



Sustainable Development Verified Impact Standard

UPENERGY-SOCIAL AND CLIMATE IMPACT PROGRAMME- NIGERIA-1



Document Prepared by UpEnergy Group

Project Title	UpEnergy - Social and Climate Impact Programme- Nigeria-1
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Project Lifetime	07-May-2022 – 06-May-2029; 7-year lifetime
Monitoring Period of this Report	01-November-2022 – 31-October-2024 (inclusive of both dates)
History of SD VISTa Status	The project has been certified with SD VISTa and SDG outcomes for Monitoring Period (MP) 1 has been successfully performance certified. The project registration date is 26-April-2024.
Other Certification Programs	VERRA Verified Carbon Standard (2673)
Expected Future Assessment Schedule	Next verification for MP 3 is anticipated in March/April 2026

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1 SUMMARY OF SDG CONTRIBUTIONS

Table 1: Summary of SDG Contributions

Row number	Quantitative Project Contributions during Monitoring Period ¹	Contributions during Project Lifetime ²	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Section Reference	Claim, Asset or Label
1)	The distribution of energy efficient stoves helped save \$0.21 per day per Household (HH) during this monitoring period	The distribution of energy efficient stoves helped 26,564 households to save \$0.21 per day per household.	1.1	Project Specific Indicator: Average savings realized due to decrease in expenditure on basic	Implemented activities to Increase	3.3	SD VISTA labeled VCUs

¹ Some of the reported SDG impacts are comparatively lower than those presented in the previous Monitoring Period (MP1), as the results for MP2 have been quantified based on CCP labeling.

² The SDG Values presented are calculated based on the weighted average of MP1 and MP2 values pro-rated to the duration of each monitoring period. In cases where summation is applicable, values are provided as the total sum of MP1 and MP2.

Row number	Quantitative Project Contributions during Monitoring Period ¹	Contributions during Project Lifetime ²	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Section Reference	Claim, Asset or Label
				service such as cooking			
2)	The distribution of 26,564 energy efficient stoves under this project activity helps in providing basic service access to household	The distribution of energy efficient stoves helped in providing basic service access to 26,564 households	1.4	Project Specific Indicator: Number of households having access to improved cooking technology due to project activity	Implemented activities to Increase	3.3	SD VISta labeled VCUs
3)	This project activity promotes employment to women, thus helps eradicating gender-based discrimination and provides socio-economic parity. Around 36% of the	Around 34% of the total employees working as a part of the project activity are females.	5.1	Project Specific Indicator: %	Implemented activities to Increase	3.3	SD VISta labeled VCUs

Row number	Quantitative Project Contributions during Monitoring Period ¹	Contributions during Project Lifetime ²	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Section Reference	Claim, Asset or Label
	total employees working as a part of the project activity are females. This proportion is expected to increase in the upcoming monitoring period			of Female employees			
4)	The project ICS help reduce cooking time by 0.90 hours /household/day, thus providing women in project households with more time to invest in other productive economic development activities	This project activity led to time saving of approximately 0.88 hour/household/day	5.4	Project Specific Indicator: Average time saving associated with cooking time	Implemented activities to Decrease	3.3	SD VISTA labeled VCUs
5)	This project activity encourages participation of women in leadership / managerial role. 2 out of 6 i.e., 33% individuals operating at managerial positions for the given project activity are women	This leadership of the project activity to an extent 38% is held by women employees.	5.5	Project Specific Indicator: Proportion of women serving in managerial/ leadership	Implemented activities to Increase	3.3	SD VISTA labeled VCUs

Row number	Quantitative Project Contributions during Monitoring Period ¹	Contributions during Project Lifetime ²	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Section Reference	Claim, Asset or Label
				/ownership role			
6)	The distribution of 26,564 energy efficient stoves under this project activity helped Nigerian households by providing access to cleaner energy technologies	The project activity benefits 26,564 Nigerian households by providing access to cleaner energy technologies	7.1	Project Specific Indicator: Number of households having access to improved cooking technology due to project activity	Implemented activities to Increase	3.3	SD VISTA labeled VCUs
7)	The project activity provides training and skill development program for youth population, thus increasing their employability. A total of 8 trainings were held for the	A total of 11 trainings were held for the employees for this project activity	8.b	Project Specific Indicator: Number of Trainings	Implemented activities to Increase	3.3	SD VISTA labeled VCUs

Row number	Quantitative Project Contributions during Monitoring Period ¹	Contributions during Project Lifetime ²	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Section Reference	Claim, Asset or Label
	employees as a part of this monitoring period. This will increase in the upcoming monitoring period			conducted in a year			
8)	This project activity has created 111 direct jobs for marketing / sales and distribution / technical employees over the project implementation period.	This project activity has created 111 direct jobs in total	8.5	Project Specific Indicator: Number of jobs created	Implemented activities to Increase	3.3	SD VISta labeled VCUs
9)	The distribution of ICS has help reduce the consumption of Non-renewable biomass in participant households to an extent of 1.99 tonnes / year / HH	The distribution of energy efficient stoves helped households to save 2.06 tonnes of non-renewable biomass per year per household	12.2	Project Specific Indicator: Decrease in specific fuel consumption	Implemented activities to Decrease	VCS Joint Validation/Verification report	SD VISta labeled VCUs

Row number	Quantitative Project Contributions during Monitoring Period ¹	Contributions during Project Lifetime ²	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Section Reference	Claim, Asset or Label
10)	Distribution of ICS has resulted in 40,188 tCO ₂ e of greenhouse gas emissions avoidance during this monitoring period	This project activity has avoided 41,647 tCO ₂ e of greenhouse gas emissions into the atmosphere	13.0	Project Specific Indicator: Tonnes of greenhouse gas emissions avoided or removed	Implemented activities to Increase	VCS Joint Validation/Verification report	SD-Vista labeled VCU
11)	The project activity has reduced 52,729 tonnes of Non-renewable biomass over the course of the monitoring period in participant households which contributed towards reducing the rate of deforestation.	This project has saved 53,521 tonnes of non-renewable biomass and has contributed in reduction of deforestation activity in Nigeria	15.1	Project Specific Indicator: Amount of Non-renewable biomass saved	Implemented activities to Increase	VCS Joint Validation/Verification report	SD VISta labeled VCUs

2 PROJECT DESIGN

2.1 Project Objectives, Context and Long-term Viability

2.1.1 Summary of Project Sustainable Development Objective(s)

UpEnergy-Social and Climate Impact Programme- Nigeria-1 aims distribution of high energy efficiency cookstoves (charcoal) to Nigerian households in order to bring the positive impact on economic, social and environmental well-being & elaborated here-under:

1. Economic Wellbeing

- SDG 1: Household expenditures on cooking fuel will be reduced through the use of the ICS. (SDG 1.1)
- SDG 8: The project activity provides training and skill development program for youth population, thus increasing their employability (SDG 8.b)
- SDG 8: The project activity generates employment for marketing / sales and distribution / technical employees (SDG 8.5)

2. Social Well-being

- SDG 1 and 7: The distribution of 500,000 energy efficient stoves under the project helps in providing basic service / clean technology access to household (SDG 1.1 & 7.1)
- SDG 5: This project activity promotes employment of women, thus helps eradicating gender-based discrimination and provides socio-economic parity (SDG 5.1)
- SDG 5: In the poorest communities, the burden of cooking & purchasing fuel falls on women and children. By reducing cooking time, the program provides women in project households with more time to invest in other productive economic development activities (SDG 5.4)
- SDG 5 This project activity encourages participation of women in leadership / managerial role (SDG 5.5)

3. Environmental Well-being

- SDG 12: Reduce the consumption of non-renewable biomass in participant households by as much as 55%, depending on stove model (SDG 12.2)
- SDG 13: The distribution of energy efficient stoves reduces approximately 3,798,640 tCO₂e emission reduction over a 7-year period (SDG 13)

- SDG 15: The Project will reduce 5,540,535 tonnes of Non-renewable biomass over a 7-year period in participant households and will contribute towards reducing deforestation. (SDG 15.1)

2.1.2 Description of the Project Activity

The purpose of the project is to support clean cooking interventions that moves end-user and reduce greenhouse gas (GHG) emissions from the burning of non-renewable biomass-based charcoal for cooking in Nigeria.

The project is implemented by UpEnergy Group (UpEnergy/UpE) which is also the Coordinating and Managing Entity (CME). UpEnergy will implement the programme in partnership with local partners and would ensure the last-mile distribution/installation of the Improved Cook stoves to the beneficiaries.

Through this project, distribution of approximately 500,000 ICS will be undertaken for households in Nigeria. The project activity is designed to facilitate household-level improvements in cooking amenities and improved health and well-being for women, girls, and infant children with benefits to all members of the household.

The first ICS was installed on 07 May 2022, and as of 31 October 2024, a total of 29,614 ICS units have been distributed. The Monitoring Period (MP) wise distribution details is as given below,

Year	SmartHome Pro
MP1 (07-May-2022 to 31-October-2022)	1,648
MP2 (01-November-2022 to 31-October-2024)	27,966
Grand Total	29,614

The project addresses the key pillars of sustainable development namely, economic well-being, human health and well-being, social equality, and environmental sustainability in the following ways:

Table 2: SDG Goals and the impacts

Category	SDG Goal Addressed	Target beneficiary	Impact envisaged through project lifetime ³	Impact achieved during this monitoring period
Economic Well Being	SDG 1	End user households	Helps save 0.26 \$ per day per HH for the given project activity; Also helps in providing basic service	The distribution of energy efficient stoves helped save 0.21 \$ per day per household for 26,564 households

³ PP has considered the project benefits for only the first crediting period i.e., 7 years, since the renewal of the project crediting period will be decided by the management on the later stage

Category	SDG Goal Addressed	Target beneficiary	Impact envisaged through project lifetime ³	Impact achieved during this monitoring period
			access to household through distribution of 500,000 ICS in participant households	
	SDG 8	Youth Population	Job creation for 150 employees & 10 training/year under skill development program	This project activity has created 111 jobs and provided 8 trainings for the employees
Social well-being	SDG 5	Women and girls	Promotes employment to women; Increases the women leadership from the project activity and reduces drudgery <ul style="list-style-type: none"> i. Average cooking time savings - 1 hour/household/day, ii. Women Employment Rate – 50% (Proportion of Female employees) iii. Proportion of women serving in managerial/ leadership /ownership role - 50% 	Benefits for Women & Girls achieved during the current monitoring period, <ul style="list-style-type: none"> i. Average cooking time savings – 0.90 hours/household/day, ii. Women Employment Rate –36% (% of Female employees) iii. Proportion of women serving in managerial/ leadership /ownership role - 33%
	SDG 7	End user households	500,000 project beneficiary households who will have access to clean technology which they would not be able to afford.	The project activity benefits 26,564 Nigerian households by providing access to basic services in the current monitoring period.
Environmental well being	SDG 13	Natural Capital	Avoided emissions to the tune of average estimated~ 3,798,640 tCO ₂ e for the seven-year period (500,000 ICS)	This project activity has avoided 40,188 tCO ₂ e of greenhouse gas emissions into the atmosphere.
	SDG 12	Natural Capital	Project activity reduced the consumption of non-renewable biomass by 2 tonnes of eq. firewood/household/annum in the project lifetime.	The distribution of energy efficient stoves helped households to save 1.99 tonnes of non-renewable biomass per year per household.
	SDG 15	Natural Capital	Contribute an estimated reduction of deforestation of ~ 5,540,535 tons of biomass, during crediting period.	This project has saved 52,729 tonnes of non-renewable biomass and has contributed in reduction of deforestation activity in Nigeria.

This grouped project, with the primary project activity being the installation of ICSs and secondary project impacts or activities are described below,

1. Improved Cookstoves

The primary project activity is the distribution and installation of the Smart Home Pro Stoves, a high-efficiency, long-life metal, more efficient cooking solutions with renewable biomass fuels.

Education and training of field staff is an important component of project implementation. UpEnergy implements various surveys and questionnaires to track project objectives, beneficiary information, and to monitor and evaluate implementation performance.

2. Training

While training trainers, UpEnergy provides a course on climate change and combustion theory, including impacts of household pollution on health and well-being, as an introductory background to the efficient cookstove intervention.

Training will generate positive impacts to community groups by enabling community members to build alternative skills and build capacity. These interventions are expected to advance socio-economic status, generate greater community capacity for sustainable livelihoods, and increase climate resilience.

3. Women's Health

Multiple benefits are aligned to women's and children's health with the project activity.

- Improve the overall physical health status of women of Nigeria
- Reduction in burn risk
- Time Savings

Reduce women and children's drudgery through times savings in reducing time spent cooking over toxic smoky open fires.

The ICS to be deployed under this project is energy efficient which substantially reduces fuel consumption and emissions for conducting cooking and water heating tasks in homes. The ICS improves the efficiency of combustion and thermal transfer to the pot compared with a traditional pot support or three-stone fire by incorporating energy efficient technology which provides a conducive environment for clean and efficient combustion of charcoal. The project technology under the (improved cookstoves) proposed grouped project has an average lifespan of 7 years.

In the project activity, traditional charcoal stoves are being replaced by the distribution of improved charcoal stoves. It is important to note that the project proponent has considered the consumption of charcoal for calculating the Emission Reduction (ER) calculation.

Technical Specifications of Smart Home Pro Cook Stoves distributed during the first monitoring period are as follows: -

Table 3: Technical Specifications of Smart Home Pro Cook Stoves

Brand	UpEnergy
Model	Smart Home Pro (SHS Pro)
Type of Stove	Domestic
Dimension	(ϕ 28 * 26 H) cms
Average Unit Weight, Kg	12
Thermal Efficiency, %	37.90
Pot Type pot	Flat Bottom
Fuel Type	Charcoal
Estimated Life Span	7 Years
Average time to boil 5 liters of water	33.8 minutes



2.1.3 Implementation Schedule

Table 4: Implementation Schedule

Date	Milestone(s) in the Project's Development and Implementation
May 2022	Pipeline Listing
07 May 2022	UpEnergy as an organization started distributing ICS in the project area
07 May 2022	Start date of first crediting period of the project

October 2021 – January 2022	Baseline study
23 June 2022	Stakeholder Consultation Meeting
26 September 2022	Appointment of Assessor for Validation
May 2022- Ongoing	Distribution of project instances
21 May 2023	First monitoring & verification by assessor
26 April 2024	Registration & first verification of Project Activity under VCS
23 August 2024	Registration & first verification of Project Activity under SD VISta

2.1.4 Project Proponent

Organization Name	UpEnergy Group
Role in the Project	Project Proponent
Contact Person	Anantha Karthik Rajagopalan
Title	Vice President of Carbon Programme
Address	UpEnergy Group, 19 Cybercity, 10 th Floor, Raffles Tower, Ebene Mauritius.
Telephone	T: +230-404-6000
Email	anantha@upenergygroup.com

2.1.5 Other Entities Involved in the Project

Organization Name	Climate Catalyst Limited
Role in the Project	Project Representative
Contact Person	Mitch Sauers
Title	Director

Address	Climate Catalyst Limited, Close 48, H167, VGC, Lagos, Nigeria.
Telephone	+234 706 512 8533
Email	mitch@upenergygroup.com

2.1.6 Project Location

The project will be located within the boundary of Nigeria having the geographical coordinates 9°4'55.2 latitude and 8°40.517 longitude. It is part of Africa and is in the northern hemisphere.⁴

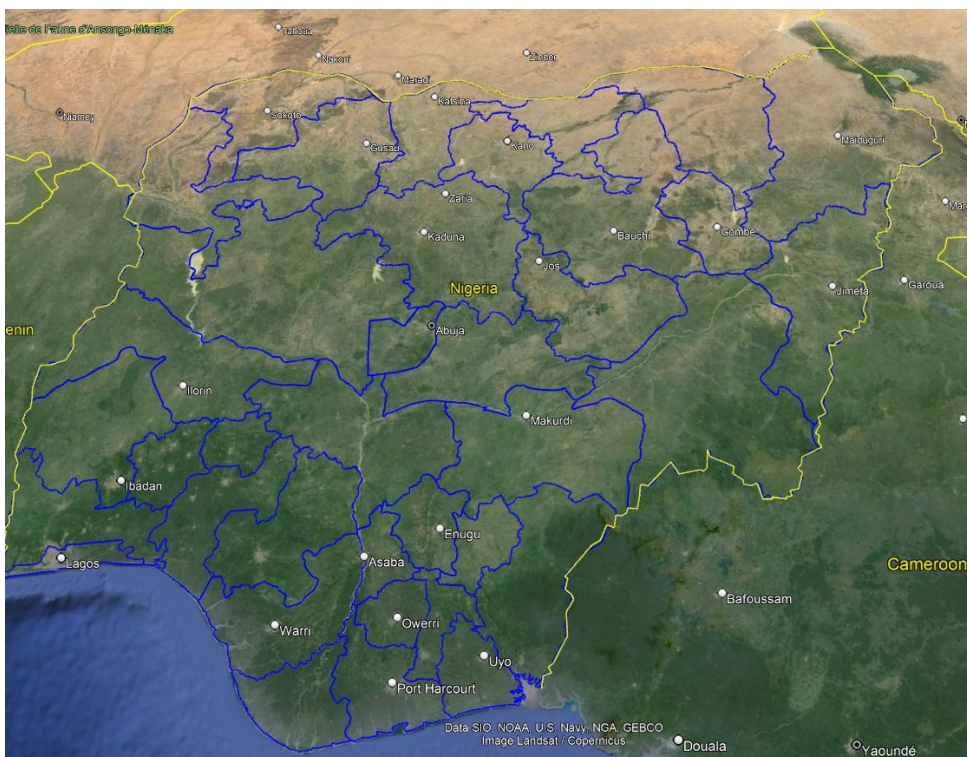


Figure 1: Nigeria Map

The state wise distribution of project ICS during monitoring period 2 is as given below in the figure 2 and table 5,

⁴ <https://www.geodatos.net/en/coordinates/nigeria> (last accessed on 06-May-2025)

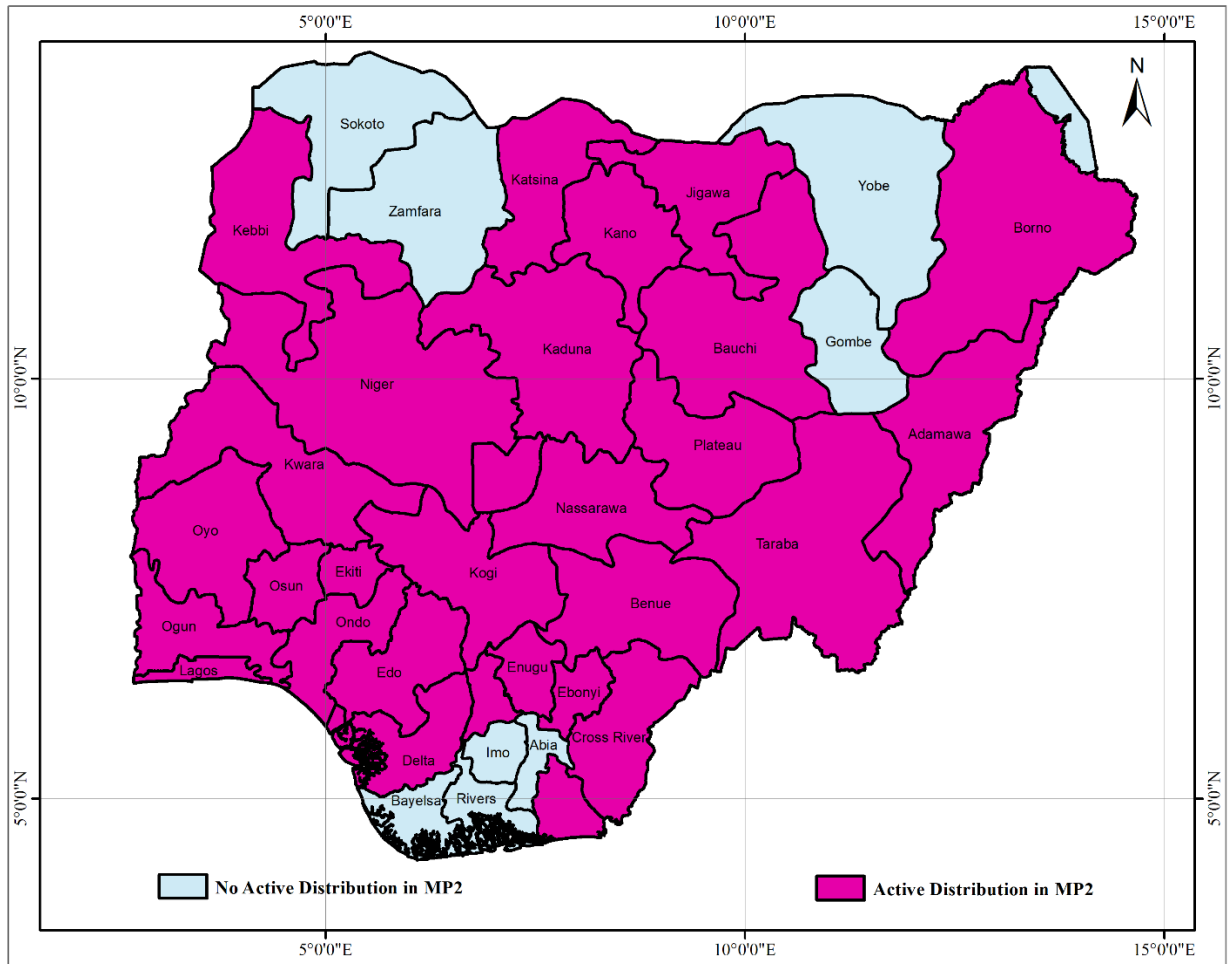


Figure 2: ICS Distribution in MP 2

Table 5: Administrative state with geo-coordinates of the ICS distribution

Sr. No	Administrative State	Latitude	Longitude
1.	Akwa Ibom	4.90573710	7.85366750
2.	Adamawa	9.32647510	12.39838530
3.	Anambra	6.22089970	6.93695590
4.	Bauchi	10.77606240	9.99919430
5.	Benue	7.33690240	8.74036870
6.	Borno	11.88463560	13.15196650
7.	Cross River	5.87017240	8.59880140
8.	Delta	6.20091745	6.71425395
9.	Ebonyi	6.26492320	8.01373020
10.	Edo	6.63418310	5.93040560
11.	Ekiti	7.71898620	5.31095050

Sr. No	Administrative State	Latitude	Longitude
12.	Enugu	6.53635300	7.43561940
13.	Federal Capital Territory	8.89406910	7.18604020
14.	Jigawa	12.22801200	9.56158670
15.	Kaduna	10.37640060	7.70945370
16.	Kano	11.74706980	8.52471070
17.	Katsina	12.37967070	7.63057480
18.	Kebbi	11.49420030	4.23333550
19.	Kogi	7.73373250	6.69058360
20.	Kwara	8.96689610	4.38740510
21.	Lagos	6.52437930	3.37920570
22.	Nasarawa	8.49979080	8.19969370
23.	Niger	9.93092240	5.59832100
24.	Ogun	6.99797470	3.47373780
25.	Ondo	6.91486820	5.14781440
26.	Osun	7.56289640	4.51995930
27.	Oyo	8.15738090	3.61465340
28.	Plateau	9.14164000	9.79101000
29.	Taraba	7.99936160	10.77398630

The geodetics of all future sites wherein ICS distribution will take place over the course of the project lifetime would be clearly indicated in the relevant ER sheet and geodetics of ICS administrative states will be captured in SD VISTA monitoring report for each monitoring period.

2.1.7 Project Description Deviations

No project description deviations were applied during this monitoring period.

2.1.8 Threats to the Project

A. Natural Threats

Threat: Vulnerability to natural disasters, Nigeria is prone to droughts and floods since the last few years, and this could lead to disruption in the sale and marketing of the project device arising from mass migration

Solution: The project device made available with the project activity is mobile and can be carried by the device user easily for long distance. These devices are designed to be light weight and made using locally available materials which can be sourced by the user easily in-case they have to migrate.

Threat: Climate change and deforestation can lead to firewood and charcoal scarcity. Climate change negatively affects agricultural yields, reducing reliable income streams in the local community and thus availability of funds to purchase the project device.

Solution: Although scarcity would seem to support the use of ICS technology, there can be a foreseeable future where the effort and economics behind procuring charcoal could make other fuels a more sustainable option. UpEnergy will plan regular communication with the stakeholders involved with project activity and will encourage sustainable management of natural resources. The organization will continue to encourage discussion and action around the design of sustainable forest management programs in the region.

B. Human Induced Threats

Threat: Altering the stove design or neglected maintenance of the project device can lead to reduced output from the device

Solution: UpEnergy has a dedicated sales team on ground who are duly trained with handling and mechanics of the project device who will continue to assess the condition of the project device at regular intervals to avoid the above-mentioned threat. Moreover, UpEnergy's sales team will also train and educate the project beneficiary about the working and maintenance of the project device.

During this MP, the team has conducted site visits to assess the condition of the project device as part of ongoing field activities.

Threat: Slow progress in the population's perception to adopt new technology resulting in poor sales

Solution: UpEnergy's on ground team will make efforts in the project area to explain the depth of the project in participants' native language and from their cultural perspective, so that they can reap all the benefits available from the undertaken project.

2.1.9 Benefit Permanence

The purpose of the project activity is to change the cooking pattern of households by distributing improved cookstoves (ICS), which will enable households to reduce their fuel consumption, saves the cooking time, improve their health conditions by reducing indoor GHG emissions and enhance the employment opportunities available to them. Post project activity, UpEnergy Group ensures the environmental and other co-benefits results due to project activity are long term and permanent in nature by undertaking the following long term aims

1. Awareness campaigns will be conducted at a regular interval to disseminate the multiple benefits on adoption of project ICS, this will include training sessions, community cooking activities, circulating brochures, documentary videos etc.
2. During the current Monitoring Period, awareness campaign was conducted on 29/May/2024, and community cooking program was organized on 10/April/2023. The warranty period of project ICS shall be extended till 5 years period to ensure maximum up taking of ICS usage and to ensure the sustenance of associated environmental, socio-economic benefits related to project activity

Nevertheless, it is envisaged that the rural and urban households will be encouraged to continue using improved cookstoves in future, due to the benefits associated with them, and thereby accrue significant environmental as well as socio-economic benefits

2.2 Stakeholder Engagement

2.2.1 Stakeholder Consultation and Adaptive Management

The first round Stakeholder Consultation meeting was done on the 23rd June, 2022 with the participation of different stakeholder categories. A total of 60 stakeholders participated in the LSC meeting.

The consultation process included invitation to wide range of invitees, to include effective and equal participation of both men and women. Prior to the consultation, UpEnergy had provided with the following documents in the language that allows local stakeholders to understand and engage with the project:

- Relevant information about the project
- Summary of the economic, social and environmental impacts of the project
- Contact details/E-mail ID of the UpEnergy group

During the meeting, the Key Project Information was presented to the local stakeholders. The sustainable development indicators and the monitoring of the indicators were clearly explained, and the Blind Assessment and Consultation Feedback Forms were shared in the second half of the consultation. Additionally, a copy of the presentation was also shared with them in order to help them provide feedback to UpEnergy Group in order to maximize the benefits to end-users.

A live demonstration of Improved Cookstoves (ICS)/ Smart Home Stove Pro was conducted for the participants. It was also explained to the stakeholders that similar technologies may also be implemented by UpEnergy based on beneficiary's' feedback.

During the current monitoring period, the following stakeholder interactions were undertaken:

Stakeholder Group	Identified Stakeholder (Continuously expanding)	Consultation Activities
Directly Affected Parties	Current Beneficiaries (individual, household, and community level) Potential Beneficiaries and Community Groups (individual, household, and community level) Implementing Partners & ground staff	Community Level Activities Open Communication with implementing partner

The mechanism for on-going communication with local stakeholders:

	Method Chosen (include all known details e.g., location of book, phone, number, identity of mediator)	Justification of Choice (best practice)
Continuous Input / Grievance Expression Process Book (mandatory)	Continuous input / Grievance Expression process book is available at the following office: Climate Catalyst Limited, Close 48, H167, VGC, Lagos, Nigeria. Phone: +234 706 512 8533	Grievance Expression book will be placed at Climate Catalyst office (A subsidiary of UpEnergy Group) in Lagos, Nigeria Stakeholders are free to voice their concerns via the Grievance Expression Book. By maintaining feedback book at the local office, it is ensured that stakeholders that don't have access to electronic media for expressing concerns / grievances are also able to share their concerns / feedback. Additionally, the end users always have an option to revert to the salesperson (representative of distribution/retail partners etc.) in case of any feedback / complaints with the product post distribution.

Telephone access (optional)	1. +2347041007012 2. +2347011111384	
Internet/email access (optional)	technical@upenergygroup.com	
Nominated Independent Mediator (optional)	n/a	
Other	n/a	

In order to have a continuing communication and consultation between, UpEnergy group and stakeholder groups, we take Quarterly feedback and inputs from stakeholders and adapt management accordingly.

We also have a dedicated sales team over the ground who oversees the day-to-day operations in the project area. The sales team has been recruited from the respective region and can be easily approached by all villagers either in person or through phone. In case of any issue faced by any community member, they can inform or discuss it with the sales team which takes note of the issue and informs the senior management to act on it.

UpEnergy Group (PP) had conducted the physical stakeholder consultation meeting on 23 June 2022 as per the requirements set in the VCS Standard version 4.2 section 3.17, which was the latest and applicable at that point in time. Additionally, the project's physical stakeholder consultation process also meets the requirements of the VCS Standard version 4.4 para 3.18.3 to 3.18.5 as applicable during the time of validation. As the project has been initially conceptualized as a VCS project and eventually extended to SD VISta program as well, there is no requirement for a separate demonstration of conformance as per the requirements set out in Section 3.18 (which includes with Local Stakeholders Consultation process) of VCS standard version 4.4. (kindly note that the VCS PD has been webhosted for public commenting period from 29 March 2023 to 28 April 2023, and the PP perceived the SD VISta labelling process for the project subsequently). As per the VCS Standard version 4.4 the local stakeholder consultation to be conducted prior to validation, which PP has complied fully therefore local stakeholders had a sufficient time and opportunity to express their feedbacks and concerns.

Further, it is to be noted that the PP has past experience in cookstove projects and trail and tested cookstove design running successfully in Sub Saharan Africa (VCS 2789, VCS 2676, GS 10967, GS 11007, GS 10970, GS 11211) and with this experience PP went ahead with the pilot distribution of project cookstove in May 2022 based on the growing demand of ICS in the geography. PP has distributed a single ICS in May 2022 and only 73 units (~4.4% of total distribution) till 22 June 2022 before the physical stakeholder meeting as can be evidenced from the project cookstove distribution database. Further PP has not received any specific comments and feedback on design of the improved cookstove during the physical stakeholder meeting, hence original design of the project cookstove remains unchanged.

It's important to mention that the project has not received any negative feedback from any of the stakeholder, including comments related to project design till the submission of the project documents to VERRA on 07 November 2023. As the stakeholder feedback process is a continuous process, stakeholders have been provided with opportunity to raise their concerns and input their feedback at any time during the project implementation.

Further non-compliance with the VCS Standard version 4.4 para 3.18.4, PP has an ongoing communication channel, wherein various local stakeholders are encouraged to register their feedback on the project's impact, design, etc. through the continuous stakeholder feedback process as highlighted in the 'mechanism for on-going communication with local stakeholders' in Section 2.2.10 of SD VISta project description, thus PP ensured the stakeholder consultation process is effective and adequate.

2.2.2 Anti-Discrimination

The project activity does not endorse any form of discrimination based on gender, sexual orientation, or other habits) or sexual harassment. ICS will be distributed to all willing customers within the project boundary. The project will have a positive impact on women considering that they will spend less time on cooking or fuel procurement and will be able to cook in cleaner environment.

No complaint of anti-discrimination practices was received during the monitoring period.

2.2.3 Worker Training

The UpEnergy workforce employed by the company received a total of eight trainings during the monitoring period, which is an ongoing process and helps the employees recruited from communities to build new skills and develop their capacity and knowledge, thus increasing their employability. Yearly review process was also designed to understand the growth in knowledge and understanding which the employee has gained during the working period.

For the current monitoring period as well, employees were trained on aspects of project implementation and audit.

2.2.4 Equal Work Opportunities

The Project activity has given equal opportunities for women, men, or any vulnerable/marginalized community by taking inconsideration of the country law and regulations to contribute both in volunteer and working positions. UpEnergy Group also has a stipulated HR policy that takes into account participation by all forms of demographic. Further, the projects designed are implemented for equal participation by any gender, nationality, ethnicity, religion, and race.

2.2.5 Workers' Rights

The host country is also a member of the ILO convention. In Nigeria, the law that is regulating or guiding employees and employers' relationship is known as labour law which is clearly stated in the section 7(3) of the 1979 constitution of the Federal Republic of Nigeria (Obisi, 2005). The constitution provides amongst others as follows:⁵

- All citizens without discrimination on any ground whatever have the opportunity for securing adequate means of livelihood as well as adequate opportunities to secure sustainable employment.
- Conditions of work are just and humane, and that there are adequate facilities for leisure and social, religious, and cultural life.
- The health, safety, and welfare of all persons in employment are safeguarded and not endangered or abused.
- There are adequate medical and health facilities for all person .
- There is equal pay for equal work without discrimination on account of sex, or on any other ground whatsoever.
- Children, young persons and the aged are protected against any exploitation whatever, and against moral and material neglect and
- Provision is made for public assistance in deserving case or other conditions of need

2.2.6 Occupational Safety Assessment

The project is in compliance with all relevant local and national laws. The Project does not threaten human health or environment and does not adversely affect the health of the workers and the community.

⁵ [https://www.ijbmi.org/papers/Vol\(2\)1/Version_3/M021100104.pdf](https://www.ijbmi.org/papers/Vol(2)1/Version_3/M021100104.pdf) (last accessed on 06-May-2025)

UpEnergy takes relevant mitigation measures like equipping the necessary instruments such as safety shoes, gloves, helmets, glasses etc. to protect the health and safety of the ICS manufacturing / warehouse handling employees as per National Policy on Safety, Health and Environment at Workplace. Also, UpEnergy own dedicated safety policy which adheres to national standards. The project proponent also ensures that all workers receive regular and constant training on electrical and material safety.

2.2.7 Feedback and Grievance Redress Procedure

UpEnergy establishes a proper procedure in order to document/record the project activity feedback and grievance. A dedicated contact number and email Id has been provided during the project activity and the same has been also explained to the stakeholders. A total of 102 grievances were received during this monitoring period. These grievances were submitted through multiple channels, including the grievance register maintained during field visits, the toll-free number, and direct communication with the field staff. The most common issue reported was that the stove was not burning properly, which was generally addressed by retraining the end users on correct usage techniques. Other grievances included broken stove parts or non-functioning devices, which were resolved through repairs or replacements, depending on the nature of the issue.

Method	Include all details of Chosen Method (s) so that they may be understood and, where relevant, used by readers.	Justification
Continuous Input / Grievance Expression Process Book (mandatory)	The input grievance book is kept by: Climate Catalyst Limited, Close 48, H167, VGC, Lagos, Nigeria	Grievance Expression book is placed at Climate Catalyst office (A Subsidiary of UpEnergy Group) in Lagos, Nigeria. Stakeholders are free to voice their concerns via the Grievance Expression Book. By maintaining feedback book at the local office, it is ensured that stakeholders that don't have access to electronic

Method	Include all details of Chosen Method (s) so that they may be understood and, where relevant, used by readers.	Justification
		media for expressing concerns / grievances are also able to share their concerns / feedback. Additionally, the end users always have an option to revert to the salesperson (representative of distribution/retail partners etc.) in case of any feedback / complaints with the product post distribution.
Telephone Access	Contact no: 1. +234 09099999227 2. +234 0706879780 3. +234 7041007012 4. +234 7011111384	
Internet / Email access	Email: info@upenergygroup.com	

The formal process requires the grievance to be filled in written form, in the grievance expression book available at the office in Lagos, Nigeria. UpEnergy group has also dedicated toll-free customer care numbers (+234 09099999227 / 0706879780 / 7041007012 / 7011111384) mentioned in the ICS distribution receipts and flyers, which can be used for any complaints or maintenance if needed during the project activity and the same has been also explained to the stakeholders.

Also, the SD VISta Monitoring Report was webhosted for the public commenting period from 02/04/2025 to 02/05/2025, during which no comments were received.⁶

2.2.8 Stakeholder Access to Project Documentation

The printed copies of project design documentation/Project description have been made accessible to all stakeholders at Climate Catalyst office. On the request of stakeholders, the project document can be arranged and provided by project participant.

2.2.9 Information to Stakeholders on Assessment Process

The main form of communication to stakeholders will be through social media, email, telephonic, and physical visits. UpEnergy will announce participation through capacity building, community sensitization, awareness programme, social media, press release, and the website.

The ICS end users have been informed in advance about the VVBs visit through telephonic communication in the local language, mentioning the date of the site visit and details of the VVB. Consent was obtained from each household prior to confirming their participation, and selections were made based on the availability and willingness of the end users.

2.3 Project Management

2.3.2 Avoidance of Corruption

UpEnergy Group always maintains highest standard of transparency and confirms that there is not any corruption involved in the project activity. We have robust and stringent internal policies that has laid provisions to prevent/identify any form of corruption, such as bribery, embezzlement, fraud, favouritism, cronyism, nepotism, extortion, and collusion. No incidents or reports of corruption—such as bribery, embezzlement, or nepotism—were received during the current monitoring period.

2.3.3 Recognition of Property Rights

UpEnergy Sales team will distribute/install the ICS only at the property owner's invitation. After the delivery and payment, the distributed ICS is the sole property of the owner. We will ensure that all property rights are recognized, respected, and supported.

2.3.4 Free, Prior and Informed Consent

The project activity only involved distribution of improved Cookstoves to the households, so this activity does not require any property right or concerned land rights.

⁶ <https://registry.verra.org/app/projectDetail/SDVISTA/2673>(last accessed on 27-January-2026)

2.3.5 Restitution and/or Compensation for Affected Resources

There are no negative effects on the land or resources due to the project and hence allocation of restitution or compensation to any parties is not required.

2.3.6 Property Rights Removal/Relocation of Property Rights Holders

The project is not located on a land/territory claimed by any indigenous people, vulnerable people hence the project activity does not lead to removal or relocation of property rights holders from their lands or territories, and do not force rights holders to relocate activities important to their culture or livelihood.

2.3.7 Identification of Illegal Activities

There are no illegal activities identified and associated that could affect the project's impacts and hence measures needed and designed to reduce these activities are not required.

2.3.8 Ongoing Conflicts or Disputes

This issue is not applicable to our project as the installation of ICS technology does not affect property rights or property disputes.

2.3.9 National and Local Laws and Regulations

There are no laws and regulations governing the use of improved cookstoves in Nigeria households. The project is a voluntary effort by the project proponent. A review is made on Nigeria environmental laws and regulations as below:⁷

1. National Environmental Standards and Regulation Enforcement Agency (NESREA) Act, 2007
2. Environmental Impact Assessment (EIA) Act. Cap E12, LFN 2004
3. The Nigerian Urban and Regional Planning Act Cap N138, LFN 2004
4. National Clean Cooking Policy, 2024

2.4 Grouped Projects

The project is a grouped project

Eligibility Criteria

⁷ <https://esrmqa.worldbank.org/program-countries/overview-environmental-legislation> (last accessed on 06-May-2025)

For the inclusion of new project activity instances, the project proponent shall ensure that it meets the eligibility criteria below.

No.	Criterion	How the new project activity instances to comply
1)	Adopt and implement the project activities in the same manner as specified in the project description.	New project activity instances have been implemented in the same manner as described in the project description and were implemented directly with beneficiaries of the Smart Home Pro, extending benefits and reinforcing project stove adoption.
2)	Where appropriate, meet the applicability conditions of the SD VISTA asset methodology applied to a project.	The project activity as well as the new project instances do not apply for SD VISTA assets and hence this criterion is not applicable
3)	Are subject to the same scenarios at project start with respect to stakeholders' well-being as determined for initial project instance(s), where (per Section 2.1.5.2 above) the project must meet the criteria of Section above	New project activity instances have the same baseline scenario, which was available during the start of project, i.e., usage of <i>traditional charcoal</i> cookstoves in the households. Also, the instances were designed to maximize intended impact and preserve well-being, with monitoring and ongoing stakeholder consultations to ensure impact
4)	Are subject to the same scenarios at project start with respect to natural capital and ecosystem services as determined for initial project instance(s) where (per Section 2.1.5.2 above) projects must meet the criteria of Section above.	New project instances have the same scenario w.r.t natural capital and ecosystem services as determined in the baseline scenario. All the new instances also have households relying on fuels for meeting their daily cooking energy demands.
5)	Are subject to the same processes for stakeholder engagement described in the project description	The new project activity instances have been detailed during continuous stakeholder consultations, refresher trainings for Implementing Partners and feedback consider in secondary project activity design to maximize intended impact and preserve well-being
6)	Are subject to the same processes for respect for rights to lands, territories and resources – including free, prior and informed consent – described in above <i>sections</i>	The outlined Project Management were applied for each additional project activity
7)	Secondary projects will have similar monitoring elements to those set out in the project description	Additional projects have equivalent monitoring plans and procedures as described in VCS SDVista PD
8)	Be included in the monitoring report with sufficient technical, financial, geographic and other relevant information to demonstrate compliance with the applicable set of eligibility criteria and enable sampling by the VVB.	The monitoring report for this grouped project activity includes details of the new project activity instances added i.e., new ICS added to this grouped project. This includes Name of ICS user, Address/Village/ Geographical coordinates of ICS household, Contact

No.	Criterion	How the new project activity instances to comply
		Details, Stove model Distributed, Date of distribution/installation, Unique ICS serial, technical specification etc. Further, the monitoring report demonstrates conformance of the new project instances to the applicable set eligibility criteria such as applied technology, ICS minimum efficiency level, geography of implementation, baseline scenario and additionality criteria, thus providing requisite evidences to VVB
9)	Comply with at least one complete set of eligibility criteria for the inclusion of new project activity instances. Partial compliance with multiple sets of eligibility criteria is insufficient.	The new project activity instances added to this grouped project comply with all the eligibility criteria
10)	Be validated at the time of verification against the applicable set of eligibility criteria.	The new project instances that are included to this group project activity will be validated against the applicable set of eligibility criteria during the VCS verification
11)	Have evidence of project ownership, in respect of each project activity instance, held by the project proponent from the respective start date of each project activity instance (i.e., the date upon which the project activity instance implemented activities that lead to the generation of sustainable development benefits).	The distribution receipts for the new project activity instances have been made available for verification wherein the project ownership (carbon waiver) and start date of crediting period (ICS distribution / installation date) are recorded
12)	Have a start date that is the same as or later than the grouped project start date.	The new project activity instances have either start on the start date of this grouped project i.e., 07-May-2022 or later
13)	Be eligible for accounting for project benefits to be used as SD VISta assets, where applicable, from the start date of the instance until the end of a project's crediting period (only). Note that where a new project activity instance starts in a previous verification period, no asset may be issued for benefits created during a previous verification period unless it is of a different benefit type from the SD VISta asset that has already been issued from that period	Not applicable since PP has not opted for SD Vista assets
14)	A grouped project shall be described in a single project description, which shall include a description of the central monitoring and management system	This grouped project activity has a single project description document and also the centralized monitoring and management system is described in Section 3.2.

3 BENEFITS FOR PEOPLE AND PROSPERITY

3.1 Impacts on Stakeholders

Impact #1	Ability to cook using ICS
Type of Impact	Positive, actual and direct
Affected Stakeholder Group(s)	Beneficiaries & beneficiaries' families' (Registered and New)
Resulting Change in Well-being	<p>Since Cooking is a fundamental part of life, increased access to clean cooking to the deprived sections of society will increase their access to basic services necessary to lead a healthy and productive life.</p> <p>This results in a direct freeing up of cooking time & health benefits due to reducing exposure to smoke in the home, increased food security due to nutrient retention with decreased cook time.</p> <p>26,564 households are benefitted during the current monitoring period</p>

Impact #2	Reduction in time spent on unpaid domestic work
Type of Impact	Positive, Predicted, Direct
Affected Stakeholder Group(s)	Beneficiaries (most notably, female, elderly, and children, primarily girls)
Resulting Change in Well-being	<p>Females who spend a copious amount of time on unpaid domestic labor, multiplied by the double / triple burden effect, have a predicted time saving which can be redirected to income-generating activities or relaxation time, contributing to enhanced conditions for gender equity.</p> <p>The survey results revealed that 0.90 hour/household/day cooking time has been saved from the project activity.</p>

Impact #3	Enhancing Job opportunity/Women leadership
Type of Impact	The Project has a Positive impact and increased employment opportunities
Affected Stakeholder Group(s)	Local Citizens (Men & Women)
Resulting Change in Well-being	<p>Helped in economic growth in project area through creating more job opportunities by implementing project activity.</p> <p>This project activity has created 111 jobs for marketing / sales and distribution / technical employees during the current monitoring period.</p> <p>2 out of the 6 i.e., 33 % of individuals operating at managerial positions for the given project activity are women.</p> <p>36% of the total employees working as a part of the project activity are females during monitoring period.</p>
Impact #4	Trainings imparted on climate change, project implementation and monitoring procedures
Type of Impact	Positive, Predicted, Indirect
Affected Stakeholder Group(s)	UpEnergy staff
Resulting Change in Well-being	<p>Training and skill development related to community engagement, survey implementation, technical trainings like conducting Water Boiling Tests (WBT), Kitchen Performance Test (KPT) has been provided to many stakeholder groups which is envisaged to empower their lives by not only improving their employment chances but also through increased awareness levels regarding issues related to climate change and social equity.</p> <p>8 staff technical trainings are conducted during the current monitoring period.</p>
Impact #5	Enabling access to clean technology

Type of Impact	Positive, Predicted, Indirect
Affected Stakeholder Group(s)	Project Beneficiaries and their families
Resulting Change in Well-being	Decreased reliance on fuel leads to resource conservation and promotes clean technology use. 26,564 households are benefitted from the cleaning cooking technology during the current monitoring period

3.2 Stakeholder Impact Monitoring

The monitoring plan for the SD VISTA project activity has been designed based on the requirements of allied VCS project activity – “UpEnergy Social and Climate impact programme - Nigeria-1”. An electronic database for the project activity is maintained by the PP. This database is also accessible to implementers and the verifying VVB. The project database was populated during the distribution of appliances and is updated based on subsequent replacements. The database includes the following general information:

The project database was populated during the distribution of appliances and is updated based on subsequent replacements. The database includes the following general information:

1. Installation date of appliance
2. Unique ID number of appliance
3. Name of recipient
4. Contact details of recipient
5. Location of household (village, district and/or GPS coordinates)

Also, the following information specific to baseline technology deployed will be gathered during the time of distribution:

1. Baseline cooking fuel
2. Baseline stove type

The survey questionnaire was designed to include both open-ended as well as close-ended questions to evaluate the end user’s perception of the project stoves as well as to assess the quantum of benefits resulting from it.

Enumerators were trained on the basic concept of the programme and were introduced to the distribution & registration process as well as the survey questionnaire before being sent to the

field. They were also made to fill sample questionnaires during the training process and problems faced during the test filling were shared and discussed to avoid similar problems in the actual survey.

Stratified random sampling was used to select sample stoves. The sample size used during current monitoring period was same as the one determined for VCS project activity using the Standard: Sampling and surveys for CDM project activities and programme of activities. The level of precision was selected as 95/10 since this is a large-scale project.

3.3 Net Positive Stakeholder Well-being Impacts

The long-term sustainable development benefits observed for the project's stakeholders are mapped with impacts on stakeholder classes and the monitoring parameter that have been used to assess the intended and unintended impacts of the project activities are as tabulated below,

Stakeholder Group Impacted	Beneficiary Household
SDG Goal	1 End poverty in all its forms everywhere
SDG Target	1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day
Impact	Increase in average household savings, hence reduced poverty
Monitoring Indicator	Average savings realized due to decrease in expenditure on basic service such as cooking
Unit of measurement	\$/day/HH
Monitoring Approach	Ex Post Monitoring Survey Q 5.1 "Do you save money using the project stove compared to the baseline usage?" and to calculate the monetary saving due to reduced fuel consumption through fuel savings
Frequency of measurement	Annually or Biennially
Procedure for calculation	Quantity of woody biomass that is saved in tonnes per cookstove device per year divided by the conversion factor for fuelwood to charcoal (1:4) multiplied by the average cost of fuel used for cooking in project area. Average household savings = (Fuel savings/4 ⁸ /365) x Cost of Fuel Fuel savings = BC _{b,i,y} - BC _{p,j,k,y} BC _{b,i,y} = Fuel used per baseline device type i during year y (tonnes)

⁸ PP has applied "CF" value of "4" for the VCU issuance with CCP compliance.

	$BC_{p,j,k,y}$ = Average quantity of fuel used by project device type j from batch k during year y (tonnes) Cost of Fuel - average cost of fuel used for cooking in project area
Sampling	Stratified Random sampling with 95 per cent confidence interval and a 10 per cent margin of error achieved for monitored parameter
Value obtained in this monitoring period	0.21 \$/day/HH
Sources	Fuel savings– Sourced from VM 0050 meth Cost of Fuel - Cost of Charcoal based on available literature ⁹

Stakeholder Group Impacted	Beneficiary Household
SDG Goal	1. End poverty in all its forms everywhere
SDG Target	1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.
Impact	Access to basic services
Monitoring Indicator	Number of households having access to improved cooking technology due to project activity
Unit of measurement	no of HH
Monitoring Approach	Ex post Monitoring Survey Q 4.1 Are you currently using the project stove?"
Frequency of measurement	Annual
Procedure for calculation	Number of beneficiary Households = Cumulative ICS distribution x Operational factor of ICS
Sampling	Stratified Random sampling with 95 per cent confidence interval and a 10 per cent margin of error achieved for proportion of operational stoves (U _{py})
Value obtained in this monitoring period	The distribution of 26,564 energy efficient stoves under this project activity helps in providing basic service access to household
Sources	Cumulative ICS distribution - Sales database Operational factor of ICS - Household monitoring survey

⁹ <https://www.betaprices.com/charcoal-for-sale-in-nigeria> (last accessed on 11-November-2025)

Stakeholder Group Impacted	Women
SDG Goal	5. Achieve gender equality and empower all women and girls
SDG Target	5.1 End all forms of discrimination against all women and girls everywhere
Impact	Women Empowerment by creation of employment to women population
Monitoring Indicator	Proportion of women employees in the project activity
Unit of measurement	% of female employees
Monitoring Approach	Employee list with Name & Gender obtained from HR Department
Frequency of measurement	Annual
Procedure for calculation	% of Women employees = No of Women Employees / Total Employees Strength
Sampling	Not Applicable
Value obtained in this monitoring period	36%
Sources	Records from HR Department

Stakeholder Group Impacted	Women and young girls
SDG Goal	5. Achieve gender equality and empower all women and girls
SDG Target	5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate
Impact	Reduced drudgery
Monitoring Indicator	Average time saving associated with cooking time
Unit of measurement	hours / day / HH
Monitoring Approach	Baseline Survey How many hours do you cook in average per day? Ex post Monitoring Survey Q 4.5 How many hours did you spend on cooking per day? Q 5.7 Do you see a reduction in time taken for cooking and fuel purchase?
Frequency of measurement	Annual
Procedure for calculation	Average time saving associated with cooking = Cooking time spent by HH in (Baseline Scenario - Project Scenario)

Sampling	Stratified Random sampling with 95 per cent confidence interval and a 10 per cent margin of error achieved for proportion of operational stoves
Value obtained in this monitoring period	0.90 hours/day/Household
Sources	Baseline & Ex post monitoring surveys

Stakeholder Group Impacted	Women
SDG Goal	5. Achieve gender equality and empower all women and girls
SDG Target	5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life
Impact	Women Empowerment
Monitoring Indicator	Number of women serving in managerial/ leadership /ownership role
Unit of measurement	% of female employees in managerial / leadership role
Monitoring Approach	Employee list with Name & Gender obtained from HR Department
Frequency of measurement	Annual
Procedure for calculation	% of Women employees in managerial / leadership role = No of Women managers / Total strength of managerial positions
Sampling	Not Applicable
Value obtained in this monitoring period	33 % This project activity encourages participation of women in leadership / managerial role. 2 out of 6 i.e., 33% individuals operating at managerial positions for the given project activity are women
Sources	Records from the HR department

Stakeholder Group Impacted	Beneficiary Household
SDG Goal	7. Ensure access to affordable, reliable, sustainable and modern energy for all
SDG Target	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
Impact	Access to cleaner energy technologies
Monitoring Indicator	Number of households having access to improved cooking technology due to project activity
Unit of measurement	no of HH

Monitoring Approach	Ex post Monitoring Survey Q 4.1 Are you currently using the project stove?
Frequency of measurement	Annual
Procedure for calculation	Number of beneficiary Households = Cumulative ICS distribution x Operational factor of ICS
Sampling	Stratified Random sampling with 95 per cent confidence interval and a 10 per cent margin of error achieved for monitored parameter
Sources	Cumulative ICS distribution – Sales database Operational factor of ICS – Household monitoring survey
Value obtained in this monitoring period	The distribution of 26,564 energy efficient stoves under this project activity helps in providing basic service access to household

Stakeholder Group Impacted	Project Staff, Implementation Partners and Survey Agencies
SDG Goal	8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
SDG Target	8.b. By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization
Impact	Training and skill development program for youth population, thus increasing their employability
Monitoring Indicator	Number of Trainings conducted in a year
Unit of measurement	Trainings / annum
Monitoring Approach	Training records maintained by the project team
Frequency of measurement	Annual
Procedure for calculation	Number of trainings conducted in the monitoring period
Sampling	Not Applicable
Value obtained in this monitoring period	A total of 8 technical trainings were held for the employees as a part of this monitoring period. This will increase in the upcoming monitoring period
Sources	Training records maintained by the project team

Stakeholder Group Impacted	Professional, Graduates, Implementation Partners and Survey Agencies
SDG Goal	8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

SDG Target	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.
Impact	The project activity generates employment for marketing / sales and distribution / technical employees
Monitoring Indicator	Number of jobs created
Unit of measurement	Number of jobs created
Monitoring Approach	Employee list with Name & Gender obtained from HR Department
Frequency of measurement	Annual
Procedure for Calculation	Number of jobs created over the project implementation period.
Sampling	Not Applicable
Value obtained in this monitoring period	111. This project activity has created 111 jobs for marketing / sales and distribution / technical employees over the project implementation period.
Sources	Employee list with Name & Gender obtained from HR Department

4 BENEFITS FOR THE PLANET

4.1 Impacts on Natural Capital and Ecosystem Services

Impact #1	Reduced demand for non-renewable biomass-based charcoal in the project area due to implementation of more efficient cookstoves
Type of Impact	Positive and Direct
Affected Stakeholder Group(s)	Biodiversity, species richness, soil conservation, water conservation, wildlife conservation
Resulting Change in Well-being	Project activity reduced the consumption of non-renewable biomass by tonnes of eq. firewood/household/annum in participant households, thus leading to saving of 52,729 tonnes of eq.firewood /annum non-renewable biomass over the course of the monitoring period which contributed towards reducing deforestation in the project area

Impact #2	Avoided emission of GHGs made possible through the use of Project Stove (SmartHome Pro)
Type of Impact	Positive and direct
Affected Natural Capital and/or Ecosystem Service(s)	Biodiversity, species richness, soil conservation, water conservation, wildlife conservation
Resulting Change in Condition	<p>The project stoves require less fuel for producing same amount of thermal energy therefore resulting in lesser carbon dioxide emission in the atmosphere. As carbon dioxide is a greenhouse gas, its reduced emission translates to positive impact against climate change.</p> <p>Total emission reduction in the current monitoring period is 40,188 tCO_{2e}.</p>

4.2 Natural Capital and Ecosystem Services Impact Monitoring

The following data and parameters will be monitored under the project to assess the impacts on the natural capital and ecosystem. The sampling approach adopted for collecting the corresponding data has been presented in VCS PD & MR.

Natural Capital Impacted	Forest Ecosystem adjoining project implementation area
Impact	Reduced demand for non-renewable biomass-based charcoal in the project area due to implementation of more efficient cookstoves
SDG Goal	12. Ensure sustainable consumption and production patterns
SDG Target	12.2 By 2030, achieve the sustainable management and efficient use of natural resources
Indicator name	Decrease in specific fuel consumption
Questions asked for indicator	Ex Post Monitoring Survey Q 5.1 Do you see reduction in fuel consumed on project stove when compared to that traditional stove?
Frequency of measurement	Annually or Biennially
Procedure for calculation	Based on VM 0050 meth parameters; Fuel savings = $BC_{b,i,y} - BC_{p,j,k,y}$ $BC_{b,i,y}$ = Fuel used per baseline device type i during year y (tonnes) $BC_{p,j,k,y}$ = Average quantity of fuel used by project device type j from batch k during year y (tonnes)
Unit of measurement	Tonnes of equivalent firewood/annum/household
Sampling	This parameter will be monitored under VCS program for the said project with only the results obtained during corresponding SD VISta MP being considered in estimations. No separate sampling or monitoring will be undertaken under SD VISta program
Sources for aggregated data	VCS MR
Value obtained in this monitoring period	1.99 Tonnes of equivalent firewood/annum/household

Natural Capital Impacted	Atmosphere
Impact	Reduced levels of emissions and household air pollution
SDG Goal	13. Take urgent action to combat climate change and its impacts
SDFG Target	13.2 Integrate climate change measures into national policies, strategies and planning
Indicator name	Amount of GHG emissions avoided or removed

Questions asked for indicator	N/A
Frequency of measurement	Annually
Procedure for calculation	<p>Based on VM0050 meth version equations as given below,</p> $BE_y = \sum_{i,j,k} EC_{i,y} \times N_{j,k,y} \times n_{j,k,y} \times (EF_{b,i,CO_2} \times f_{NRB,y} + EF_{b,i,nonCO_2}) \quad (1)$ $EC_{i,y} = BC_{b,i,y} \times NCV_{b,i} \quad (2)$ $EC_{est,y} = EC_{p,y} \times \frac{\eta_{new,avg,y}}{\eta_{old,avg}} \quad (3)$ $EC_{p,y} = \sum_{j,k} BC_{p,j,k,y} \times NCV_{p,j} \quad (4)$ $PE_y = PE_{energy,y} + PE_{others,y} \quad (5)$ $PE_{energy,y} = \sum_j \sum_k BC_{p,j,k,y} \times N_{j,k,y} \times NCV_{p,j} \times n_{j,k,y} \times (EF_{p,j,CO_2} \times f_{NRB,y} + EF_{p,j,nonCO_2}) \quad (6)$ $ER_y = (BE_y - PE_y) \times 0.95 - LE_{RB,y} \quad (7)$
Unit of measurement	tCO ₂ e
Sampling	This parameter will be monitored under VCS program for the said project with only the results obtained during corresponding SD VISta MP being considered in estimations. No separate sampling or monitoring will be undertaken under SD VISta program
Sources for aggregated data	VCS Monitoring report
Value obtained in this monitoring period	40,188 tCO ₂ e

Natural Capital Impacted	Forest Ecosystem adjoining project implementation area
Impact	Increase in Above Ground Biomass
SDG Goal	15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

SDG Target	15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
Indicator name	Amount of Non-renewable biomass saved
Questions asked for indicator	Ex Post Monitoring Survey Q 5.1 Do you see reduction in fuel consumed on project stove when compared to that traditional stove?
Frequency of measurement	Annually or Biennially
Procedure for calculation	Fuel savings* $n_{j,k,y}$ $\text{Fuel savings} = BC_{b,i,y} - BC_{p,j,k,y}$ $BC_{b,i,y} = \text{Fuel used per baseline device type } i \text{ during year } y \text{ (tonnes)}$ $BC_{p,j,k,y} = \text{Average quantity of fuel used by project device type } j \text{ from batch } k \text{ during year } y \text{ (tonnes)}$ $n_{j,k,y} = \text{Proportion of commissioned project devices of type } j \text{ from batch } k \text{ that remain operating in year } y \text{ (fraction)}$
Unit of measurement	Tonnes of equivalent firewood/annum
Sampling	This parameter will be monitored under VCS program for the said project with only the results obtained during corresponding SD VISta MP being considered in estimations. No separate sampling or monitoring will be undertaken under SD VISta program
Sources for aggregated data	VCS Monitoring Report
Value obtained in this monitoring period	52,729 Tonnes of equivalent firewood/annum

4.3 Net Positive Natural Capital and Ecosystem Services Impacts

By replacing inefficient traditional cookstoves with the more efficient ICS and performing energy efficiency improvements in existing biomass-fired cookstoves, the project reduced energy demand in the form of wood fuel use, thus generating net GHG reductions. The current project activity has achieved 40,188 tCO₂e of emission reductions.

APPENDIX A: LIST OF ABBREVIATIONS

GP: Grouped Project

ICS: Improved Cookstoves

ILO: International Labour Organisation

LSC: Local Stakeholder Consultation

SDG: Sustainable Development Goals

SHS-PRO: Smart Home Pro

TSF: Three-stone fire stove

VCS: Voluntary Carbon Standard

HH: Household

VCU: Verified Carbon Units

tCO₂e: Tonnes of Carbon Dioxide Equivalent

GHG: Green House Gas

UpE: UpEnergy

CME: Coordinating and Managing Entity

ER: Emission Reduction

cms: centimetres

PP: Project Proponent

VVB: Validation/Verification Bodies