Gold Standard for the Global Goals

TEMPLATE

MONITORING REPORT

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VERSION **v. 1.1**

RELATED SUPPORT - **TEMPLATE GUIDE Monitoring Report v. 1.1**

This document contains the following Sections

KEY PROJECT INFORMATION

Programme of Activity Information

GS ID of Programme	GS1340
Title of Programme	Efficient cookstoves in Burkina Faso (PoA)
Version of POA-DD applicable to this monitoring report	9

Name and GS ID of fully Validated CPA/VPAs (i.e. non compliance check)	- GS1340 Efficient cookstoves in Burkina Faso – VPA-01 - tiipaalga F3PA cookstoves in Bam and Loroum (GS2456) - GS1340 Efficient cookstoves in Burkina Faso – VPA-02 - tiipaalga F3PA cookstoves in Bam and Loroum (GS3516) - GS1340 Efficient cookstoves in Burkina Faso – VPA-03 - tiipaalga F3PA cookstoves in Bam and Loroum (GS3517) - GS1340 Efficient cookstoves in Burkina Faso – VPA-04 - tiipaalga F3PA cookstoves in Bam and Loroum (GS3518) - GS1340 Efficient cookstoves in Burkina Faso – VPA-05 - tiipaalga F3PA cookstoves in Bam and Loroum (GS3519) - GS1340 Efficient cookstoves in Burkina Faso – VPA-06 - tiipaalga F3PA cookstoves in Bam and Loroum (GS3520) - GS1340 Efficient cookstoves in Burkina Faso – VPA-07 - tiipaalga F3PA cookstoves in Bam and Loroum (GS3521) - GS1340 Efficient cookstoves in Burkina Faso – VPA-08 - tiipaalga F3PA cookstoves in Bam and Loroum (GS3522) - GS1340 Efficient cookstoves in Burkina Faso – VPA-09 - tiipaalga F3PA cookstoves in Bam and Loroum (GS3523) - GS1340 Efficient cookstoves in Burkina Faso – VPA-10 - tiipaalga F3PA cookstoves in Bam and Loroum (GS3524) - GS1340 Efficient cookstoves in Burkina Faso – VPA-11– Tiipaalga – F3PA cookstoves in Kourwéogo (GS6152) - GS1340 Efficient cookstoves in Burkina Faso – VPA-12– Tiipaalga – F3PA cookstoves in Kourwéogo (GS6419) - GS1340 Efficient cookstoves in Burkina Faso – VPA-13– Tiipaalga – F3PA cookstoves in Kourwéogo (GS6420) - GS1340 Efficient cookstoves in Burkina Faso - VPA-14 – Improved cookstove F3PA project in Nahouri (GS10778) - GS1340 Efficient cookstoves in Burkina Faso - VPA-15 – Improved cookstove F3PA project in Nahouri (GS10779) - GS1340 Efficient cookstoves in Burkina Faso - VPA-16 – Improved cookstove F3PA project in Nahouri (GS10780)

	- GS1340 Efficient cookstoves in Burkina Faso - VPA-17 – Improved cookstove F3PA project in Nahouri (GS10781) - GS1340 Efficient cookstoves in Burkina Faso - VPA-18 – tiipaalga F3PA cookstoves in Center-South Protected Areas (GS10922) - GS1340 Efficient cookstoves in Burkina Faso - VPA-19 – tiipaalga F3PA cookstoves in Center-South Protected Areas (GS10923) - GS1340 Efficient cookstoves in Burkina Faso - VPA-20 – tiipaalga F3PA cookstoves in Center-South Protected Areas (GS10924) - GS1340 Efficient cookstoves in Burkina Faso - VPA-21 – tiipaalga F3PA cookstoves in Center-South Protected Areas (GS10925) - GS1340 Efficient cookstoves in Burkina Faso - VPA-22 – tiipaalga F3PA cookstoves in Center-South Protected Areas (GS10926) - GS1340 Efficient cookstoves in Burkina Faso - VPA-23 – tiipaalga F3PA cookstoves in Center-South Protected Areas (GS10927) - GS1340 Efficient cookstoves in Burkina Faso - VPA-24 – tiipaalga F3PA cookstoves in Center-South Protected Areas (GS10928) - GS1340 Efficient cookstoves in Burkina Faso – VPA-25 – Solidagro F3PA cookstoves in Passoré (GS11070) - GS1340 Efficient cookstoves in Burkina Faso – VPA-26 – Solidagro F3PA cookstoves in Passoré (GS11071) - GS1340 Efficient cookstoves in Burkina Faso – VPA-27 – Solidagro F3PA cookstoves in Passoré (GS11072) - GS1340 Efficient cookstoves in Burkina Faso – VPA-28 – Solidagro F3PA cookstoves in Passoré (GS11073) - GS1340 Efficient cookstoves in Burkina Faso – VPA-29 – Improved cookstove F3PA project in Nahouri (GS11074)

Key Project Information

GS ID (s) of Project (s)	- GS10778 (VPA-14) - GS10779 (VPA-15) - GS10780 (VPA-16) - GS10781 (VPA-17) - GS11074 (VPA-29)

Title of the project (s) covered by monitoring report	- GS1340 Efficient cookstoves in Burkina Faso - VPA-14 – Improved cookstove F3PA project in Nahouri (GS10778) - GS1340 Efficient cookstoves in Burkina Faso - VPA-15 – Improved cookstove F3PA project in Nahouri (GS10779) - GS1340 Efficient cookstoves in Burkina Faso - VPA-16 – Improved cookstove F3PA project in Nahouri (GS10780) - GS1340 Efficient cookstoves in Burkina Faso - VPA-17 – Improved cookstove F3PA project in Nahouri (GS10781) - GS1340 Efficient cookstoves in Burkina Faso- VPA-29- improved cookstove F3PA project in Nahouri (GS11074)
Version number of the PDD/VPA-DD (s) applicable to this monitoring report	GS10778 (VPA-14): v7.0 GS10779 (VPA-15): v7.0 GS10780 (VPA-16): v7.0 GS10781 (VPA-17): v7.0 GS11074 (VPA-29): v2.1
Version number of the monitoring report	5.0
Completion date of the monitoring report	24/06/2024
Date of project design certification	GS10778 (VPA-14): 12/03/2021 GS10779 (VPA-15): 12/03/2021 GS10780 (VPA-16): 12/03/2021 GS10781 (VPA-17): 12/03/2021 GS11074 (VPA-29): 26/07/2021
Date of Last Annual Report	02/12/2022
Monitoring period number	GS10778 (VPA-14): MP3 GS10779 (VPA-15): MP3 GS10780 (VPA-16): MP3 GS10781 (VPA-17): MP3 GS11074 (VPA-29): MP2
Duration of this monitoring period	GS10778 (VPA-14): 01/01/2022-31/12/2022 GS10779 (VPA-15): 01/01/2022-31/12/2022 GS10780 (VPA-16): 01/01/2022-31/12/2022 GS10781 (VPA-17): 01/01/2022-31/12/2022 GS11074 (VPA-29): 01/01/2022-31/12/2022
Project Representative	Association tiipaalga
Host Country	Burkina Faso

Activity Requirements applied	☒ Community Services Activities ☐ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A
Methodology (ies) applied and version number	Gold Standard Simplified Methodology for Efficient Cookstoves, v1.0 February 2013
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A

Table 1 - Sustainable Development Contributions Achieved

Sustainable Development Goals Targeted	SDG Impact	Amount Achieved	Units/ Products
SDG 13	Emission reductions	VPA 14: 10,000 tCO2e (11,478 tCO2e) VPA 15: 10,000 tCO2e (11,552 tCO2e) VPA 16: 10,000 tCO2e (11,479 tCO2e) VPA 17: 10,000 tCO2e (10,870 tCO2e) VPA 29: 9,827 tCO2e Total : 49,827 tCO2e	VERs

SDG 1	Parameter #1: Number of leader women (Monitrice endogène) who benefit from microcredit Parameter #2: total amount in FCFA or € of benefit generated by Income Generating Activities which are managed by the leader women (Monitrice endogène) and funded by the microcredit scheme	Parameter #1: 2,090 Parameter #2: 24,644€ or 16,166,500FCFA	Number € or FCFA
SDG 1	Total estimated amount saved by stove users on wood fuel purchase for the group of VPA's	VPA 14: 5,118 € VPA 15: 5,150 € VPA 16: 5,118 € VPA 17: 4,818 € VPA 29: 4,945 € Total: 25,148 €	€
SDG 3	Proportion of households perceiving: - less often smoke levels - incidence of coughing - incidence of respiratory illness - incidence of itchy eyes	100% 100% 100% 100%	Percentage
SDG 4	Number of training initiatives for staff involved in the programme	1	Number
SDG 4	Number of workshops carried out for women for the group of VPA's	58	Number
SDG 5 (Social Empowerment Goals)- Rest and Leisure	Average time saving (in hours) per woman per week	3.4	Hours

SDG 5 (Social Empowerment Goals)- Applied skills and training	Number of person receive training for the construction of improved cook stoves and enhanced their skill	3,231 (91% women)	Number
SDG 5 (Economic Empowerment Goals) – Income and Expenditure	Number of women benefits from micro credit scheme	2,090	Number
SDG 5 (Economic Empowerment Goals) – Income and Expenditure	Total benefit of income generation activities finances from micro credit scheme	24,644€ or 16,166,500 FCFA	€ or FCFA
SDG 5 (Economic Empowerment Goals) – Income and Expenditure	Amount of saving on fuel cost by women	VPA 14: 5,118 € VPA 15: 5,150 € VPA 16: 5,118 € VPA 17: 4,818 € VPA 29: 4,945 € Total: 25,148 €	€
SDG 7	Number of F3PA efficient cookstoves disseminated for the group of VPAs	VPA 14: 6,947 VPA 15: 6,784 VPA 16: 6,863 VPA 17: 6,398 VPA 29: 7,997 Total: 34,989	Number

Table 2 – Product Vintages

			Amount Achieved
No. VPA	**Start Dates**	**End Dates**	**VERs**
VPA 14	01/01/2022	31/12/2022	10,000 (11,478)
VPA 15	01/01/2022	31/12/2022	10,000 (11,552)
VPA 16	01/01/2022	31/12/2022	10,000 (11,479)

VPA 17	01/01/2022	31/12/2022	10,000 (10,870)
VPA 29	01/01/2022	31/12/2022	9,827

SECTION A. DESCRIPTION OF PROJECT

A.1. General description of project

This project "Improved cookstove F3PA project in Nahouri" consists of 5 micro-scale VPA projects of microscale PoA GS1340 'Efficient cookstoves in Burkina Faso' (ie VPA-14 (GS10778), VPA-15 (GS10779), VPA-16 (GS10780), VPA-17 (GS10781) and VPA-29 (GS11074) implemented by Association tiipaalga. The project promotes the distribution and utilisation of the mud made 3 stones efficient woodstove "F3PA" in the province of Nahouri in the region Centre-South of Burkina Faso. Association tiipaalga ensures the implementation of the project along with local communities/federation in an agreement with Fair Climate Fund, a social enterprise based in the Netherlands, which finances the group of VPA's and signed an ERPA with Association tiipaalga.

The F3PA is significantly more efficient than the traditional open fire three stone cooking method[1]. The project will thus help reduce wood consumption by more than half in each household and therefore preserve the local forests and their biodiversity. This will also help to combat the ever-increasing threat of desertification in the area. The efficient F3PA cookstoves replace the traditional stove whilst respecting the local three stone cooking culture. This is possible as the efficient F3PA cookstove, seen in the figure below, integrates the three stones from each household inside its design. These three stones represent the pillar of the household's marital union. The F3PA has further benefits like the reduction of harmful smoke in the local rural village households and the reduction of time spent in collecting wood. The project does not consist of a fuel switch as locally available wood is still being used.

[1] Rapport sur les tests de performances énegétiques des Foyers trois pierres améliorés (F3PA) de l'association Tiipaalga, Laboratoire Biomasse Energie et Biocarburnat de 2IE, Ouagadougou, July 2015 (see document « tiipaalga_Rapport de tests de performance énergétiques_F3PA_24_07_2015_VF.pdf »)

Figure 1 Foyer Trois Pierre Amélioré "F3PA"

The project's approach involves training of women in the rural zones to build, use and maintain these efficient cookstoves themselves using local material. The training includes education on hygienic usage and on the threat of climate change and health hazards related to the old cooking system and inform on the health and environmental benefits of using such efficient cookstoves.

In addition to Gold Standard, the project will further certify under Fairtrade Climate Standard which would lead in a positive certification statement to the generation of Fairtrade Carbon Credits.
During this third monitoring period, a total of 14,825 households of the province Nahouri were equipped with F3PA efficient cookstoves. It is estimated that the project with VPAs VPA-14 (GS10778), VPA-15 (GS10779), VPA-16 (GS10780), VPA-17 (GS10781) and VPA-29 (GS11074) has generated 49,827 tonnes of CO2eq emission reductions.

A.2. Location of project

- Host country: Burkina Faso
- Province: Nahouri
- Municipalities: Gniaro, Po and Tiebele
- Geographical location :

Municipality	Latitude	Longitude
Gniaro	11.376693	-1.378716
Po	11.167318	-1.144338
Tiébélé	11.097657	-0.965403

- Map:

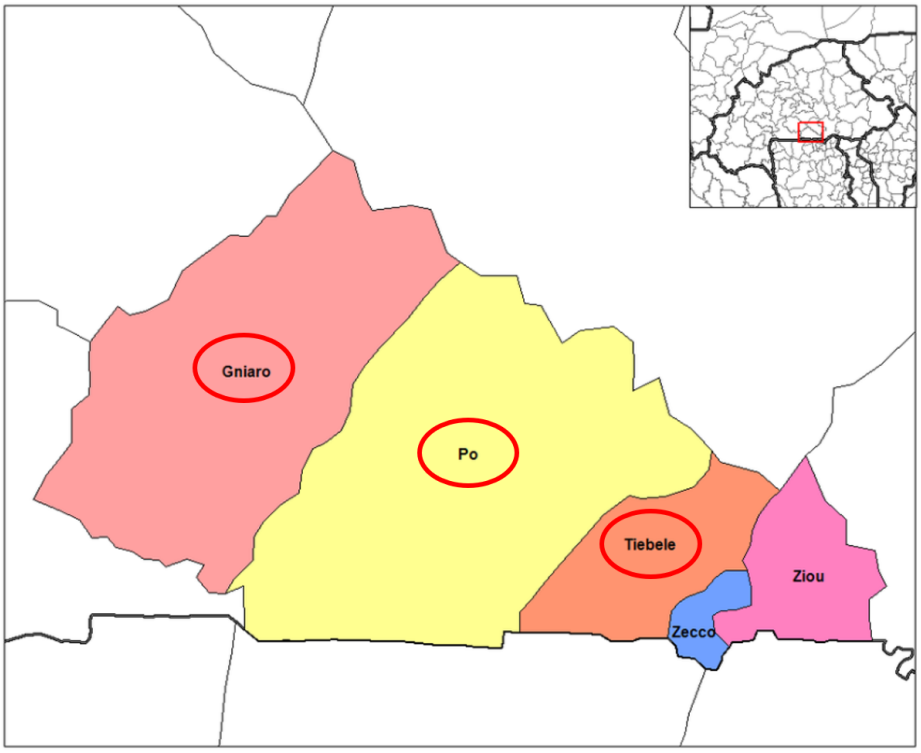

Figure 2 Location of project intervention area - 3 municipalities of Nahouri province

The villages where the stoves are installed are:

Village	Latitude	Longitude
Gniaro	11.376693	-1.378716
Po	11.167318	-1.144338
Tiébélé	11.097657	-0.965403

A.3. Reference of applied methodology

"The Gold Standard Simplified Methodology for Efficient Cookstoves", version 1.0

A.4. Crediting period of project

GS10778 (VPA-14): 29/02/2020-28/02/2030 (10 years)
GS10779 (VPA-15): 03/03/2020-02/03/2030 (10 years)
GS10780 (VPA-16): 05/03/2020-04/03/2030 (10 years)
GS10781 (VPA-17): 10/03/2020-09/03/2030 (10 years)
GS11074 (VPA-29): 22/02/2021- 21/02/2031 (10 years)

For VPA 29, the start date in the registered VPA-DD is 1/11/2020. However, the actual start date of the VPA may be postponed based on the actual installation date of the first stove in the project database. In this case, VPA 29's start date is 22/02/2021 based on when activities for the VPA begun.

SECTION B. IMPLEMENTATION OF PROJECT

B.1. Description of implemented project

The implemented project is a group of five VPA's, i.e. VPA-14 (GS10778), VPA-15 (GS10779), VPA-16 (GS10780), VPA-17 (GS10781) and VPA-29 (GS11074). The implementation of VPAs 14, 15, 16 and 17 started in 2020, while VPA 29 started in 2021. The project activities have served the following number of households with F3PA efficient cookstoves with a corresponding calculated GHG offsets generated during the third monitoring period for VPA-14-17 and the second monitoring period for VPA-29:

GS/VPA number	Number of households	Dissemination calendar	Generated VER's this MP
GS10778/ VPA-14	3,017	29/02/2020-03/06/2020	10,000 (11,478)
GS10779/ VPA-15	3,036	03/03/2020-05/06/2020	10,000 (11,552)
GS10780/ VPA-16	3,017	05/03/2020-29/06/2020	10,000 (11,479)
GS10781/ VPA-17	2,840	10/03/2020-05/06/2021	10,000 (10,870)
GS11074/ VPA-29	2,915	22/02/2021-03/06/2021	9,827

Description of the technology

The F3PA efficient cookstoves are made from mud mixtures with inexpensive locally-sourced materials: manure, straw, water, and clay (or soil coming from termite mound). These project stoves consist of a thick circular wall of mud surrounding and shielding a pot and have one entrance for the woodfuel directly beneath the pot. The pot itself is supported by three stones.

The F3PA efficient cookstoves are single pot stoves, which means that every cooking pot size has its specific size of cookstove. The sizes of the cooking pots and so the cookstoves used in this VPA are 2, 3, 4, 5, 6, 7, 8, 10, 12 and 15 due to its frequency of utilization. The diameter of cooking pots of size 2 and 15 varies between 22 cm and 42cm, which will influence the external diameter of project cookstoves. The average measures of the project cookstoves can be found in the table below. The distance between the cooking pot and the floor of the cookstove determines the size of the combustion chamber and thus influences the thermal efficiency of the project stove. If the combustion chamber is too small, the cooking pot will be surrounded with lots of flames and the consumption of wood will be higher. If the combustion chamber is too large, too much energy will be lost. The standard measure for the distance between the cooking pot and the floor of the cookstove of the F3PA promoted by tiipaalga will vary between 15 cm and 20 cm depending on the size of the cooking pot. The distance between the cooking pot and the wall of cookstove allows having good ventilation and functions as a stack. The standard measure for the distance between the cooking pot and the wall of the F3PA cookstove promoted by tiipaalga is about 3 cm. The women measure this distance with the thickness of their hand. The shape and measure of the wood entrance of the cookstove are also important features for the performance of the F3PA project cookstoves. If the entrance is too large, the energy loss will be high and the cookstove becomes fragile. If the entrance is too small, the supply of wood is hampered which could cause cracks and the air ventilation is not assured. The circular shape of the entrance diminishes cracks around the entrance and reinforces the resistance of the wall of the cookstove. The standard measure of the wood entrance of the F3PA promoted by tiipaalga will not exceed half the height of the cookstove.

Size of cooking pot	External diameter of pot (cm)	Distance between cooking pot and wall of cookstove (cm)	Distance between cooking pot and floor of cookstove (cm)	Height of wood entrance (cm)	Diameter of wood entrance (cm)	Height of F3PA cookstove (cm)	Diameter F3PA cookstove (cm)
2	22	3	15	12	12	34	34

3	25	3	15	13	13	37	37
4	27	3	15	18	18	42	42
5	29	3	15	18	19	45	45
6	31	3	17	19	19	47	47
7	32	3	17	20	20	50	48
8	34	3	17	22	20	53	52
10	37	3	20	23	22	55	54
12	40	3	20	25	23	57	60
15	42	3	20	27	25	64	65

Table: Dimensions of F3PA cookstoves promoted by tiipaalga

All F3PA stoves of different sizes have a specified efficiency of at least 20%[2]. Based on other project experiences of tiipaalga, the efficient F3PA cookstove has a life span of at least five years, as the women take an active role to undertake any repairs that may be required in the future. Training and monitoring are provided by the leader women to the women how to maintain and repair their own mud made 3 stones efficient woodstoves. The Instructors will visit all F3PA stoves at least once a year and will also be available to assist the leader women and F3PA owners how to maintain and repair their stoves. The use of virtually unlimited, locally available, natural materials to construct the stove allows repairs to be conducted as required at little cost.

B.1.1 Forward Action Requests

The Forward Action Requests for VPA 14 to 17 & 29 were

Forward Action Requests #1: CME to note that the deviation request for the remote audit was approved for the monitoring period 01/01/2021 to 31/12/2021, however, as per the deviation decision authorized by GS for remote site visits for all VPAs, and in accordance with paragraph 11.1.2 of the microscale project requirement, CME shall facilitate VVB's on-site audit during the next periodic Verification.

An Objective Observer has been appointed and conducted a site visit.

Forward Action Request # 2: Evidence of project start date shall be checked at 1st verification. Stoves installed more than one year prior to project submission date to sustain cert shall not be included in the VPAs.

The date of first submission of documents for preliminary review is 26/02/2021. First stove for VPA 29 have been installed have been installed less than one year before date of first submission[3].

Forward Action Request # 3: The PD shall record the baseline fuel for all users during the monitoring survey.

[2] Rapport sur les tests de performances énergétiques des Foyers Trois Pierres Améliorés (F3PA) de l'Association Tiipaalga, Laboratoire Biomasse Energie et Biocarburant de 2IE, Ouagadougou, July 2015 (see document « tiipaalga Rapport de tests de performances énergétiques_F3PA_24_07_2015_VF.pdf »)

[3] See contract 'VPA29-1401-01 et 02'. The construction date in the contract is 15/02/2021, whereas the installation date (registered in project database) is 22/02/2021, which is 7 days after the construction date. The installation date is to be considered as the first date of usage of the F3PA efficient cookstove and thus start date of crediting period.

☐ The question regarding the type of fuel used for domestic cooking before the installation of the F3PA was included in the monitoring survey[4]. It appears that 100% of the surveyed households were using wood as fuel for domestic cooking during rainy and dry seasons before the start of the project.

B.2. Post-Design Certification changes

B.2.1. Temporary deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline

No temporary deviations have been made during this monitoring period.

B.2.2. Corrections

No corrections to project information or fixed parameters have been applied.

B.2.3. Changes to start date of crediting period

No changes to the start date of crediting period have been made during this monitoring period.

B.2.4. Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline

Due to the dangerous situation in Burkina Faso, it was decided to sample based on the TPDDTEC methodology, with a minimum of 100 households and 30 households per age group, reducing the total number of households that need to be sampled. To make sure the total amount of households is sufficient, 50 households were sampled per age group, leading to a total of 150 HH sampled. Since this is not enough to reliably determine parameters per age group, one usage rate and one baseline stove usage factor will be calculated for the whole project, instead of one for each age group. This is a more conservative approach since the overall usage rate is lower and baseline stove usage higher than if it would be split.

B.2.5. Changes to project design of approved project

No changes to the project design have been made during this monitoring period.

[4] See document: '*GS1340_MS_VPA_14-17_MP3_VPA-29_MP2_20230522_ANALYSIS'*/ Tab 'Analysis', see line 84-89 and line 98-102.

SECTION C. DESCRIPTION OF MONITORING SYSTEM APPLIED BY THE PROJECT

Process of unique identification of stove users:

Significant part of the households in the project area are polygamous. Most of the wives within a household included in the carbon project have a cookstove set of at least two F3PA efficient cookstoves of different sizes. The project cookstoves are single-pot stoves. As every cooking pot size has its specific size of cookstove, different sizes of project cookstoves have been implemented according to the cooking habits of the stove users. The sizes of the cooking pots and so the cookstoves used in the VPA's are 2, 3, 4, 5, 6, 7, 8, 10, 12 and 15 due to its frequency of utilization. The women using different cookstove sets in a polygamous household are credited as one single household.
The individual identification of the micro scale – VPA's is ensured with the identification of each household and each wife within the household using the project cookstoves by a unique serial number referring to the micro scale VPA 14, VPA 15, VPA 16, VPA 17 or VPA 29. The syntax of the unique serial number is defined as GS1340-VPA-xx-yyyy/z, where (i) GS1340 is the Gold Standard number of the PoA "Efficient cookstoves in Burkina Faso" to which the VPA belongs, (ii) VPA-xx is the number of the VPA of the PoA, (iii) yyyy is the number of the household from 1 to 9999 and (iv) z is the number of the wife in the household from 1 to 9.
The following information is documented for each household of which each wife of the household (when polygamous) has replaced all traditional three stones cookstoves for domestic use with project cookstoves:

i. Unique VPA ID number of each household and each wife within the household;
ii. Type and size of appliance (ex. F3PA – size 2);
iii. GPS Coordinates of the household;
iv. Name/Address/national ID Number/Mobile Number/Picture of wife with her project cookstoves;
v. Stove Installation Date.

All data are stored in an electronic database using AKVO Flow software (www.akvo.org). The following files are raw data files of data stored in the cloud:

- '*GS1340_VPA14-17_MP3_VPA 29_MP2_DR_HH_20230421'*: distribution records (DR) of households with the following data:
  - Identifier (Unique internal ID number);
  - GS number: GS PoA-nr / VPA-nr / Household nr;
  - Location info;
  - Data on head of household.
- '*GS1340_VPA14-17_MP3_VPA 29_MP2_DR_ICS_20230421v2.0'*: data on wives and type of stoves used per wife within the household with the following data:
  - Identifier (Unique internal ID number) which is the unique key to household info ('*GS1340_VPA14-17_MP3_VPA 29_MP2_DR_HH_20230421'*):
  - Identification data per wife: name, picture of wife with her stoves;
  - Data on stoves used per wife: size of stoves, installation dates of each stove, location of stoves, …

The start of the crediting period of each household is considered as the latest installation date of all stoves within the cooking sets of the different wives within the household (see file '*GS1340_VPA14-17_MP3_VPA 29_MP2_DR_Recent date_20230421'*). For each household, the number of days in each age group are calculated based on this date.

Data concerning double counting:

The project developer tiipaalga monitors any risks of double counting in this project, specifically determining whether any of the efficient cookstoves part of this project are counted in any other emission reduction project. There are other registered GHG reduction projects in Burkina Faso promoting the F3PA efficient cookstoves. Among those, one project is implemented in the north of Burkina Faso, in the provinces of Bam and Loroum, ie VPA-01 to 10 GS2456 and GS3516 to GS3524 under the same PoA GS1340. Another project under this PoA is located in the province Kourwéogo in the Plateau Central region (VPA-11 to 13, GS6152-6419-6420) and a third project is located in the provinces of Nahouri and Zoundwéogo (VPA-18 to 24, GS10922 to GS10928). Those projects are also monitored by tiipaalga, that ensures there is no double counting. Lastly, there is also a project in Passoré (VPA 25-28, GS11070 to GS11073) under the same PoA lead by Solidagro, but this is in a different province than the current project and therefore there is no risk of double counting. Association tiipaalga is also aware of another cookstove project[5] in Burkina Faso registered under the Gold Standard. However, this project promotes a different kind of stoves rather for non-domestic cooking purposes.
Association tiipaalga continues to monitor whether any other projects with same technology exist. In such cases, tiipaalga will make every effort to compare total distribution databases with the other project developer(s) to ensure that there is no overlap. In addition, the project continues to use all legal documentation outlined in the VPA-DD to ensure legal ownership over offsets, a step that further avoids double counting.

Data processing and archiving:

Distribution records are captured with Smartphones using the AKVO Flow software with necessary pictures and GPS coordinates. Monitoring data are extracted to Microsoft Excel for analyses. Records will be kept for two years after the project activity is completed.

Quality assurance and quality control measures

Quality control rules were developed for the F3PA efficient cookstoves and were explained during the stove construction trainings. Quality control rules included in the construction protocol of the F3PA efficient cookstove are among others:

- It should be possible to move a hand between the wall of the cookstove and the cookpot;

[5] The project (https://registry.goldstandard.org/projects/details/665) is an initiative of SNV, the Netherland Development Organization, to promote improved "dolo" stoves in the Boucle du Mouhoun Region of Burkina Faso. These stoves are used for brewing of "Dolo", a traditional local drink made from sorghum which is is consumed during any ceremony, rituals, festivities and non-special occasions.

- The height of the wood entrance of the cookstove is at most half the total height of the cookstove;
- The distance between the cooking pot and floor of cookstove should either not be higher than a hand or the handles of the cooking pot should be higher than the wall of the cookstove.

During monitoring surveys the F3PA efficient cookstoves are evaluated with the following statuses:

- *Green:* the construction norms have been respected and the F3PA efficient cookstove does not need any maintenance action. It means that (i) the outer surface of the F3PA efficient cookstove are not washed by rain, (ii) there is no hole in the floor of the efficient stove;
- *Orange:* the construction norms have been respected, but the efficient cookstove has not well been maintained. It concerns F3PA efficient cookstoves (i) from which the outer surface has been washed by rain and that need re-polishing; (ii) that have some cracks, but which are external and do not affect the quality of the combustion of the wood. For these cases, the application of the reparation protocol will fix the cracks and repolish the surface, so that the status will turn again into green.
- *Red:* the construction norms are not respected, or the F3PA efficient cookstoves have not been well maintained or used in a proper way. If the F3PA efficient cookstove has not been well constructed, the cookstove will not be registered in the initial database. A red cookstove needs to be reconstructed.

Orange cookstoves will be monitored, so that the maintenance activities of these stoves bring them again in green status. If these maintenance activities do not take place, they probably will in the short term, get into the red status. Orange F3PA efficient cookstoves are considered to have the same efficiency as the green F3PA efficient cookstoves of the same age group. The red F3PA efficient cookstoves will be monitored, as long as the cookstove has not been reconstructed. After reconstruction, the status of the F3PA efficient cookstove will turn to green. Red F3PA efficient cookstoves do not have the targeted efficiency of the F3PA efficient cookstove anymore, and so are not considered in the emission reduction calculations as long as they are not reconstructed.

Diagram of responsibilities

As there are several entities involved in initial data collection and project monitoring it is important to clearly designate the relationships between and responsibilities of entities. Tiipaalga will act as the managing entity of the project and be responsible for communication with the Gold Standard Foundation and the Objective Observer. CO2logic provides technical support in the initial data collection, data quality assurance, monitoring, drafting of the verification report. A diagram of responsibilities is shown here below.

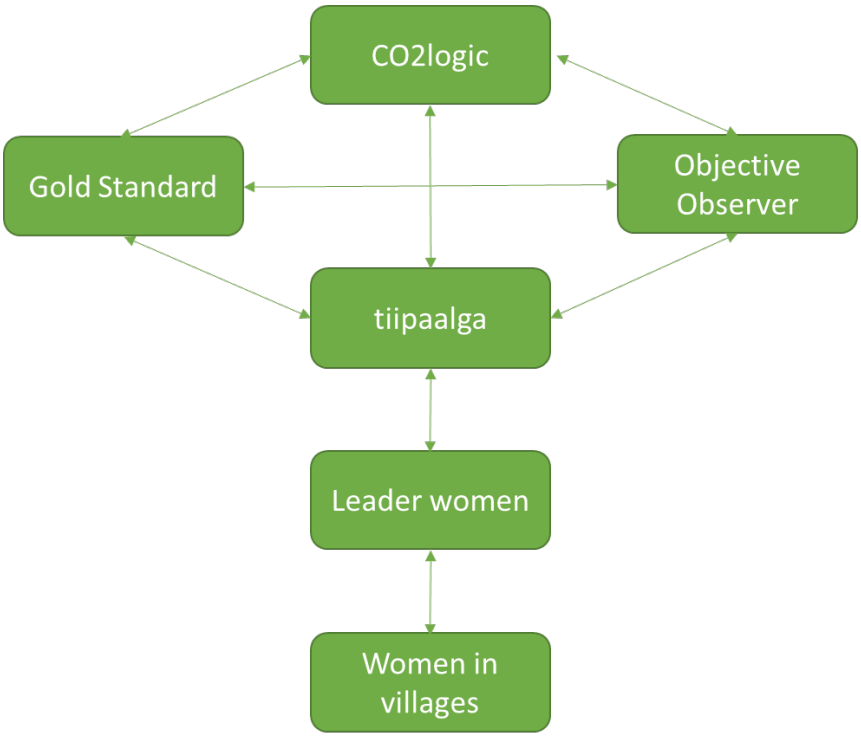

Figure 3 Diagram of responsibilities

Employees from Association tiipaalga train leader women, who are selected by the women in the villages, for the construction, the use and maintenance of mud made 3 stones efficient woodstoves. These leader women conduct the same training sessions with the women in their villages and help them to build the cookstoves. tiipaalga employees in collaboration with the leader women, will perform quality checks and collect the initial stove data.

End user information is collected by tiipaalga agents with mobile smartphones and is consolidated into an electronic database in the cloud from which project monitoring can be conducted. The central electronic database is accessible by tiipaalga and CO2logic. Data can be made available through data extraction. CO2logic performs quality checks. Monitoring tasks such as monitoring surveys are managed by tiipaalga and realized by the tiipaalga surveyors. They are the most capable of collecting these data because of extensive knowledge of the technology and end-users. The tiipaalga surveyors are trained and retrained prior to conducting surveys during a 4-days training session which was this year conducted from 4 May 2023 till 7 May 2023[6]. CO2logic assists tiipaalga in cross-checking the integrity of data with other variables to ensure consistency and accuracy, and to avoid mistakes.

SECTION D. DATA AND PARAMETERS

D.1. Data and parameters fixed ex ante or at renewal of crediting period

[6] Report of the training session, see document: *'NAHOURI_FormationReport_VPA 14-17_MP3_VPA 29_MP2.pdf'.*

Relevant SDG Indicator	SDG 13, Climate Action
Data/parameter:	**$EF_{b,fuel,CO2}$**
Unit	tCO2/ton of firewood
Description	CO2 emission factor arising from use of firewood in baseline scenario
Source of data	IPCC default value, table 1.4 of Chapter 1 of Vol.2, 2006 IPCC Guidelines for National Greenhouse Gas Inventories
Value(s) applied)	1.747 tCO2/ton of firewood
Choice of data or measurement methods and procedures	As defined under the Gold Standard Simplified Methodology for Efficient Cookstoves v1.0
Purpose of data	Calculation of emission reductions
Additional comments	N/A

Relevant SDG Indicator	SDG 13, Climate Action
Data/parameter:	**$EF_{b,fuel,non\_CO2}$**
Unit	tCO2/ton of firewood
Description	Non-CO2 emission factor arising from use of firewood in baseline scenario
Source of data	IPCC Fifth Assessment Report: Climate Change (IPCC AR5)
Value(s) applied)	0.58 tCO2/ton of firewood
Choice of data or measurement methods and procedures	From rule update: Applicability of Global Warming Potential for Gold Standard For The Global Goals Projects (06/03/2021).
Purpose of data	Calculation of emission reductions
Additional comments	N/A

Relevant SDG Indicator	SDG 13, Climate Action
Data/parameter:	**η_b**
Unit	Fraction
Description	Efficiency of the cookstove being used in the baseline scenario
Source of data	Gold Standard Simplified Methodology for Efficient Cookstoves v1.0
Value(s) applied)	0.10
Choice of data or measurement methods and procedures	As defined under the Gold Standard Simplified Methodology for Efficient Cookstoves v1.0

Purpose of data	Calculation of emission reductions
Additional comments	N/A

Relevant SDG Indicator	**SDG 13, Climate Action**
Data/parameter:	η_p
Unit	Fraction
Description	Efficiency of the cookstove being used in the project scenario
Source of data	Determined following the Water Boiling Test Protocol
Value(s) applied)	0.234[7]
Choice of data or measurement methods and procedures	As defined under the Gold Standard Simplified Methodology for Efficient Cookstoves v1.0
Purpose of data	Calculation of emission reductions
Additional comments	For each wife of one household included in the VPA, at least two efficient cookstoves of the defined project sizes 2, 3, 4, 5, 6, 7, 8, 10, 12 and 15 will be installed according to the local cooking habits. Each size of project cookstove is tested according to the WBT protocol. To determine the project cookstove efficiency of one particular size, three sample runs have been carried out on one randomly selected project cookstove. The average of the three results is taken as the efficiency for the project cookstove of this particular size. The lowest value of project cookstove efficiency of the various sizes is taken as reference value for the efficiency of the cookstoves being used in the project scenario to calculate the emission reductions. The project cookstove efficiency in the year y $\eta_{p,y}$ will be determined using the discount factor DF_η to account for efficiency loss of project cookstove per year of operation (fraction).

Relevant SDG Indicator	**SDG 13, Climate Action**
Data/parameter:	$f_{NRB,b,y}$
Unit	Fractional non-renewability
Description	Non-renewability status of wood fuel during year y

[7] Rapport sur les tests de performances énergétiques des Foyers trois pierres améliorés (F3PA) de l'association Tiipaalga, Laboratoire Biomasse Energie et Biocarburant de 2IE, Ouagadougou, July 2015 (see document « tiipaalga_Rapport de tests de performance énergétiques_F3PA_24_07_2015_VF.pdf » or in English : « tiipaalga_Report WBT thermal efficiency_F3PA_24_07_2015_VF_EN »)

Source of data	Default NRB value provided by the CDM executive board and endorsed by the host country DNA (http://cdm.unfccc.int/DNA/fNRB/docs/burkina.pdf)
Value(s) applied)	0.90
Choice of data or measurement methods and procedures	As defined under the Gold Standard Simplified Methodology for Efficient Cookstoves v1.0
Purpose of data	Calculation of emission reductions
Additional comments	The project activity may choose to update the $f_{NRB,b,y}$ during the crediting period

Relevant SDG Indicator	**SDG 13, Climate Action**
Data/parameter:	**$B_{b,y}$**
Unit	Tonnes firewood per household per year
Description	Firewood consumption for cooking in the baseline
Source of data	Baseline field performance test approved during PDD validation. See document: '*GS1340_Tiipaalga_VPA14-17_BFPT_20201026_Analysis*'
Value(s) applied)	3.94
Choice of data or measurement methods and procedures	Option d of Field Performance Test has been chosen to determine the firewood consumption for cooking in the baseline.
Purpose of data	Calculation of emission reductions

Additional comments	The baseline performance field test (BFT) measures real, observed performance of the baseline cookstove in the field. Consumption is measured with a representative sample of end users under each defined baseline scenario using the baseline cookstove. A 90/10 confidence/precision must be met to use the mean value for baseline fuel consumption. In case of sampling across VPA's 95/10 confidence precision must be met. A minimum sample size of 30 is recommended. The Baseline Field Performance Test has been conducted between 02/02/2020 and 20/02/2020 in 10 randomly selected villages from the 80 villages located in the project boundary, i.e. the municipalities of Po, Tiébélé and Guiaro. The 3 municipalities included in the 5 VPAs are very close to each other (furthest distance of 80 km). The total surface of the province Nahouri where all 3 municipalities of the project boundary are located, is 3,754 km2. The villages are characterized by similar socio-economic conditions. Within each of the 10 village 11 households were randomly selected to meet the 95/10 confidence precision requirement for the mean value for baseline fuel consumption in the Baseline Field Performance Test for cross VPA's.

D.2 Data and parameters monitored

Relevant SDG Indicator	**SDG 1, No poverty**
Data/ Parameter	**Parameter #1: Number of leader women (Monitrice endogène) who benefit from microcredit** **Parameter #2: Total benefit from Income Generating activities financed through the microcredit scheme for the group of VPA's**
Unit	Parameter #1: N.A. Parameter #2: € or FCFA
Description	Parameter #1: Number of leader women (Monitrice endogène) who benefit from microcredit during the monitoring period Parameter #2: total amount in FCFA or € of benefit generated by Income Generating Activities which are managed by the leader women (Monitrice endogène) and funded by the microcredit scheme
Source of data	Report on the implementation of the microcredit scheme. See document: '*Rapport d'étape microcredits annee 2022_ENG*'

Value(s) applied	Parameter #1: 2,090 Parameter #2: 24,644€ or 16,166,500 FCFA
Measurement methods and procedure	The measurement of both parameters is based on quantitative information collected in the reports regarding the microcredit scheme.
Monitoring frequency	After each implementation phase of the microcredit scheme
QA/QC procedures	The data is analyzed in the reports regarding the microcredit scheme made available for review.
Purpose of data	Calculation of the parameters "Number of leader women (Monitrice endogène) who benefit from microcredit" and "Total benefit from Income Generating activities financed through the microcredit scheme"

Additional comment

A total of 16,166,500 FCA or 24,644€ of profits have been made by 1153 leader women within 38 villages (14 in the municipality of Pô, 21 in the municipality of Tiébélé, and 3 in the municipality of Guiaro), after receiving 20,900,000 FCFA. The following tables summarize the details regarding the microcredit scheme implemented during this monitoring period (September 2022).
Additionally, 33 villages received 25,349,827 FCFA for 937 leader women. No data is available yet on the profits made thanks to this microcredit input.

- *Municipality of Pô*

Villages	Number of Leader women	Granted amount (FCFA)	Total benefit
Mantiongo	27	550 000	420000
Songo II	25	550000	403000
Gho	27	550000	751000
DONGO	35	550000	550000
Dakola	32	550000	205000
Katcheli	26	550000	275000
Nahouri	31	550000	269500
tambolo	38	550 000	321 000
Banon	33	550000	425000
tamoana	27	550000	320000
Yago	33	550000	174000
Kapori	30	550000	333000
Torem	28	550000	218000
Fanian	28	550000	130500
Manon	24	750000	Not available yet
Secteur 4	29	750000	Not available yet
Secteur 2	30	750000	Not available yet

- *Municipality of Tiébélé*

Villages	Number of Leader women	Granted amount (FCFA)	Total benefit

Lo-Sinon	29	550000	355000
Tiponi	29	550000	356500
Idenia Tanga	27	550000	146500
Nabenia	44	550 000	192 500
Kolonia tangassogo	29	550000	447500
mantiongogo	39	550000	485000
Ballerbié I	22	550000	317500
Boulmona	25	550000	462500
Lô-Caloa	28	550000	395000
Corabié	27	550000	738000
Lô-Pouri	28	550000	632000
Mankanon	28	550000	1107500
KOUBONGO	30	550000	1668000
OUEDIABIE	34	550000	257500
PIOUKOURI	25	550000	354000
polobianssan	31	550000	612500
Lo-longo	30	550000	457500
Bapania	33	550000	634000
AVV V2	27	550000	330500
CORA LO	24	550000	379000
KUYOU	28	550000	302500
Poungou	30	750 000	Not available yet
Kantiolo	25	750 000	Not available yet
KAYA-Kaforo	19	750 000	Not available yet
Sissoro	30	750 000	Not available yet
Gounia	27	750 000	Not available yet
Tindongo	24	750 000	Not available yet
Brebie	22	750 000	Not available yet

Yeliania	26	750000	Not available yet
Badiembe	22	750000	Not available yet
Tagnania	29	750 000	Not available yet
Avvv1	23	750 000	Not available yet
Dolo	28	750 000	Not available yet
Badabie	30	750000	Not available yet
Goribie	30	750000	Not available yet
Nioua	30	750 000	Not available yet
Sangbabie	30	750 000	Not available yet
Avv V4	30	750000	Not available yet
TANGASSOGO Ourobie	30	750000	Not available yet
Moabie Boungou	30	750 000	Not available yet
Idenia Moa	29	750000	Not available yet
Zeguessiga	25	750000	Not available yet
Lagonia	27	750 000	Not available yet
Lo-Namaguinia	25	750 000	Not available yet
Kabrikogagogo	22	750 000	Not available yet

- *Municipality of Guiaro*

Villages	**Number of Leader women**	**Granted amount (FCFA)**	**Total benefit**
KOUMILI	43	550000	226500

	Saaro	30	550000	283000
	kollo	43	550000	231000
	Pore	31	750000	Not available yet
	Boala	30	750000	Not available yet
	Guiaro Centre	54	1350000	Not available yet
	Koro	34	750000	Not available yet
	Boassan	34	750 000	Not available yet
	Oualem	28	750 000	Not available yet
	More details and the original tables can be found in document: '*Rapport d'étape microcredits annee 2022_ENG*'			

Relevant SDG Indicator	**SDG 1, No poverty**
Data/ Parameter	**Total estimated amount saved by stove users on wood fuel purchase for the group of VPA's** Various expenses which women do after saving money required for the purchase of wood: i. School fees$_p$; ii. Purchase of medical drugs$_p$; iii. Purchase of food$_p$; iv. Investment for field crops$_p$; v. Purchase of equipments$_p$; vi. Income generating activities$_p$; vii. Savings$_p$.
Unit	€ or FCFA

Description	Total estimated amount in FCFA or € saved by the stove users on wood fuel purchase during the monitoring period i. School $fees_p$: Proportion of stove users using their saved money to school fees; ii. Purchase of medical $drugs_p$: Proportion of stove users using their saved money to purchase of medical drugs; iii. Purchase of $food_p$: Proportion of stove users using their saved money to iv. Investment for field $crops_p$: Proportion of stove users using their saved money to investments for field crops; v. Purchase of $equipments_p$: Proportion of stove users using their saved money to purchase of equipments; vi. Income generating $activities_p$: Proportion of stove users using their saved money to income generating activities; vii. $Savings_p$: Proportion of stove users using their saved money to savings.
Source of data	Monitoring survey, see document '*GS1340_MS_VPA14-17_MP3_VPA-29_MP2_20230522_Analysis*'.
Value(s) applied	16,497,302 FCFA or 25,148 € Proportion of the usage of saved money: i. School $fees_p$: 0% ii. Purchase of medical $drugs_p$: 33% iii. Purchase of $food_p$: 67% iv. Investment for field $crops_p$: 0% v. Purchase of $equipments_p$: 0% vi. Income generating $activities_p$: 33% vii. $Savings_p$: 20%
Measurement methods and procedure	The measurement of the parameter is based on quantitative information collected during Monitoring surveys. The end users are asked whether they purchase wood fuel and if so, how much they spend on yearly basis. The result is extrapolated is on all stove users within the group of VPA's.
Monitoring frequency	Annual
QA/QC procedures	The data will be analysed in the monitoring report and raw data of the Monitoring surveys will be made available for review.
Purpose of data	Calculation of the parameter "Total estimated amount saved by stove users on wood fuel purchase"

Additional comment	The monitoring survey yielded a baseline expenditure of 79,000 FCFA per woman. This is more than three times higher than what was estimated during the ex-ante survey. Therefore, to keep the estimates conservative, the estimated amount saved per stove user buying wood, is estimated by taking the ratio of difference of the estimated project and baseline expenses as indicated by the monitoring survey, divided by the baseline expenses indicated by the monitoring survey, and multiplying this with the average yearly amount spent in the baseline scenario as estimated in the PDD.

Relevant SDG Indicator	**SDG 3, Good health and well-being**
Data/ Parameter	Proportion of households perceiving: **Smoke level reduction** **Incidence of coughing reduction** **Incidence of respiratory illness reduction** **Incidence of itchy eyes reduction**
Unit	Fraction
Description	Proportion of households perceiving less often smoke levels, incidence of coughing, incidence of respiratory illness, incidence of itchy eyes since the implementation of F3PA efficient cookstoves
Source of data	Monitoring survey, see document '*GS1340_MS_VPA14-17_MP3_VPA-29_MP2_20230522_ANALYSIS*'.
Value(s) applied	Proportion of households perceiving: Smoke level reduction: 100% Incidence of coughing reduction: 100% Incidence of respiratory illness reduction: 100% Incidence of itchy eyes reduction: 100%
Measurement methods and procedure	The measurement of the parameter is based on qualitative information collected during Monitoring surveys. The end users are asked whether, since they have the F3PA efficient cookstoves, smoke level occurs for each more often, less often among the family members or the situation has not changed. The same is asked for coughing, respiratory illnesses and itchy eyes.
Monitoring frequency	Annual
QA/QC procedures	The data is analyzed in the monitoring report and raw data of the Monitoring surveys is made available for review.
Purpose of data	Calculation of the parameter "Proportion of households perceiving less often smoke levels, incidence of coughing, incidence of respiratory illness, incidence of itchy eyes"
Additional comment	N.A.

Relevant SDG Indicator	SDG 4, Quality Education
Data/ Parameter	**Number of training initiatives for staff involved in the programme**
Unit	Number
Description	Number of training initiatives for staff involved in the programme in order to increase their performance in the programme
Source of data	Reports regarding the training initiatives See document *'NAHOURI_FormationReport_VPA 14-17_MP3_VPA 29_MP2.pdf'*
Value(s) applied	1
Measurement methods and procedure	The list of training initiatives during the corresponding monitoring period
Monitoring frequency	Annual
QA/QC procedures	The data is analyzed in the reports regarding the training initiatives, which is made available for review
Purpose of data	Calculation of the parameter "Number of trainings initiatives for staff involved in the programme"
Additional comment	Starting Thursday 4th of May, eight surveyors received a 4 -day training. The purpose of the training was to teach the fundamentals of the usage survey with a theoretical and practical phase and to familiarize with the used tools (Akvo software). The surveyors were ultimately able to collect quality data from the households on the field for the purpose of the monitoring survey. More details regarding the training and the participants list can be found in document: *'NAHOURI_FormationReport_VPA 14-17_MP3_VPA 29_MP2.pdf'.*

Relevant SDG Indicator	SDG 4, Quality Education
Data/ Parameter	**Number of workshops carried out for women for the group of VPA's**
Unit	Number
Description	Number of workshops carried out for women in order to increase their empowerment
Source of data	Reports regarding the workshops carried out for women. Complete summary can be found in document *'02-NHR-SYNTHESE DE ACTIVITES PROJET F3PA -2022'*
Value(s) applied	58

<table>
<tr><td>Measurement methods and procedure</td><td>The list of workshops carried out for women during the corresponding monitoring period</td></tr>
<tr><td>Monitoring frequency</td><td>Annual</td></tr>
<tr><td>QA/QC procedures</td><td>The data is analyzed in the reports regarding the workshops carried out for women, which is made available for review</td></tr>
<tr><td>Purpose of data</td><td>Calculation of the parameter “Number of workshops carried out for women”</td></tr>
<tr><td>Additional comment</td><td>Two types of workshops were organized: i) sensitization workshops; and ii) training workshops of leader women for the construction of F3PA efficient cookstoves. During the sensibilization sessions stove users are informed about the advantages of the project cookstoves for the climate and desertification of the project area, tiipaalga’s activities, on how the banco or mud should be prepared for the construction of the cookstoves etc. During training sessions leader women are trained on how the F3PA efficient cookstoves should be constructed. In total, 3,231 participants were present during the workshops; 91% of which were women. A complete summary of the different sessions can be found in document : ‘02-NHR-SYNTHESE DE ACTIVITES PROJET F3PA -2022’.
The following table gives an overview of the number of sessions and number of participants:

<table>
<tr><th rowspan="2">Municipality</th><th colspan="2">Sensitization sessions</th><th colspan="2">Training workshops of leader women</th><th colspan="2">Total</th></tr>
<tr><th>sessions</th><th>participants</th><th>sessions</th><th>participants</th><th>sessions</th><th>Participants</th></tr>
<tr><td>Pô</td><td>9</td><td>457</td><td>3</td><td>240</td><td>12</td><td>697</td></tr>
<tr><td>Tiébélé</td><td>22</td><td>885</td><td>8</td><td>625</td><td>30</td><td>1510</td></tr>
<tr><td>Guiaro</td><td>12</td><td>658</td><td>4</td><td>366</td><td>16</td><td>1024</td></tr>
<tr><td>Total</td><td>43</td><td>2000</td><td>15</td><td>1231</td><td>58</td><td>3231</td></tr>
</table>

Evidence of the sensitization sessions and training workshops can be shared upon request.</td></tr>
</table>

Relevant SDG Indicator	SDG 5, Gender equality

Data/ Parameter	**Gender Responsive Indicator under Social Empowerment Goals – Rest and Leisure** **Average time saving (in hours) per woman per week** Various activities which women spend after saving time required for collecting fuel wood: (i) Domestic $tasks_p$; (ii) Income generating $activities_p$; (iii) Field $labour_p$; (iv) $Gardening_p$; (v) Participation to a literacy $program_p$; (vi) Community $work_p$; (vii) Religious $activities_p$.
Unit	Hours/week
Description	Average time saving (in hours) on wood fuel collection per woman per week during the monitoring period. Proportion of stove users using their saved time to do: i) Domestic $tasks_p$ = Proportion of stove users using their saved time to do domestic tasks ii) Income generating $activities_p$ = Proportion of stove users using their saved time to do income generating activities iii) Field $labour_p$ = Proportion of stove users using their saved time to do field labour iv) $Gardening_p$ = Proportion of stove users using their saved time to do gardening v) Participation to a literacy $program_p$ = Proportion of stove users using their saved time to participate to a literacy program vi) Community $work_p$ = Proportion of stove users using their saved time to do community work vii) Doing $nothing_p$ = Proportion of stove users using their saved time to do nothing viii) Religious $activities_p$ = Proportion of stove users using their saved time to do religious activities ix) $Leisure_p$ = Proportion of stove users using their saved time to do leisure
Source of data	Monitoring survey, see document '*GS1340_MS_VPA14-17_MP3_VPA-29_MP2_20230522_ANALYSIS*'.
Value(s) applied	Average time saving (in hours) on wood fuel collection: 3.4 hours/week. Proportion of stove users using their saved time to do: i. Domestic $tasks_p$: 59% ii. Income generating $activities_p$: 19% iii. Field $labour_p$: 16% iv. $Gardening_p$: 4% v. Participation to a literacy $program_p$: 0% vi. Community $work_p$: 4% vii. Doing $nothing_p$: 1% viii. Religious $activities_p$: 1% ix. Leisure: 0%

Measurement methods and procedure	The measurement of the parameter is based on quantitative information collected during Monitoring surveys. The end users are asked, how much time they spent collecting wood fuel for domestic cooking since they have the F3PA efficient cookstoves.
Monitoring frequency	Annual
QA/QC procedures	The data is analyzed in the monitoring report and raw data of the Monitoring surveys is made available for review.
Purpose of data	Calculation of the parameter "Average time saving (in hours) on wood fuel collection per woman per week during the monitoring period"
Additional comment	In order to be conservative, the smallest value is chosen between the monitoring survey and the PDD baseline survey baseline average time spent per week per woman on wood fuel collection. The reason is that during the monitoring interviews the surveyed households tend to have difficulties to evaluate the time spent for wood collection prior to the use of the ICS (i.e. sometimes more than one year ago). In this case, the baseline value based on the monitoring survey was the most conservative (5h instead of 5.8h for the baseline survey). For the project value, the monitoring survey value is taken since this is the only project value based on survey data.

Relevant SDG Indicator	**SDG 5, Gender Equality**
Data/ Parameter	**Gender Responsive Indicators under Social Empowerment Goals – Applied Skills and training** • Number of people (% women) receive training for the construction of improved cookstoves and enhanced their skill
Unit	Number
Description	Number of person participated in the workshop in order to increase their empowerment
Source of data	Reports regarding the workshops carried out for women. Complete summary can be found in document '*02-NHR-SYNTHESE DE ACTIVITES PROJET F3PA -2022*'.
Value(s) applied	3,231 (91% women)
Measurement methods and procedure	The list of workshops carried out for women during the corresponding monitoring period
Monitoring frequency	Annual
QA/QC procedures	The data is analyzed in the reports regarding the workshops carried out for women, which is made available for review

<table>
<tr><td>Purpose of data</td><td>Calculation of the parameter “Number of person receive applied skills and training”</td></tr>
<tr><td>Additional comment</td><td>Two types of workshops were organized: i) sensitization workshops; and ii) training workshops of leader women for the construction of F3PA efficient cookstoves. During the sensibilization sessions stove users are informed about the advantages of the project cookstoves for the climate and desertification of the project area, tiipaalga’s activities, on how the banco or mud should be prepared for the construction of the cookstoves etc. During training sessions leader women are trained on how the F3PA efficient cookstoves should be constructed. In total, 3,231 participants were present during the workshops; 91% of which were women. A complete summary of the different sessions can be found in document : ‘02-NHR-SYNTHESE DE ACTIVITES PROJET F3PA -2022’.
The following table gives an overview of the number of sessions and number of participants:
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Relevant SDG Indicator	SDG 5, Gender Equality

Data/ Parameter	**Gender Responsive Indicators under Economic Empowerment Goals – Income & Expenditure** • Indicator 1 - Number of women benefits from micro credit scheme • Indicator 2 - Total benefit of income generation activities finances from micro credit scheme • Indicator 3 - Amount of saving on fuel cost by women
Unit	Indicator #1: Number Indicator #2: € or FCFA Indicator#3 : € or FCFA
Description	Indicator #1: Number of women benefits from micro credit scheme Indicator #2: Total benefit of income generation activities finances from micro credit scheme Indicator #3: Amount of saving on fuel cost by women
Source of data	Report on the implementation of the microcredit scheme. See document: '*Rapport d'étape microcredits annee 2022_ENG*'
Value(s) applied	Indicator #1: 2,090 Number Indicator #2: 24,644€ or 16,166,500 FCFA Indicator #3: VPA 14: 5,118 € VPA 15: 5,150 € VPA 16: 5,118 € VPA 17: 4,818 € VPA 29: 4,945 € Total: 25,148 Euros
Measurement methods and procedure	The measurement of all the indicators are based on quantitative information collected in the reports regarding the microcredit scheme.
Monitoring frequency	After each implementation phase of the microcredit scheme
QA/QC procedures	The data is analyzed in the reports regarding the microcredit scheme made available for review.
Purpose of data	Calculation of the parameters Indicator #1: Number of women benefits from micro credit scheme Indicator #2: Total benefit of income generation activities finances from micro credit scheme Indicator #3: Amount of saving on fuel cost by women

Additional comment

A total of 16,166,500 FCA or 24,644€ of profits have been made by 2,090 leader women within 38 villages (14 in the municipality of Pô, 21 in the municipality of Tiébélé, and 3 in the municipality of Guiaro), after receiving 20,900,000 FCFA. The following tables summarize the details regarding the microcredit scheme implemented during this monitoring period (September 2022).
Additionally, 33 villages received 25,349,827 FCFA for 937 leader women. No data is available yet on the profits made thanks to this microcredit input.

Amounts granted and profits made per municipality

- *Municipality of Pô*

Villages	Number of Leader women	Granted amount (FCFA)	Total benefit
Mantiongo	27	550 000	110 000
Songo II	25	550 000	55 000
Gho	27	550 000	110 000
DONGO	35	550 000	110 000
Dakola	32	550 000	220 000
Katcheli	26	550 000	110 000
Nahouri	31	550 000	110 000
tambolo	38	550 000	110 000
Banon	33	550 000	110 000
tamoana	27	550 000	82 500
Yago	33	550 000	55 000
Kapori	30	550 000	110 000
Torem	28	550 000	55 000
Fanian	28	550 000	55 000
Manon	24	750000	Not available yet
Secteur 4	29	750000	Not available yet
Secteur 2	30	750000	Not available yet

- *Municipality of Tiébélé*

Villages	Number of Leader women	Granted amount (FCFA)	Total benefit
Kolonia Tangassogo	29	895000	447500
Mantiongogo	39	930000	485000

Ballerbié I	22	1005000	317500
Boulmona	25	962500	462500
Lô-Caloa	28	1125000	395000
Corabié	27	825000	738000
Lô-Pouri	28	605000	632000
Mankanon	28	1292500	1107500
Koubongo	30	1897000	1668000
Ouediabie	34	660000	257500
Pioukouri	25	792500	354000
Polobianssan	31	860000	612500
Lo-Longo	30	1086000	457500
Bapania	33	1150000	634000
Avv V2	27	827500	330500
Cora Lo	24	645000	379000
Kuyou	28	602500	302500
Poungou	30	750 000	Not available yet
Kantiolo	25	750 000	Not available yet
KAYA-Kaforo	19	750 000	Not available yet
Sissoro	30	750 000	Not available yet
Gounia	27	750 000	Not available yet
Tindongo	24	750 000	Not available yet
Brebie	22	750 000	Not available yet
Yeliania	26	750000	Not available yet
Badiembe	22	750000	Not available yet
Tagnania	29	750 000	Not available yet
Avvv1	23	750 000	Not available yet

Dolo	28	750 000	Not available yet
Badabie	30	750000	Not available yet
Goribie	30	750000	Not available yet
Nioua	30	750 000	Not available yet
Sangbabie	30	750 000	Not available yet
Avv V4	30	750000	Not available yet
TANGASSOGO Ourobie	30	750000	Not available yet
Moabie Boungou	30	750 000	Not available yet
Idenia Moa	29	750000	Not available yet
Zeguessiga	25	750000	Not available yet
Lagonia	27	750 000	Not available yet
Lo-Namaguinia	25	750 000	Not available yet
Kabrikogagogo	22	750 000	Not available yet

- *Municipality of Guiaro*

Villages	**Number of Leader women**	**Granted amount (FCFA)**	**Total benefit**
Koumili	43	575 500	226 500
Saaro	30	550 000	283 000
Kollo	43	545 000	231 000
Pore	31	750000	Not available yet
Boala	30	750000	Not available yet
Guiaro Centre	54	1350000	Not available yet
Koro	34	750000	Not available yet

	Boassan	34	750 000	Not available yet
	Oualem	28	750 000	Not available yet

More details and the original tables can be found in document:
'Rapport d'étape microcredits annee 2022_ENG'

Relevant SDG Indicator	**SDG 7, Affordable and clean energy**
Data/ Parameter	**Number of F3PA efficient cookstoves disseminated for the group of VPA's**
Unit	Number
Description	Number of F3PA efficient cookstoves included in the project database for project scenario p
Source of data	Project database. See document '*GS1340_VPA14-17_MP3_VPA 29_MP2_DR_ICS_20230421v2.0*'.
Value(s) applied	VPA 14: 6,947 VPA 15: 6,784 VPA 16: 6,863 VPA 17: 6,398 VPA 29: 7,997 Total: 34,989
Measurement methods and procedure	The project database provides a list of end-users with number of F3PA efficient cookstoves per end-user.
Monitoring frequency	Continuous
QA/QC procedures	The data is analyzed in the monitoring report and Project database is made available for review.
Purpose of data	Calculation of the parameter "Number of F3PA efficient cookstoves disseminated"
Additional comment	It is foreseen that each household will have at least two F3PA efficient cookstoves.

Relevant SDG Indicator	**SDG 13, Climate action**
Data/ Parameter	**U_p**
Unit	Percentage
Description	Usage rate in project scenario p during this monitoring period

Source of data	Annual usage/monitoring survey. See document '*GS1340_MS_VPA14-17_MP3_VPA-29_MP2_20230522_ANALYSIS*'.
Value(s) applied	89.86%
Measurement methods and procedure	The measurement of the usage rate is based on qualitative information collected in the usage/monitoring survey. A question concerning the current use of the technology is asked to each end user of the sample and is validated by the observation of the surveyor to determine the usage rate of each technology age category.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions
Additional comment	A usage parameter is derived for each age group of project cookstoves being credited. The usage survey will determine if the project cookstoves can be considered as 'in use' or 'not in use' and if the project cookstoves are in 'good condition' or 'not in good condition'. The record keeping system of the VPA is at household level (with household number) for which all baseline cookstove set(s) (comprising of several traditional three stone cookstoves for domestic use) have been replaced by project cookstove set(s). Cookstove set(s) within a household can only be considered 'in use' if all the cookstoves in the set(s) (in polygamous households all cookstoves of all cookstove sets of all women in the household) are being used. Similarly, cookstove set(s) can only be considered in 'good condition' as long as all cookstoves within the cookstove set(s) (in polygamous households all cookstoves of all cookstove sets of all women in the household) are in a 'good condition'. See document '*GS1340_MS_VPA14-17_MP3_VPA-29_MP2_20230522_ANALYSIS*'.

Relevant SDG Indicator	**SDG 13, Climate action**
Data/ Parameter	**$N_{p,1}$**
Unit	Number of households included in the project (Units), based on days of usage of age group 0-1 during the monitoring period related to one year.
Description	Household in the project database for project scenario p through year i for which all baseline cookstove set(s) (comprising of several traditional three stone cookstoves for domestic use) have been replaced by project cookstove set(s).

Source of data	Project database. See document *'GS1340_VPA14-17_MP3_VPA 29_MP2_DR_Recent date_20230421'*.
Value(s) applied	VPA 14: 0 VPA 15: 0 VPA 16: 0 VPA 17: 515 VPA 29: 1,954 Total : 2,469
Measurement methods and procedure	For the determination of the number of usage days at household level for age group 0-1 during the corresponding monitoring period, the latest start day of use of all constructed F3PA efficient cookstoves within the household will be taken in order to have conservative approach. Number of households included in the project (Units) are calculated based on days of usage of age group 0-1 during the corresponding monitoring period related to one year.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions
Additional comment	A part of the households in the project area of the VPA are polygamous. Each wife of the household included in the carbon project must have at least two F3PA efficient cookstoves. This is a local cooking requirement as one is for the Mush "Tô", the other for the sauce "Sauce". Additional cookstoves could be used for boiling water or preparing the soup. All the traditional three stone cookstoves for domestic use will be replaced by the F3PA efficient cookstoves. This means that according to the needs of the household, an un-predetermined number of project cookstoves will be constructed and used at household level. As the quantity of firewood consumed in the baseline is determined at household level, the number of households will be monitored instead of project cookstoves to determine the emissions reductions. Women are trained by the Tiipaalga instructors or leader women to build the project cookstoves themselves using local materials according to a strict construction protocol. In tight collaboration of the project coordinator, the instructor and the leader women the logistical management, quality assurance of the project cookstoves according to the construction protocol and the management of the project database recording all constructed project cookstoves will be ensured. See document *'GS1340_VPA14-17_MP3_VPA 29_MP2_DR_Recent date_20230421'*, tab "Analysis".

Relevant SDG Indicator	SDG 13, Climate action
Data/ Parameter	**$N_{p,2}$**
Unit	Number of households included in the project (Units), based on days of usage of age group 1-2 during the monitoring period related to one year.
Description	Household in the project database for project scenario p through year i for which all baseline cookstove set(s) (comprising of several traditional three stone cookstoves for domestic use) have been replaced by project cookstove set(s).
Source of data	Project database. See document *'GS1340_VPA14-17_MP3_VPA 29_MP2_DR_Recent date_20230421'*.
Value(s) applied	VPA 14: 838 VPA 15: 896 VPA 16: 852 VPA 17: 1,777 VPA 29: 597 Total : 4,960
Measurement methods and procedure	For the determination of the number of usage days at household level for age group 1-2 during the corresponding monitoring period, the latest start day of use of all constructed F3PA efficient cookstoves within the household will be taken in order to have conservative approach. Number of households included in the project (Units) are calculated based on days of usage of age group 1-2 during the corresponding monitoring period related to one year.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions

Additional comment	A part of the households in the project area of the VPA are polygamous. Each wife of the household included in the carbon project must have at least two F3PA efficient cookstoves. This is a local cooking requirement as one is for the Mush "Tô", the other for the sauce "Sauce". Additional cookstoves could be used for boiling water or preparing the soup. All the traditional three stone cookstoves for domestic use will be replaced by the F3PA efficient cookstoves. This means that according to the needs of the household, an un-predetermined number of project cookstoves will be constructed and used at household level. As the quantity of firewood consumed in the baseline is determined at household level, the number of households will be monitored instead of project cookstoves to determine the emissions reductions. Women are trained by the Tiipaalga instructors or leader women to build the project cookstoves themselves using local materials according to a strict construction protocol. In tight collaboration of the project coordinator, the instructor and the leader women the logistical management, quality assurance of the project cookstoves according to the construction protocol and the management of the project database recording all constructed project cookstoves will be ensured. See document *'GS1340_VPA14-17_MP3_VPA 29_MP2_DR_Recent date_20230421'*

Relevant SDG Indicator	**SDG 13, Climate action**
Data/ Parameter	**$N_{p,3}$**
Unit	Number of households included in the project (Units), based on days of usage of age group 2-3 during the monitoring period related to one year.
Description	Household in the project database for project scenario p through year i for which all baseline cookstove set(s) (comprising of several traditional three stone cookstoves for domestic use) have been replaced by project cookstove set(s).
Source of data	Project database. See document *'GS1340_VPA14-17_MP3_VPA 29_MP2_DR_Recent date_20230421'*.
Value(s) applied	VPA 14: 2,179 VPA 15: 2,140 VPA 16: 2,165 VPA 17: 548 VPA 29: 0 Total : 7,032

Measurement methods and procedure	For the determination of the number of usage days at household level for age group 2-3 during the corresponding monitoring period, the latest start day of use of all constructed F3PA efficient cookstoves within the household will be taken in order to have conservative approach. Number of households included in the project (Units) are calculated based on days of usage of age group 1-2 during the corresponding monitoring period related to one year.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions
Additional comment	A part of the households in the project area of the VPA are polygamous. Each wife of the household included in the carbon project must have at least two F3PA efficient cookstoves. This is a local cooking requirement as one is for the Mush "Tô", the other for the sauce "Sauce". Additional cookstoves could be used for boiling water or preparing the soup. All the traditional three stone cookstoves for domestic use will be replaced by the F3PA efficient cookstoves. This means that according to the needs of the household, an un-predetermined number of project cookstoves will be constructed and used at household level. As the quantity of firewood consumed in the baseline is determined at household level, the number of households will be monitored instead of project cookstoves to determine the emissions reductions. Women are trained by the Tiipaalga instructors or leader women to build the project cookstoves themselves using local materials according to a strict construction protocol. In tight collaboration of the project coordinator, the instructor and the leader women the logistical management, quality assurance of the project cookstoves according to the construction protocol and the management of the project database recording all constructed project cookstoves will be ensured. See document *'GS1340_VPA14-17_MP3_VPA 29_MP2_DR_Recent date_20230421'*

Relevant SDG Indicator	**SDG 13, Climate action**
Data/ Parameter	**DF_{η}**
Unit	Fraction
Description	Discount factor to account for efficiency loss of project stoves
Source of data	Gold Standard Simplified Methodology for Efficient Cookstoves v1.0

Value(s) applied	Default value: 0.99 i.e., 1 % efficiency loss per year
Measurement methods and procedure	N.A.
Monitoring frequency	N.A.
QA/QC procedures	N.A.
Purpose of data	Calculation of emission reductions
Additional comment	N.A.

Relevant SDG Indicator	**SDG 13, Climate action**
Data/ Parameter	**DF_b**
Unit	Percentage
Description	Discount factor to account for the baseline stove use in project scenario p during the year 1
Source of data	Monitoring data. See document *'GS1340_MS_VPA14-17_MP3_VPA-29_MP2_20230522_ANALYSIS'.*
Value(s) applied	2.33 %
Measurement methods and procedure	The measurement of the discount factor to account for the baseline stove use is based on qualitative information collected in the usage/monitoring survey. A question concerning the current use of the baseline technology is asked to each end user of the sample and is validated by the observation of the surveyor in order to determine the discount factor to account for the baseline stove use in project scenario p of each technology age category.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions

Additional comment	The discount factor for the baseline-stove is determined based on the number of meals cooked using the baseline stove. The required information is captured through sample surveys carried out following a random sampling approach for age-group 0-1 of the project stove. The impact of seasonal variation on use of baseline stove is considered as part of the monitoring survey. The survey format for sample question to capture this information is described in the Monitoring Plan. In case of polygamous households the discount factor is determined for each cookstove set and the highest value of all cookstove sets within the household is used as representative discount factor for the household. See document *'GS1340_MS_VPA14-17_MP3_VPA-29_MP2_20230522_ANALYSIS'.*

Relevant SDG Indicator	**SDG 13, Climate Action**
Data/ Parameter	**Number of tCO2e reduced by the project**
Unit	Ton of CO2e
Description	Number of tCO2e reduced thanks to the implementation of the project during the corresponding monitoring period.
Measured/calculated/default	Measured
Source of data	ER calculations: see document *'GS 1340 - VPA 14-15-16-17_MP3- VPA 29_MP2-ER'*
Value(s) of monitored parameter	VPA 14: 10,000 tCO2e (11,478 tCO2e) VPA 15: 10,000 tCO2e (11,552 tCO2e) VPA 16: 10,000 tCO2e (11,479 tCO2e) VPA 17: 10,000 tCO2e (10,870 tCO2e) VPA 29: 9,827 tCO2e Total : 49,827tCO2e (55,206 tCO2e)
Monitoring equipment	N/A
Measuring/reading/recording frequency	Annual
Calculation method (if applicable)	See section E.4
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions
Additional comments	N.A.

D.3. Comparison of monitored parameters with last monitoring period

Data/Parameter	Value obtained in this monitoring period	Value obtained last monitoring period
SDG 1 **Parameter #1:** Number of leader women (Monitrice endogène) who benefit from microcredit **Parameter #2:** Total amount in FCFA or € of benefit generated by Income Generating Activities which are managed by the leader women (Monitrice endogène) and funded by the microcredit scheme **Parameter #3:** Total estimated amount saved by stove users on wood fuel purchase for the group of VPA's	Parameter #1: 2,090 Parameter #2: 24,644€ or 16,166,500 FCFA Parameter #3: VPA 14: 5,118 € VPA 15: 5,150 € VPA 16: 5,118 € VPA 17: 4,818 € VPA 29: 4,945 € Total: 25,148 €	Parameter #1: 553 Parameter #2: 10,620€ or 6,898,450 FCFA Parameter #3: 6,418€
Comment SDG1: **Paramters #1 & #2:** The microcredit scheme has ramped up between last monitoring period and now. This monitoring period, 38 villages were included in the scheme, compared to 20 previous year. Additionally, the initial credit made available was raised with 200,000 FCFA this year. Note: these numbers only include the women who already paid back their initial loan. **Parameter #3:** The monitoring survey yielded a baseline expenditure of 79,000 FCFA per woman. This is more than three times higher than what was estimated during the ex-ante survey. Therefore, to keep the estimates conservative, the estimated amount saved per stove user buying wood, is estimated by taking the ratio of difference of the estimated project and baseline expenses as indicated by the monitoring survey, divided by the baseline expenses indicated by the monitoring survey, and multiplying this with the average yearly amount spent in the baseline scenario as estimated in the PDD. This leads to an estimation of 21€ saved per person per year, which is a bit higher than the 15€ estimated in the previous monitoring report. This combined with a higher fraction of women purchasing wood (8% vs. 3%) leads to a higher saved amount. Both methods are considered very conservative: if the project would use the monitoring survey data alone, the estimated amount saved per woman would increase to 72-75 € per woman in the two monitoring periods.		
SDG 3 Proportion of households perceiving: - less often smoke levels - incidence of coughing - incidence of respiratory illness - incidence of itchy eyes	Smoke level reduction: 100% Incidence of coughing reduction: 100% Incidence of respiratory illness reduction: 100% Incidence of itchy eyes reduction: 100%	Smoke level reduction: 100% Incidence of coughing reduction: 100% Incidence of respiratory illness reduction: 100% Incidence of itchy eyes reduction: 100%
Comment SDG 3: N.A		
SDG 4 **Parameter #1:** Number of training initiatives for staff involved in the programme **Parameter #2:** Number of workshops carried out for women for the group of VPA's	Parameter #1: 1 Parameter #2: 58	Parameter #1: 1 Parameter #2: 124

Comment SDG 4: Since the stoves have already been distributed to all women included in this project, there were less information sessions than the year before.		
SDG 5 **Parameter #1:** Average time saving (in hours) per woman per week **Parameter #2:** Number of person receive training for the construction of improved cook stoves and enhanced their skill **Parameter #3:** Number of women benefits from micro credit scheme **Parameter #4:** Total benefit of income generation activities finances from micro credit scheme **Parameter #5:** Amount of savings on fuel cost by women	Parameter #1: 3.4h Parameter #2: 3,231 (91% of women) Parameter #3: 2,090 Parameter #4: 24,644€ or 16,166,500 FCFA Parameter #5: VPA 14: 5,118 € VPA 15: 5,150 € VPA 16: 5,118 € VPA 17: 4,818 € VPA 29: 4,945 € Total: 25,148 [8]€	Parameter #1: 2.3 h Parameter #2: 11,790 (89% of women) Parameter #3: 553 Parameter #4: 10,620€ or 6,898,450 FCFA Parameter #5: 6,148 €
Comment SDG 5: **Parameter #1**: In order to be conservative, the smallest value is chosen between the monitoring survey and the PDD baseline survey baseline average time spent per week per woman on wood fuel collection. The reason is that during the monitoring interviews the surveyed households tend to have difficulties to evaluate the time spent for wood collection prior to the use of the ICS (i.e. sometimes more than one year ago). In this case, the baseline value based on the monitoring survey was the most conservative (5h instead of 5.8h for the baseline survey). For the project value, the monitoring survey value is taken since this is the only project value based on survey data. Since the obtained project value is low, the time saved is relatively high. **Parameter #2:** Since the stoves have already been distributed to all women included in this project, there were less trainings than the year before. **Parameter #3-5**: See comments SDG 1.		
SDG 7 Number of F3PA efficient cookstoves disseminated for the group of VPA's	VPA 14: 6,947 VPA 15: 6,784 VPA 16: 6,863 VPA 17: 6,398 VPA 29: 7,997 Total: 34,989	28,749
Comment SDG 7: N.A.		
SDG 13 VER	VPA 14: 10,000 (11,478) VPA 15: 10,000 (11,552) VPA 16: 10,000 (11,479) VPA 17: 10,000 (10,870) VPA 29: 9,827 Total : 49,827 (55,206)	VPA 14: 10,000 (12,193) VPA 15: 10,000 (11,293) VPA 16: 10,000 (12,200) VPA 17: 9,895 VPA 29: 2,599 Total : 42,494 (49,180)
Comment SDG 13: Since all households of all VPAs were able to use their stoves during the full monitoring period, all VPAs achieved (close to) the maximum amount of credits.		

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D.4. Implementation of sampling plan

In parallel with the distribution of the F3PA efficient cookstoves, and as per monitoring plan in the respective registered VPA-DD's (VPA-14 to 17 and VPA 29), tiipaalga conducted the following monitoring activities:

Date	Activity	Purpose
Ongoing	Project database	Establish total distribution record to track number of households for which all baseline cookstove set(s) (comprising of several traditional three stone cookstoves for domestic use) have been replaced by project cookstove set(s)
From 06/05/2023 To 15/ 05/2023	Monitoring survey	(0) To establish single usage rate factor of age group 0-1, 1-2 and 2-3 based on if the project cookstoves can be considered as 'in use' or 'not in use' and if the project cookstoves are in 'good condition' or 'not in good condition'; (ii) To establish single discount factor age group 0-1, 1-2 and 2-3 to account for the baseline stove use. (iii) To measure parameters regarding SDG 1, SDG 3 and SDG 5.

The parameters which need to be monitored through surveys for the VPA are (i) $U_{p,y}$ Usage rate in project scenario p during year y; and (ii) $DF_{b,stove,y}$ Discount factor to account for the baseline stove use in project scenario p during the year y. A single survey with cross sampling of households has been undertaken using a single random sampling plan. The sample size is calculated for the population of VPA-14 to 17 and VPA 29 using the sampling guidelines described below.

The number of households of which each wife of the household (when polygamous) has replaced all traditional three stones cookstoves for domestic use with project cookstoves, is recorded in the project database (see data base records file). Only the households recorded in the database are part of the project activity.

Since the project activities started in February 2020, there are three age groups, i.e. age group 0-1, 1-2 and 2-3. The start of the crediting period of each household is considered as the latest installation date of all stoves within the cooking sets of the different wives within the household (see document: *'GS1340_VPA14-17_MP3_VPA 29_MP2_DR_Recent date_20230421'*). For each household the number of technology-days during MP1 are calculated per age group: age group 0-1 (i.e. installation date + 365 days), (ii) age group 1-2 (iii) age group 2-3. The number of households per age-group are determined after cumulation of the technology-days per age group of the

households in the project database divided by the number of days in a year, i.e. 365 days.
Due to the dangerous situation in Burkina Faso, it was decided to sample based on the TPDDTEC methodology, with a minimum of 100 households and 30 households per age group. To make sure the total amount of households is sufficient, 50 households were sampled per age group, leading to a total of 150 HH sampled. Since this is not enough to reliably determine parameters per age group, one usage rate and one baseline stove usage factor will be calculated for the whole project, instead of one for each age group. This is a more conservative approach since it lowers the total amount of credits. As described in the PDD, the method of selecting households for the sample list for the monitoring survey is single sampling with random approach. All households will according to the installation date of the project cookstoves be assigned to a specific age-group. Per age-group households are selected using a random sequence generator (https://www.randomdraws.com/random-sequence-generator/). All random selections will be stored for the crediting period and an additional two years, which allow traceability of the selection. For all parameters that are monitored via sampling it is understood that only the age of the project cookstove has an influence. Therefore, no geographic representativeness is deemed necessary for the selection of users participating in the sample groups. The monitoring surveys are performed by user interviews. Only people older than 18 years are interviewed. The results of the survey are found in document: *'GS1340_MS_VPA14-17_MP3_VPA-29_MP2_20230522_ANALYSIS'*.
This file contains the following data in worksheet "Group 2":

- Identifier (Unique internal ID number) which is the unique key of household info;
- Identification data per wife: name, picture of wife with her stoves;
- Data on stoves used per wife: size of stoves, installation dates of each stove, location of stoves, frequency of usage, condition of stove …;
- Data on cooking habits during dry and wet season;
- Data related to sustainable indicators.

Based on this information the usage rate $U_{p,y}$ is calculated per household in column S and the discount factor to account for the baseline stove use $DF_{b,stove,y}$ per households in column AT. The worksheet "Analysis" contains the evaluated parameters usage rate $U_{p,y}$ and discount factor to account for the baseline stove use $DF_{b,stove,y}$ per age group.
Out of the 150 at random selected households, three (3) households have not been surveyed because they moved voluntarily out of the project area. The three households are:

- VPA 17 – 652 – DIANDE SALAM
- VPA 14 – 2589 – DJADOUABOU BATEBASSAN
- VPA 16 – Martine – 1709 – Diaminbou Banawouté (tangouam)

For these three households, the usage rate Up,y of 0% has been considered.
The surveyed households are presented with pictures of stove users and stoves in the document: *'GS1340_VPA14-17_MP3_VPA29_MP2_List of surveyed households'*.
The following points were considered when evaluating the usage rate Up,y:

- All project cookstoves within the sample are assessed if they are still operational. If one stove user doesn't use any of its project cookstoves, the corresponding household is considered as drop-off;

- The working conditions of project cookstoves are evaluated on the status (i) Green: the stove is in good working conditions, (ii) Orange: the stove is in acceptable working conditions, but needs some maintenance activities; and (iii) Red: the stove is not working well, and needs to be reconstructed (see section C for more details). A household with at least one red project cookstove is considered as a drop-off;
- If a stove-user migrated even for a temporary period, the corresponding household is considered as a drop-off.

Based on the collected data during the monitoring survey, the usage rate Up is 89,86% and the baseline stove usage DFb is 2.33%. A total 18 households out of the 150 households surveyed had a usage rate of 0% due to the bad condition of at least one F3PA efficient cookstove (status red), no indication of usage, at least one wife not using the stove, migration of the household or broken F3PA efficient cookstoves. All other project cookstoves were used and in operational conditions.

The discount factor to account for the baseline stove use is calculated based on the number of meals that have been cooked with the baseline stove during the monitoring period. The impact of dry and wet season on the baseline stove use has been evaluated. The baseline stove usage has been questioned in the survey in two ways (see document '*GS1340_MS_VPA14-17_MP3_VPA-29_MP2_20230522_ANALYSIS*') (i) relative based on a week usage during dry and wet season (column AN till column AV); (ii) absolute based on total number of usages during dry and wet season (column BB and BC).The following points were considered when evaluating the discount factor to account for the baseline stove use $DF_{b,stove,y}$:

- The wet season starts on the 1st of June and ends the 31nd of October, which is 152 days;
- Usage of baseline stove during wet and dry season has been surveyed, as well as the number of meals cooked during dry and wet season;
- Based on the number of meals cooked with the baseline cookstove compared to the number of cooked meals, the baseline usage fraction is calculated per stove user. In the case of more than one stove user per household, the highest value will be taken in order to identify the baseline cookstove usage at household level;
- In case the two ways of baseline usage reporting (relative on weekly basis and absolute) didn't match, the highest baseline usage has been calculated for the corresponding household;
- The discount factor for the baseline stove use is based on the average baseline stove use fraction of all the households within the sample;
- If a household has dropped off when evaluating the usage rate, it is not considered when calculating the average baseline stove use fraction;
- A conservative approach has been considered when evaluating the number of meals cooked with the baseline stove.

SECTION E. CALCULATION OF SDG IMPACTS

E.1. Calculation of baseline value or estimation of baseline situation of each SDG Impact

a) *SDG 1, No poverty*

Not applicable, the direct outcome is calculated, see section E.4.

b) *SDG 3, Good health and well-being*

Not applicable, the direct outcome is calculated, see section E.4.

c) *SDG 4, Quality Education*

Not applicable, the direct outcome is calculated, see section E.4.

d) *SDG 5, Gender equality*

Not applicable, the direct outcome is calculated, see section E.4.

e) *SDG 7, Affordable and clean energy*

Not applicable, the direct outcome is calculated, see section E.4.

f) *SDG 13, Climate Action*

The methodology directly provides equation for emission reductions (without separate baseline, projector leakage emission reduction equations). See section E.4. for the calculation of the emission reductions.

E.2. Calculation of project value or estimation of project situation of each SDG Impact

a) *SDG 1, No poverty*

Not applicable, the direct outcome is calculated, see section E.4.

b) *SDG 3, Good health and well-being*

Not applicable, the direct outcome is calculated, see section E.4.

c) *SDG 4, Quality Education*

Not applicable, the direct outcome is calculated, see section E.4.

d) *SDG 5, Gender equality*

Not applicable, the direct outcome is calculated, see section E.4.

e) *SDG 7, Affordable and clean energy*

Not applicable, the direct outcome is calculated, see section E.4.

f) *SDG 13, Climate Action*

The methodology directly provides equation for emission reductions (without separate baseline, projector leakage emission reduction equations). See section E.4. for the calculation of the emission reductions.

E.3. Calculation of leakage

a) *SDG 13, Climate Action*

As defined under The Gold Standard Simplified Methodology for Efficient Cookstoves v1.0, the net emission reductions (Ery) for a micro-scale programme of activities (mPOA) need to be discounted by a factor of 0.95 to account for leakages related to non-renewable biomass saved by the project activity.

E.4. Calculation of net benefits or direct calculation for each SDG Impact

a) *SDG 1, No poverty*

Number of leader women (Monitrice endogène) who benefit from microcredit = Number of leader women (Monitrice endogène) who benefit from microcredit during the monitoring period.

See document : '*rapport d 'étape microcredits nnée 2022_ENG*'

Total benefit from Income Generating activities financed through the microcredit scheme for the group of VPA's = total amount in FCFA or € of benefit generated by Income Generating Activities which are managed by the leader women (Monitrice endogène) and funded by the microcredit scheme.

Not presented yet as the granted money was provided at the end of the monitoring period. Hence, the estimation of the benefits from Income Generating Activities will be available from next monitoring period.

Total estimated amount saved by stove users on wood fuel purchase for the group of VPA's = Total estimated amount in FCFA or € saved by the stove users on wood fuel purchase during the monitoring period.

i. **School fees$_p$:** Proportion of stove users using their saved money to school fees;
ii. **Purchase of medical drugs$_p$:** Proportion of stove users using their saved money to purchase of medical drugs;
iii. **Purchase of food$_p$**: Proportion of stove users using their saved money to
iv. **Investment for field crops$_p$**: Proportion of stove users using their saved money to investments for field crops;
v. **Purchase of equipments$_p$:** Proportion of stove users using their saved money to purchase of equipments;
vi. **Income generating activities$_p$:** Proportion of stove users using their saved money to income generating activities;
vii. **Savings$_p$:** Proportion of stove users using their saved money to savings.

See document: '*GS1340_MS_VPA14-17_MP3_VPA-29_MP2_20230522_ANALYSIS' Tab 'Project SDGs*' and Tab 'Analysis' lines 247 to 253.

b) SDG 3, Good health and well-being

Smoke level reduction = (Number of stove users perceiving less smoke since the implementation of F3PA efficient cookstoves) / (Number of respondents)

Incidence of coughing reduction = (Number of stove users perceiving less incidence of coughing since the implementation of F3PA efficient cookstoves) / (Number of respondents)

Incidence of respiratory illness reduction = (Number of stove users perceiving less incidence of respiratory illnesses since the implementation of F3PA efficient cookstoves) / (Number of respondents)

Incidence of itchy eyes reduction = (Number of stove users perceiving less incidence of itchy eyes since the implementation of F3PA efficient cookstoves) / (Number of respondents)

See document: *'GS1340_MS_VPA14-17_MP3_VPA-29_MP2_20230522_ANALYSIS' Tab 'Project SDGs*'.

c) SDG 4, Quality education

Number of *training* initiatives for staff involved in the programme = Number of trainings initiatives for staff involved in the programme during the monitoring period

See document : '*NAHOURI_FormationReport_VPA 14-17_MP3_VPA 29_MP2.pdf*'.

Number of workshops carried out for women for the group of VPA's = Number of workshops carried out for women during the monitoring period

See documents : *'NHR-SYNTHESE DE ACTIVITES PROJET F3PA -2022'* and participants lists.

d) SDG 5, Gender equality

Gender Responsive Indicators under Social Empowerment Goals – Rest and Leisure

Average time saving (in hours) per woman per week= Average time saving (in hours) on wood fuel collection per woman per week during the monitoring period.

Activities carried out by women during saved time:

i) **Domestic tasks$_p$** = (Number of women using their saved time to do domestic tasks) / (Number of women considering they save time thanks to the F3PA efficient cookstoves)

ii) **Income generating activities$_p$** = (Number of women using their saved time to do income generating activities) / (Number of women considering they save time thanks to the F3PA efficient cookstoves)
iii) **Field labour$_p$** = (Number of women using their saved time to do field labour) / (Number of women considering they save time thanks to the F3PA efficient cookstoves)
iv) **Gardening$_p$** = (Number of women using their saved time to do gardening) / (Number of women considering they save time thanks to the F3PA efficient cookstoves)
v) **Participation to a literacy program$_p$** = (Number of women using their saved time to participate to a literacy program) / (Number of women considering they save time thanks to the F3PA efficient cookstoves)
vi) **Community work$_p$** = (Number of women using their saved time to do community work) / (Number of women considering they save time thanks to the F3PA efficient cookstoves)
vii) **Doing nothing$_p$ =** (Number of women using their saved time to participate to do nothing) / (Number of women considering they save time thanks to the F3PA efficient cookstoves)
viii) **Religious activities$_p$** = (Number of women using their saved time to participate to religious activities) / (Number of women considering they save time thanks to the F3PA efficient cookstoves)
ix) **Leisure$_p$** = (Number of women using their saved time to participate to do leisure) / (Number of women considering they save time thanks to the F3PA efficient cookstoves)

See document: '*GS1340_MS_VPA14-17_MP3_VPA-29_MP2_20230522_ANALYSIS*' Tab 'Project SDGs' and Tab 'Analysis' lines 224 to 232.

Gender Responsive Indicators under Social Empowerment Goals – Applied Skills and training

Number of person (% women) receive training for the construction of improved cook stoves and enhanced their skill

See document : '*NHR-SYNTHESE DE ACTIVITES PROJET F3PA -2022 '*.

Gender Responsive Indicators under Economic Empowerment Goals – Income & Expenditure

- Indicator 1 – Number of women benefits from micro credit scheme
- Indicator 2 – Total benefit of income generation activities finances from micro credit scheme
- Indicator 3 - % Amount of saving on fuel cost by women

See document: '*Rapport d'étape microcredits annee 2022_ENG*'

SDG 7, Affordable and clean energy

Number of F3PA efficient cookstoves disseminated for the group of VPA's
= Number of F3PA efficient cookstoves included in the project database for project scenario p

See document: '*GS1340_VPA14-17_MP3_VPA 29_MP2_DR_ICS_20230421v2.0'*.

e) *SDG 13, Climate Action*

The methodology directly provides equation for emission reductions (without separate baseline, projector leakage emission reduction equations). The emission reduction for the VPA are calculated using the following equation.

$$ERy = \sum_{0to1}^{xtoy} N_{P,y} * P_y * U_{P,y} * (f_{NRB,y} * EF_{b,fuel,CO2} + EF_{b,fuel,nonCO2}) * (1 - DF_{b,Stove,y})$$

Where

$N_{p,y}$	Number of households with project cookstoves of each age group operational in the year y
P_y	Quantity of firewood that is saved in the year y (tones 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)
$f_{NRB,y}$	Factional non-renewability status of wood fuel during year y
$EF_{b,fuel,CO2}$	CO2 emission factor of firewood that is substituted or reduced
$EF_{b,fuel,nonCO2}$	Non CO2 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

<u>Determination of quantity of biomass saved (P_y):</u>

Quantity of firewood that is saved (P_y) is estimated using the following equation:

$$P_y = B_{b,y} * (1 - \frac{\eta_b}{\eta_{p,y}})$$

Where:

P_y	Quantity of firewood that is saved in the year y (tones per household in year y)

$B_{b,y}$	Quantity of firewood consumed in baseline scenario during year y (tones 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
y	Year of the crediting period

Determination of quantity of fire wood consumed in the baseline ($B_{b,y}$):

The firewood consumed is the estimated average annual consumption of firewood per household (tonnes/year), which may be derived using option (d) of the methodology: Field Performance Test. The baseline performance field test (BFT) measures real, observed performance of the baseline cookstove in the field. Consumption is measured with a representative sample of end users under each defined baseline scenario using the baseline cookstove.
The Baseline Field Performance Test[9] has been conducted between 02/02/2020 and 20/02/2020 in 10 randomly selected villages from the 80 villages located in the project boundary, ie the municipalities of Po, Tiébélé and Guiaro. During this test, the wood consumption of the households for cooking has been measured for three consecutive days. From this survey, it appears that the firewood consumption for cooking in the baseline is 3.94 tonnes per household per year.

Determination of project cookstove efficiency ($\eta_{p,y}$ and η_{p}):

Efficiency of project cookstove in year y ($\eta_{p,y}$) is estimated as follows:

$$\eta_{p,y} = \eta_{p} * \left(DF_{\eta}\right)^{y-1} * 0.94$$

Where

$\eta_{p,y}$	Efficiency of project cookstove in year y (fraction)
η_{p}	Efficiency of project cookstove (fraction) determined at the start of the project activity
DF_{η}	Discount factor to account for efficiency loss of project cookstove per year of operation (fraction)
0.94	Adjustment factor to account for uncertainty related to project cookstove efficiency test

See document: '*GS 1340 - VPA 14-15-16-17_MP3- VPA 29_MP2-ER*', tab 'Calculation', line 29 to 34.

[9] See document: 'GS1340_Tiipaalga_VPA14-17_BFPT_20200515_Analysis_v1.0'

SDG	SDG Impact	Baseline estimate	Project estimate	Net benefit
13	Number of tCO2e reduced by the project			VPA 14: 10,000 (11,478) VPA 15: 10,000 (11,552) VPA 16: 10,000 (11,479) VPA 17: 10,000 (10,870) VPA 29: 9,827 Total : 49,827 (55,206)
1	Parameter #1: Number of leader women (Monitrice endogène) who benefit from microcredit Parameter #2: total amount in FCFA or € of benefit generated by Income Generating Activities which are managed by the leader women (Monitrice endogène) and funded by the microcredit scheme			Parameter #1: 2,090 Parameter #2: 24,644€ or 16,166,500 FCFA
1	Total estimated amount saved by stove users on wood fuel purchase for the group of VPA's			VPA 14: 5,118 € VPA 15: 5,150 € VPA 16: 5,118 € VPA 17: 4,818 € VPA 29: 4,945 € Total: 25,148 €
3	Smoke level reduction Incidence of coughing reduction Incidence of respiratory illness reduction Incidence of itchy eyes reduction			100% 100% 100% 100%
4	Number of trainings initiatives for staff involved in the programme			1
4	Number of workshops carried out for women for the group of VPA's			58
5	Average time saving (in hours) per woman per week			3.4
5	Number of person receive training for the construction of improved cook stoves and enhanced their skill			3,231 (91% of women)
5	Number of women benefits from micro credit scheme			2,090

5	Total benefit of income generation activities finances from micro credit scheme			24,644€ or 16,166,500 FCFA
5	Amount of saving on fuel cost by women			VPA 14: 5,118 € VPA 15: 5,150 € VPA 16: 5,118 € VPA 17: 4,818 € VPA 29: 4,945 € Total: 25,148 €
7	Number of F3PA efficient cookstoves disseminated for the group of VPA's			VPA 14: 6,947 VPA 15: 6,784 VPA 16: 6,863 VPA 17: 6,398 VPA 29: 7,997 Total: 34,989

E.5. Comparison of actual SDG Impacts with estimates in approved PDD

SDG	Values estimated in ex ante calculation of approved PDD for this monitoring period	Actual values[10] achieved during this monitoring period
13	Year 2022: VPA 14: 9,819 tCO2e VPA 15: 9,819 tCO2e VPA 16: 9,819 tCO2e VPA 17: 9,819 tCO2e VPA 29: 9,904 tCO2e **Total : 49,180 tCO2e**	Year 2022: VPA 14: 10,000 tCO2e (11,478 tCO2e) VPA 15: 10,000 tCO2e (11,552 tCO2e) VPA 16: 10,000 tCO2e (11,479 tCO2e) VPA 17: 10,000 tCO2e (10,870 tCO2e) VPA 29: 9,827 **Total : 49,827 tCO2e (55,206 tCO2e)**
1	Parameter #1: Number of leader women (Monitrice endogène) who benefit from microcredit: **1,320** Parameter #2: total amount in FCFA or € of benefit generated by Income Generating Activities which are managed by the leader women (Monitrice endogène) and funded by the microcredit scheme: **3,006 €**	Parameter #1: Number of leader women (Monitrice endogène) who benefit from microcredit: **2,090** Parameter #2: total amount in FCFA or € of benefit generated by Income Generating Activities which are managed by the leader women (Monitrice endogène) and funded by the microcredit scheme: **24,644€ or 16,166,500 FCFA**

[10] Whenever emission reductions are capped, both the original and capped values used for calculations must be transparently reported. Use brackets to denote original values.

1	Total estimated amount saved by stove users on wood fuel purchase for the group of VPA's: **26,280 €**	Total estimated amount saved by stove users on wood fuel purchase for the group of VPA's: VPA 14: 5,118 € VPA 15: 5,150 € VPA 16: 5,118 € VPA 17: 4,818 € VPA 29: 4,945 € **Total: 25,148 €**
3	Smoke level reduction: **>90%** Incidence of coughing reduction: **>90%** Incidence of respiratory illness reduction: **>90%** Incidence of itchy eyes reduction: **>90%**	Smoke level reduction: **100%** Incidence of coughing reduction: **100%** Incidence of respiratory illness reduction: **100%** Incidence of itchy eyes reduction: **100%**
4	Number of trainings initiatives for staff involved in the programme: **1**	Number of trainings initiatives for staff involved in the programme: **1**
4	Number of workshops carried out for women for the group of VPA's: **80**	Number of workshops carried out for women for the group of VPA's: **58**
5	Average time saving (in hours) per woman per week: **1.7 hours**	Average time saving (in hours) per woman per week: **3.4 hours**
7	Number of F3PA efficient cookstoves disseminated for the group of VPA's: **25,000**	Number of F3PA efficient cookstoves disseminated for the group of VPA's: VPA 14: 6,947 VPA 15: 6,784 VPA 16: 6,863 VPA 17: 6,398 VPA 29: 7,997 **Total: 34,989**

E.5.1. Explanation of calculation of value estimated ex ante calculation of approved PDD for this monitoring period

Remarks regarding SDGs indicators calculation:

- SDG 5 Average time saving (in hours) per woman per week: The PD has rephrased the questions regarding the collection of wood and the time saved. The question is now repeated for wet season and dry season to catch differences in wood collection due to changing weather conditions. Additionally, people are asked to give an estimated range of time they spend on the collection of wood both before and after the introduction of the improved stove. Instead of one specific hour, people are asked to give time ranges (eg. 5-6h instead of five hours). The average value (eg. 5.5h) is then used for calculations. Based on these answers, the difference in collection time for an average household for an average week is calculated. See *"GS1340_MS_VPA14-17_MP3_VPA-29_MP2_20230522_ANALYSIS.xlsx"*, Sheet "Group 2" column CL to CS.

Ex-ante calculations related to the outcomes of SDG 1

Number of leader women (Monitrice endogène) who benefit from microcredit = it is estimated that 30 leader women per village will benefit from microcredit within 80 villages. For the grouped 4 VPA's it is estimated that 2,400 women will benefit from the microcredit scheme, ie 600 women per VPA or 2,400 women for the group of VPA's.

Total benefit from Income Generating activities financed through the microcredit scheme = the microcredit scheme foreseen for its first implementation year for the group of VPA's is 20,038 €. Based on previous microcredit experiences managed by Tiipaalga the total benefit from IGA financed though microcredit scheme is 50% of the granted amount[11], ie 10,019 €.

Total estimated amount saved by stove users on wood fuel purchase = based on the baseline survey[12], it appears that 2,500 households in one VPA spend annually in the baseline scenario 21,900 € for the purchase of wood. It is estimated that due to the project the households will spend 30%[13] less money on the purchase of wood, ie savings of 6,570 € per VPA or 26,280 € for the group of VPA's.

Ex-ante calculations related to the outcomes of SDG 3

Smoke level reduction = it is estimated that more than 90% of the stove user respondents will perceive less smoke since the implementation of F3PA efficient cookstoves

Incidence of coughing reduction = it is estimated that more than 90% of the stove user respondents will perceive less incidence of coughing since the implementation of F3PA efficient cookstoves

Incidence of respiratory illness reduction = it is estimated that more than 90% of the stove user respondents will perceive less incidence of respiratory illnesses since the implementation of F3PA efficient cookstoves

Incidence of itchy eyes reduction = it is estimated that more than 90% of the stove user respondents will perceive less incidence of itchy eyes since the implementation of F3PA efficient cookstoves

Ex-ante calculations related to the outcomes of SDG 4

Number of trainings initiatives for staff involved in the programme = it is estimated that at least one training will be organized for the staff for the group of VPA's

Number of workshops carried out for women = it is estimated that at least 20 workshops will have been organized for women per VPA

Ex-ante calculations related to the outcomes of SDG 5

Average time saving (in hours) per woman per week = based on the baseline survey it appears that a woman spends on average 5.8 hours per week on wood collection. It is estimated

[11] see document '*Rapport microcrédit fin de 1er cycle villages an 1, préparatifs villages an 2_ final_w comments'* page 11

[12] see document '*GS1340_Tiipaalga_VPA14-17_Baseline survey_analysis_20200324_v1.0'* page 11

[13] Estimation as the project foresees a wood fuel consumption reduction of 50%. To be conservative a reduction of 30% on expenditure on the purchase of wood has been taken.

that due to the project women will spend 30%[14] less time on the collection of wood, ie time savings of 1.7 hours per women per week.

Ex-ante calculations related to the outcomes of SDG 7

Number of F3PA efficient cookstoves disseminated = It is estimated that 2,500 households per VPA will have been included in the project and each household will have at least 2 F3PA efficient cookstoves, which makes 5,000 disseminated F3PA efficient cookstoves per VPA or for the group of VPA's 20,000.

E.6. Remarks on increase in achieved SDG Impacts from estimated value in approved PDD

- SDG 1: parameter 1: The 2,400 leader women benefiting from microcredits will be reached after 4 years. For now, this means that there should be around 1,320 in total in the program. Taking into account the 553 women already in the program last year and the 1,706 women of this year, the microcredit scheme can be considered on track to obtain its stated goals.
  Parameter 2: The program has managed to increase their dispensable budgets significantly, resulting in higher reported profits.
- SDG 5: In order to be conservative, the smallest value is chosen between the monitoring survey and the PDD baseline survey baseline average time spent per week per woman on wood fuel collection. The reason is that during the monitoring interviews, the surveyed households tend to have difficulties evaluating the time spent for wood collection prior to the use of the ICS (i.e. sometimes more than one year ago).
  In this case, the baseline value based on the monitoring survey was the most conservative (5h instead of 5.8h for the baseline survey). For the project value, the monitoring survey value is taken since this is the only project value based on survey data. Since the obtained project value is low, the time saved is relatively high.
  SDG 7: Due to the success of the program, more than the estimated 2,500 households per VPA took part in the project, leading to more stoves being distributed.

SECTION F. SAFEGUARDS REPORTING

Not applicable.
No safeguarding principles were added to the monitoring plan.

[14] Estimation as the project foresees a wood fuel consumption reduction of 50%. To be conservative a reduction of 30% on time savings for fuel wood collection has been taken.

SECTION G. STAKEHOLDER INPUTS AND LEGAL DISPUTES

G.1. List all Inputs and Grievances which have been received via the Continuous Input and Grievance Mechanism together with their respective responses/mitigations.

No new grievances were added to the grievance book for this monitoring period.

G.2. Report on any stakeholder mitigations that were agreed to be monitored.

Not applicable. No stakeholder mitigations were agreed to be monitored.

G.3. Provide details of any legal contest that has arisen with the project during the monitoring period

No legal contest or dispute has arisen.

Revision History

Version	Date	Remarks
1.1	14 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Section for POA monitoring Forward action request section Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on safeguard reporting Clarity on design changes Leakage section added for VER/CER projects Addition of Comparison of monitored parameters with last monitoring period Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.0	10 July 2017	Initial adoption