Monitoring and Evaluation Framework

June 2020



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1. Introduction

The Clean Cooking Alliance (CCA) is proud to release this Monitoring and Evaluation (M&E) Framework. This is a foundational tool that defines CCA's strategic approach through its Theory of Change and provides clear, systematic guidance about how its work will be measured and how learning will be integrated across the organization and throughout the sector.

An M&E framework is a management and accountability tool that allows an organization to clearly define, track, and learn from its work. It provides an opportunity to make decisions informed by systemically collected data and evidence about successes, while allowing for course corrections when necessary. With the implementation of this M&E Framework, CCA intends to both strengthen its own ability to understand, improve, and learn from the work it is doing to contribute to the goal of universal access to clean cooking, and strengthen the sector's knowledge by sharing this learning.¹

This document explains the rationale for CCA's M&E Framework and contains a detailed explanation of the related development process and the limitations of the M&E Framework. The M&E Framework includes the following elements:

- 1. CCA's Theory of Change;
- 2. Project-level requirements for logic models;
- 3. A list of standard indicators, and indicator methodology reference sheets to provide detail about each indicator, all tracking against CCA's Theory of Change; and
- 4. Guidance that CCA will follow to determine when to conduct evaluations.

The appendices include the visual Theory of Change (Appendix A), examples of logic models and logic model variations (Appendix B), and indicator methodology reference sheets that define the standard indicators in detail and provide context and instructions for data collection (Appendix C).

This document is the core of CCA's M&E approach, aiming to capture the first step toward systematizing project measurement and learning across all of CCA's work. It will be revisited and revised periodically, to reflect ways in which CCA's strategy and role in the sector evolves, and as its M&E approach becomes more sophisticated. Consistent with future versions, the goal of the M&E Framework will remain improving CCA's ability to learn and sharing that learning with the sector.

The M&E Framework is designed for use by CCA itself, any of its partner organizations or donors, and any other sector stakeholder interested in learning more about CCA's strategy or its approach to measurement and learning.

¹ Universal access to clean cooking is a component of Sustainable Development Goal (SDG) 7: Ensure access to affordable, reliable, sustainable, and modern energy. Universal access to clean cooking is monitored using indicator 7.1.2, "Proportion of population with primary reliance on clean fuels and technology," which is tracked by the World Health Organization.

2. Objectives and Development of the M&E Framework

CCA is adopting a comprehensive M&E Framework to provide a systematic structure for monitoring, to increase accountability, and to mainstream evaluations as evidence-based learning that is relevant to both CCA and other clean cooking stakeholders. It is a starting place for CCA to build its M&E capacity and to become a stronger learning organization. While CCA has used select indicator tracking since its inception,² this M&E Framework provides a more detailed and comprehensive approach that is aligned with CCA's full strategy.

The M&E Framework has been designed with three distinct levels-project, CCA, and sector-to meet various objectives. At the project level, the M&E Framework demonstrates CCA's commitment to systematically monitor its work using standardized indicators, and to incorporate indicator data into improvements in project management and implementation. At the CCA level, it provides the opportunity for CCA to develop stronger feedback loops and learning associated with its Theory of Change. By using the M&E Framework across its work, CCA is able to collect evidence to reinforce and revise its approach to achieving universal access to clean cooking. Finally, by providing a systematic and prioritized approach to learning, through both standard indicators and evaluations, the M&E Framework contributes to the broader clean cooking sector.

2.1 Development Process

CCA developed the M&E Framework collaboratively, based on both internal and external consultation, beginning in the fall of 2018. Internally, CCA reviewed past ways it defined and tracked its work. This review included internal discussion about the tracking approach with each programmatic team. Externally, CCA consulted with key partners—Energising Development (EnDev), World Health Organization, World Bank Group, Climate and Clean Air Coalition, among others and undertook desk research to understand other approaches to monitoring and learning in the sector and in adjacent sectors. These consultations resulted in significant learning about the places of convergence and divergence related to key sector terms, as well as the ways in which various organizational approaches require different forms of M&E. CCA also conducted desk research about both M&E frameworks and general approaches to tracking and monitoring. This formative research highlighted the need for sector-level M&E. More details about the Sector Strategy are listed in Section 5.3.

CCA began developing its M&E Framework in earnest in early 2019, beginning with developing CCA's Theory of Change. Using the Theory of Change as a reference, CCA developed standard indicators, revising existing indicators and adding new ones where needed. It determined the standard indicators by using the following criteria:

- 1. **Measurable.** Selected indicators must clearly represent countable concepts and are traditionally measured by using a number or percent.
- 2. **Informative.** Selected indicators must provide valuable information and be worth the resources required for reporting, avoiding indicators that are overly burdensome to collect and that provide little value.
- 3. **Important.** Selected indicators also must measure elements of CCA work that are important and central to its approach, not smaller components of that work.

The ultimate list of standard indicators provides measurement across all levels of the current CCA Theory of Change. For more details about the Theory of Change, see Section 4 (and Appendix A). Standard indicators include measurement of each of CCA's pillars, access to clean cooking—which is the sector's ultimate goal—and finally, the impact-level co-benefits of clean cooking. For further elaboration, see the indicator methodology reference sheets in Appendix C.

The final stages of developing the M&E Framework included creating project-level requirements for logic models, evaluation guidelines, and internal and external vetting of the indicators and reference sheets. The development process will continue with further revisions to the M&E Framework.

² Until its 2018 Annual Report, CCA reported on distribution of cookstoves and fuels, estimated from an annual survey of enterprises, NGOs, and governments in the sector. Other project-level work included some M&E, but data generally were not aggregated across CCA.

3. CCA M&E Framework Limitations

The M&E Framework's utility is limited in three broad ways: (1) standard indicators do not cover all measurement approaches, (2) indicators can only capture what is countable, and (3) some components of CCA's Theory of Change cannot be measured using standard indicators. Each limitation is described further in this section.

The first limitation is that standard indicators were not designed to cover all possible measurements, but instead were designed to cover a broad and basic understanding of CCA's Theory of Change. Therefore, the M&E Framework provides only a portion of the M&E planning required for larger CCA projects, as well as some smaller components of CCA work. The standard indicators include the minimum indicator requirements, and many CCA projects will require additional indicators and learning approaches beyond what is required to follow for this M&E Framework. This work will remain an important part of the larger CCA M&E approach.

The second limitation is that indicators can only capture what is countable and can only provide finite insights about project details in isolation. The M&E Framework is designed with complementary components, so that a combination of indicators, logic models, and evaluations provides a more complete opportunity for understanding CCA progress and learning. Evaluations, including those using qualitative methods, will help address gaps that are not covered by the standard indicators.

The third limitation is that the M&E Framework does not measure all components of CCA's Theory of Change. This limitation is similar to the second limitation but emphasizes the components of the Theory of Change that are not included in the standard indicators or M&E Framework. As stated above, some elements of any organization's strategy are not easily tracked using indicators, because the true value of the work is not easily countable or does not yield informative data when counted. For example, it is difficult to track the outcomes of CCA's advocacy work, because data collection can be resource-intensive and challenging. These areas may be addressed through other M&E methods.

Going forward, CCA will explore additional ways to incorporate measurement and learning into the M&E Framework, to better capture organizational successes and failures that are not easily tracked using standard indicators or traditional evaluations. CCA also will explore opportunities to pilot some new approaches, such as using social network analysis to measure system change. Approaches such as these will also help CCA learn more about its role in building ecosystems for the sector.

4. CCA Theory of Change

CCA's Theory of Change is a foundational document that depicts CCA's strategy and motivation, and the context in which it operates, in a clear and visually compelling diagram. The Theory of Change depicts CCA activities and how they combine to create CCA's pillars. These pillars are designed to reach the goal of universal access to clean cooking and the resulting co-benefits related to clean cooking.

The thumbnail image below is for ease of reference to accompany this narrative. The full Theory of Change is located in Appendix B. The Theory of Change begins with the **"Initial Conditions"** statement, in the top right of the diagram. The statement describes the current state of clean cooking and the problems that motivate CCA's work. CCA's strategy and pillars of work are designed to directly address each problem described in the initial conditions.

The Theory of Change should be read from left to right, starting with the **"What We Do"** section that articulates CCA's main activities. The activities presented are not exhaustive, but rather offer a more generalized and representative view of CCA's approach. These activities can be grouped into four main pillars that characterize their results, shown as the four green boxes in the center of the page.

Connecting the **"What We Do"** list of activities with the **"Which Allows Us to"** descriptions are a list of **"Assumptions,"** surrounded by a dotted green line. These assumptions list the conditions that often lie outside of CCA's control and that must be satisfied in order for the **"What We Do"** activities to lead to the **"Which Allows Us to"** outcomes.

The vertical green bar before **"Which Allows Us to"** highlights the gender-responsive component that is embedded in each of the four pillars of CCA's work, per its Gender Strategy.

The **"Which Allows Us to"** provides a description of the four main pillars: support the growth of clean cooking enterprises; increase consumer demand for clean cooking; strengthen the enabling environment; and generate research, evidence, and learning.

These four pillars in combination constitute CCA's



Figure 1 Thumbnail CCA's Theory of Change Part 1 approach to addressing clean cooking at scale: building a dynamic, financially sustainable clean cooking industry, as shown in the upper purple circle. CCA approaches the goal of universal access to clean cooking by building an industry, because it hypothesizes that only with a fully developed clean cooking market can the sector reach the scale necessary to achieve universal access.

CCA also works very closely with, and complements the work of, partners throughout the sector, as highlighted in the lower purple circle. With unique approaches and distinct market segment priorities, partners in the sector also contribute significantly to achieving universal access. This Theory of Change focuses on CCA's work and does not depict partner activities in detail, beyond their contributions to building an industry and other approaches that contribute to achieving universal access.

The Theory of Change also includes **"Facilitators"** and **"Barriers,"** on the right side of the diagram, in dark blue boxes. These are large-scale global factors that describe the context in which CCA works, listing factors that can and often do influence the outcomes of CCA's work. Facilitators are those factors that can contribute positively

to the success of CCA's outcomes, and barriers are the factors that can hinder outcomes. The items listed in each blue box are meant to be illustrative of the larger forces that influence CCA's work, rather than an exhaustive list.

CCA is working toward the ultimate goal of universal access to clean cooking by 2030, according to Sustainable Development Goal (SDG) 7, as tracked by indicator 7.1.2. Through increased access to clean cooking and the associated decreased use of traditional cookstoves and fuels, four main co-benefits may be achieved. The orange squares on the far right show the ways in which clean cooking will transform lives: improving health, reducing the climate and environmental impacts of traditional cookstoves and fuels, empowering women, and improving livelihoods.

Initial Conditions

See the full Theory of Change on page 15 >



Figure 2 Thumbnail CCA's Theory of Change Part 2

5. M&E Framework Levels

CCA has designed the M&E Framework at three levels: project, CCA, and sector. The approach uses multiple levels to account for the multifaceted roles that CCA plays in the sector, as an ecosystem builder, technical advisor, partnership facilitator, industry builder, and thought leader. These levels also allow the M&E Framework to meet multiple needs, as explained below.

5.1 Project-Level M&E

The project-level requirements are designed to improve the project planning and tracking process, thereby creating systematic opportunities for project improvements and learning.

At the project level, the M&E Framework provides guidance for work that CCA supports or directly implements, by requiring two components:

- 1. The development of **project-level logic model** requirements, and
- 2. The use of any applicable **standard indicators.**

LOGIC MODEL REQUIREMENTS

To ensure that CCA's work is clearly defined and planned in a way that supports its Theory of Change, the M&E Framework's first requirement is for **project-level logic models.**

This documentation takes one of two forms. If CCA directly implements the work with programming that includes multiple pillars of CCA's work, a logic model is required (Table 1).

If an organization supported by CCA implements the work within a project that includes multiple pillars of CCA's work, a narrative description is required to supplement the logic model (Table 2).

This requirement applies only to large CCA projects and the competitively bid work that falls under those projects, as outlined in the two tables. Future versions of the M&E Framework may expand this section.

When this applies	Any large CCA-implemented projects that take a holistic approach and incorporate more than one of CCA's four pillars to build a clean cooking industry and increase access to clean cooking.
Requirement	A visual depiction of the project goals and activities and the intermediate steps that connect them, according to outputs, outcomes at various levels, and potential impacts. This must relate to CCA's Theory of Change in its design—either explicitly in the visual depiction, or in a narrative text that accompanies the visual. See Appendix B for examples.
Who designs it	CCA is responsible for design of the logic model.
When it is designed	Design occurs at the beginning of the project and is updated with any changes in approach or implementation.

TABLE 1: Logic Model Requirements

TABLE 2:Narrative Description for CCA-supported Components of Projects

When this applies	Any work that is a component of CCA projects in Table 1 that is competitively bid.	
Requirement	A narrative description of goals and alignment with the project logic model, listed as clear objectives in the proposal. In addition to objectives, the narrative must include a description of which activities CCA will support, and how those activities will help accomplish the goal.	
Who designs it	An external organization applying for support will write the narrative. CCA will ensure that it is documented in the contract, if there is a contract.	
When it is designedThe organization will write the narrative as part of its proposal. Afte award, if there are changes to the work under the contract, CCA will with the organization to update the objectives, if needed.		

STANDARD INDICATORS

The second requirement for project-level M&E is use of CCA's standard indicators. CCA and the organizations that it supports will continuously collect standard indicators, per the frequency requirements detailed in the indicator methodology reference sheets. This includes work covered by the logic model requirement above, as well as all work outside of that requirement. CCA will use standard indicator data—in addition to any other indicators—in combination with other evaluation or learning to inform its decisions about implementation, management, and strategic direction. CCA will report aggregated data annually in its Annual Report, as applicable.

Table 3 lists all 37 standard indicators, organized according to the Theory of Change (shown in the colored stripes above each set of indicators). Each indicator has an accompanying methodology reference sheet in Appendix C that explains its rationale and terminology, the process for collecting data, who is responsible for collecting data, and other relevant technical details. Some indicators in the list will involve primary data that is collected by organizations supported by CCA, and that CCA then will aggregate. Other indicators are designed for use only by CCA to track its work. Indicators at the impact level will be used only when the data requirements are met, and they are not mandated for every project. Table 3 also contains a numbering system, in the far-left column. This is used in the indicator methodology reference sheet and is present to help manage the indicator data and planning. The letter corresponds to the part of the Theory of Change that the indicator is measuring, and the number refers to the indicator number.

TABLE 3: CCA Standard Indicators

I.	Improved health
I1	Number of Averted Disability-Adjusted Life Years from changes in exposure to household air pollution in target population
I.	Reduced climate and environmental impacts
I2	Annual emissions of climate pollutants from cooking in target population
I3	Metric tons of biomass used annually for cooking in target population
I.	Empowered women and improved livelihoods
I4	Change in reported level of drudgery for women related to fuel procurement and cooking in target population
I5	Average number of minutes household stove or fire is in use per day in target population
UA	Universal access to clean cooking by 2030
UA1	Percent of the population with primary reliance on clean fuels and technology [SDG 7.1.2]
UA2	Percent of households that have improvement(s) in one or more dimensions along the Multi-Tier Framework for household energy access
CCI	Build a dynamic, financially sustainable clean cooking industry
CCI1	Number of enterprises in the clean cooking sector
CCI2	Percent change in \$USD invested in the sector, year-over-year
CCI3	Percent change in \$USD revenue of clean cooking industry enterprises, year-over-year
CCE	Support the growth of clean cooking enterprises
CCE1	\$USD revenue of supported enterprises
CCE2	Number of employees of supported enterprises
CCE3	Number of countries of operation for supported enterprises
CCE4	Number of stoves sold by supported enterprises
CCE5	Average of company growth rates in stove sales, year-over-year, for supported enterprises

- CCE6 Quantity of fuel sold by supported enterprises
- **CCE7** Average of company growth rates in fuel sales, year-over-year, for supported enterprises
- **CCE8** \$USD capitalization of supported enterprises
- **CCE9** Percent of supported enterprises that show improvement on the Gender Diagnostic Assessment
- **CCE10** Percent of supported enterprises perceiving the advisory support they receive as valuable
- CCE11 Number of enterprises supported by CCA

CD Increase consumer demand for clean cooking

- CD1 Percent of target population able to identify a cleaner and more efficient cookstove or fuel
- CD2 Percent of target population aware of the benefits of cleaner and more efficient cookstoves and fuels
- CD3 Percent of target customers who would recommend a clean cookstove or fuel to someone they know
- CD4 Number of people that are reached through demand-generation activities of CCA

EE Strengthen the enabling environment

- **EE1** Number of national policies and strategies supportive of the clean cooking sector
- **EE2** Number of countries with standards related to cookstoves and fuels
- **EE3** Number of sector actors that advocate for women's rights in the cleaning cooking sector
- **EE4** Number of civil society actors that include clean cooking in their activities after CCA engagement
- **EE5** Number of people that attend CCA-sponsored events or workshops
- **EE6** Number of CCA-hosted events or workshops
- EE7 Number of research translation products disseminated by CCA
- **EE8** Number of views of CCA social media content

REL Generate research, evidence, and learning

- **REL1** Percent of clean cooking stakeholders who perceive strong value in CCA's role as a knowledge hub in clean cooking
- **REL2** Number of reports published with CCA input
- **REL3** Number of CCA-authored publications
- **REL4** Number of mentions of CCA publications

5.2 CCA-Level M&E

The CCA level of the M&E Framework is designed to provide organization-wide monitoring and learning. This level consists of two key components: the use and aggregation of standard indicators and the use of evaluations. CCA is able to reach its goal of continuously learning and improving at the organization level by using a combination of standard indicators and evaluations. By using the data collected on the standard indicators over time, CCA can better understand how it is executing against its Theory of Change. Evaluations allow for deeper learning as needed, and in combination, can provide key information about CCA's allocation of resources and the potential need to revise its Theory of Change.

AGGREGATING STANDARD INDICATORS

Aggregating standard indicator data brings together CCA's multiple projects. Some indicators also are designed to monitor only CCA's direct work (see indicator methodology reference sheets for details) and will not require aggregation. While tracking indicators across time does not allow for understanding the specific impact of work, it does allow for understanding a change in time as a measure of progress. By tracking a set group of indicators across multiple projects over time, CCA is able to meet the goal of understanding progress. CCA-level learning allows the organization to improve its work using data-driven decision-making, including agile course corrections.

CCA EVALUATION GUIDELINES

The second component of the CCA-level M&E Framework is evaluation guidance that provides details about when and why CCA would choose to commission an evaluation. As a complement to the collection of indicator data, an evaluation provides a deeper learning opportunity. By adopting these evaluation guidelines, CCA will be better poised to pursue evaluations that promote learning.

An evaluation can take many forms, but at the most basic level, they often take the form of a **measurement of impact** or a **measurement of implementation**, also referred to as a process evaluation. An impact evaluation measures a project's effect, whereas a process evaluation measures how a project is implemented. There are many other approaches to evaluations—including A/B testing of various components of the Theory of Change and fidelity testing—all of which are of interest to CCA to improve its ability to implement evidence-based programming.

Project impact is measured through an impact evaluation, which uses a counterfactual to assess the causal impact of the intervention. A counterfactual is a measurement of what would happen in a business-asusual scenario, in which the counterfactual group does not receive the intervention. Impact is then estimated by comparing counterfactual outcomes with those observed under the intervention. In general, there are two categories of impact evaluations: experimental and quasi-experimental. Experimental impact evaluations require a control group that is created through a random assignment and that does not receive the intervention. This is called a randomized controlled trial. Quasiexperimental evaluations use a comparison group that has not been created by randomization. Examples of quasi-experimental study designs include difference-indifference, matched comparisons, and propensity scores. While impact evaluations are often prioritized, it can be difficult to find the circumstances that allow for it. Impact evaluations also can be expensive to conduct, and the evidence generated cannot always be applied to other situations.

There are various ways to measure project implementation. A process evaluation is a qualitative or mixed-methods study that looks at how a project was implemented. Process evaluations provide important learning about how a project was implemented when compared with its original workplan, and how beneficiaries perceive and experience the project. Other evaluation approaches include smaller-scope research projects that focus on answering questions regarding the best way to implement a project component through randomized A/B testing, or more data collection targeted at measuring implementation fidelity.

CCA will conduct evaluations according to three main objectives:

- Validating components of the Theory of Change
- Filling knowledge gaps in the sector
- Evaluating approaches to project-level implementation.

VALIDATING COMPONENTS OF THE THEORY OF CHANGE

First, CCA will commission evaluations to validate elements of its Theory of Change, by evaluating the results (either as impacts or associations) of activitylevel work. Specifically, CCA will determine whether these activity-level components (expressed in the boxes labeled

"What We Do") of the Theory of Change result in the four main pillars (expressed in the green boxes labeled "Which Allows Us to") and thus reach their objectives. These evaluations will take the form of experimental and guasiexperimental impact evaluations, whenever possible. In many cases, an impact evaluation is not feasible. Other evaluation designs can still contribute to learning about the Theory of Change. These evaluations involve mixedmethods approaches that assess correlation with or contribution of activities to the larger objectives. This type of evaluation can help identify substantive contributions, or a credible correlation between project-level efforts and the observed results. It also can help elucidate areas where the intended outcomes are not being met and therefore need adjustment. When seeking to validate activity-level work, CCA may ask a question such as: Is CCA's mix of activities in the first box, under "What We Do," supporting the growth of clean cooking enterprises?

CCA also will assess whether more evidence is needed to validate other relationships in the Theory of Change. These include, but are not limited to, evaluating the relationship between CCA's four main pillars and building a dynamic, financially sustainable clean cooking industry, and evaluating the relationship between CCA's four main pillars and improving the work of its partners. In this case, research questions include the following examples: Does CCA's approach positively contribute to building a dynamic, financially sustainable clean cooking industry? Does CCA's approach improve the work of its partners in the sector? Evaluations will either strengthen the evidence-base behind CCA's Theory of Change, or they will provide evidence that the Theory of Change needs to be revised.

FILLING KNOWLEDGE GAPS IN THE SECTOR

The second category of evaluation that CCA will prioritize is to contribute to filling knowledge gaps in the sector. As part of developing its 2020-2025 Research Strategy, CCA undertook a comprehensive review of sector research, including consultations with researchers throughout the sector. Although the sector has provided a strong evidence base describing the problem and examining potential solutions, gaps remain. For example, sector stakeholders state that more evaluations are needed to better determine the effectiveness of various consumer finance models, and whether conditional cash transfers would work in this sector (and how to structure them), and to better understand the impact of demand creation work. Furthermore, there are few robust evaluations of current large-scale clean cooking initiatives, such India's Ujjwala LPG program. This information is viewed as key to achieving SDG Goal 7. CCA will continue to play a role in filling those gaps.

EVALUATING APPROACHES TO PROJECT-LEVEL IMPLEMENTATION

The third category of evaluation relates to using process evaluations as learning tools to assess project-level implementation. Similar to the first category, this will be rooted in areas of the Theory of Change that need strong evidence to support or refine CCA programming. However, this type of evaluation can be smaller scale and seeks to learn more about various programmatic approaches to project implementation. These may include testing the best ways to deliver a project component by piloting two different approaches that are randomly assigned in different areas (called A/B testing), and then comparing the outcomes to determine which approach is more successful. Other approaches include embedding continuous gualitative feedback about project implementation, to assess and learn from implementation decisions. These smaller-scale approaches to evaluation are meant to provide quick feedback loops that enhance learning and are vital to improving programming.

5.3 Sector-Level M&E

At the sector level, the M&E Framework will define how CCA contributes to sector-level tracking and learning. In collaboration with partners and with the support of a management consulting firm, CCA plans to develop a multiyear strategy (Sector Strategy) for the clean cooking sector. This Sector Strategy will guide what must occur to achieve universal access to clean cooking solutions and to fast-track the viability and use of renewable energy solutions for cooking. The details of the sector-level component of the M&E Framework are forthcoming and will be developed along with the Sector Strategy.

SDG 7.1.2. is the ultimate indicator that tracks the sector's progress, and it has been included as a standard indicator in this M&E Framework. There are several additional ways in which clean cooking stakeholders track sector progress, including the Multi-Tier Framework country-level surveys, the State of the Sector Report, and many other reports focused on household energy. While these tracking approaches are essential and informative for the sector as a whole, gaps may still remain.

Details of the Sector Strategy are currently under development, but may include an assessment of monitoring and evaluation efforts sector-wide and the potential gaps. The M&E component of the Clean Cooking Sector Strategy will be developed along with the strategy itself.CCA will define further details about this approach later in 2020 and add them to the next version of its M&E Framework.

Appendices

Appendix A:	
CCA Theory of Change	

Appendix B:	
Examples of Logic Models	

M&E FRAMEWORK

Appendix A: Theory of Change



Theory of Change



Globally, three billion people depend on polluting, open fires or inefficient stoves to cook their food, harming health, the climate, and the environment. Clean cooking enterprises are relatively small-scale with unproven track records and limited access to capital. There is limited political will and low consumer awareness and ability to pay. Research, evidence, and learning still have gaps and are generally underutilized.



15 | CLEAN COOKING ALLIANCE

Initial Conditions



Facilitators

Economic development

Urbanization

Infrastructure improvement

Increased ease of doing business

With the Goal of

Universal Access to Clean Cooking by 2030

Which means a decreased use of traditional cookstoves and fuels Which Leads to

Improved health

Reduced climate and environmental impacts

Empowered women

Improved livelihoods

Barriers

Natural and widespread disasters

Appendix B: Examples of Logic Models

There are many different styles of logic models, results frameworks, or results chains. All are capable of successfully presenting a simple visual depiction of a project's goals, its particular activities or approaches, and the steps that connect those activities to the goal. For the purpose of CCA's Monitoring and Evaluation Framework, any of these approaches is acceptable. The only requirement is that the logic model be a one-page visual depiction, rather than a narrative. It also must clearly articulate both the project's goal and the subcomponents and activities of the project necessary to achieve the goal. It is best practice for a logic model to be organized in at least three levels.

The following figures show different examples from CCA's work.

Figure 1. Haiti Clean Cooking Market Development Program Logic Model

Global A Canada	Affairs Affaires mono a Canada	diales		Logic Model (LM)	V	/ersion:	Da	te:	
Title	Haiti C	ookstoves and Clean En	ergy Market Project	Number		P-002436	Team lead	er Donee Alexande	er
Country/Region/In	nstitution Haiti			Budget		\$19,599,917 CAD	Duration	4 years	
ULTIMATE	1000 Reduced nega	tive climate, enviror	ment, health, and ec	onomic impacts from traditio	nal cooking p	ractices on the Hait	ian population, parti	cularly women and gi	rls
	-		•			•			•
	1100			1200			1300		
OUTCOMES	Increased sales cookstoves and f particularly the their supply cha	of cleaner and m Tuels by Haitian Dose that integrat	ore efficient businesses, e women into	Increased use of clear cookstoves and fuels h women	er and mor oy consumer	e efficient s, particularly	Improved enablin cookstoves and i	ng environment fo Suels market	or growth of a
	+ X			+ X			+ X		
│ ↑	\frown	\wedge	\wedge	<u></u> 一		\uparrow	\frown	\wedge	\wedge
IMMEDIATE OUTCOMES	1110 Improved viability of cookstove and fuel enterprises + X	1120 Increased ability of cookstove and fuel enterprises to produce higher quality and innovative products + X	11:30 Increased ability of charcoal entrepreneurs in pilot areas to produce more sustainable charcoal + X	1210 Increased awareness of benefits of cleaner and more efficient cookstoves and fuel + X	1220 Increased innovation consumers' women's, 1 for cookst + X	understanding of is to address , particularly imited ability to pay loves and fuels	1310 Increased ability of select government ministries to design and implement policies conducive to market growth of clean cooking + X	1320 Increased capacity of sector actors to coordinate and advocate for sector- enabling policy reform + X	1330 Increased capacity of select government ministries to integrate clean cooking into climate change mitigation and resilience plans + X
	<u>^</u>	小	1	一 个		Λ	\uparrow	\wedge	^
OUTPUTS	1111 Training provided to cookstove and fuel enterprises on gender-informed business approaches + X 1112 Financial and technical assistance provided for increasing profitability and scale to cookstove and fuel enterprises + X 1113 Financial and technical assistance provided for RBF to cookstove and fuel enterprises + X	1121 Financial assistance provided for research and development on improving design to cookstove and fuel enterprises + X 1122 Financial assistance provided for technical innovation in the cookstove and fuel value chain + X	1131 Analysis conducted on the woodfuel supply and demand dynamics and the interventions + X 1132 Training provided on support of the state entrepreneurs with entrepreneurs with select partners + X 1133 Pilot projects completed on improved kilning and woodlot management + X	1211 Behavior change communication campaign conducted in urban areas + X 1212 Funded partnerships establish with complementary programs + X 1213 Research conducted on the gender and livelihoods benefi of clean cooking + X	1221 Pilots law innovative consumer f + X 1222 ed Recommenda innovative consumer f + X tt	mched to test gender-responsive inancing models tions disseminated on gender-responsive inancing models	1311 Learning exchanges conducted on sector regulation between Haitian government other countries + X 1312 Gender-sensitive policy frameworks designed with select ministries for supporting market growth + X 1313 Training provided on standards and standards and standards and standards implementation to select ministries + X	1321 Gender-balanced advocacy coordination mechanism with select sector actors established + X Clean cooking sector research findings communicated to stateholders annually + X	1331 Training provided on the impacts of alternative clean cooking transition strategies to select government ministries and relevant stakeholders + X 1332 Technical assistance provided to select government ministries on applicable climate and development financing options + X

GAC - AMC 2212E (2016-02-25) PDF

Canadä

The above logic model format from Global Affairs Canada limits the logic model to one page, and includes outputs, immediate outcomes, intermediate outcomes, and the ultimate outcome. The logic model also embeds a numbering system to help track the level and relationship between each component.

Figure 2. Results Framework for Market Strengthening Project



The above results framework is more visually oriented. Like Figure 1, it shows the various steps in the project, and the relationship between each in contributing to the overall project outcome. In this example, it is clear that project activities are not designed to contribute to specific outputs above them, but rather contribute generally to all outputs within each of the three Catalysts around which the program is designed.

Impact	Improved health and decreased health risks for the main household cook			
Outcome	Increased use of clean stoves and fuels Decreased use of traditional stoves and fuels 			
Outputs	Increased supply of biogas, LPG, and electric stoves	Increased demand for biogas, LPG, and electric stoves	Improved policy and infrastructure for electric stoves	
Inputs	 Training to retail stores on selling and marketing electric stoves Female community health volunteer (FCHV) and sales/ marketing agent meetings Identify repair technicians for electric stoves Sign-ups for new electric stove purchases Inspection, repairs, and upgrades of biogas systems Sign-ups for new biogas installation Improvements to biogas through demonstration animal shelters 	 BCC clean cooking awareness events and public messaging Information dissemination by FCHV to household main cook on blood pressure readings and connection to biomass cooking and exposure FCHV demonstration kitchens in community to model improved stove use Door-to-door awareness building by FCHV to households on health benefits of clean cooking and health risks of HAP 	 Electric stove standards development and implementation plan Electricity upgrades through improved kitchen wiring 	

The above project logic model is simplified to one page, but is not visually compelling. The activities of the project are organized among three clear outputs, which lead to the project outcome and impact.

Appendix C: Indicator Methodology Reference Sheets Contents

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CCE6. Quantity of fuel sold by supported enterprises
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REL2. Number of reports published with CCA input 114
REL3. Number of CCA-authored publications
REL4. Number of mentions of CCA publications

Indicator name	I1. Number of Averted Disability-Adjusted Life Years from changes in exposure to household air pollution in target population	
Theory of change component	Indicator measuring Improved health	
Disaggregation	None	
Indicator definitions	Averted Disability-Adjusted Life Years (ADALY): A disability-adjusted life year is a unit for measuring the amount of time lost to both mortality and morbidity. Averted DALY (ADALY) are DALY that would have occurred if an intervention had not been introduced. Exposure: An individual's personal contact with a quantity of pollution over a given time.	
	 Household air pollution: Air contamination in and around a household, comprised of emissions from stoves, lighting devices, burning trash, as well as from ambient or background sources. Target Population: The group of people defined as relevant to CCA-supported programs and their outcomes, as well as the focus of the monitoring of those programs. 	
Rationale and learning questions for indicator	Improved health is a major driver for the sector, with exposure to household air pollution responsible for an estimated ~2-4 million deaths per year. Demonstrating uptake and use of cleaner burning cooking technologies improve health will be important for health-motivated funders and show the sector has made progress towards fundamental impact.	
	This indicator can inform on the sector's progress towards SDG 3.	
	Learning question: What is the change in health effects related to exposure to indoor air pollution over the course of this project?	
	The aim of this indicator is to provide a consistent approach to programs with capacity, mandate, and desire to claim health benefits. It is not expected that all CCA-supported activities or entities will report on this impact measure.	
Provider of primary data	The evaluator of a program or project wishing to make statements relating that program or project to the goal of Improved health. May be supported with research organizations.	
Primary unit of measure	ADALY	

Measurement interval (primary data)	Several parameters are used to calculate ADALY. These parameters are measured at different intervals dictated by the methodology.
Methods for primary data collection	ADALY are reported from programs using the Gold Standard ADALY methodology. Those not formally conducting assessments under Gold Standard must have input data for the Household Air Pollution Intervention Tool (HAPIT: model used to estimate ADALY), which has been, or can be, reviewed by a third-party for its validity and appropriateness. The ADALY methodology (see link below) includes protocols for household surveys, measurements of PM2.5 (particulate matter less than 2.5 microns in aerodynamic diameter), stove usage, stove lifetime, background disease rates, and number of households included in the intervention program.
Sources for primary data	ADALY are products of modeling health impacts using the HAPIT model. The sources of data for inputs are prescribed by the Gold Standard Foundation's ADALY methodology.
Primary data requirements	Data requirements are provided by the ADALY methodology (see link below).
Reporter of aggregated data	No aggregation required for this indicator
Aggregated unit of measure	No aggregation required for this indicator
Reporting frequency (aggregated data)	No aggregation required for this indicator
Sources for aggregated data	No aggregation required for this indicator
Guidance for estimation/ analysis	The main input into HAPIT is PM2.5 exposure of the main cook in a household. Guidance for data collection and ADALY estimates are provided in the Gold Standard Methodology.
Known data limitations	The ADALY estimates rely on the HAPIT model rather than direct measurement of health outcomes, which is typically prohibitively expensive. Since HAPIT is a model, it makes assumptions such as the relationship between PM2.5 exposure and health outcomes. It also assumes input exposures represent those of the target population. ADALYs should therefore be cited as modeled estimates. HAPIT estimates ADALYs from the specific health endpoints of lung cancer, ischemic heart disease, stroke, chronic obstructive pulmonary disease, and acute lower respiratory infections, as these have the strongest evidence for health impacts. HAPIT, however, does not estimate ADALYS that may be achieved by mitigation of other health or injury impacts such as birth weight, cuts, burns, etc.

Other considerations and related links

https://householdenergy.shinyapps.io/hapit3/

https://www.goldstandard.org/articles/health-impacts-averted-disabilityadjusted-life-years-adalys

Indicator name	I2. Annual emissions of climate pollutants from cooking in target population
Theory of change component	Indicator measuring Reduced climate and environmental impacts
Disaggregation	Emissions data should be reported as two separate metrics: • Longer term: CO2e • Shorter term: BCe Note these two measures may NOT be combined.
Indicator definitions	Climate pollutants: Gas and particulate emissions that generate warming or cooling impacts.
	Carbon dioxide equivalent (CO2e): Describes different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO2e signifies the amount of CO2 which would have the equivalent global warming impact.
	Black carbon equivalent (BCe): For any quantity and type of greenhouse gas, BCe signifies the amount of black carbon which would have the equivalent global warming impact.
	Cooking: Heating food, water or other drinks for human or animal consumption or bathing.
	Target population: The group of people defined as relevant to CCA- supported programs and outcomes, as well as the focus of monitoring of those programs.
Rationale and learning	Tracks progress towards climate mitigation efforts (SD13), which may include national or global targets as part of international accords.
questions for indicator	Learning question: What is the change in climate pollutants over the course of this project?
	Provides a consistent approach to programs with the capacity, mandate, and desire to assess climate benefits. It is not expected that all CCA- supported activities or entities will report on this impact measure.
Provider of primary data	The evaluator of a program or project wishing to make statements relating that program or project to the goal of Reduced climate and environmental impacts. May be supported with research organizations.
Primary unit of measure	Metric tons of CO2e emissions reduced per year Metric tons of BCe emissions reduced per year

Measurement interval (primary data)	Parameters used to calculate CO2e and BCe are measured at a variety of intervals dictated by offset methodologies.
Methods for primary data collection	Programs or projects wishing to claim climate impacts must either have verified voluntary or certified offsets or use the approaches in a standardized methodology from UNFCCC (Clean Development Mechanism), Gold Standard Foundation, Verra, or Nationally Approved Mitigation Actions (NAMAs). In the latter case, estimates must be checked and approved by a third-party. Tools and methods are dictated by offset methodologies, which typically include household surveys, laboratory and/or field testing, desk research, and application of default values. Links to offset methodologies can be
	found at the end of the document.
Sources for primary data	Reported emissions reductions are products of recognized and standardized methodologies used in voluntary or certified markets.
Primary data requirements	Provided by the standardized methodologies (see links below).
Reporter of aggregated data	No aggregation required for this indicator
Aggregated unit of measure	No aggregation required for this indicator
Reporting frequency (aggregated data)	No aggregation required for this indicator
Sources for aggregated data	No aggregation required for this indicator
Guidance for estimation/ analysis	Guidance for estimating CO2e and BCe is provided by the standardized methodologies (see links below).

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Known data limitations	There are many methods and metrics for estimating climate impacts. Carbon offset methodologies have focused on longer-term impacts from gases (CO2, CH4, N2O), while shorter-term impacts from aerosols (black and organic carbon) have not been included. The impacts from aerosols are likely similar or greater than gases depending on the time-range of interest. The BCe methodology includes these shorter-term impacts from aerosols, but has not been used to date. The accuracy of several components of the various methodologies has been questioned. For example, methods for estimating non-renewable biomass can result in substantially different estimates depending on the approach used.
Other considerations and related links	Gold standard: https://www.goldstandard.org/project-developers/ standard-documents Verra: https://verra.org/methodologies/ Clean Development Mechanism: https://cdm.unfccc.int/methodologies/ index.html National methodologies for Paris Agreement commitments: Provided by specific governments

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Indicator name	I3. Metric tons of biomass used annually for cooking in target population
Theory of change component	Indicator measuring Reduced climate and environmental impacts
Disaggregation	1. Biomass type: • Wood • Charcoal • Briquettes • Pellets • Biogas • Crop residues • Other
Indicator definitions	Biomass: Organic material used as fuel. Target Population: The group of people defined as relevant to CCA- supported programs and outcomes, as well as the focus of the monitoring of those programs.
Rationale and learning questions for indicator	Decreased biomass use can be the result of increased use of cleaner cooking fuels and the displacement of traditional technologies. Reduced biomass use can mitigate deforestation and forest degradation. It is also a component of estimating climate impacts through the release of CO2 (see 11). This indicator can inform on the sector's progress towards SDGs 12, 13, and
	15.Learning question: What is the change in biomass used for cooking over the course of this project?The aim of this indicator is to provide a consistent approach to programs with the capacity, mandate, and desire to claim environmental benefits. It is not expected that all CCA-supported activities or entities will report on this impact measure.
Provider of primary data	The evaluator of a program or project wishing to make statements relating that program or project to the goal of Reduced climate and environmental impacts. May be supported with research organizations.
Primary unit of measure	Metric tons per year (dry basis)
Measurement interval (primary data)	Annually

I3

Methods for primary data collection	Biomass savings at the point-of-use (household, business, institution, etc.) should be measured directly using the Kitchen Performance Test (link provided below). Savings measures should not rely on reported or perceived fuel savings, nor extrapolate fuel savings from controlled testing. Enterprises that track sold fuel (e.g. pellets) may use this data to quantify the amount of fuel used with the new cooking technology (noting this does not account for the amount of baseline biomass fuel still used due to stacking). Scaling fuel savings to total biomass savings for a target area requires multiplying the point-of-use unit savings by the number of units where the fuel or technology is being used. For charcoal or other processed fuel derived from wood, point-of-use estimates should be provided, as well as the wood equivalent at harvest. Wood can be estimated from charcoal using a default conversion factor of 4.8kg per 1kg of charcoal. ¹ Other conversion factors for charcoal and additional wood-derived fuels may be used if testing for the specific fuel/ project are available or can be justified through literature review.
Sources for primary data	The primary sources are point-of-use units at which the biomass is being displaced.
Primary data requirements	The biomass should be directly measured according to Kitchen Performance Test Protocols (see link below).
Reporter of aggregated data	No aggregation required for this indicator
Aggregated unit of measure	No aggregation required for this indicator
Reporting frequency (aggregated data)	No aggregation required for this indicator
Sources for aggregated data	No aggregation required for this indicator
Guidance for estimation/ analysis	Prescriptive guidance is provided in the KPT protocols.

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Known data limitations	While direct measurement of fuel consumption provides an objective measure of biomass use, it offers only a snapshot of fuel consumption in a limited time frame for a sample of point-of-use units. Failure to capture seasonal impacts, signaling social desirability through repeat measurement visits, or other context-specific factors that impact fuel use patterns over time may lead to uncertainties and bias.
	Measuring biomass by mass rather than energy content equates a ton of wood with a ton of charcoal, whereas a ton of charcoal has much greater environmental impacts.
	This indicator cannot inform on all clean cooking programs providing an environmental benefit. For example, a program moving households from kerosene to ethanol use would not be able to claim reduced environmental impacts under this indicator.
Other considerations and related links	<u>https://www.cleancookingalliance.org/technology-and-fuels/testing/</u> protocols.html

¹ The CDM methodology default is 6kg wet wood per 1kg charcoal. (<u>https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-30-v2.0.pdf</u>). Assuming the IPCC 20% default wet basis moisture content results in 4.8kg dry wood per 1kg charcoal (see table 1-13 in <u>http://www.ipcc-nggip.iges.or.jp/public/gl/guidelin/ch1ref3.pdf</u>).

Indicator name	14. Change in reported level of drudgery for women related to fuel procurement and cooking in target population
Theory of change component	Indicator measuring Empowered women and improved livelihoods
Disaggregation	None
Indicator definitions	Drudgery: The reported perceived level of effort required to complete certain tasks. Effort serves as a standardized proxy for the more complex, context-specific concept of drudgery. Anything that is a level 3 or above on the 5-point graphic effort scale (see attached image) is considered drudgery.
	transportation of fuel for use on stoves and/or fires for the purposes of cooking and/or heating.
	Fuel: Material used to produce heat or power by burning. ¹ In this context, electricity is excluded.
	Cooking: Heating food, drinks, or water for human or animal consumption or bathing.
	Women: Persons over the age of 14 years who identify as female.
	Target population: The group of people defined as relevant to CCA- supported programs and outcomes, as well as the focus of the monitoring of those programs.
Rationale and learning questions for indicator	Within the impact of Empowered women and improved livelihoods, effort can be used as a proxy estimation of drudgery resulting from cooking and fuel procurement. Reducing drudgery from cooking and fuel procurement allows women to increase energy devoted to activities with a positive impact on livelihoods, such as uptake of or increased involvement in income-generating activities.
	Learning question: Do female cooks perceive their level of drudgery has changed after the introduction of a new cooking technology or fuel?
	The aim of this indicator is to provide a consistent approach for programs with capacity, mandate, and desire to claim livelihoods benefits. It is not expected that all CCA-supported activities or entities will report on this impact measure.
Provider of primary data	The evaluator of a program or project wishing to make statements relating that program or project to the goal of Improved livelihoods or Empowered Women.

Primary unit of measure	Average reported level of drudgery
Measurement interval (primary data)	No set interval.
Methods for primary data collection	Perceptions of drudgery should be measured using a 5-point graphic scale (see attached image) depicting tasks requiring an increasing level of effort, from light effort to extreme exertion.
	Measurements should be made with the same women at two or more time points: at baseline (prior to any intervention) and at least once post- intervention.
Sources for primary data	Women with intervention stoves and/ or fuel under study in the program or project.
Primary data requirements	Data should be gathered using the following standardized survey questions and the 5-point graphic scale (see attached image) to ensure consistency.
	"Think about the level of effort required for cooking, including the effort of lighting the fire, tending to the fire, and managing the food. I am going to ask you to use these pictures [show graphic] to tell me about this level of effort. They represent a task that requires no effort [point to figure 1], up to a task that requires an extreme amount of effort [point to figure 5]."
	"Please point to the picture that matches the amount of effort you spend on cooking."
	Repeat the same question for fuel procurement.
Reporter of aggregated data	No aggregation required for this indicator
Aggregated unit of measure	No aggregation required for this indicator
Reporting frequency (aggregated data)	No aggregation required for this indicator
Sources for aggregated data	No aggregation required for this indicator
Guidance for estimation/ analysis	To obtain the final overall average score for a given time point, the score from the two key questions should be averaged individually for each person using the following approach;

	(Score for cooking related effort + score for fuel procurement related effort) / 2
	An average of all of these combined scores can then be taken. It is recommended the median be used as the measure of central tendency for these scales.
Known data limitations	 This indicator is a simplification of a complex concept. The assessment method described here is a minimal approach designed to provide a broad and consistent measure of drudgery without imposing an unreasonable assessment burden. We recognize that using a 5-point scale alone does not allow for exploration of the nuances related to drudgery. The best practice for measuring drudgery is significantly more involved, and ideally involves using a mixed methods research design. Data collection tools such as focus group discussions, combined with surveys and stove-use sensor data, will render a more precise and nuanced picture of drudgery and its alleviation in the target population. The results can be influenced by seasonal timing and location (rural/urban) of data collection. Fuel procurement and cooking often have very different levels of drudgery, so combining them will likely conceal important trends/information. Within fuel procurement, there are many different required activities with differing associated levels of effort (e.g. buying all of a household's fuel compared with collecting all of a household's fuel, or some combination thereof). Research shows that fuel preparation, which is not currently included in this indicator, is frequently perceived to be drudgery. Household members who experience drudgery related to cooking and fuel procurement are not always women.
Other considerations and related links	

Illustrative 5-point scale for measuring perceived drudgery



¹ "fuel." Merriam-Webster.com. 2020. https://www.merriam-webster.com (May 2020).

Indicator name	I5. Average number of minutes household stove or fire is in use per day in target population
Theory of change component	Indicator measuring Empowered women and improved livelihoods
Disaggregation	None
Indicator definitions	Household stove: An apparatus used to conduct the majority of household cooking or heating tasks. It does not include supplemental devices designed for specialized applications, such as rice cookers, toasters, or accessories such as grill attachment. It also does not include institutional, industrial or commercial use.
	Household: A group of people (usually family members) living under the same roof and pooling resources (labor and income). Labor pooling means household members exchange labor time without any payment. Income pooling means they "eat from the same pot", although some income may be kept by the household member who earns it. ¹
	In use: The stove or fire is lit to a temperature sufficient for completing cooking tasks.
	Cooking: Heating food, water, or other drinks for human or animal consumption or bathing.
	Target population: The group of people defined as relevant to CCA- supported programs and outcomes, as well as the focus of the monitoring of those programs.
Rationale and learning questions for indicator	Within the impact of Empowered women and improved livelihoods, the time the stove is in use can be used as a proxy estimation of time spent cooking. Spending less time cooking allows the cook the opportunity to increase time engaged in activities with a positive impact on livelihoods, such as uptake of, or increased involvement in, income generating activities.
	Learning question: Is there less time spent on cooking and/or on cooking- related activities after the introduction of a new cooking technology or fuel?
	The aim of this indicator is to provide a consistent approach to programs with capacity, mandate, and desire to claim livelihood benefits. It is not expected that all CCA-supported activities or entities will report on this impact measure.

¹ Sunderlin, W. D., Larson, A. M., Duchelle, A. E., Sills, E. O., Luttrell, C., Jagger, P., Pattanayak, S. K., Cronkleton, P., Ekaputri, A. D., de Sassi, C., & others. (2016). Technical guidelines for research on REDD+ subnational initiatives. CIFOR. https://books.google.com/books?id=fLgZDQAAQBAJ

Provider of primary data	The evaluator of a program or project wishing to make statements relating that program or project to the goal of Improved livelihoods or Empowered women.
Primary unit of measure	Average minutes per day
Measurement interval (primary data)	No set interval.
Methods for primary data collection	 Data should be collected using stove use monitors. Several models of stove use monitors available. The choice depends on stove type, budget and/or location of target population. Options include but are not limited to: Maxim iButtons K-type thermocouples such as Wellzions Nexleaf StoveTrace Geocene Temperature Loggers. The household should have access to the stove for at least one month prior to monitoring. Minimum duration of monitoring depends on behavior patterns of the target households. Duration should be set to capture average practices, and care should be taken to avoid unusual circumstances, such as festivals, weather extremes, agricultural events, etc. Measurements should be made with the same households at two or more time points: at baseline (prior to any intervention) and at least once post-intervention.
Sources for primary data	Target households as defined by the evaluated project or program.
Primary data requirements	Stove use monitors should be attached to household stoves/fires and programmed to record temperature and time stamp at set intervals. Monitoring of all stoves in the home is necessary to fully understand and
	accurately characterize stove use patterns.
Reporter of aggregated data	No aggregation required for this indicator
Aggregated unit of measure	No aggregation required for this indicator

Reporting frequency (aggregated data)	No aggregation required for this indicator
Sources for aggregated data	No aggregation required for this indicator
Guidance for estimation/ analysis	Recorded temperatures are used as proxy indicators for time the stove is lit, allowing analysis of the resulting temperature to determine the frequency and duration of stove use events for all monitored stoves/fires. The online analysis tool <u>SUMSARIZER</u> uses a machine learning algorithm to identify cooking events. Temperature traces from each stove type should be processed separately, as the algorithm is most accurate when identifying cooking events in a homogeneous data set of similar cookstoves or temperature traces. The dataset of identified cooking events can be analyzed to produce an average time stoves and/or fires are in use per day.
Known data limitations	The time a stove is in use does not measure the time a cook is actively cooking. It also does not provide information on who is cooking. The assessment method described here is a minimal approach designed to provide broad and consistent measures of changes in cooking time without imposing unreasonable assessment burden. We recognize that best practice for measuring cooking time is significantly more involved, and ideally involves using mixed methods research design. Data collection tools, such as focus group discussions, together with survey and stove use monitor data, will render a more precise and nuanced picture of time use by the cook and their household as influenced by choice of cooking technologies and fuels.
Other considerations and related links	

Stove Use Times Monitoring Guidance

Adapted from the protocols for measuring inputs for the WHO Household Multiple Emission Sources (HOMES) Model²

Background and context

Approaches to measuring the amount of time emissions sources are run include direct measurement with stove use sensors, assessment from participant reports, and observations. Direct stove usage measurements are thought to be the most accurate and reliable method for determining cooking time. Surveys or time activity diaries can also be used to estimate cooking time, but alone, they are limited due to participant bias and inaccurate memory. Employment of direct usage measurements or direct enumerator observations are recommended in addition to surveys. This document provides guidance on applying techniques for measuring stove usage, focusing on sensor-based measurements.

² https://worldhealthorg.shinyapps.io/who_homes/
Equipment required

- · Stove usage monitor (if using the direct measurement method)
 - Stove usage monitor accessories vary, but may include hardware for mounting, insulation material, waterproofing material, extra batteries, thermocouple probes, data sharing accessories like micro USB cords, and computer adapters for launching/downloading.
- Usage/time activity questionnaires for both direct and indirect measurement approaches.

Notes on stove usage device installation and analysis

Installation: Although different stove use monitors have varying installation requirements, placement of the device should generally follow these key guidelines:

- Temperature sensor and logger should not be placed in a location that will exceed maximum operating/sensing temperatures.
- Sensor placements should provide maximum temperature differential between ambient and stove/combustion temperature (without exceeding maximum operating temperature for sensor).
- It is highly recommended the project stoves' temperature profiles during burn events be analyzed before the field campaign so optimal placement can be determined according to the above two points.
- Keeping sensing units (e.g. thermocouple leads) out of direct sunlight will help reduce false positives from sensors heating up due to the radiant heat of the sun.
 - Data analysis can be challenging for stoves frequently moved indoors and outdoors for cooking, because solar radiation affects heating and cooling rates. Accordingly, piloting placement of temperature monitors or probes is critical for such applications.
- Sensor placement should be standardized as much as possible between stoves.
- Sensor and logger placement should not interfere with participants' normal activities and should minimize risk of access, movement or damage to the sensor by children, or other risk factors in the household including water, insects or animals, and other people.
- Participants will need explanation that SUMs are for measuring temperature and they should not be tampered with. Participants should not press buttons, move parts, or connecting SUMs to computers or power.
- Collecting data over all seasons is recommended in order to identify usage behaviors that may vary with season, like food and fuel availability.
- Measuring houses for multiple weeks at a time also reduces the effects of day-to-day variability on the overall usage results.

Stove temperature analysis: As with sensor placement, analysis of signals to derive cooking time are specific to the sensors and stoves being analyzed. Even so, some general guidelines can be helpful for conducting the analysis.

- After use events, stoves generally will cool. Care should be taken to determine which point during that cool down period should be considered the end of an event. Determining this point can be especially difficult if the sensors are measuring temperature of a high thermal mass stove, which cools more slowly.
- Subtracting ambient temperature generally improves ability to resolve a temperature response during stove use from normal diurnal and seasonal temperature variation.
- Cooking event identification using sensors with lower operating temperature limits has presented challenges in previous works³ (e.g. Pillarisetti et al., 2015). Thermocouple and thermistor type sensors have performed well in the few validation studies performed⁴ (Thomas et al., 2013; Graham et al., 2014).
- Perform validation or sense checks on the algorithms used to determine stove use. These can include:
 Having a person with expertise manually inspect at least a subset of analyzed files to check the algorithm is determining apparent cooking events as intended.
 - Using observational data of use events to cross-reference with the analyzed data.
 - Use sense checks with what is generally known about cooking behaviors in the region. For example, if only 20 minutes per day is showing up as cooking when it is known that people are using several kg of fuel every day, the data should be checked/flagged.

³ Pillarisetti, A., Vaswani, M., Jack, D., Balakrishnan, K., Bates, M. N., Arora, N. K., & Smith, K. R. (2014). Patterns of Stove Usage after Introduction of an Advanced Cookstove: The Long-Term Application of Household Sensors. Environmental Science & Technology. https://doi.org/10.1021/es504624c ⁴ Thomas, E. A., Barstow, C. K., Abadie Rosa, G., Majorin, F., & Clasen, T. F. (2013). Use of remotely reporting electronic sensors for assessing use of water filters and cookstoves in Rwanda. Environmental Science & Technology. https://doi.org/10.1021/es403412x

Direct observation

Direct observation of stove use provides an objective means to determine how long stoves are in use. Surveyors may use structured forms to help systematically record when stoves are and are not being used. This approach has the advantage of being able to collect additional information about what is cooked and how the stove is operated. However, this method is labor intensive and not well-suited for measuring how stove use patterns change over time. An important caveat is that the presence of researchers may affect participant behavior. Assessment of stove stacking with direct observation would require a large sample (hundreds or more) of spot checks randomly distributed over the day, which again, is labor intensive and difficult to implement over long time periods.

Survey-based estimates for stove usage

Reported stove use estimates are generally the fastest and least expensive ways to collect large quantities of device usage time estimates. Data collection tools can include paper surveys, time-activity diaries filled out by participants, electronic platforms such as tablets or smart forms, or audio recorders. A major concern with participant-reported stove use estimates is that they can be biased or unreliable ^{2,5,6}

General guidelines are provided here:

- Before collecting data let participants know they will be asked the amount of time they use their stoves.
- Prompt participants about their usage times of day (e.g. morning), events (e.g. heating water), and disaggregate about specific stove(s) used for the different events.
- Ask only estimates of stove use from the previous day.
- Include questions about whether the reported day was a normal day of stove use.
- Include questions about whether the amount of stove use during that time of year is different from other times of the year.
- If possible, compare subsets of simultaneously collected observational or sensor-based estimates with the reported stove use times. If there is clear systematic bias in the reported results, adjust as needed based on the direct stove use measures.
- If appropriate for the campaign, explain to cooks that accurate information is important for the work, and there are no penalties for answering in ways that they think may not please the surveyors.

⁵ Simons, A. M., Beltramo, T., Blalock, G., & Levine, D. I. (2014). Comparing methods for signal analysis of temperature readings from stove use monitors. Biomass and Bioenergy. https://doi.org/10.1016/j.biombioe.2014.08.008

⁶ Piedrahita, R., Dickinson, K. L., Kanyomse, E., Coffey, E., Alirigia, R., Hagar, Y., ... Hannigan, M. (2016). Assessment of cookstove stacking in Northern Ghana using surveys and stove use monitors. Energy for Sustainable Development, 34, 67–76. <u>https://doi.org/10.1016/j.esd.2016.07.007</u>

Indicator name	UA1. Percent of the population with primary reliance on clean fuels and technology [SDG 7.1.2]
Theory of change component	Indicator measuring Universal access to clean cooking by 2030
Disaggregation	None
Indicator definitions	Population: The particular group of people defined as relevant to CCA-supported programs and outcomes, and the focus of monitoring of those programs.
	Clean fuels and technology : WHO currently defines the following fuels and technologies as clean for health for cooking: solar, electric, biogas, liquid petroleum gas, and alcohol fuels including ethanol.
	For other fuel/technology combinations including biomass, the cooking system is classified as clean if it meets the PM2.5 and CO emission rate targets in the WHO Guidelines, as confirmed in laboratory testing following an international laboratory testing protocol, with tests conducted by a third party. A stove and fuel combination that achieves Tier 4 or Tier 5 for PM2.5 emissions and 5 for CO based on the voluntary performance targets detailed in ISO 19867-3 Voluntary performance targets for cookstoves based on laboratory testing is classified as clean. Primary reliance: Using clean fuels and technologies for the majority of cooking needs.
Rationale and learning	Progress measured on the core mandate of CCA fully aligned with United Nations Sustainable Development Goal 7 (indicator 7.1.2).
questions for indicator	Learning question: How much of the target population has completed the transition to clean cooking technologies and fuels?
	Suggests contributions made by CCA-supported activities to overall progress on Sustainable Development Goal 7.
Provider of primary data	CCA
Primary unit of measure	Percent of target population of CCA-supported activities: Number of households with primary reliance on the clean fuels multiplied by average number of individuals per household, divided by total number of target population households surveyed, expressed as a percent.

Measurement interval (primary data)	TBD
Methods for primary data collection	Questions regarding fuels and technologies used will be included in all surveys conducted as part of CCA-supported programs and/or evaluations.
Sources for primary data	Households in the target population as defined by the evaluated project or program.
Primary data requirements	Questions used should align with the <u>harmonized household energy survey</u> questions available from WHO.
Reporter of aggregated data	CCA
Aggregated unit of measure	Percent of target audiences of CCA-supported activities: Number of individuals with primary reliance on clean fuels, divided by the total target populations, expressed as a percentage.
Reporting frequency (aggregated data)	TBD
Sources for aggregated data	Data from surveys of individual CCA-supported activities.
Guidance for estimation/ analysis	May be aggregated across CCA-supported programs, as desired, provided consistent questions are used and data aggregation is based on number of respondents. Percentages reported for each CCA-supported activity should NOT be averaged.
Known data limitations	As cooking makes up the largest share of household energy needs, calculations are based on the primary type of fuel and technology used for cooking. However, many households use more than one fuel and stove for cooking. Depending on climatic and geographical conditions, heating with polluting fuels can also contribute to household (indoor) air pollution levels. In addition, kerosene, a polluting and hazardous fuel, is often used, and in some countries is the main fuel used for cooking.
Other considerations and related links	https://sdg.tracking-progress.org/indicator/7-1-2-population-with- primary-reliance-on-clean-fuels-and-technology/ https://www.who.int/data/gho/indicator-metadata-registry/imr- details/4673

Note: Will be completed when further guidance on the use of the Multi-Tier Framework is published by the World Bank Group Energy Sector Management Assistance Program. This guidance is anticipated in the second half of 2020.

Indicator name	UA2. Percent of households with improvement(s) in one or more dimensions along the Multi-Tier Framework for household energy access
Theory of change component	Indicator measuring Universal access to clean cooking by 2030
Disaggregation	
Indicator definitions	
Rationale and learning questions for indicator	
Provider of primary data	
Primary unit of measure	

Measurement interval (primary data)	
Methods for primary data collection	
Sources for primary data	
Primary data requirements	
Reporter of aggregated data	
Aggregated unit of measure	
Reporting frequency (aggregated data)	
Sources for aggregated data	
Guidance for estimation/ analysis	
Known data limitations	
Other considerations and related links	

Indicator name	CCI1. Number of enterprises in the clean cooking sector
Theory of change component	Indicator measuring Building a dynamic, financially sustainable clean cooking industry
Disaggregation	 Profitability: Profitable Not profitable Do not have profitability data available
Indicator definitions	Enterprises: Entities part of the clean cooking value chain which focus on cookstoves, fuels for cooking, or other devices associated with the use of cookstoves or fuels, such as pay as you go meters.
	Clean cooking sector. Entities and individuals supporting transitions to permanent, primary reliance on cleaner and more efficient fuels and technologies.
	Profitable: Yielding net income at the end of the fiscal year after all expenses have been deducted from gross revenues.
Rationale and learning	Measures the growth of commercial markets in the clean cooking sector and tracks increased access to clean cooking solutions.
questions for indicator	Learning question: Are programmatic investments of CCA making progress to the desired outcome of a thriving clean cooking industry that can adequately support universal access to modern cooking solutions as mandated by SDG 7, ultimately creating the desired impacts?
Provider of primary data	Enterprises
Primary unit of measure	Enterprises
Measurement interval (primary data)	TBD
Methods for primary data collection	Collected primarily through the Industry Snapshot Survey administered by CCA to enterprises in the clean cooking value chain.

Sources for primary data	The Clean Cooking partner directory provides the most comprehensive listing of enterprises in the clean cooking value chain. Regional and national clean cooking alliances should be consulted for additional lists of enterprises.
Primary data requirements	Each supported enterprise must provide the information requested in the Industry Snapshot Survey administered by CCA.
Reporter of aggregated data	CCA
Aggregated unit of measure	Enterprises
Reporting frequency (aggregated data)	TBD
Sources for aggregated data	Industry Snapshot Survey results (the output of collected primary data).
Guidance for estimation/ analysis	CCA will aggregate reported data from each enterprise. Care should be taken to avoid double counting enterprises that are subsidiaries of others. Consider incentivizing enterprises not receiving direct support from CCA to participate in the survey.
Known data limitations	This indicator relies on the cooperation of the enterprises themselves, beyond the control of CCA. The resulting count may not be consistently representative.
Other considerations and related links	

E.

Indicator name	CCI2. Percent change in \$USD investment in clean cooking sector year- over-year
Theory of change component	Indicator measuring Building a dynamic, financially sustainable clean cooking industry
Disaggregation	 Types of investments: Debt financing Equity financing Capitalized grant funding Types of investor: Public All other
Indicator definitions	 Invested: Financial capital committed to enterprises in the clean cooking value chain through debt, equity, grants, donations, or gifts. Sector: Entities supporting transitions to permanent, primary reliance on cleaner and more efficient fuels and technologies. Year-over-year: The comparison of a statistic for one period to the same period the previous year. Debt financing: The practice of borrowing money for working capital or capital expenditures from individuals or institutions. In return for lending money, individuals or institutions become creditors and receive a promise of repayment of principal and interest on the debt. Equity financing: The practice of raising capital through the sale of shares, giving purchasers individual ownership stakes in a company. Shares may be sold privately or traded publicly. Capitalized grant funding: A quantity of money given from one entity or individual to another for a specific purpose, often requiring an application and a reporting process but not requiring repayment. Includes gifts, awards,
	or donations, but not honoraria, stipends, or prizes. Public investor: A government entity or bilateral or multilateral agency with the capacity to make investments.
Rationale and learning questions for indicator	Measures the financial growth of the sector as a whole, and the level of commitment and support from governments and other entities toward furthering sector goals. Learning question: Do the programmatic investments made by CCA make progress toward a thriving clean cooking industry that can adequately support universal access to clean cooking solutions, as mandated by SDG 7, and ultimately create desired impacts?

Provider of primary data	Clean cooking industry enterprises
Primary unit of measure	\$USD Please use the <u>UN Operational Rates of Exchange</u> for the final date of the reporting period.
Measurement interval (primary data)	Annually
Methods for primary data collection	Collected primarily through the Industry Snapshot Survey administered by CCA to enterprises in the clean cooking value chain.
Sources for primary data	Best practice is for the enterprise to generate data from an electronic accounting system; other options include records for all monetary grants, loans, and investments.
Primary data requirements	Each enterprise must provide the information requested in the Industry Snapshot Survey administered by CCA.
Reporter of aggregated data	CCA
Aggregated unit of measure	\$USD Please use the <u>UN Operational Rates of Exchange</u> for the final date of the reporting period.
Reporting frequency (aggregated data)	TBD
Sources for aggregated data	Results from the Industry Snapshot Survey. CCA may augment these results through public records of investments made by public entities.
Guidance for estimation/ analysis	Step 1: The Private Sector and Investment Team shall administer and analyze the Industry Snapshot Survey to generate total and disaggregated investment figures. Further, the team will maintain a Google spreadsheet to record public investments, updated monthly. Each entry should include: the date the investment was made, the name of the investor, the entity or entities receiving the investment, the amount of the investment, the type of investment, and the date the entry was made in the spreadsheet.

	For any necessary currency conversions, use the <u>UN Operational Rates of</u> <u>Exchange</u> for the final date of the reporting period.
	At the time of reporting, the team will compare the spreadsheet to the results of the Industry Snapshot Survey to identify any investments not captured through the survey. These investments will be added to the survey totals.
	Step 2: The change in \$USD invested in the sector should be calculated by first subtracting the prior period total invested from the current period total invested, then dividing the resulting difference by the prior period total invested.
	(Current Total Invested – Prior Total Invested)/Prior Total Invested
	Consider incentivizing enterprises not receiving direct support from CCA to participate in the survey.
Known data limitations	It will be difficult to ensure the same enterprises report to CCA each year, given that only the supported enterprises have a duty to do so, and some may not wish to share this data.
Other considerations and related links	

Indicator name	CCI3. Percent change in \$USD revenue of clean cooking industry enterprises year-over-year
Theory of change component	Indicator measuring Build a dynamic, financially sustainable clean cooking industry
Disaggregation	 Types of revenue: Earned Grant
Indicator definitions	Revenue: Monetary inflows to an enterprise, including grants, awards, donations, earned revenue, such as sales revenue for goods and services (including carbon finance and results-based financing). The revenue calculation should include only deductions for returned merchandise and no other deductions.
	Clean cooking industry: Entities and individuals who engage in commercial activities related to transitions to permanent primary reliance on cleaner and more efficient fuels and technologies.
	Enterprises: Entities part of the clean cooking value chain focusing on cookstoves, fuels for cooking, or other devices associated with the use of cookstoves or fuels, such as pay as you go meters.
	Year-over-year. The comparison of a statistic for one period to the same period the previous year.
	Earned revenue: Monetary inflows to the enterprise from sales of goods and services (including carbon finance and results-based financing). The earned revenue calculation should include only deductions for returned merchandise and no other deductions.
	Grant revenue: Monetary inflows received from an entity or individual for a specific purpose, often requiring an application and some reporting process, but not repayment. Grant revenue also includes gifts, awards, or donations, but not honoraria, stipends, or prizes.
Rationale and learning questions for	Measures the growth of commercial markets within the clean cooking sector and tracks progress towards production levels that can support universal access, as targeted in SDG7.
indicator	Learning question: Do the programmatic investments made by CCA make progress toward a thriving clean cooking industry that can adequately support universal access to modern cooking solutions as mandated by SDG 7 and ultimately create the desired impacts?
Provider of primary data	Clean cooking industry enterprises

Primary unit of measure	\$USD Please use the <u>UN Operational Rates of Exchange</u> for the final date of the reporting period.
Measurement interval (primary data)	Annually
Methods for primary data collection	This data will be collected primarily through the Industry Snapshot Survey administered by CCA to enterprises in the clean cooking value chain.
Sources for primary data	Best practice is for the enterprise to generate data from an electronic accounting system. Other options include sales logs, purchase order records, copies of sales receipts, and full records for all results-based financing schemes, monetary grants, awards, and donations.
Primary data requirements	Each enterprise must provide the information requested in the Industry Snapshot Survey administered by CCA.
Reporter of aggregated data	CCA
Aggregated unit of measure	\$USD
Reporting frequency (aggregated data)	TBD
Sources for aggregated data	Results from the Industry Snapshot Survey.
Guidance for estimation/ analysis	Step 1: The Private Sector and Investment Team shall administer and analyze the Industry Snapshot Survey to generate total and disaggregated revenue figures.
	For any necessary currency conversions, use the <u>UN Operational Rates of</u> <u>Exchange</u> for the final date of the reporting period.
	Step 2: The change in the industry's total \$USD revenue should be calculated by first subtracting the prior period total revenue from the current period total revenue, then dividing the resulting difference by the prior period total revenue.
	(Current Total Revenue – Prior Total Revenue)/Prior Total Revenue Consider incentivizing enterprises not receiving direct support from CCA to participate in the survey.

Known data limitations	It will be difficult to ensure the same enterprises report to CCA each year given that only supported enterprises have a duty to do so, and some may not wish to share this data.
Other considerations and related links	

Indicator name	CCE1. \$USD revenue of supported enterprises
Theory of change component	Indicator measuring Support the growth of clean cooking enterprises
Disaggregation	Types of revenue: • Earned • Grants
Indicator definitions	Revenue: Monetary inflows to the enterprise, including grants, awards, donations, and earned revenue such as sales revenue for goods and services (including carbon finance and results-based financing). The revenue calculation should include only deductions for returned merchandise.
	Grants: A quantity of money given from one entity or individual to another for a specific purpose, often requiring an application and reporting process but not repayment.
	Supported enterprises: Entities receiving funding or technical assistance from CCA that work in the supply chain for cookstoves, fuels for cooking, or devices associated with the use of cookstoves or fuels, such as pay as you go meters.
	Earned revenue: Monetary inflows to the enterprise from sales of goods and services (including carbon finance and results-based financing). The earned revenue calculation should include only deductions for returned merchandise.
Rationale and learning questions for indicator	Measures the growth of supported enterprises and of markets within the clean cooking sector. The disaggregation provides insight into the success of enterprises in balancing income from their business operations with grants, an indicator of their resilience and sustainability.
	Learning question: How robust is the economic health of the clean cooking industry?
Provider of primary data	The supported enterprise
Primary unit of measure	\$USD Please use the <u>UN Operational Rates of Exchange</u> for December 31st of the reported year.
Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.

Methods for primary data collection	Continuous comprehensive tracking of all revenue sources, including data necessary to meet disaggregation requirements within the required reporting interval. Enterprises must ensure record-keeping is adequate to support reported numbers.
Sources for primary data	Best practice is for the supported enterprise to generate data from an electronic accounting system. Other sources can include sales logs, purchase order records, copies of sales receipts, and full records for all monetary grants, loans, investments, awards, and donations.
Primary data requirements	NA
Reporter of aggregated data	CCA
Aggregated unit of measure	\$USD
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	The source for the aggregated data will be the output of the collected primary data for this indicator.
Guidance for estimation/ analysis	CCA will aggregate the primary revenue data from each enterprise to report on this indicator.
Known data limitations	Non-monetary loans, equity investments, and support are not included. Revenue alone is not an indicator of profitability or financial sustainability. Data accuracy is dependent on the willingness and ability of supported enterprises to provide robust timely primary data.
Other considerations and related links	

Indicator name	CCE2. Number of employees of supported enterprises
Theory of change component	Indicator measuring Support the growth of clean cooking enterprisesenterprises
Disaggregation	 Gender: Male Female Non-binary Prefer not to say Job type for all employees: Management Non-management Job type for female employees only: Female management Female non-management Scope for all employees: Full-time Part-time Scope for female employees only: Full-time Part-time
Indicator definitions	 Employees: Individuals who receive salaries or wages in exchange for work. Supported enterprises: Entities receiving funding or technical assistance from CCA that work in the supply chain for cookstoves, fuels for cooking, or devices associated with the use of cookstoves or fuels, such as pay as you go meters. Gender: Socially constructed roles and behaviors associated with being girls/women and boys/men, or third or other genders. Gender interacts with but is different from biological sex and is rather a reflection of an individual's identity. Management: Supervises and/or has authority over the job functions of a designated group of people or coordinates the functions of a specific activity within an entity. Oversight can be project, financial, facilities or operations management. Non-management: Does not have supervisory duties or authority. Full-time: Often defined as at least 75 percent of the maximum weekly work schedule. Local standards may differ.

	Part-time: Often defined as less than 75 percent of the maximum weekly work schedule. Local standards may differ.
Rationale and learning questions for indicator	Allows for disaggregation to track and understand demographic characteristics of the sector workforce and of the management structures of enterprises. Learning question: Are CCA gender and technical support activities associated with changes in the clean cooking sector workforce?
Provider of primary data	The supported enterprise
Primary unit of measure	Individuals
Measurement interval (primary data)	Single, full count at end of Q1 (March 31)
Methods for primary data collection	Continuous comprehensive tracking of human resources, including data necessary to meet disaggregation requirements within the required reporting interval. Ensure record-keeping is adequate to support reported numbers.
Sources for primary data	Best practice is for the supported enterprise to generate data from electronic business records, including employment records and payroll records.
Primary data requirements	NA
Reporter of aggregated data	CCA
Aggregated unit of measure	Individuals
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	The output of the collected primary data for this indicator.

Guidance for estimation/ analysis	CCA will aggregate primary employment data reported by each enterprise to report on this indicator.
Known data limitations	Data accuracy is dependent on the willingness and ability of the supported enterprises to provide robust timely primary data. Some enterprises may not feel at liberty to fully disclose their employment data if they are not in full regulatory compliance.
Other considerations and related links	

Indicator name	CCE3. Number of countries of operation for supported enterprises.
Theory of change component	Indicator measuring Support the growth of clean cooking enterprises
Disaggregation	 Country Region East Asia and Pacific Europe and Central Asia Latin America and the Caribbean Middle East and North Africa North America South Asia Sub-Saharan Africa Not regionally specific Covering multiple regions Income level Please see <u>The World Bank's</u> updated country classification page for each of these disaggregation categories.
Indicator definitions	 Country: A political state or nation or its territory. <u>The World Bank</u> offers a comprehensive list of countries, disaggregated by income levels. Operation: Conducting business activities including renting, purchasing, or occupying property for work, employing individuals, and/or creating and/or selling goods and/or services regularly in that country as a part of essential business activities. Supported enterprises: Entities receiving funding or technical assistance from CCA that work in the supply chain for cookstoves, fuels for cooking, or devices associated with the use of cookstoves or fuels, such as pay as you go meters.
Rationale and learning questions for indicator	Measures the growth of supported enterprises to understand their geographical reach. Also indicates the number of countries in which sector growth is potentially influenced by CCA. Learning question: Is CCA successfully expanding the clean cooking industry across all areas of the developing world?
Provider of primary data	The supported enterprise
Primary unit of measure	Countries

Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.
Methods for primary data collection	Continuous comprehensive tracking of operations in all countries. Ensure record-keeping is adequate to support reported numbers.
Sources for primary data	Best practice is for the supported enterprise to generate data from electronic business records, including sales records, employment records, and property purchase and rental records.
Primary data requirements	NA
Reporter of aggregated data	CCA
Aggregated unit of measure	Countries
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	Output of the collected primary data from this indicator.
Guidance for estimation/ analysis	CCA will aggregate primary employment data reported by each enterprise to report on this indicator.
Known data limitations	The number of countries in which a supported enterprise operates is not the sole indicator of profitability, sustainability, or efficacy of work in any given country, or in the market as a whole.
Other considerations and related links	

Indicator name	CCE4. Number of stoves sold by supported enterprises
Theory of change component	Indicator measuring Support the growth of clean cooking enterprises
Disaggregation	 Sales to: Distributors Consumers Sales to distributors should be reported by distributor and should include distributor's name and address. Technology type:
Indicator definitions	Stove: Apparatus with capacity to conduct the majority of cooking or heating tasks for target consumer. Does not include supplemental devices designed for specialized applications, such as rice cookers, toasters, or accessories such as grill attachment. Sold: Provided in exchange for money.

	Distributor. An entity that supplies goods to stores, retailers, sales agents, and other outlets that sell to consumers.
	Consumer: An individual or entity that purchases goods and/or services as the end-user, as distinct from purchasing for resale or to include as part of another item for resale.
	Supported enterprises: Entities receiving funding or technical assistance from CCA that work in the supply chain for cookstoves, fuels for cooking, or devices associated with the use of cookstoves or fuels, such as pay as you go meters.
	Country: A political state or nation or its territory. <u>The World Bank</u> offers a comprehensive list of countries, disaggregated by income levels.
	Significant support: Any support provided by CCA in the form of grants or technical assistance in excess of USD \$50,000.
	International Organization for Standardization (ISO) Tiers of Performance: Metrics for various dimensions of cookstove performance as defined in: <u>ISO/TR 19867-3:2018</u>
	<u>Clean cookstoves and clean cooking solutions—Harmonized laboratory</u> <u>test protocols—Part 3:</u> Voluntary performance targets for cookstoves based on laboratory testing. The ISO performance tiers range from 0-5, with 0 representing the lowest performance and 5 the highest. They are determined by testing a stove/fuel combination with the ISO laboratory protocol: <u>https://www.iso.org/standard/66519.html</u>
Rationale and learning questions for indicator	Measure growth of supported enterprises selling cookstoves, track scaling of markets within the clean cooking sector and gauge access to cleaner cooking technology.
	Learning question: Is CCA support associated with an increase in global stove sales overall, and particularly sales of cleaner and more efficient technologies?
Provider of primary data	The supported enterprise
Primary unit of measure	Sold stove
Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.
Methods for primary data collection	Continuous comprehensive tracking of customer sales, including data necessary to meet disaggregation requirements within the required measurement interval.
	Ensure record-keeping is adequate to support reported numbers.

Sources for primary data	Best practice is for the supported enterprise to generate data from an electronic digital code-based inventory management system. Data may also be generated from sales logs, purchase order records, and copies of sales receipts.
Primary data requirements	NA
Reporter of aggregated data	CCA
Aggregated unit of measure	Sold stoves
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	Output of the collected primary data from this indicator.
Guidance for estimation/ analysis	 To avoid double counting, CCA should aggregate: All stoves sold to distributors and consumers by supported enterprises that manufacture their products; and All stoves sold by supported distributors that are not produced by supported manufacturers.
Known data limitations	Sold stoves do not necessarily indicate use. Risk of double counting, especially in contexts where there is a complex distribution chain. Data accuracy is dependent on the willingness and ability of the supported enterprises to provide robust timely primary data.
Other considerations and related links	The ISO voluntary performance targets can be found here: <u>https://www.</u> <u>cleancookingalliance.org/about/news/10-16-2018-voluntary-performance-</u> <u>targets.html</u> Note that full descriptions and instructions for analysis and reporting are available through the ISO website, as well as the testing protocol: <u>https://www.iso.org/standard/73935.html</u> <u>https://www.iso.org/standard/66519.html</u>

Indicator name	CCE5. Average of company growth rates in stove sales year-over- year for supported enterprises
Theory of change component	Indicator measuring Support the growth of clean cooking enterprises
Disaggregation	None
Indicator definitions	Stove: Apparatus with capacity to conduct the majority of cooking or heating tasks for target consumer. Does not include supplemental devices designed for specialized applications, such as rice cookers, toasters, or accessories such as grill attachment.
	Sales: Transactions in which stoves are provided in exchange for money.
	Year-over-year. The comparison of a statistic for one period to the same period the previous year. In this case, the statistic is annual unit stoves sales, and the period is equal to the full year.
	Distributor. An entity that supplies goods to stores, retailers, sales agents, and other outlets that sell to consumers.
	Consumer. An individual or entity purchasing goods and/or services as the end-user as distinct from purchasing for resale or to include as part of another item for resale.
	Supported enterprises: Entities receiving funding or technical assistance from CCA that work in the supply chain for cookstoves, fuels for cooking, or devices associated with the use of cookstoves or fuels, such as pay as you go meters.
	Country: A political state or nation or its territory. <u>The World Bank</u> offers a comprehensive list of countries, disaggregated by income levels.
	Significant support: Any support provided by CCA either as grants or technical assistance in excess of USD \$50,000.
	International Organization for Standardization (ISO) Tiers of Performance: Metrics for various dimensions of cookstove performance as defined in ISO/TR 19867-3:2018 Clean cookstoves and clean cooking solutions—Harmonized laboratory test protocols—Part 3: Voluntary performance targets for cookstoves based on laboratory testing.
	The ISO performance tiers range from 0-5, with 0 representing the lowest performance and 5 the highest. They are determined by testing a stove/ fuel combination with the ISO laboratory protocol <u>https://www.iso.org/standard/66519.html</u>

Rationale and learning questions for indicator	Measures growth of supported enterprises selling cookstoves and of markets within the clean cooking sector and gauges access to cleaner cooking technology. Specifically designed to discern longer term trends, controlled for seasonality. Learning question: How is the growth rate for stoves sales changing over time, particularly for cleaner and more efficient technologies?
Provider of primary data	The supported enterprise
Primary unit of measure	Growth rate in stoves sold, expressed as a percentage.
Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.
Methods for primary data collection	Continuous comprehensive tracking of customer sales within the required measurement interval. Ensure record-keeping is adequate to support reported numbers. The change in the growth rate of stoves sold should be calculated by first subtracting the prior period stoves sold from current period stoves sold and dividing the resulting difference by the prior period stoves sold. (Current Stoves Sold – Prior Stoves Sold)/Prior Stoves Sold This process should be repeated for each of the disaggregation categories.
Sources for primary data	Best practice is for the supported enterprise to generate data from an electronic digital code-based inventory management system. Data may also be generated from sales logs, purchase order records, copies of sales receipts.
Primary data requirements	NA
Reporter of aggregated data	CCA
Aggregated unit of measure	Average growth rate, expressed as a percentage
Reporting frequency (aggregated data)	Annually

Sources for aggregated data	The output of primary data reporting by supported enterprises.
Guidance for estimation/ analysis	CCA will take the average of all the enterprise stove sale growth rates submitted, for both total sales and for each of the disaggregation categories.
Known data limitations	Data accuracy is dependent on the willingness and ability of the supported enterprises to provide robust timely primary data.
Other considerations and related links	The ISO voluntary performance targets can be found here: <u>https://www.</u> <u>cleancookingalliance.org/about/news/10-16-2018-voluntary-performance-</u> <u>targets.html</u> Note that their full description and instructions for analysis and reporting are available through the ISO website, as well as the testing protocol: <u>https://www.iso.org/standard/73935.html</u> <u>https://www.iso.org/standard/66519.html</u>

Indicator name	CCE6. Quantity of fuel sold by supported enterprises
Theory of change component	Indicator measuring Support the growth of clean cooking enterprises
Disaggregation	 Sales to: Distributors Consumers Sales to distributors should be reported by distributor, including the distributor's name and address. Fuel type:
Indicator definitions	 Fuel: Material used to produce heat or power by burning.¹ In this context, electricity is excluded. Sold: Provided in exchange for money. Supported enterprises: Entities receiving funding or technical assistance from CCA that work in the supply chain for cookstoves, fuels for cooking, or devices associated with the use of cookstoves or fuels, such as pay as you go meters. Distributor: An entity supplying goods to stores, retailers, sales agents, and other outlets selling to consumers. Consumer: An individual or entity purchasing goods and/or services as the end-user. Distinct from purchasing for resale or to include as part of another item for resale.
Rationale and learning questions for indicator	Measures the growth of supported enterprises that sell fuel for use in cookstoves, tracks scaling of the markets within the clean cooking sector, and tracks access to cleaner and more efficient cooking technologies. Learning question: Is CCA support associated with an increase in global fuel sales overall, and particularly sales of cleaner and more efficient options?

Provider of primary data	The supported enterprise
Primary unit of measure	Metric tons If necessary, enterprises may report liquid fuels in cubic meters.
Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.
Methods for primary data collection	Continuous comprehensive tracking of customer sales, including data necessary to meet disaggregation requirements within the required reporting interval.
	Coordination with distribution/ supply partners to ensure fuel is not counted more than once.
	Record-keeping adequate to support reported numbers.
	If enterprises report liquid fuels in cubic meters, they must also provide an estimate of the fuel density.
Sources for primary data	Best practice is for the supported enterprise to generate data from an electronic inventory management system. Data may also be generated from sales logs, purchase order records, copies of sales receipts.
Primary data requirements	NA
Reporter of aggregated data	CCA
Aggregated unit of measure	Megajoules (recommended)
Reporting frequency (aggregated data)	TBD
Sources for aggregated data	The source for the aggregated data will be the output of the collected primary data for this indicator.

¹ "fuel." Merriam-Webster.com. 2020. https://www.merriam-webster.com (May 2020).

Guidance for estimation/ analysis	CCA will aggregate the fuel sales data reported by each enterprise to report on this indicator. While it is possible to aggregate the reported fuel masses without regard to fuel type, this is not advised as it does not account for the different energy contents and thus generates a poor metric for this indicator. Aggregating fuel sales for different fuel types requires converting fuel to a common energy basis. Conversions can be made by multiplying the total mass of fuel sold by its energy content per unit mass. The energy content of different fuels for this calculation can be found in the <u>Water Boiling Test</u> <u>4.2.4 spreadsheet</u> . If any primary data is received in cubic meters, CCA staff must first multiply
	the volumes reported by the estimated density (or a default density value) to derive the mass equivalent.
Known data limitations	Sold fuel does not necessarily equate to fuel used for cooking. Risk of double counting, especially in contexts where there is a complex distribution chain. Biogas is produced by the end-user, so enterprises supporting the sale and maintenance of biogas systems are contributing to the transition to cleaner fuels but are not counted in this metric.
Other considerations and related links	

Indicator name	CCE7. Average of company growth rates in fuel sales year-over-year for supported enterprises
Theory of change component	Indicator measuring Support the growth of clean cooking enterprises
Disaggregation	None
Indicator definitions	Fuel: Material used to produce heat or power by burning. ¹ In this context, electricity is excluded.
	Sales: Transactions in which quantities of fuel are provided in exchange for money.
	Year-over-year. The comparison of a statistic for one period to the same period the previous year.
	Supported enterprises: Entities receiving funding or technical assistance from CCA that work in the supply chain for cookstoves, fuels for cooking, or devices associated with the use of cookstoves or fuels, such as pay as you go meters.
Rationale and learning questions for indicator	Measures growth of supported enterprises selling cookstoves and of markets within the clean cooking sector and gauges access to cleaner cooking technology. Specifically designed to discern longer term trends, controlled for seasonality. Learning question: How is the growth rate for fuel sales changing over time, particularly for cleaner and more efficient options?
Provider of primary data	The supported enterprise
Primary unit of measure	Growth rate in unit fuel sales, expressed as a percentage
Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.

Methods for primary data collection	Continuous comprehensive tracking of customer sales within the required measurement interval. Ensure record-keeping is adequate to support reported numbers. The change in the growth rate of fuel units sold should be calculated by first subtracting the prior period fuel units sold from the current period fuel units sold and dividing the resulting difference by the prior period total fuel units sold. (Current Fuel Units Sold – Prior Fuel Units Sold)/Prior Fuel Units Sold
Sources for primary data	Best practice is for the supported enterprise to generate data from an electronic digital code-based inventory management system. Data may also be generated from sales logs, purchase order records, or copies of sales receipts.
Primary data requirements	NA
Reporter of aggregated data	CCA
Aggregated unit of measure	Average growth rate, expressed as a percentage
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	The output of primary data reporting by supported enterprises.
Guidance for estimation/ analysis	CCA will take the average of all the enterprise fuel sale growth rates submitted.
Known data limitations	Data accuracy is dependent on the willingness and ability of the supported enterprises to provide robust timely primary data.
Other considerations and related links	

¹ "fuel." Merriam-Webster.com. 2020. https://www.merriam-webster.com (May 2020).

Indicator name	CCE8. \$USD capitalization of supported enterprises
Theory of change component	Indicator measuring Support the growth of clean cooking enterprises
Disaggregation	 Types of capitalization: Grant funding All other types of capitalization (including debt and equity financing and retained earnings)
Indicator definitions	 Capitalization: Capitalization is retained earnings, debt, equity, and capitalized grant funding. Retained earnings: Net profits that are not distributed via dividend payments to shareholders but rather remain available to the company as working capital. Debt financing: The corporate practice of borrowing money for working capital or capital expenditures from individuals or institutions. In return for lending the money, the individuals or institutions become creditors and receive a promise that the principal and interest on the debt will be repaid. Equity financing: The corporate practice of raising capital through the sale of shares, which give the purchaser an ownership stake in the company. Shares may be sold privately or traded publicly.
	 Capitalized grant funding: A quantity of money given from one entity or individual to another for a specific purpose, which often requires an application and some reporting process but does not require repayment. For this indicator, honoraria, stipends, or prizes are excluded from the definition of grants. Supported enterprises: Entities receiving funding or technical assistance from CCA that work in the supply chain for cookstoves, fuels for cooking, or devices associated with the use of cookstoves or fuels, such as pay as you go meters.
Rationale and learning questions for indicator	Measures the growth of supported enterprises and of markets within the clean cooking sector. Examining capitalization of clean cooking enterprises, and particularly non-grant financing (debt and equity) compared to grants, provides a longer-term view of sustainability of the industry. Learning question: Is the industry becoming more sustainable as a result of companies requiring less grant capital as part of their capitalization?
Provider of primary data	The supported enterprise

Primary unit of measure	\$USD Please use the <u>UN Operational Rates of Exchange</u> for December 31st of the reported year.
Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.
Methods for primary data collection	 Supported enterprises should aggregate and report the following three figures from their balance sheet as of December 31st: Long-term debt, reflecting the enterprise's borrowing for capital needs. Total share capital, such as capital, preferred, and/or common stock, or any other paid-in capital. Retained earnings including current year net profit. In addition, the enterprises should report total grant income for the year, exclusive of any honoraria, stipends, or prizes.
Sources for primary data	Best practice is for the supported enterprise to generate data from an electronic accounting system. Data may also be generated from records for monetary grants, loans, and investments.
Primary data requirements	NA
Reporter of aggregated data	CCA
Aggregated unit of measure	\$USD
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	The collected primary data for this indicator.
Guidance for estimation/ analysis	CCA will total the reported capitalization and provide a subtotal for grant funding versus all other capitalization.
Known data limitations	Given the global nature of the supported enterprises and the variation in their level of financial sophistication, there will inevitably be discrepancies in the way they calculate the inputs to this indicator. For example, some enterprises will use cash accounting while others use an accrual system, and some enterprises may have family financing which is not part of the formal accounting.

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Indicator name	CCE9. Percent of supported enterprises that show improvement on the Gender Diagnostic Assessment
Theory of change component	Indicator measuring Support the growth of clean cooking enterprises
Disaggregation	 Country: Please see <u>The World Bank's comprehensive list.</u>
Indicator definitions	Supported enterprises: Entities receiving funding or technical assistance from CCA that work in the supply chain for cookstoves, fuels for cooking, or devices associated with the use of cookstoves or fuels, such as pay as you go meters.
	Improvement: End score higher than baseline score for any category, regardless of change in other scores.
	Gender Diagnostic Assessment: Excel spreadsheet based on the <u>framework developed by Acumen</u> in partnership with the International Center for Research on Women (see page 46), designed to enable companies to assess where they are effectively integrating gender into their business models, and where there are opportunities to further integrate gender to achieve increased business and social outcomes.
Rationale and learning questions for indicator	Used for tracking the progress made by supported enterprises to integrate gender equity into their business models.
	Learning questions: Is the gender specific support provided by CCA associated with an improvement in gender equality within the enterprises? If so on what scale and in which domains?

Provider of primary data	The supported enterprise
Primary unit of measure	Diagnostic tool score, expressed as a percent of points achieved by the enterprise (numerator) over the highest possible score (denominator) for each relevant domain.
Measurement interval (primary data)	Baseline measurement to be carried out prior commencement of gender-specific support. The timing of subsequent peri- or post-support measurements is dependent on several factors and should be agreed on prior to implementation of support.
Methods for primary data collection	Each supported enterprise shall complete the Gender Diagnostic Assessment at agreed upon intervals for each of the following domains as relevant to their operations: • Design • Production • Sales • Marketing • Systems and Structures The diagnostic tool score should be calculated by placing the points achieved by the enterprise (numerator) over the highest possible score (denominator) for each relevant domain.
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Sources for primary data	Managers for each relevant department within the supported enterprise.
Primary data requirements	All supported enterprises must report primary data using the Gender Diagnostic Assessment Excel spreadsheet provided by CCA.
Reporter of aggregated data	CCA
Aggregated unit of measure	Percent of enterprises receiving gender-specific support that meet the criteria for improvement, expressed as number of supported enterprises showing improvement (numerator) over total number of supported enterprises (denominator).
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	Reporting from the supported enterprises.
Guidance for estimation/ analysis	Each enterprise that has received gender-specific support from CCA and shows improvement as defined above shall be counted toward the numerator for this indicator. The aggregated unit percentage should be calculated by placing the number of supported enterprises that meet the criteria for improvement (numerator) divided by the total number of supported enterprises (denominator).
Known data limitations	The robustness of this indicator is dependent on the accuracy and comprehensiveness of the data provided by the supported enterprise, which may be subject to social desirability and other biases. Providing spaces within the tool where enterprises must upload documentation to support their claims can help to mitigate some biases. The metric generated by the gender assessment tool requires context to be best understood.

Other siderations related links

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Indicator name	CCE10. Percent of supported enterprises perceiving the advisory support they receive as valuable
Theory of change component	Indicator measuring Support the growth of clean cooking enterprises
Disaggregation	 Country: Please see <u>The World Bank's comprehensive list.</u>
Indicator definitions	Supported enterprises: Entities receiving funding or technical assistance from CCA that work in the supply chain for cookstoves, fuels for cooking, or devices associated with the use of cookstoves or fuels, such as pay as you go meters.
	Advisory support: The provision of recommendations or guidance. Does not include financial or physical resources or support.
Rationale and learning	Measures the perceived value of the advisory support provided by CCA to supported enterprises.
questions for indicator	Learning question: Are the advisory services provided by CCA perceived as valuable?
Provider of primary data	The supported enterprise
Primary unit of measure	1-5 on the Likert scale
Measurement interval (primary data)	A single data point once per year at a date convenient to CCA and not coincident with year-end.
Methods for primary data collection	The perceived value of the advisory services will be assessed using a 5-point Likert scale. The actual delivery mechanism for the assessment question may vary, and the value question may be combined with other data collection tools.
Sources for primary data	Completion of survey by the supported enterprise who had received advisory support in the previous calendar year.

Primary data requirements	Step 1: Representatives of the supported enterprise should answer the following question to assess the perceived value:
*	"Please tell us how much you agree or disagree with the following statement: 'I value the advisory services provided by CCA.' Do you strongly disagree, disagree, neither disagree nor agree (neutral), agree, or strongly agree?"
	Multiple individuals from each company receiving the advisory services should be surveyed, including both management and non-management level employees and both male and female employees or representatives.
	 Step 2: CCA should also collect the following data for each advisory support occurrence, where possible: Name of supported enterprise Location of supported enterprise Focus area of support received Method of delivering the support If support was in collaboration with other organizations (if "yes" provide a list) Dates support started and ended
Reporter of aggregated data	CCA
Aggregated unit of measure	Percent of supported enterprises perceiving advisory support they receive as valuable, expressed as the number of supported enterprises that perceive the support as valuable (numerator) over the total number of supported enterprises (denominator).
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	Survey responses from supported enterprises receiving advisory support within the previous calendar year.
Guidance for estimation/ analysis	Value is defined as ratings of 4 or 5 on the Likert scale.
Known data limitations	The perception of "valuable" is subjective and can be interpreted variously in different contexts.
	There is a high risk of social desirability bias if the respondents hope for future support from or collaboration with CCA. If possible, consider anonymizing responses.
Other considerations and related links	

Indicator name	CCE11. Number of enterprises supported by CCA
Theory of change component	Indicator measuring Support the growth of clean cooking enterprises
Disaggregation	 Country: Please see <u>The World Bank's comprehensive list.</u> 2. Enterprise role in the value chain as: Specialist (meaning two or fewer of the following roles) or Vertically integrated (meaning three or more of the following roles): Design Manufacturing/Production Distribution Consumer Financing Retail Marketing After Sales Service
Indicator definitions	 Supported: To have received funding or technical assistance from CCA. Enterprises: Entities that are part of the clean cooking value chain and focus on cookstoves, fuels for cooking, or other devices associated with the use of cookstoves or fuels, such as pay as you go meters. Country: A political state or nation or its territory. The World Bank offers a comprehensive list of countries, disaggregated by income levels.
Rationale and learning questions for indicator	This indicator will provide feedback on how well CCA is meeting its workplan goals for providing support to enterprises working within the cook stove sector. Learning question: How many enterprises has CCA engaged with over the specified time period?
Provider of primary data	The supported enterprise
Primary unit of measure	This indicator will provide feedback on how well CCA is meeting its workplan goals for providing support to enterprises working within the cook stove sector. Learning question: How many enterprises has CCA engaged with over the specified time period?

Measurement interval (primary data)	January 1 to December 31
Methods for primary data collection	This indicator requires the Market Strengthening team at CCA maintain ongoing tracking of support provided by CCA, including data necessary to meet disaggregation requirements within the required reporting interval. The team will maintain a shared Google workbook with a separate sheet for each measurement interval. All team members will familiarize themselves with the definition of this indicator, scan monthly for conforming activity, and enter data in the worksheet.
Sources for primary data	Best practice is for CCA to record all support it provides to enterprises as it occurs including the type of support and start and stop dates.
Primary data requirements	 Each entry will record: Name of supported enterprise Location of supported enterprise Focus area of support received Method of delivering the support If support was in collaboration with other organizations (if "yes" provide a list) Dates support started and ended.
Reporter of aggregated data	CCA
Aggregated unit of measure	Enterprises
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	The spreadsheet where the primary data has been collected.
Guidance for estimation/ analysis	At the end of the measurement interval, CCA staff will total and report the number of supported enterprises, and the subtotals according to the disaggregation requirements.
Known data limitations	The number of supported enterprises alone is not an indicator of success, change of practice or sustainability.

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Indicator name	CD1. Percent of target population able to identify a cleaner and more efficient cookstove or fuel
Theory of change component	Indicator measuring Increase consumer demand for clean cooking
Disaggregation	 Gender of participant: Male Female Non-binary Prefer not to say Country: Refer to <u>The World Bank's comprehensive list.</u> Location type: Rural Peri-urban Urban
Indicator definitions	 Target population: The particular group of people defined as relevant to CCA-supported programs and outcomes, and the focus of monitoring of those programs. Cleaner cookstove or fuel: A stove and fuel is cleaner if it produces lower levels of PM2.5 emissions compared to the relevant baseline technologies for the target area, as confirmed following international laboratory testing protocol, with tests conducted by a third party. More efficient cookstove or fuel: A stove using less fuel to cook compared to relevant baseline technologies for the target area. Able to identify: A participant who, after viewing photographs of locally available cleaner and more efficient stoves and traditional stoves/fires, correctly categorizes at least 80 percent of cleaner and more efficient stoves as such, and do not miscategorize traditional stoves as cleaner and more efficient. Gender: Socially constructed roles and behaviors associated with being girls/women and boys/men, or third or other genders. Gender interacts with but is different from biological sex and is rather a reflection of an individual's identity. Country: A political state or nation or its territory. The World Bank offers a comprehensive list of countries, disaggregated by income levels. Location type: Definitions of urban, peri-urban and rural vary significantly by country. For the purpose of these frameworks each project or program will define its location type when reporting to CCA.

Rationale and learning questions for indicator	Used to measure the level of awareness of cleaner and more efficient cookstoves. Learning question: Are CCA demand-creation activities associated with an increased the level of awareness of cleaner and more efficient cookstoves and fuels in the target population over time?
Provider of primary data	The program implementer or an independent evaluator.
Primary unit of measure	Survey respondents
Measurement interval (primary data)	Timing of data collection is dependent on the timeline for CCA-supported programs.
Methods for primary data collection	Survey questions and visual aids to gather this primary data will be developed by the evaluator based on cleaner and more efficient stoves/fuels (in accordance with the standard definition) appropriate for the program location and context. Participants will be shown photographs of pre- selected, locally available cleaner and more efficient stoves alongside local traditional stoves or fires.
Sources for primary data	Target population
Primary data requirements	 To ensure consistency, data should be gathered using the following standardized survey question and program-specific visual aids. "I'm going to show you a series of pictures. Can you please tell me which of these stoves are cleaner, meaning they produce less smoke, and more efficient, meaning they waste less fuel, than a traditional stove?" The target audience should be clearly defined. The evaluator of CCA-supported program should report two statistics to CCA. Number of survey respondents who correctly identified at least 80 percent of the cleaner and more efficient stoves they are shown AND who did not incorrectly identify any traditional stoves as cleaner and more efficient. These participants are defined as "able to identify". Total number of participants surveyed.
Reporter of aggregated data	CCA
Aggregated unit of measure	Percent of target population

Reporting frequency (aggregated data)	Annually
Sources for aggregated data	Survey results
Guidance for estimation/ analysis	Calculate percentage metric by adding total number of survey respondents 'able to identify' according to the definition given (i.e. the output of the primary data analysis) across all the programs evaluated, divided by the total number of people surveyed across all program evaluations. Total number of respondents "able to identify"/ total number of survey participants x 100 This metric should be updated at the end of each reporting period, to provide a cumulative average.
Known data limitations	The list of stoves/fuels for visual aids will be will require local knowledge and regular updating to best categorize and capture answers from respondents. There may be many "automatic" positive responses, based on the appearance of a metal or industrially manufactured stove.
Other considerations and related links	

Indicator name	CD2. Percent of target population aware of the benefits of cleaner and more efficient cookstoves and fuels
Theory of change component	Indicator measuring Increase consumer demand for clean cooking
Disaggregation	 Gender of participant: Male Female Non-binary Prefer not to say Country: Refer to <u>The World Bank's comprehensive list.</u> Location type: Rural Peri-urban Urban
Indicator definitions	 Target population: The particular group of people defined as relevant to CCA-supported programs and outcomes, and the focus of monitoring of those programs. Aware: Able to name two or more benefits associated with cleaner and more efficient cookstoves and fuels. Benefits: Proven positive outcomes from using cleaner and more efficient cookstoves and fuels. These can include climate, health, gender, economic, and environmental benefits. Cleaner cookstove or fuel: A stove and fuel is cleaner if it produces lower levels of PM2.5 emissions compared to the relevant baseline technologies for the target area, as confirmed following international laboratory testing protocol, with tests conducted by a third party. More efficient cookstove or fuel: A stove using less fuel to cook compared to relevant baseline technologies for the target area. Gender: Socially constructed roles and behaviors associated with being girls/women and boys/men, or third or other genders. Gender interacts with but is different from biological sex and is rather a reflection of an individual's identity. Country: A political state or nation or its territory. The World Bank offers a comprehensive list of countries, disaggregated by income levels. Location type: Definitions of urban, peri-urban and rural vary significantly by country. For the purpose of these frameworks each project or program will define its location type when reporting to CCA.

Rationale and learning questions for indicator	Used to measure the level of recognition of benefits of cooking devices and fuels promoted as part of demand creation activities. Learning question: Are CCA demand-creation activities associated with an increased knowledge of the benefits of cleaner and more efficient cookstoves and fuels in the target population over time?
Provider of primary data	The program implementer or an independent evaluator.
Primary unit of measure	Survey respondents
Measurement interval (primary data)	Timing of data collection is dependent on the timeline for CCA-supported programs.
Methods for primary data collection	Survey questions and visual aids to gather this primary data will be developed by the evaluator and will be based on the cleaner and more efficient stoves/fuels (in accordance with the standard definition) appropriate for the program location and context.
	The participant will be shown a visual aid depicting the promoted stoves and fuels and asked a series of questions. To qualify as "aware of the benefits of cleaner and more efficient cookstoves and fuels" the participant must, without prompting, report at least two of the benefits on the predefined list. The list should be tailored to reflect the messaging of CCA- supported program.
	 Examples of benefits to be included are: Cleaner Less soot on pots/utensils and the kitchen area Requires less time to cook a meal Requires less time to light and be ready for cooking Reduces smoke Reduces cough Reduces breathlessness Reduces breathlessness Reduces headaches Reduces backache Easier to use Requires less fuel Fuel is cheaper Fuel is casier to access Faster to collect fuel Makes use of smaller size fuel Reduces bins Less risk of explosion Fewer house fires Looks modern Protects the forests Good for climate change Saves time Appealing to male family members Reduces pot tipping

Sources for primary data	Target population
Primary data requirements	To ensure consistency, data should be gathered using the following standardized survey questions and program-specific visual aids: "Do you know if cookstoves such as these have any benefits?" "If yes, please could you name them?" The target population should be clearly defined.
Reporter of aggregated data	CCA
Aggregated unit of measure	Percent of target population
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	Survey results
Guidance for estimation/ analysis	Calculate percentage metric by adding the total number of survey respondents able to correctly describe two or more predefined benefits of cleaner and more efficient cookstoves and/or fuels (i.e. the output of the primary data analysis) across all programs evaluated, divided by the total number of people surveyed across all program evaluations. Total number of respondents aware of benefits / total number of survey participants x 100 This metric should be updated at the end of each reporting period, to provide a cumulative average.
Known data limitations	The list of potential benefits from locally available cookstoves and fuel will require local knowledge and regular updating to best categorize and capture answers from participants.
Other considerations and related links	

Indicator name	CD3. Percent of target customers who would recommend a cleaner or more efficient cookstove or fuel to someone they know
Theory of change component	Indicator measuring Increase consumer demand for clean cooking
Disaggregation	 Gender of participant: Male Female Non-binary Prefer not to say Country: Refer to <u>The World Bank's comprehensive list.</u> Location type: Rural Peri-urban Urban
Indicator definitions	 Target customers: Persons or institutions who have purchased a clean cook stove or fuel as a result of an CCA-supported activity. Cleaner cookstove or fuel: A stove and fuel is cleaner if it produces lower levels of PM2.5 emissions compared to the relevant baseline technologies for the target area, as confirmed following international laboratory testing protocol, with tests conducted by a third party. More efficient cookstove or fuel: A stove using less fuel to cook compared to relevant baseline technologies for the target area. Gender: Socially constructed roles and behaviors associated with being girls/women and boys/men, or third or other genders. Gender interacts with but is different from biological sex and is rather a reflection of an individual's identity Country: A political state or nation or its territory. The World Bank offers a comprehensive list of countries, disaggregated by income levels. Location type: The definitions for urban, peri-urban and rural vary significantly by country. For that reason, it is not possible to provide a single definition applicable to all countries. Each project or program will define its location type when reporting to CCA.

Rationale and learning questions for indicator	Indicator used to understand the perceived satisfaction with the cleaner or more efficient cookstove or fuel by the target customers. Learning question: Are CCA demand-creation activities associated with a change in perceived value of the cleaner or more efficient cookstoves and fuels in the target audience over time, and are early adopters champions for these products?
Provider of primary data	The program implementer or an independent evaluator.
Primary unit of measure	Target customers
Measurement interval (primary data)	Timing of data collection is dependent on the timeline for CCA-supported programs.
Methods for primary data collection	The survey questions and visual aids to gather this primary data will be developed by the evaluator and will be based on the cleaner or more efficient cookstove or fuel (according to the standard definition) promoted by the CCA-supported program and purchased by the target customers. The participant will be shown a visual aid depicting images of pre-selected cleaner and/or more efficient stoves.
Sources for primary data	Target customers
Primary data requirements	To ensure consistency, data should be gathered only using the following standardized survey question and the program-specific visual aids to ensure consistency. "Would you recommend a stove such as these to someone you know?" Target customers should be clearly defined. The evaluator of the CCA-supported program should report two final
	statistics to CCA: 1. Number of survey respondents who reported that they would recommend the stoves such as those featured in the visual aid 2. Total number of participants surveyed
Reporter of aggregated data	CCA
Aggregated unit of measure	Percent of target customers

Reporting frequency (aggregated data)	Annually
Sources for aggregated data	Survey results
Guidance for estimation/ analysis	The percentage metric should be calculated by summing the total number of survey respondents who would recommend a clean cookstove or fuel to someone they know (i.e. the output of the primary data analysis) across all the programs evaluated divided by the total number of people surveyed across all program evaluations. Total number of respondents who would recommend / total number of survey participants x 100 This metric should be updated at the end of each reporting period, to provide a cumulative average.
Known data limitations	
Other considerations and related links	

Indicator name	CD4. Number of people reached through demand generation activities of CCA
Theory of change component	Indicator measuring Increase consumer demand for clean cooking
Disaggregation	 Country: Please see <u>The World Bank's comprehensive list.</u> Media Channel
Indicator definitions	Demand generation activities: CCA-supported promotional activities that aim to increase awareness and/or intention to purchase and/or the ultimate sale of cleaner and more efficient stoves and fuels. Reach: is a context-specific concept, to be defined specifically for each demand-generation activity. For example: for a social media campaign,
	"reach" is defined as impressions; for events, estimated attendance; and for radio or TV campaigns, viewer or listenership. Country: A political state or nation or its territory. <u>The World Bank</u> offers a comprehensive list of countries, disaggregated by income levels. Medial channel: The particular medium by which a promoter's message
	is conveyed to the target audience. Common examples of channels include social media, television, billboards direct mail, print media, or radio.
Rationale and learning	Indicator used to measure and track the scope of demand generation activities of CCA.
questions for indicator	Learning question: Is CCA meeting its work plan targets for reaching audiences with promotional and educational messages?
Provider of primary data	Implementer of CCA-supported demand generation activities
Primary unit of measure	Individuals
Measurement interval (primary data)	Timing of data collection is dependent on the timeline for CCA-supported demand generation activities.

Methods for primary data collection	Methods will be determined by (and in some cases, predetermined by) the channel used for demand generation activities (TV, radio, printed materials, social media, theater groups, interpersonal communication (IPC) etc.) and the associated definition of "reach".
	 Tools available for this data collection can include, but are not limited to: Media monitoring, such as website traffic analytics, social media metrics, tracking responses to SMS, and TV audience figures Population-based surveys with a randomly selected study population in the demand creation target area (for printed materials and billboards) Attendance lists and logs for individual and group in-person communication
Sources for primary data	 Primary data sources are also dependent on channel used for the demand generation activities: Viewership/listenership of TV and radio in target areas at time of airing (provided by companies such as Geopoll) Platform metrics on social media Audience numbers for group events such as courtyard education sessions and theater shows Logs from interpersonal communicators and educators
Primary data requirements	Media data should be gathered using as many verifiable independent sources as possible. Implementers and evaluators of demand generation activities must keep careful record of reach from the proposal stage to the end of the program. Monitoring requires early consideration in the project budget.
Reporter of aggregated data	CCA
Aggregated unit of measure	Individuals
Reporting frequency (aggregated data)	TBD
Sources for aggregated data	The output of collected primary data from each demand generation activity.
Guidance for estimation/ analysis	CCA will combine the final numbers of individuals exposed to CCA- supported demand generation activities.

Known data limitations	This indicator will be an approximation, as it is challenging and sometimes not possible to accurately measure the number of people exposed to certain media. With metric being individuals rather than a unit of reach, double counting of individuals exposed to demand generating activities via more than one channel is almost inevitable.
Other considerations and related links	

Indicator name	EE1. Number of national policies and strategies supportive of the clean cooking sector
Theory of change component	Indicator measuring Strengthen the enabling environment
Disaggregation	 Gender content: The policy or strategy has gender content The policy or strategy does not have gender content Don't know Not applicable Adoption status: The policy or strategy has been fully adopted into law (although not necessarily fully implemented) The policy or strategy is proposed, drafted, or pending Don't know Not applicable Funding status: The budget needed to implement the policies and strategies has been fully funded The budget needed to implement the policies and strategies has not been fully funded Don't know Not applicable
	 4. Policy type: Business incentive Tariff Consumer subsidy Other 5. Country: Please see <u>The World Bank's comprehensive list.</u>
Indicator definitions	National policies and strategies: Any law, bylaw, decree, guidance note, regulation, principle, plan, approach, standard, or course of action adopted or proposed to be adopted by a national or federal government entity intended to influence or determine actions, decisions, or procedures, or to meet or resolve a particular challenge or threat.
	Supportive: Intended to furnish monetary, technical or other assistance, whether through legislation, regulations, incentives, or penalties.
	Clean Cooking Sector: Entities and individuals who support transitions to permanent primary reliance on cleaner and more efficient fuels and technologies.
	Gender content: Content related to socially constructed roles and responsibilities associated with being girls/women and boys/men, or third or other gender. Components of national policies or strategies, including

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	but not limited to aims, articles, regulations, incentives, or beneficiary groups. Country: A political state or nation or its territory. <u>The World Bank</u> offers a comprehensive list of countries, disaggregated by income levels. In the context of this indicator, the universe of relevant countries is limited to those countries where CCA is currently or has in the past engaged in activities. Strengthening the enabling environment is pecessary for building a stable
Rationale and learning questions for indicator	and vibrant clean cooking industry and is a key milestone on the path to catalyzing desired impacts. Policies that support sustainable transitions to clean cooking are a central pillar of the enabling environment. Learning question: Is there a connection between favorable policies for the enabling environment of the clean cooking sector and a country's progress on SDG 7?
Provider of primary data	CCA
Primary unit of measure	National policies and strategies
Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.
Methods for primary data collection	 The Gender, Policy, and Demand team at CCA will track changes in national policies and strategies related to clean cooking in countries where CCA has engaged with government representatives. The team will maintain a shared Google workbook with a separate sheet for each measurement interval. Each entry will record the following: Country name National government entity (or entities) implementing the new policy or strategy (e.g. energy ministry, health ministry, etc.) The national government entity (or entities) that created the policy or strategy A brief description of the policy or strategy and how it is supportive of clean cooking Month the policy or strategy was adopted Answers to disaggregation questions 1-3 The date the policy or strategy was added to the tracking sheet All team members will familiarize themselves with the definition of this indicator, scan monthly for conforming activity, and enter the data in the worksheet.
Sources for primary data	Policy and strategy documents available on ministry websites and through correspondence with ministry officials.

Primary data requirements	NA
Reporter of aggregated data	CCA
Aggregated unit of measure	Total number of national policies and strategies
Reporting frequency (aggregated data)	Annually Cumulative since the year 2015
Sources for aggregated data	The Google workbook where the primary data has been recorded.
Guidance for estimation/ analysis	At the end of the measurement interval, CCA staff will total and report the number of national policies and strategies. The Pivot Table function can be used to subtotal each of the disaggregation categories. For the cumulative total, CCA staff will sum aggregated data from 2015 through the current reporting period.
Known data limitations	Number is not a proxy for strength. This indicator captures the prevalence of supportive policies as a measure of how mainstream they are in policymaking. It is a measure of the enabling environment for policymaking that is supportive of clean cooking, rather than a measure of the enabling environment for clean cooking directly.
Other considerations and related links	

Indicator name	EE2. Number of countries with standards related to cookstoves and fuels
Theory of change component	Indicator measuring Strengthen the enabling environment
Disaggregation	 Status: The standard is proposed, drafted, or pending. The standard has been enacted into law. Don't know Not applicable Enforcement: The standard has been adopted as a voluntary guideline for some or all entities in the country. The standard has been adopted by a government body and is mandatory for all entities within its jurisdiction. Don't know/unclear Utilization: The standard has been adopted as reference for an initiative (e.g. a policy, strategy, scheme, or program) that provides incentives. The standard has been adopted as reference for an initiative (e.g. a policy, strategy, scheme, or program) that imposes penalties. The standard has been adopted as reference for an initiative (e.g. a policy, strategy, scheme, or program) that both provides incentives and imposes penalties. The standard has been adopted as reference for an initiative (e.g. a policy, strategy, scheme, or program) that both provides incentives and imposes penalties. The standard has been adopted as reference for an initiative (e.g. a policy, strategy, scheme, or program) that both provides incentives and imposes penalties. The standard has been adopted as reference for an initiative (e.g. a policy, strategy, scheme, or program) that neither provides incentives nor imposes penalties. The standard is not being used as the basis for an initiative (e.g. a policy, strategy, scheme, or program). Denvi (mealear.
	 4. Relationship to International Organization for Standardization (ISO) Technical Committee 285: Standard is based on standards or technical reports published by ISO Technical Committee 285. Standard is not based on standards or technical reports issued by ISO Technical Committee 285. 5. Target technology or fuel: Solar cooker (thermal energy, not solar panels) Electric stove, resistive Electric stove, inductive Electric cooker (multi-use pressure cooker) Piped natural gas stove Biogas stove Liquified petroleum gas Manufactured portable solid-fuel stove
	 Piped natural gas stove Biogas stove Liquified petroleum gas Manufactured portable solid-fuel stove Artisan-crafted portable solid-fuel stove Manufactured stationary solid-fuel stove Artisan-crafted stationary stove

	 Liquid/gel fuel stove Chimney Natural draft Forced draft Top-lit updraft Rocket combustion chamber Multiple pot rests Sunken pot/pot skirt Alcohol/ethanol Gasoline/diesel (not in generator) Kerosene/paraffin Coal/lignite briquettes/pellets Charcoal briquettes/pellets Charcoal briquettes/pellets Wood Biomass pellets/briquettes Woodchips Sawdust LPG/cooking gas Other 6. Country / user: If user is a country, please provide country name. If user is a non-country actor, such as a multilateral or bilateral agency, please provide the user entity's name.
Indicator definitions	 Country: A political state or nation or its territory. <u>The World Bank</u> offers a comprehensive list of countries, disaggregated by income levels. In the context of CCA indicators, the universe of relevant countries is limited to those countries defined as low-income economies, lower-middle-income economies, and upper-middle-income economies. Standard: A degree or level of requirement, excellence, or attainment, or a formula for a process created through a consensus of experts and sanctioned by a governmental or non-governmental entity having jurisdiction and standing. In the context of the clean cooking sector, the adoption of standards can include three types of activities. First, a government or non-government actors use a standard as a voluntary reference point. Second, a national standards body has vetted and confirmed a standard as part of their national commercial infrastructure. Third, government actors creating policy, legislation, or regulations that offers either incentives or penalties, with reference to a standard, including but not limited to taxes, tariffs, labelling or other promotional schemes. Cookstove: Apparatus with capacity to conduct the majority of cooking or heating tasks for target consumer. Does not include supplemental devices designed for specialized applications, such as rice cookers, toasters, or accessories such as grill attachment. Fuel: Material used to produce heat or power by burning.¹ In this context, electricity is excluded. Voluntary: Proceeding from one's own choice or consent.² Mandatory: Obligatory, required, or commanded by an authority having jurisdiction.

	Reference standard: A standard used as the basis for the formulation of a policy, scheme, strategy, or initiative. ISO Technical Committee 285: A voluntary association of national standards bodies that facilitates the convening of technical experts with the mandate of <u>"Standardization in the field of cookstoves and clean cooking solutions."</u>
Rationale and learning questions for indicator	Standards are a critical component of a strong enabling environment, providing predictability to businesses and investors and protection for consumers. Standards can also drive technological innovation. Learning question: How pervasive are standards related to cookstoves and fuels and how strong is their influence on the clean cooking sector?
Provider of primary data	CCA
Primary unit of measure	Countries
Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.
Methods for primary data collection	CCA's standards and testing manager will conduct an annual desk review of standards activity. Results from the review will be recorded in a spreadsheet.
Sources for primary data	 National standards bodies, such as Kenya Bureau of Standards, in relevant countries Privatized standards bodies, such as American National Standards Institute, in relevant countries ISO conducts a survey of committee members who have adopted a standard, approximately five years after the standard is published. The first reports on Technical Committee 285 standard adoption is expected in 2023. Regional and national cookstove trade groups may keep information on standards. Individual cookstove manufacturers may highlight their performance on standards in promotional or specifications materials. National development agencies who are CCA partners, such as GIZ and USAID, may have information on standards in the countries where they maintain active country offices. Regional standards organizations, such as the South Asian Regional Standards Organization, may maintain records on the adoption of new standards among their member states.

¹ "fuel." Merriam-Webster.com. 2020. https://www.merriam-webster.com (May 2020).
 ² "voluntary." Merriam-Webster.com. 2020. https://www.merriam-webster.com (May 2020).

Primary data requirements	 Each entry into the tracking spreadsheet will record the following: Country name or entity name for non-country actors Entity implementing the standard (e.g. government ministry, cookstove association, etc.) A brief description of the standard Month and year the standard was adopted Disaggregation as detailed above The date the standard was added to the tracking sheet
Reporter of aggregated data	CCA
Aggregated unit of measure	Countries
Reporting frequency (aggregated data)	Data will be aggregated annually. It will be reported as a cumulative total, with the annual total presented as part of the data disaggregation.
Sources for aggregated data	The output of collected primary data from the desk review.
Guidance for estimation/ analysis	Not all national standards will be ISO standards. The governments of India and China, for example, have developed their own national standards.
Known data limitations	The number of countries with standards is not an indication of whether or how much those standards effectively influence marketplaces.
Other considerations and related links	

Indicator name	EE3. Number of sector actors who advocate for women's rights in the clean cooking sector
Theory of change component	Indicator measuring Strengthen the enabling environment
Disaggregation	Country or countries where the actor conducts professional activities: • Please see <u>The World Bank's comprehensive list.</u>
Indicator definitions	Sector actor. An entity or individual involved in any capacity in the clean cooking sector.
	Advocate: Create and/or disseminate non-proprietary content, including but not limited to speeches, articles, editorials, marketing materials, events, and government or corporate policies to champion a position, change, or cause.
	Women's rights: In this context, a gender-informed framing of challenges and opportunities in the clean cooking sector
	Clean cooking sector. Entities and individuals supporting transitions to permanent, primary reliance on cleaner and more efficient fuels and technologies.
	Country: A political state or nation or its territory. <u>The World Bank</u> offers a comprehensive list of countries, disaggregated by income levels.
Rationale and learning questions for indicator	How actively the enabling environment is promoting potential gender benefits of the transition to cleaner and more efficient cooking technologies and fuels.
	Learning question: How frequently is dependence on traditional fuels and technologies and/or clean cooking solutions framed as a women's issue and by whom?
Provider of primary data	CCA
Primary unit of measure	Individuals and entities qualifying under the definition of "sector actor"
Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.

Methods for primary data collection	Gender team at CCA will track gender advocacy activities. The team will maintain a shared Google workbook with a separate sheet for each measurement interval. All team members will familiarize themselves with the definition of this indicator, scan weekly for conforming activity, and enter data in the worksheet.
Sources for primary data	Data sources will include but are not limited to: • Official government policies and strategies • Press releases • Social media posts • Publications • Events • Websites • Blogs • Personal communications
Primary data requirements	Entries must capture: • Name of the sector actor • Date the advocacy occurred or commenced • Description of the advocacy • Date of the data entry
Reporter of aggregated data	CCA
Aggregated unit of measure	Sector actors
Reporting frequency (aggregated data)	TBD
Sources for aggregated data	The data will be aggregated from the tracking spreadsheet.
Guidance for estimation/ analysis	At the end of the measurement interval, CCA staff will total and report the number of sector actors. Multiple individuals involved in advocacy while primarily representing the same entity will be counted as a single sector actor. Each sector actor can be counted only once in a given measurement interval.
Known data limitations	The approach to this indicator is opportunistic and may therefore undercount the indicator. The count generated to report on this indicator does not capture the relative intensity of advocacy by various sector actors, e.g. one social media post is equivalent to an organizational-level commitment to gendered framing.

Indicator name	EE4. Number of civil society actors who include clean cooking in their activities as a result of CCA engagement
Theory of change component	Indicator measuring Strengthen the enabling environment
Disaggregation	 Type of civil society actor: Individuals Entities
Indicator definitions	 Civil society actors: An entity or individual involved in any capacity in that is not government or commerce. Clean cooking: Supporting the transition to permanent, primary reliance on cleaner and more efficient fuels and technologies. CCA engagement: Sustained contact with CCA through an ongoing relationship, involving a well-defined partnership, or financial and/or technical support. Individual: A single person, acting on their own behalf rather than as representative of an entity. Entity: Any societal unit, including but not limited to companies, government units, organizations, or communities.
Rationale and learning questions for indicator	This is indicative of the success of CCA in building local ecosystems that encourage and facilitate the transition to cleaner and more efficient cooking technologies and fuels. Learning question: Have CCA's relationships with civil society partners been effective at catalyzing greater visibility and momentum for the clean cooking sector?
Provider of primary data	CCA
Primary unit of measure	Individuals and entities that qualify under the definition of "civil society actors."
Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.

Methods for primary data collection	This indicator requires CCA to maintain ongoing tracking of contacts with civil society actors. CCA staff will maintain a shared Google workbook with a separate sheet for each measurement interval. All relevant team members will familiarize themselves with the definition
	worksheet.
Sources for primary data	Internal CCA documentation
Primary data requirements	 Each data entry will record the following: Name of the civil society actor Whether the actor is an individual or entity A brief description of the type of CCA engagement Date the engagement occurred or commenced Action taken by the civil society actor to address clean cooking Date engagement was added to the tracking sheet
Reporter of aggregated data	CCA
Aggregated unit of measure	Individuals and entities that qualify under the definition of "civil society actors."
Reporting frequency (aggregated data)	TBD
Sources for aggregated data	The spreadsheet where primary data has been collected.
Guidance for estimation/ analysis	At the end of the measurement interval, CCA staff will total and report the number of civil society actors and subtotal each stakeholder category.
Known data limitations	The method for data collection is not robust, as it relies on CCA staff to know the outcome of their engagements, which may result in an undercount of actual activity. The results may also be biased by inconsistent application of definitions and/or by social desirability bias, as civil society actors may be over generous in crediting CCA with catalyzing their activities.
Other considerations and related links	

Indicator name	EE5. Number of people who attend CCA-sponsored events or workshops
Theory of change component	Indicator measuring Strengthen the enabling environment
Disaggregation	 Role in the sector of: Government policymakers Enterprise employees or representatives Implementers other than those representing enterprises Researchers Donors Individuals representing other kinds of institutions, such as standards bodies, United Nations, European Union, or other international entities, multi-lateral agencies, non-governmental organizations, partnerships, and coalitions Unaffiliated individuals. Each individual should be assigned to only one category in the disaggregation exercise. If an individual qualifies for more than one category, they should be assigned based on the primary role they play in the clean cooking sector.
Indicator definitions	 Attend: to be present, whether in person or virtually, for any part of the event or workshop. CCA-sponsored: events and workshops organized by CCA as part of broader events hosted by other entities, including side events or sessions at international consultations, expos, or conferences. Event: any gathering of people (in-person or virtual) with a pre-determined focus or structure. Workshop: a meeting (in-person or virtual) at which a group of people engage in intensive discussion, learning, or other activity related to a particular subject or project.
Rationale and learning questions for indicator	Provides feedback on how well CCA is meeting its workplan goals for reaching target groups of stakeholders with key information and support to allow them to excel in the clean cooking sector. Learning question: Have meetings sponsored by CCA at aligned events been effective outreach tools?
Provider of primary data	CCA
Primary unit of measure	Individuals attending each workshop or event

Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.
Methods for primary data collection	This indicator requires CCA track CCA-sponsored events. CCA staff will maintain a shared Google workbook with a separate sheet for each measurement interval.
	All relevant team members will familiarize themselves with the definition of this indicator, scan weekly for conforming activity, and enter data in the worksheet. This data collection will be facilitated by an alignment between CCA workshop or event registration and disaggregation categories.
Sources for primary data	Clean Cooking CCA workshop and event records and rosters. In some cases, this information may be tracked and provided by CCA partners organizing parent or co-incident events.
Primary data requirements	Each entry will record: • Name of the main event or workshop • Name of CCA-sponsored event or workshop • Date the workshop occurred • Number of people who attended • Date the workshop was added to the tracking sheet In addition, the number of people will be apportioned across the seven categories listed above in the disaggregation requirements.
Reporter of aggregated data	CCA
Aggregated unit of measure	Individuals attending all workshops and events
Reporting frequency (aggregated data)	Annual
Sources for aggregated data	The source for aggregated data will be the workbook where event and workshop attendance is recorded.
Guidance for estimation/ analysis	At the end of the measurement interval, CCA staff will total and report the number of stakeholders reached, and subtotal each of the stakeholder categories.
Known data limitations	Event or workshop attendance is not an indication of sustained commitment or action.
Other considerations and related links	

Indicator name	EE6. Number of CCA-hosted events or workshops
Theory of change component	Indicator measuring Strengthen the enabling environment
Disaggregation	 Policy focus: Events or workshops focused primarily on policy
Indicator definitions	CCA-hosted : Workshops or events solely or primarily funded and led by CCA, such as the biannual Clean Cooking Forum.
	Event: Any gathering of people (in-person or virtual) with a pre-determined focus or structure.
	Workshop: A meeting at which a group of people engage in intensive discussion, learning, or other activity related to a particular subject or project.
	Policy: A principle, plan, or course of action adopted or proposed to be adopted by a government entity to influence or determine actions, decisions, or procedures.
Rationale and learning questions for indicator	This indicator will provide feedback on how well CCA is meeting its workplan goals for reaching target groups of stakeholders with key information and support to allow them to excel in the clean cooking sector. The sub-focus on policy-related activities could indicate CCA leadership on key emerging topics.
	Learning question: How consistently is CCA able to mount events, particularly in support of policy initiatives?
Provider of primary data	CCA
Primary unit of measure	Events and workshops
Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.

Methods for primary data collection	This indicator requires CCA to maintain ongoing tracking of CCA-hosted events. CCA staff will maintain a shared Google workbook with a separate sheet for each measurement interval. All relevant team members will familiarize themselves with the definition of this indicator, scan weekly for conforming activity, and enter the data in the worksheet.
Sources for primary data	CCA workshop and event records.
Primary data requirements	 Each entry will record: Name of the workshop or event Date the activity occurred (for activities lasting one day or less) or commenced (for activities lasting more than one day) Date the activity was added to the tracking sheet
Reporter of aggregated data	CCA
Aggregated unit of measure	Events and workshops
Reporting frequency (aggregated data)	TBD
Sources for aggregated data	The source for the aggregated data will be the primary data collected in the workbook.
Guidance for estimation/ analysis	At the end of the measurement interval, CCA staff will total and report the number of events and workshops, and subtotal the number dedicated to policy topics.
Known data limitations	The number of events does not indicate the number of stakeholders reached or the scope or effectiveness of outcomes.
Other considerations and related links	

Indicator name	EE7. Number of research translation products disseminated by CCA
Theory of change component	Indicator measuring Strengthen the enabling environment
Disaggregation	None
Indicator definitions	Research translation product: Knowledge products, including but not limited to factsheets, op-eds, webinars, articles, and infographics that summarize, contextualize, and explain findings from peer-reviewed or gray literature research, making them more accessible to the target audiences, such as policy makers, enterprises, donors, or investors. Disseminated: Made public (and often also promoted), either to a general or targeted audience, through a range of channels, including but not limited to events, publications, webinars, websites, and social media posts.
Rationale and learning questions for indicator	This indicator will provide feedback on how well CCA is meeting its workplan goals for reaching target groups of stakeholders with key information and support to allow them to excel in the clean cooking sector. Research translation products are expected to increase access to research findings, particularly scientific and technical results, so they may be used to inform sector progress. Learning question: How consistently is CCA increasing access to research findings for stakeholder groups?
Provider of primary data	CCA
Primary unit of measure	Research translation products
Measurement interval (primary data)	January 1 to December 31 If partial year data, start with earliest available date and record start date explicitly.
Methods for primary data collection	This indicator requires the research manager at CCA to track research translation products and share with all appropriate internal parties. The research manager will maintain a shared Google workbook with a separate sheet for each measurement interval.
Sources for primary data	CCA research translation products

Primary data requirements	Each entry will record: • Name of the research translation product • Date it was released or published • Date the product was added to the tracking sheet
Reporter of aggregated data	CCA
Aggregated unit of measure	Research translation products
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	The source for aggregated data will be the workbook where the primary data is collected.
Guidance for estimation/ analysis	At the end of the measurement interval, the research manager will total and report the number of research translation products.
Known data limitations	The indicator does not inform on the engagement with or effectiveness of the research translation products.
Other considerations and related links	
Indicator name	EE8. Number of views of CCA social media content
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Theory of change component	Indicator measuring Strengthen the enabling environment
Disaggregation	 By social media platform: Twitter Facebook Instagram Other
Indicator definitions	Views: The number of times CCA content was displayed on a screen, known as impressions. Social media: Any digital platform for which CCA has created a profile and where it publishes content. Social media platforms include Twitter, Facebook, and Instagram.
Rationale and learning questions for indicator	Provides feedback on how widely CCA's content is reaching individuals and organizations within and outside the clean cooking sector. Over time, can be used to understand the changes in reach of CCA activities and materials. Learning question: Is CCA consistently providing relevant and engaging social medial content?
Provider of primary data	CCA
Primary unit of measure	Impressions
Measurement interval (primary data)	Monthly
Methods for primary data collection	CCA will use administrative tools on each social media account to track the number of impressions and report it under this indicator. This indicator requires the communications team at CCA to track social media engagement. The team will maintain a shared Google workbook with a separate sheet for each measurement interval. All team members will familiarize themselves with the definition of this indicator, scan at the set interval, and enter the data in the worksheet.

Sources for primary data	Administrative tools for each social media account. Many platforms have these tools built-in, however there are also options for social media management tools that can consolidate multiple accounts across platforms.
Primary data requirements	N/A
Reporter of aggregated data	CCA
Aggregated unit of measure	Impressions
Reporting frequency (aggregated data)	Monthly
Sources for aggregated data	The source for the aggregated data will be the workbook where the primary data is collected.
Guidance for estimation/ analysis	At the end of the measurement interval, the communications team will total and report the number of impressions, disaggregated by platform.
Known data limitations	Number of views alone will not measure engagement with or effectiveness of CCA social media content.
Other considerations and related links	

Indicator name	REL1. Percent of clean cooking stakeholders who perceive strong value in CCA's work as a knowledge hub in clean cooking
Theory of change component	Indicator measuring Generate research, evidence, and learning
Disaggregation	 Type of stakeholder: Government Enterprises Implementers other than enterprises Researchers Donors Other institutions, such as standards bodies, United Nations, European Union, or other international entities, multi-lateral agencies, non-governmental organizations, partnerships, and coalitions Other stakeholders Each stakeholder should be assigned one category in the disaggregation exercise. If a stakeholder qualifies for more, they should be assigned to a category based on the primary role they play in the clean cooking sector.
Indicator definitions	 Clean cooking stakeholder. An individual or an entity with an interest or investment in the clean cooking sector. Clean cooking sector: Entities supporting transitions to permanent, primary reliance on cleaner and more efficient fuels and technologies. Knowledge hub: An entity generating, supporting, enabling, compiling, and/or disseminating knowledge, research, and/or learning related to a given focus.
Rationale and learning questions for indicator	Assessment of the effectiveness of CCA's contributions to research, evidence, and learning in the sector by directly tracking perceptions of stakeholders. With the disaggregation, CCA will be able to discern which sector stakeholders have been effectively served by CCA's research, evidence, and learning activities. Learning question: Is CCA's work as a knowledge hub for the sector perceived as valuable?
Provider of primary data	Clean cooking stakeholders
Primary unit of measure	1—5 on the Likert scale

Measurement interval (primary data)	A single data point once per year at a date convenient to CCA and not coincident with year-end.
Methods for primary data collection	An online survey tool designed by CCA to assess the perceived level of value of the role of CCA as a knowledge hub for the sector.
Sources for primary data	 Survey will be sent to: CCA partners listed in the partner directory Members of regional and national clean cooking alliances Registrants for webinars, forums, and other events Questions will also be included in the Industry Snapshot Survey and on any event app.
Primary data requirements	 Suggested data points to collect: Name of stakeholder Location of stakeholder Stakeholder role Type of research, evidence and learning resources accessed within the monitoring period (select all that apply): factsheets research articles market research reports policy briefs website infographics Date last accessed research, evidence and learning resources from CCA Perceived value of CCA's role as a knowledge hub employing a tool such as a 5-point Likert scale, using the question: "Please tell us how much you agree or disagree with the following statement: 'I value CCA's work as a knowledge hub for the clean cooking sector.' Do you strongly disagree, disagree, neither disagree nor agree (neutral), agree, or strongly agree?"
Reporter of aggregated data	CCA
Aggregated unit of measure	Percent of clean cooking stakeholders who perceive strong value in CCA's role as a knowledge hub, expressed as the number of clean cooking stakeholders who perceive strong value in CCA's role as a knowledge hub (numerator) over the total number of clean cooking stakeholders requested to complete the survey (denominator).
Reporting frequency (aggregated data)	TBD

Sources for aggregated data	Survey responses from clean cooking stakeholders.
Guidance for estimation/ analysis	Strong value is defined as achieving a rating of 4 or 5 on the Likert scale.
Known data limitations	The perception of "strong value" is subjective and can be interpreted differently in different contexts. CCA should make every effort to source responses from as many stakeholders as possible to avoid bias. There is a high risk of social desirability bias from stakeholders seeking future support from, or collaboration with, CCA. If possible, consider anonymizing responses.
Other considerations and related links	

Indicator name	REL2. Number of reports published with CCA input
Theory of change component	Indicator measuring Generate research, evidence, and learning
Disaggregation	 By type: Scientific and technical Tools Policy briefs By topic: Monitoring, evaluation and learning Markets Sector status By geographic region that is the focus of the content: East Asia and Pacific Europe and Central Asia Latin America and the Caribbean Middle East and North Africa North America South Asia Sub-Saharan Africa Not regionally specific Covering multiple regions By author or publisher
Indicator definitions	 CCA input: A member of CCA's team, including permanent or temporary staff, consultants, ambassadors, board or advisory board members who has contributed to the publication through funding, technical support, advice, editing, or other inputs. Reports: Any written research, review, or compilation of information related to clean cooking sector activities, interventions, or initiatives. Geographic region: A group of contiguous or proximate nations and/or territories. The World Bank defines seven standard regions spanning the globe.
Rationale and learning questions for indicator	Indicator used to assess contributions of CCA to research, evidence, and learning in the sector by directly tracking influence on the sector's collective library of written outputs. Learning question: How effectively is CCA enabling the dissemination of current and accurate information in the sector?

Provider of primary data	CCA
Primary unit of measure	Reports
Measurement interval (primary data)	January 1 to December 31
Methods for primary data collection	The research manager at CCA will track published reports on an ongoing basis and share with appropriate internal parties. The research manager will maintain a shared Google workbook containing a separate sheet for each measurement interval.
Sources for primary data	CCA team members
Primary data requirements	Each entry will record: • Name of the report • Date it was released or published • Author or publisher • Type of report • Topic of the report • Geographic focus Each entry will include the date the product was added to the tracking sheet. Where available, a hyperlink to the report should be included.
Reporter of aggregated data	CCA
Aggregated unit of measure	Reports
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	The source for aggregated data will be the workbook where the primary data is collected.
Guidance for estimation/ analysis	At the conclusion of the measurement interval, the research manager will note the total number of published reports.

Known data limitations	CCA contributions to research, evidence, and learning not captured in reports will not be included under this indicator, even though they may be significant and beneficial to the sector. Publication does not necessarily reflect on the quality or utility of reports for the sector.
Other considerations and related links	

Theory

Indicator name	REL3. Number of CCA-authored publications
Theory of change component	Indicator measuring Generate research, evidence, and learning
Disaggregation	 By type: Scientific and technical Tools Policy briefs By topic: Monitoring, evaluation and learning Market Sector status Each publication should be placed in just one category, according to its most prominent features.
Indicator definitions	 CCA-authored: A member of CCA's team, including permanent or temporary staff, consultants, ambassadors, board or advisory board members listed as authors or contributors to the publication. Publications: Formalized written content made available to the public, in print or electronically. Publications that are CCA-authored. Research dissemination products resulting from publications.
Rationale and learning questions for indicator	Assessments of the contributions of CCA to generating research, evidence, and learning. Learning question: How effectively is CCA enabling the dissemination of current and accurate information in the sector?
Provider of primary data	CCA
Primary unit of measure	Publications

Sources for primary data	CCA team members
Primary data requirements	Each entry will record the name of the publication, the date it was published, and the date it was added to the tracking sheet. The type or focus of the publication will be documented using the list below: • Monitoring, evaluation and learning • Markets • Sector status • Scientific and technical • Tools • Policy briefs Where available, a hyperlink to the publication should be included.
Reporter of aggregated data	CCA
Aggregated unit of measure	Publications
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	The source for aggregated data will be the workbook where the primary data is collected.
Guidance for estimation/ analysis	At the end of the measurement interval, the research manager will compile and total the number of publications.
Known data limitations	CCA contributions to research, evidence, and learning not captured in publications will not be counted as part of this indicator, even though they may be significant and beneficial to the sector.
	Publication of materials does not necessarily reflect on their quality or utility for the sector.
	This indicator will also include research translation products included under indicator EE7, "Number of research translation products disseminated by CCA".
Other considerations and related links	

Indicator name	REL4. Number of mentions of CCA publications
Theory of change component	Indicator measuring Generate research, evidence, and learning
Disaggregation	None
Indicator definitions	 CCA publications: Publications that are CCA-authored. CCA-authored: A member of CCA's team, including permanent or temporary staff, consultants, ambassadors, board or advisory board members listed as authors or contributors to a publication. Publications: Formalized content made available to the public, in print or electronically. Research dissemination products resulting from publications. Mention: Explicit reference to a publication on social media or another web-based platform.
Rationale and learning questions for indicator	Assessments of contributions of CCA to research, evidence, and learning. Learning question: How much is the sector engaging with CCA publications?
Provider of primary data	CCA
Primary unit of measure	Mentions
Measurement interval (primary data)	Three months following the release date for each publication.
Methods for primary data collection	This indicator requires the research manager at CCA to maintain ongoing tracking of mentions of publications. From the date of publication, the team will use Google Alerts and social media tracking tools to quantify the number of times a publication was mentioned in a three-month period.
Sources for primary data	The Internet and social media platforms

Primary data requirements	
Reporter of aggregated data	CCA
Aggregated unit of measure	Mentions
Reporting frequency (aggregated data)	Annually
Sources for aggregated data	Results provided by social media tracking tools and Google Alerts.
Guidance for estimation/ analysis	CCA will aggregate mentions based on tracking tool outputs.
Known data limitations	Mentions of publications alone do not distinguish reader levels of engagement. Social media metrics record short-term engagement with publications.
Other considerations and related links	



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