the year *y*
P_y = Quantity of firewood that is saved in the year *y* (tonnes per household in year *y*)
$U_{P,y}$ = Usage rate for project cookstoves in year *y*, based on adoption rate and drop off rate revealed by usage surveys (fraction)
$f_{NRB,b,y}$ = Fraction of non-renewable biomass, used in year *y* for baseline scenario.
$EF_{b,fuel,CO2}$ = CO_2 emission factor of firewood that is substituted or reduced.
$EF_{b,fuel,non\_CO2}$ = Non-CO_2 emission factor of firewood that is substituted or reduced.
$DF_{b,Stove,y}$ = Usage of baseline cookstove during the year *y* (fraction) in project scenario
x = *y* – 1
y = Year of the crediting period

with quantity of fire wood that is saved (P,y) estimated as follows: $P_y = B_{b,y} * (1-\eta_b/\eta_{p,y})$

Where:

$B_{b,y}$ = Quantity of firewood consumed in baseline scenario during year y (tonnes per household per year)
$\eta_{p,y}$ = Efficiency of project cookstove in year y (fraction)

η_b = Efficiency of the baseline cookstove being replaced (fraction). A default value of 10% shall be used if the replaced cookstove is a three stone fire, or a conventional device without a grate or a chimney i.e., with no improved combustion air supply or flue gas ventilation

A.3 Data and parameters fixed ex ante for monitoring contribution to each of the three SDGs

Relevant SDG Indicator	SDG 13 (emission reductions from all beneficiaries)
Data/parameter	$EF_{b,fuel,CO2}$
Unit	tCO_2/tonne of firewood
Description	CO_2 emission factor arising from use of firewood in baseline scenario
Source of data	Section 4 of The Gold Standard Simplified Methodology for Efficient Cookstoves
Value(s) applied	1.747 tCO_2/ton of firewood
Choice of data or Measurement methods and procedures	Factor recommended by the methodology.
Purpose of data	Deriving the greenhouse gas emissions released by non-renewable biomass saved.
Additional comment	-

Relevant SDG Indicator	SDG 13 (emission reductions from all beneficiaries)
Data/parameter	$EF_{b,fuel,non-CO2}$
Unit	tCO_2/tonne of firewood
Description	Non-CO_2 emission factor arising from use of firewood in baseline scenario
Source of data	Section 4 of The Gold Standard Simplified Methodology for Efficient Cookstoves
Value(s) applied	0.455 tCO_2/ton of firewood
Choice of data or Measurement methods and procedures	Factor recommended by the methodology.
Purpose of data	Deriving the greenhouse gas emissions released by non-renewable biomass saved.
Additional comment	-

Relevant SDG Indicator	SDG 13 (emission reductions from all beneficiaries)
Data/parameter	η_b
Unit	Fraction
Description	Efficiency of the cookstove being used in the baseline scenario
Source of data	Methodology default value for three-stone fires and stove tests for Save 80 (CDM PDD, Efficient Fuel Wood Stoves for Nigeria, pg 51). Portion of stove times in use from Koundji-nan Mouya (2011)[1].
Value(s) applied	(0.28 x 0.35) + (0.72 x 0.10) = 17%

[1] Source: 23. Koundji-nan Mouyo (2011) Evaluation des actions du project ENLGISH. Pg 34

Choice of data or Measurement methods and procedures	According to a study carried out in two camps in 2011, 28% of households surveyed used the improved Save80 stove as their main stove for cooking. The remaining 72% of households used either a three-stone fire or a 'Banco', which is a raised mud platform lacking a grate or chimney. During procurement of the solar cooker, households are asked what the main cookstove they used before receiving the solar cooker was. This is recorded as part of the Procurement Record and entered into the Project Database. The weighted average of these results within each VPA will be used to determine the weighted average efficiency of the baseline stove, assuming a 10% efficiency for a 3-stone fire/Banco (methodology default) and a 35% efficiency for the Save80[2].
Purpose of data	Feeding the calculation for quantity of firewood that is saved in year y.
Additional comment	-

Relevant SDG Indicator	SDG 13 (emission reductions from all beneficiaries)
Data/parameter	η_p
Unit	Fraction
Description	Efficiency of the cookstove being used in the project scenario
Source of data	The cookers do not use fuel per say and so has no loss of energy being used.
Value(s) applied	100%
Choice of data or Measurement methods and procedures	-
Purpose of data	Feeding the calculation for quantity of firewood that is saved in year y.
Additional comment	-

Relevant SDG Indicator	SDG 13 (emission reductions from all beneficiaries)
Data/parameter	fNRB
Unit	Fraction
Description	Fraction of non-renewable biomass
Source of data	Default value as approved by the UNFCCC in December 2014: https://cdm.unfccc.int/DNA/fNRB/index.html
Value(s) applied	92%
Choice of data or Measurement methods and procedures	Even though the factors has expired in 2017, the default factor approved by the host country is still the most reliable source of information.
Purpose of data	Considering only the non-renewable portion of biomass as subject to emission reductions.
Additional comment	-

Relevant SDG Indicator	SDG 13 (emission reductions from all beneficiaries)
Data/parameter	$B_{b,y}$
Unit	tonnes firewood per household per year
Description	Firewood consumption for cooking in baseline

[2] Source: CDM PDD, Efficient Fuel Wood Stoves for Nigeria, pg 51 (link: https://cdm.unfccc.int/filestorage/l/z/23VFX68ADZ9LMN1RU4WPEIOSYGB5H7.pdf/130218_Nigeria_PDD_form02_v03_PRC_clean.pdf?t=aHh8cTRnMWR1fDD_dEsYZC4CZyC03CgsBjEx) ; Koundji-nan Mouyo (2011) Evaluation des actions du projet « cuisine solaire » de l'ONG « TchadSolaire » "2. Memoire redaction FINALE 08.11.2012b", pg 34

Source of data	Derived from the minimum service level (MSL) or KPT
Value(s) applied	MSL: 0.5 tonnes per capita per year (MSL method)
Choice of data or Measurement methods and procedures	For MSL, the household size is assessed during the usage survey carried out on a yearly basis: Option (c) of the methodology for the Quantity of firewood consumed in the baseline scenario.
Purpose of data	Feeding the calculation for quantity of firewood that is saved in year y.
Additional comment	-

Relevant SDG Indicator	SDG 13 (emission reductions from all beneficiaries)
Data/parameter	L_y
Unit	Fraction
Description	Leakage adjustment factor period *y*
Source of data	Default value
Value(s) applied	0.95
Choice of data or Measurement methods and procedures	According to GS Simplified methodology leakage related to NRB saved by project activity is not considered for micro-scale project activities. However, for micro-scale PoA the net emission reductions shall be discounted by a factor of 0.95 to account for leakages related to non-renewable biomass saved by the project activity.
Purpose of data	Taking into account leakages related to non-renewable biomass saved by the project activity.
Additional comment	-

SECTION B Safeguarding Principles Assessment

B.1 Analysis of social, economic and environmental impacts

The below assessment of following Safeguarding Principles Assessment is required to be carried out by GS Version 2.0, 2.1 and 2.2 projects.

Safeguarding principles	Assessment questions	Relevance to the project (Yes / potentially / no)	Justification	Mitigation measure (if required)
3.2 Gender Equality and Women's Rights *Requirement 1*	1. The Project shall complete the following gender assessment questions in order to inform Requirements 2-4, below: Is there a possibility that the Project might reduce or put at risk women's access to or control of resources, entitlements and benefits?	No	The project is mostly run on the ground by women who assemble and distribute the stoves. The project has actually been designed to increase women's access to a better economic good and service and increase enhance their benefits from cooking with a more efficient and cleaner technology.	N/A
	Is there a possibility that the Project can adversely affect men and women in marginalised or vulnerable communities	No	Most women who benefit from the projects have none or low income and are poor. Most of them can be considered as vulnerable as they are in a situation of displacement.	N/A

	(e.g., potential increased burden on women or social isolation of men)?		However, the project enables them to improve their condition and may increase their livelihood through their work in the workshops.	
	Is there a possibility that the Project might not take into account gender roles and the abilities of women or men to participate in the decisions/designs of the project's activities (such as lack of time, childcare duties, low literacy or educational levels, or societal discrimination)?	No	As per before, the Project is aimed at benefiting women mostly and is accordingly managed by women. As a result, they are the one benefiting from it. In the refugee camps, resopnsibbility of project implementation are with refugees themselves (including the manufacturing of cookers, training end-users, maintenance and ensuring proper use of the solar cookers). Solar cookers are constructed by the refugees themselves, which is an important source of employment.	N/A
	Does the Project take into account gender roles and the abilities of women or men to benefit from the Project's activities (e.g., Does the project criteria ensure that it includes minority groups or landless peoples)?	No	While the project has mostly been designed to benefit women, men have also occurred to purchase stoves for their household and would possibly have a say about the project when talking to their wives and relatives. The only eligibility criterion is to be able to demonstrate the ownership of pot to cook with the solar cooker. Accordingly, the project is open to any and does not favour exclusion.	N/A
	Does the Project design contribute to an increase in women's workload that adds to their care responsibilities or that prevents them from engaging in other activities?	No	The project distributes solar cookers. This means that whether the fuel is being collected by hand from roaming for hours or purchased off the market, the decreased consumption of fuel free up time for beneficiary to undertake other activities. Hence, the Project design does not contribute to an increase in women's workload.	N/A
	Would the Project potentially reproduce or further deepen discrimination against women based on gender, for instance, regarding their full participation in design and implementation or access to opportunities and benefits?	No	The project has been designed to be administered and benefit women. Hence, it is not foreseen to reproduce or depend discrimination against women.	N/A
	Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and priorities of women and men in accessing and managing	No	The project is not foreseen to limit women's ability to use, develop and protect natural resources. Instead the project gives an easy access to a more efficient technology and which should ultimately enhance the conservation of trees.	N/A

	environmental goods and services?			
	Is there a likelihood that the proposed Project would expose women and girls to further risks or hazards?	No	It's not either likely that the project activity would expose women or girls to further risks or hazards as the project provides a technology, they seem to be safer than the baseline traditional biomass cookstoves. Risks of burning are more likely to be less frequent.	N/A
Requirement 2	2. The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women. Specifically, this shall include (not exhaustive): Sexual harassment and/or any forms of violence against women - address the multiple risks of gender-based violence, including sexual exploitation or human trafficking.	No	The Project does directly or indirectly lead or contribute to adverse impacts on gender equality or the situation of women. The access to a technology that reduces the need to collect firewood, could reduce the risks of women being harassed while doing so.	N/A
	Slavery, imprisonment, physical and mental drudgery, punishment or coercion of women and girls.	No	The Project does not directly or indirectly lead or contribute to adverse impacts on gender equality or the situation of women. In fact, the access cleaner stoves is foreseen to improve the general conditions of women.	N/A
	Restriction of women's rights or access to resources (natural or economic).	No	The Project does not directly or indirectly lead or contribute to adverse impacts on gender equality or the situation of women. Consequently, the project has actually been designed to increase women's access to a better economic good and service and increase enhance their benefits from cooking with a more efficient technology.	N/A
	Recognise women's ownership rights regardless of marital status – adopt project measures where possible to support to women's access to inherit and own land, homes, and other assets or natural resources.	No	The Project does not have any impact on women's ownership rights to inherit and own land, homes and other assets. Beneficiareis are refugees and do not own the land they are currently living on.	N/A
Requirement 3	3. Projects shall apply the principles of non-discrimination, equal treatment, and equal	No	The Project applies the principles of non-discrimination and equal treatment.	N/A

	pay for equal work, specifically: - Where appropriate for the implementation of a Project, paid, volunteer work or community contributions will be organised to provide the conditions for equitable participation of men and women in the identified tasks/activities.			
	Introduce conditions that ensure the participation of women or men in Project activities and benefits based on pregnancy, maternity/paternity leave, or marital status.	No	For tasks than can be carried out by both men and women, the principle of the equal pay for equal work is applied and organized in way to provide the conditions for equitable participation of men and women.	N/A
	Ensure that these conditions do not limit the access of women or men, as the case may be, to Project participation and benefits.	No	There are no limitations on participation or benefiting from the Project depending on the pregnancy, maternity/paternity leave or marital status.	N/A
Requirement 4	4. The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks.	No	Chad has signed and ratified the Convention on the Elimination of all Forms of Discrimination Against Women[3]. Whilst the governing policies regarding gender equality are weak, this project focuses on increasing female empowerment through ownership of technology, increased health and increased spare time.	N/A
Requirement 5	5. Based on the Preliminary Review assessment of Requirement 1, above, Gold Standard may require that the Project seek the input of an Expert Stakeholder and to include their recommendations in the Project design.	No	Not applicable.	N/A
3.4.3 Land Tenure and Other Rights	1. Does the Project require any change to land tenure arrangements and/or other rights? 2. For Projects involving land-use tenure, are there any uncertainties	No	1. The project does not require any change to land tenure arrangements and/or other rights. 2. N/A	N/A N/A

[3] Source: United Natiosns Human Rights Office of the Higher Commissioner, status of ratification interactive dashboard. Link : https://indicators.ohchr.org

	with regards land tenure, access rights, usage rights or land ownership?			
3.6.2 Negative Economic Consequences	1. The Project Developer shall demonstrate the financial sustainability of the Projects implemented, also including those that will occur beyond the Project Certification period.	No	1. The project is made financially sustainable through the sell of carbon credits to end-users careful of making a significant impact. Most project activities related costs, (e.g. solar cooker material, transportation, training and awareness raising session, certification, etc.) are currently being covered by the PD through the sell of VERs. Beneficiary households are Sudanese and are not allowed to work to avoid disrupting the local labour market. As a consequence, very little revenues is available to them. Nevertheless, they still contribute to the purchase of the cooker by making a contribution of FCFA 1000 for a pair of cookers. The new PD will investigate the possibility to increase prices and implement a micro-financing mechanism I order to ensure the viability of the mechanism post-VERs.	N/A
	2. The Projects shall consider economic impacts and demonstrate a consideration of potential risks to the local economy and how these have been taken into account in Project design, implementation, operation and after the Project. Particular focus shall be given to vulnerable and marginalised social groups in targeted communities and that benefits are socially inclusive and sustainable.	No	2. The project is located in the middle of a deserted area where the economic activity is very modest. The distribution of solar cookers to households located in refugee camps does not have an implication on the activities that occur before they arrived. If any implication, it should mke the biomass resource more available for households ligin near by and who can afford to cook with firewood. By its nature, the project has vulnerable and marginalised social groups as a focus.	N/A
4.1.1 Emissions	Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	The project will reduce GHG emissions as demonstrated by the monitoring report(s).	N/A
4.1.2 Energy Supply	Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	No	The project involves stand-alone devices that do not consume electricity from a local grid or power supply but will 'consume' solar energy.	N/A
4.2.1 Impact on natural water	Will the Project affect the natural or pre-existing pattern of	No	The project does not affect the natural or pre-existing pattern of watercourses, groundwater and/or the watershed(s).	N/A

patterns and flow	watercourses, groundwater and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?			
4.2.1 Erosion and/or water body stability	1. Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion? If 'Yes' or 'Potentially' proceed to question 2. 2. Is the Project's area of influence susceptible to excessive erosion and/or water body instability?	No N/A	1. The project will not cause additional erosion and/or water body instability or disrupt the natural pattern of erosion. Since the project reduces the consumption of firewood, it will have a positive impact on biomass, which should have a positive impact on soil. N/A	N/A
4.2.3 Landscapte modification and soil	Does the Project involve the use of land and soil for production of crops or other products?	No	The Project does not involve the use of land and soil for production of crops or other projects.	N/A
4.3.2 Vulnerability to Natural Disaster	Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	No	The Project provides solar cookers and is not susceptible to increase vulnerability to any extreme climatic conditions.	N/A
4.3.3 Genetic Resources	Could the Project be negatively impacted by the use of genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development)?	No	The Project does not involve or may not be negatively impacted by the use of genetically modified organisms or GMOs.	N/A
4.3.4 Release of pollutants	Could the Project potentially result in the release of pollutants to the environment?	No	The Project is not potentially resulting in release of pollutants to the environment.	N/A
4.3.5 Hazardous and Non-hazardous Waste	Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	No	The Project does not involve the manufacture, trade, release, and/or use of hazardous chemicals and or materials.	N/A
4.3.6 Pesticides and fertilizers	Will the Project involve the application of pesticides and/or fertilisers?	No	The Project does not involve the application of pesticides and/or fertilisers.	N/A

4.3.7 Harvesting of forests	Will the Project involve the harvesting of forests?	No	The Project does not involve harvesting of forests.	N/A
4.3.8 Food	Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No	The Project does not modify the quantity or nutritional quality of food available.	N/A
4.3.9 Animal Husbandry	Will the Project involve animal husbandry?	No	The Project does not involve animal husbandry.	N/A

SECTION C Monitoring plan

C.1 Data and parameters to be monitored

Relevant SDG Indicator/Safeguarding Principle	SDG 1, SDG 7 & SDG 13
Data / Parameter	$U_{p,y}$
Unit	Fraction
Description	Usage rate in project scenario p during year y
Source of data	Ongoing Monitoring Studies
Value(s) applied	Around 79.6%
Measurement methods and procedures	Estimated
Monitoring frequency	Annual
QA/QC procedures	Gathered data is cross-checked with sales record for user identification and stove installation date. During the ongoing monitoring studies, qualitative checks on the physical condition of stoves are performed to cross-check with information provided by the user and potentially flag premature stove failure. All information gathered and analysed by a local independent consultant and Hamerkop Climate Impacts (carbon consultant).
Purpose of data	Calculating NRB saved and calculating SDG 1, 7 & 13 impacts.
Additional comment	-

Relevant SDG Indicator/Safeguarding Principle	SDG 1, SDG 7 & SDG 13
Data / Parameter	$N_{p,y}$
Unit	Number
Description	Number of project cookers installed
Source of data	Sales records
Value(s) applied	4,643
Measurement methods and procedures	Contracts signed and entered into the sales records
Monitoring frequency	Continuous
QA/QC procedures	Checks that contracts contains all information required, once information is entered into the spreadsheet, checks that information match over a 10% sample.

Purpose of data	Calculating NRB saved.
Additional comment	-

Relevant SDG Indicator/Safeguarding Principle	SDG 13
Data / Parameter	DF_{η}
Unit	Fraction
Description	Discount factor to account for efficiency loss of project cookstoves
Source of data	N/A
Value(s) applied	0
Measurement methods and procedures	N/A
Monitoring frequency	N/A
QA/QC procedures	N/A
Purpose of data	Calculating NRB saved.
Additional comment	Solar cookers's efficiency is considered as 100% with no loss of efficiency

Relevant SDG Indicator/Safeguarding Principle	SDG 13
Data/parameter	$DF_{b,stove,y}$
Unit	Fraction
Description	Discount factor to account for usage of baseline cookstove during the year y in project scenario
Source of data	Ongoing Monitoring Studies
Value(s) applied	61.2%
Measurement methods and procedures	Calculated. Average number of daily meals cooked with the baseline stove / Average number of daily meals cooked
Monitoring frequency	Annual
QA/QC procedures	Gathered data is cross-checked with sales record for user identification and stove installation date. All information gathered and analysed by a local independent consultant and Hamerkop Climate Impacts (carbon consultant).
Purpose of data	Calculating NRB saved.
Additional comment	-

Relevant SDG Indicator/Safeguarding Principle	SDG 1
Data / Parameter	$S_{p,y}$
Unit	CFA francs / year
Description	Cumulated saving from an average household using the project cookstoves in year y
Source of data	Ongoing Monitoring Studies
Value(s) applied	205,781,122 XOF (308,672 EUR) in total per month or 66 EUR per household per year

Measurement methods and procedures	Calculated. $S_{p,y} = N_p \times U_{p,y} \times S_{pi,y}$ Where: N_p = number of households who have received / acquired / using a solar cooker $U_{p,y}$ = usage rate in project scenario *p* during year *y* $S_{pi,y}$ = yearly cumulated money saving from an average representative household in year *y*
Monitoring frequency	Annual
QA/QC procedures	Gathered data is cross-checked with sales record for user identification and stove installation date. All information gathered and analysed by a local independent consultant and Hamerkop Climate Impacts (carbon consultant).
Purpose of data	Calculating SDG 1 impacts
Additional comment	-

Relevant SDG Indicator/Safeguarding Principle	SDG 3
Data / Parameter	$RD_{p,y}$
Unit	ration
Description	Portion of households experiencing fewer respiratory diseases after adopting solar cooking during year y
Source of data	Ongoing Monitoring Studies
Value(s) applied	Around 99.7%
Measurement methods and procedures	Qualitative data collection
Monitoring frequency	Annual
QA/QC procedures	Gathered data is cross-checked with sales record for user identification and stove installation date. All information gathered and analysed by a local independent consultant and Hamerkop Climate Impacts (carbon consultant).
Purpose of data	Calculating SDG 3 impacts.
Additional comment	-

Relevant SDG Indicator/Safeguarding Principle	SDG 3
Data / Parameter	$ED_{p,y}$
Unit	ration
Description	Portion of households experiencing fewer eye infections after adopting solar cooking during year *y*
Source of data	Ongoing Monitoring Studies
Value(s) applied	Around 99.7%
Measurement methods and procedures	Qualitative data collection
Monitoring frequency	Annual
QA/QC procedures	Gathered data is cross-checked with sales record for user identification and stove installation date. All information gathered and analysed by a local independent consultant and Hamerkop Climate Impacts (carbon consultant).
Purpose of data	Calculating SDG 3 impacts.
Additional comment	-

C.1.1 Other elements of monitoring plan (if applicable)

N/A

SECTION D Duration and crediting period

D.1 Duration of project

D.1.1 Start date of project

PoA & VPA-01: 01/01/2012

D.1.2 Expected operational lifetime of project

CPA: 28 years (max.)
VPA-01: 21 years (7 years twice renewable) (max.)

Solar cooker could be distributed and replaced as long as VERs could be received for subsidising their costs.

D.2 GS Crediting period of the project/activity

D.2.1 Start date of the ongoing GS crediting period

CPA & VPA-01: 01/01/2012

D.2.2 End date of the ongoing GS crediting period

CPA & VPA-01: 31/12/2018

D.2.3 Total length of the GS crediting periods

CPA: 28 years (max.)
VPA-01: 21 years (7 years twice renewable) (max.)

SECTION E Stacking of new assets

Not applicable.

Appendix 1. Contact information of project participants

Organization name	FairClimateFund B.V.
Registration number with relevant authority	489356843 (with Chamber of Commerce in Utrecht)
Street/P.O. Box	Arthur van Schendelstraat 752
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State/Region	
Postcode	3511
Country	The Netherlands
Telephone	+31 30 234 8210
Fax	
E-mail	admin@fairclimatefund.nl
Website	www.fairclimatefund.nl
Contact person	Gert Crielaard
Title	Fund Manager
Salutation	Mr
Last name	Crielaard
Middle name	
First name	Gert
Department	
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