



The Clean Cooking Systems Strategy

ACCELERATING UNIVERSAL
ACCESS TO CLEAN COOKING

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The Clean Cooking Systems Strategy (“the Strategy”) is an ecosystem-wide blueprint to accelerate universal access to clean cooking solutions in alignment with the United Nations Sustainable Development Goals (SDGs) and Net Zero 2050 agenda.

The clean cooking ecosystem is rapidly approaching an inflection point. Fewer than 10 years remain to achieve Sustainable Development Goal 7: universal access to affordable, reliable and modern energy services. Current levels of investment, innovation and action are not sufficient to reach the 2.4 billion people who currently lack access to clean cooking solutions. The time is now to exponentially increase efforts to address this fundamental development challenge and put the ecosystem on track to achieve SDG 7 in the fastest, most equitable way possible.

How does an entire ecosystem change its trajectory and pace of progress? The approach to developing the Strategy was based on the principle that transformative change can be achieved through building an inclusive, shared vision and action plan that reflects the needs and complexity of this vibrant ecosystem. The ambition is not simply to do more, but to deeply understand the needs, priorities and opportunities across the entire ecosystem, and focus efforts on transformative initiatives that unlock capital, spark innovation and reimagine outdated historical paradigms.



Clean cooking needs to be more prominent in policy dialogues and have bigger and bolder national plans to accelerate country action. This is the right time for the Systems Strategy to guide those national plans and elevate clean cooking as an important opportunity to deliver urgently needed climate, health and economic outcomes through true collective action.

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The development of the Strategy, which spanned 18 months and concluded in late 2021, relied on extensive stakeholder engagement. Over 200 enterprises, multilateral institutions, development banks, nonprofit organizations, investors, industry associations, academics, policymakers and sector experts were consulted and engaged directly in the development of the Strategy. As such, the content of the Strategy reflects a wide set of perspectives and accounts for shared and divergent views about the journey forward. For more information on the overall Strategy framework and development process, please visit the [**About the Systems Strategy page**](#) on the CCA website.

What is the ambition of the Strategy?

The ambition of the Strategy is to chart the most *rapid* and *equitable* path to clean cooking solutions for all.

This ambition is anchored in Sustainable Development Goal 7, which prioritizes access to clean, modern and affordable energy services, as part of a just and equitable clean energy transition that leaves no one behind.

The Strategy seeks to balance both ambitions—speed and equity—through an approach that elevates national leadership, thoughtfully considers local context and prioritizes just and equitable transitions. In practice, this means promoting high tier clean cooking solutions that deliver the largest cumulative health and environmental benefits, while also continuing to deploy incremental solutions for the poorest and hardest to reach households in the near term.

The priority outcomes and tactics defined by the Strategy have been selected because they can drive critical inflection points in the rate of progress, while also ensuring that access expands in an inclusive way and not simply as an afterthought.



Who is the Strategy for?

The Strategy has been developed from a systemic and holistic point of view and covers outcomes across several aspects of the ecosystem. The Strategy defines the ecosystem broadly: It includes all entities directly related to issues of clean cooking (end users, enterprises, fuel industries, advocacy organizations, policymakers, national and regional clean cooking alliances, donors, investors and more), and those entities from relevant adjacent sectors such as climate and environment, global health, food systems and more. The Strategy does not limit focus only to those entities and sectors that see themselves as a part of the clean cooking community today. It also includes those entities and sectors that have a clear value in delivering improved clean cooking outcomes, but which do not engage with clean cooking currently or do not identify themselves as part of the clean cooking community. The Strategy cannot be successful without activating this broader set of stakeholders.

Please visit the [**Ecosystem Map**](#) for greater detail on the entities that comprise the ecosystem as part of the Strategy.



How to read the Strategy

The Strategy defines a long-term vision for the ecosystem but focuses heavily on immediate priorities and actions.

Reenvisioning the entire clean cooking ecosystem is a bold endeavor. It requires having an eye towards the future state that the ecosystem must achieve, as well as a road map of progressive actions to get there. Making the big and bold changes required to achieve universal access will not happen suddenly or all at once. Instead, there will be “horizons,” or progressive phases of progress, that build and emerge over time towards a bolder, more efficient and more effective ecosystem.

The Strategy Framework, which can be found [here](#), defines the specific components of a well-functioning clean cooking ecosystem and provides principles that guide choice making, pathways where rapid progress is required and enablers that need to be unlocked to deliver progress within each pathway to achieve universal access. The Strategy also explores the specific tactics that will help catalyze and strengthen these components over time. The Strategy focuses on the immediate Priority Outcomes and Action Items that can build momentum in the next horizon. Horizon 1 focuses on the near term (2023–2025), during which the strategy aims to overcome immediate barriers and unlock the ambition and financing necessary to empower transformations at a global scale, during the subsequent Horizons 2 and 3.

The Horizon 1 strategy includes Priority Outcomes that define the specific, tactical Action Items and Initiatives that the ecosystem needs to invest in today to drive meaningful action. Specifically, the Horizon 1 components include:

Five Priority Outcomes

Priority Outcomes are specific results that must be achieved during the first horizon. These five Priority Outcomes have been identified and prioritized because they require immediate and coordinated action and will serve as building blocks for future progress. For example, the Strategy highlights three specific funding and financing pools that must be tapped as a Priority Outcome. These three specific pools have been highlighted because they are well suited to the needs of the clean cooking ecosystem as it currently stands, represent a sizable pool of capital and the clean cooking ecosystem has only minimally tapped the full potential of these funding sources to date. These are not the only types of funding and financing that the clean cooking ecosystem will ever need. As the ecosystem matures and expands, its capital needs will evolve, and additional pools of capital will need to be accessed.

A set of 18 Action Items

Each Priority Outcome includes 2–7 Action Items, or tactical steps that collectively help to deliver on a specific outcome, and serve to focus stakeholder activities on areas that unlock key barriers and/or accelerate breakthrough opportunities.

A set of 12 Initiatives

In some cases, a specific Initiative has been developed that aligns with an action item. These Initiatives include specific platforms, campaigns, tools, programs, norm shifts, new power dynamics, behavior changes, etc., that are required.

How were the Horizon 1 Priority Outcomes and Action Items selected?

The Strategy development process launched with an initial phase, as part of a comprehensive, three phase process, to better understand the current state of the clean cooking ecosystem. During this phase, the most pressing challenges and opportunities were identified and defined, with an emphasis on understanding the root causes and contributing factors that drive each challenge and opportunity. With a deeper perspective on the most pressing challenges and opportunities, the process of drafting the Strategy began. Please visit the [**Current Challenges page**](#) to learn more about the challenges and opportunities identified via the Strategy development process that have informed the Strategy.



A STRATEGY FOR HORIZON 1

AMBITION

Chart the most rapid and equitable path to clean cooking energy for all.



See Key on Page 40

Priority Outcomes

Horizon 1 seeks to address critical gaps and transform the trajectory towards universal access. Horizon 1 is defined as the next three years of the Strategy. The emphasis during this Horizon is on five Priority Outcomes that each spark waves of momentum and progress.

1. Empower governments to activate transformative and inclusive clean cooking transitions towards universal access, and demonstrate a wave of success across a variety of country contexts.

Country-level transitions will be critical to achieving universal access. The Strategy is built on the principle of self-determination, which acknowledges the inherent right and authority that national governments have in determining their own paths and recognizes that there is no one-size-fits-all model for national transitions. Therefore, the Strategy emphasizes long-term capacity building for governments, country-level planning and implementation as priorities.

2. Foster rapid and effective innovation as the bedrock for advancing technologies and business models.

2.4 billion people globally lack access to clean and affordable cooking solutions. Closing this gap will require a steep acceleration in the rate of access achieved through user-centric, high-performing technologies and commercially sustainable business models, which the ecosystem cannot deliver without an innovation process that is more rapid and iterative, that happens more broadly, leads to better outcomes of the innovation process itself and is more efficient in time and resources.

3. Scale a variety of private and public delivery models that accelerate growth of sustainable and user-centered clean cooking markets.

In addition to rapid and effective innovation, closing the access gap by 2030 will require more rapid scale-up of promising enterprises and inclusive delivery models that respond to the needs and values of all users. The Strategy emphasizes opportunities to build national-level markets and supply chains, develop and strengthen private sector enterprises and deliver the knowledge and tools that drive market growth to deliver a rapid scale-up of the most viable business model pioneers while also building the infrastructure and mechanisms that help crowd in more enterprises and larger scale private sector players.

4. Maximize immediate and accessible capital that enables all priority outcomes and unlocks future capital.

At least US\$10 billion per year¹ is required to achieve universal access to clean cooking, yet the current level of funding lags far behind at about \$130 million annually. While there needs to be a significant increase in all types of capital, the Strategy focuses on three high-priority funding and financing opportunities to rapidly unlock a first wave of capital that is appropriate and necessary for today's clean cooking landscape: 1) Results-Based Financing² (including carbon credits and climate finance), 2) concessional capital (in other words, finance available at below market rates, intended to accelerate social and environmental impacts, including climate and development objectives) and 3) national government contributions and large-scale public funds (bilateral and multilateral development aid, development finance institution loans and more).

¹ Based on the IEA World Energy Outlook Model, in which the annual investment required to achieve universal access to clean cooking accounting for Net Zero Emissions by 2050 (NZE) scenario is \$8 billion. This amount does not include fuel cost to the user or technology replacement costs (i.e. only first-time access is included).

² Results-Based Financing is an umbrella term referring to any financing that is awarded on the basis of agreed-upon results or outcomes being achieved and verified, including carbon credits and climate finance.

5. Activate the most impactful—and impacted—voices to lead holistic clean cooking transformations.

To secure the financial resources and global attention required to achieve universal access, the clean cooking community needs to align with broader global agendas, including those focused on climate and energy access. At the same time, the Strategy also seeks to establish new dynamics within the clean cooking ecosystem that center local communities as decision makers and owners of the clean cooking agenda. This requires engaging and elevating new and representative voices at the country and regional level, specifically women, youth and local leaders.



ACHIEVING PRIORITY OUTCOMES THROUGH SPECIFIC ACTION ITEMS

This section provides a more detailed overview of what achieving each priority outcome will entail, and the specific tactical actions that will be needed to deliver on the outcome.

Priority Outcome 1

Empower governments to activate transformative and inclusive clean cooking transitions towards universal access, and demonstrate a wave of success across a variety of country contexts.

National government leadership is essential to achieving universal access to clean cooking solutions. When governments demonstrate the political will and commitment to prioritize clean cooking, define explicit clean cooking targets and national clean cooking transitions strategies, allocate public sector funding to support these strategies, establish clear tax and tariff structures and subsidy programs and support the strengthening of local markets, the whole ecosystem can mobilize and operate more efficiently and effectively than without government leadership. Donors have increased clarity about a country's priorities and action plans, allowing them to better allocate substantial funding. The private sector has increased clarity about national investments into infrastructure that

will strengthen supply chains and access to favorable tax and tariff structures, allowing them to make informed investment and expansion decisions. Global clean cooking advocacy and research organizations can better mobilize the technical and policy support that they can offer to national governments in their clean cooking transitions. National government leadership is also essential to ensure the poorest and most vulnerable households are not left behind, through subsidy programs and investments into infrastructure that extend access to the hardest to reach geographies, or enable regional approaches than expand the market.

The Strategy also recognizes that each country will require clean cooking transition strategies that reflect local market realities, cooking preferences, current access rates, broader energy access and climate plans and more. As such, a country-by-country approach is required.

The following components are essential to this priority outcome:

1. National governments lead clean cooking transitions by (a) adopting and implementing bold clean cooking strategies that include defined clean cooking targets, implementation plans and dedicated budget allocations and (b) adopting clean cooking policies, regulations and appropriate tax and tariff structures. National clean cooking strategies can focus solely on clean cooking or can be embedded in national integrated energy plans or national climate plans (potentially as part of a country's Nationally Determined Contributions).
2. Ecosystems composed of national and international clean cooking advocacy organizations, civil society and nonprofit organizations, research and policy institutes, financial institutions, private suppliers and more shape and deliver on clean cooking mandates defined by national governments.

Action Items for Achieving Priority Outcome 1

The Action Items related to Priority Outcome 1 are intended to establish local ecosystems that can collectively own and deliver on national-level clean cooking transitions. By formalizing these components at the local level, the ecosystem shifts the power dynamics in favor of a transformation that is anchored in local ownership and authority and creates a more sustainable model for clean cooking transitions, which is no longer reliant on agenda-setting and support from the international community. Delivering on Outcome 1 requires efforts to:

1.1 Empower and support at least ten national governments to lead ambitious clean cooking transitions.

Government leadership is essential to achieve universal access to clean cooking solutions. Yet national governments often face coordination, financing, capacity, institutional and political economy challenges that prevent them from adopting and/or implementing ambitious and viable clean cooking transitions. Accountability for clean cooking outcomes is often spread thinly across ministries and agencies, and clean cooking remains an issue that is less politically charged than other development priorities. As a result, clean cooking objectives and investments are not elevated, monitored and optimized as effectively as they could be. Additionally, clean cooking is often not acknowledged as part of national integrated energy planning or Nationally Determined Contributions, each of which is integral to prioritizing the clean cooking issue and accessing critical pools of capital. National governments have an indispensable role in leading local clean cooking transitions, and they will require the support of the ecosystem to help set and deliver ambitious mandates.



Initiative: A Delivery Units Network to establish and support national delivery units dedicated to clean cooking across at least 10 countries.

1.2 Activate and enable local and international entities to shape and implement national-level clean cooking transitions.

Local and international advocacy organizations, civil society groups, industry representatives, investors and enterprises have an important role to play at the country level. They can influence and inform the drafting of national clean cooking strategies and plans as advocates for users, private sector investment and the adjacent communities across environment, health and gender. They also have a role in the implementation of these national plans and strategies. Activating and enabling these stakeholders requires a country-by-country approach and will typically include efforts to establish a more formal network among these various stakeholder groups to coordinate, leverage and streamline efforts related to clean cooking, as well as strengthening connections between these stakeholders and government. Decisive national leadership can also create a ripple effect that incentivizes and provides a roadmap for other countries to follow, and unlocks opportunities for regional collaborations, agreements and plans.

Priority Outcome 2

Foster rapid and effective innovation as the bedrock for advancing technologies and business models.

2.4 billion people globally lack access to clean and affordable cooking solutions. The Strategy recognizes that closing this gap will require a steep acceleration in the rate of access, which can only be achieved if the ecosystem is able to drive innovation around both user-centric, high-performing technologies and commercially sustainable business models.

Innovation is a critical part of the maturation of a market, and the clean cooking ecosystem would benefit from an innovation process that is (a) more rapid and iterative, (b) occurs more broadly across all types of technologies, business models and enabling factors such as the application of digital technologies/data, financing, subsidy design, marketing and customer awareness campaigns and more, (c) leads to better outcomes of the innovation process itself and (d) is more efficient in the use of financial resources. Improving the innovation process through these components will allow the ecosystem to deliver better outcomes, faster.



Action Items for Achieving Priority Outcome 2

2.1 Shift the culture to prioritize and enable innovation.

Innovation is essential to advancing technologies, business models, financing and policies to drive universal access to clean cooking. Successful innovation requires embracing a particular mindset, risk appetite and process that goes beyond business as usual to cultivate enabling environments for enterprises, implementers and funders to learn from both failures and successes in the clean ecosystem. However, the current culture and dynamics still largely hinder innovation. Funding programs do not encourage adequate risk-taking, innovation processes are siloed within specific enterprises and failures are viewed as catastrophes rather than learning opportunities—all of which leads to skewed perceptions, reputational risks and ultimately stakeholders exiting the ecosystem. To support an enabling environment, the ecosystem needs a culture shift that establishes a higher risk tolerance; embraces failure as a means of learning and rapidly improving outcomes or to justify pivots to more viable projects; and institutionalizes norms that encourage innovation, including extending funding timelines, redefining success metrics, improving transparency in sharing lessons learned from failure in reporting processes and creating a trusted space for conversations on lessons learned from the innovation process.

2.2 Establish a shared innovation roadmap and agenda

Related to shifting the culture in the clean cooking ecosystem to prioritize innovation, a clear agenda to guide the actors responsible for actioning and enabling innovation is also needed to move the ecosystem forward rapidly and effectively. Currently, innovation across the ecosystem remains too much a collection of disparate efforts, resulting in an inefficient use of time and shared resources. To ensure the coordination of innovation activities across the clean cooking ecosystem and leverage the ecosystem's collective resources in the most efficient way possible, a shared set of innovation priorities for both technologies and business models is required. A single innovation roadmap that specifies innovation goals and prioritizes where innovation is needed across the ecosystem will provide a shared vision to guide both the innovators themselves and the funders who enable these innovators.



2.3 Build the capacity to innovate, particularly within enterprises.

In addition to establishing an enabling environment for innovation, enterprises themselves need to build the requisite skills to innovate effectively within their organizations. This includes having the technical capacity and business acumen to adjust and improve technologies, products and business models, as well as having a thorough understanding of what the Innovation process entails—including performing rapid iterations and prototyping, building creative teams and managing investor and donor expectations. Additionally, enterprises need to be equipped to capture lessons learned from the innovation process to inform future innovation and share these lessons broadly across the ecosystem. Currently, most enterprises remain too small and cash-strapped to do so, as they are unable to build the right teams with the necessary talent or prioritize innovation while keeping business operations afloat. Building innovation capabilities within enterprises will require capacity building in the innovation space as well as increasing access to tools, guidance materials and related resources that inform the innovation process.





2.4 Establish the infrastructure and norms to capture insights from the innovation process and share these insights widely.

For innovation to be effective, the clean cooking ecosystem needs to establish a process and infrastructure to effectively capture and share lessons learned from innovation projects from within organizations and enterprises. The ecosystem today maintains a tendency to silo learnings from such projects, resulting in the repetition of failed projects or business models when launching in new markets and geographies. This also represents an inefficient use of already scarce funding available to the ecosystem. To rapidly achieve universal access, innovation successes as well as failures need to become a public good for the entire ecosystem. This will need to include establishing norms among enterprises and investors, capturing insights and sharing lessons learned while considering intellectual property and optimizing to ensure failures are not duplicated by other organizations and enterprises expanding in new geographies or with new funding sources.

Priority Outcome 3

Scale a variety of private and public delivery models that accelerate growth of sustainable and user-centered clean cooking markets.

Under the Strategy's principle of self-determination, countries must decide the solution mix that best suits their national landscape. To the degree possible and where national priorities can be shaped, the Strategy calls for a prioritization of high tier solutions. Where high-tier solutions³ are not viable in a reasonable timeline and where incremental benefits are possible, lower-tier solutions such as improved cookstoves can and should be part of the transition to ensure equitable access that values the health of people and the planet. Specifically, the Strategy highlights three solution trajectories: LPG/electricity, ethanol/advanced biomass and improved cookstoves. As solutions evolve, these trajectories may change, in some cases rapidly.

The Strategy calls for efforts to rapidly scale up solutions through (a) national market building efforts in the form of demonstration projects, public-private partnerships investments and taxes/tariffs/subsidies, (b) private sector development and (c) knowledge/insight creation. The Strategy also acknowledges that both the private and public sector will have a role in delivering solutions. The private sector has a critical role to play in delivering solutions at scale, likely alongside public sector delivery given the core benefits clean cooking provides. National-level plans should shape which solutions are prioritized (given a country's climate goals, the needs of local populations, regulatory policy, etc.) and

³ Those that meet ISO Tiers 4-5 for efficiency and emissions as per ISO/TR 19867.

once these priorities have been established, national plans should also provide the tax/tariff/subsidy structures and public-private investment to help spur private sector growth toward the solutions each country has prioritized.

In order for the private sector to achieve meaningful reach, there needs to be a greater number of enterprises providing these solutions locally and these enterprises need to be better able to serve the market. Increasing the number of enterprises requires both supporting “pioneers” to scale along with crowding in new entrants. Both private and public capital have a role in supporting pioneers and crowding in new entrants by providing resources for innovation, scale-up and ecosystem building.

Additionally, to support and enable scale-up of delivery, the public sector needs to build the infrastructure for solution delivery and fuel markets. This can help enable the proliferation of the private market, as well as enable the delivery of solutions via the public sector, including through models like public utilities.



Action Items for Achieving Priority Outcome 3

3.1 Support country-level market-building activities through national-level planning and public-private partnerships.

National governments should lead on decision-making regarding the specific clean cooking solution mix to scale in their country and establish the market conditions to make that possible, as each market is unique. National integrated energy plans provide governments with a clear understanding on the clean cooking landscape in their countries, in order to make informed decisions on how to direct resources effectively towards specific solutions that can reach scale given the tradeoffs across solutions. These plans also allow governments to identify the necessary infrastructure to deliver said solutions. Additionally, the ability to purchase fuels locally for various technologies is critical for functional local markets and supply chains. This requires building a country-level ecosystem that supports rapidly advancing technological solutions at the local level, with investment from both private and public sectors to establish the infrastructure that will then allow new solutions to scale to national or regional levels. Relatedly, close engagement with local and global industry groups is needed to shape investments and delivery models around the issue of clean cooking and help them to recognize the market opportunities for clean cooking, ensure they have the market and technical knowledge to deliver solutions and strengthen relationships between industry and other clean cooking solution providers.

3.2 Promote tax, tariff and subsidy structures to drive market growth and solution uptake.

Tax, tariff and subsidy structures, including VAT exemptions and rebates, help establish favorable market conditions for new enterprises to enter the clean cooking market. Without these structures, enterprises do not have adequate incentive to expand operations and clean cooking uptake among consumers will remain low. Effective structures need to be designed to be equitable and accessible to all, efficient in their targeting, predictable to minimize uncertainty and minimally distortive around negative outcomes. Taxes and tariffs can be designed and established by an individual country, or as part of a regional trade bloc, especially in those instances where stoves and fuels need to be imported from outside a specific country. Meanwhile, smart subsidies are crucial to extending equitable access, given the affordability gaps that remain today in the clean cooking ecosystem in terms of both ability and willingness to pay, and are justified given the many societal benefits of clean cooking, including climate, environmental conservation, public health, women's empowerment and more.

3.3 Strengthen enterprises delivering clean cooking solutions.

To reach the scale required to achieve universal access, the clean cooking ecosystem needs a greater number of clean cooking enterprises and, among these, enterprises with the capacity to innovate and scale their operations rapidly. Enterprises will require a broad set of specialized, capacity building, technical assistance and access to and support to secure early-stage and growth capital. This requires interventions directly aimed at enterprises, as well as broader ecosystem-building efforts.

3.4 Build country-level market intelligence.

Knowledge about markets is critical for overcoming current barriers and spurring the adoption of clean cooking solutions, but such knowledge currently remains scattered, incomplete or nonexistent, which hinders additional investment into the ecosystem and uptake of clean cooking solutions by users. Country-level market intelligence, including access to finance, can provide nuanced insights on the usage of clean cooking technologies, existing fuel markets and prices, household demographics and values and infrastructure that can inform and guide further investment into and action on clean cooking within a specific country context. Additionally, country-level intelligence can inform governments to establish national targets, develop national plans and strategies, finance implementation and track implementation progress, including diagnosing challenges in real time.

3.5 Deepen insights on the full user experience to help inform better product design, national planning and implementation, subsidy design, consumer education and more.

Household cooking preferences and behaviors are complex and highly segmented. Understanding the full cooking experience—including how people cook, the context in which a household cooks, transitions in and out of dirty cooking over time, how food is packaged and sold locally, competing needs and more—is a fundamental input to product and business model innovation, national policymaking and the design of many interventions targeting increased demand and use. Furthermore, digital technologies (via pay-as-you-go models, etc.) and innovations around lean data can help generate insights on users in real time and on more complex metrics than previously possible (i.e. usage patterns).

Initiative: A User Insight Lab that applies a customer-centric lens to better understand user preferences and behavior and helps enterprises, donors and policymakers improve their value proposition to consumers

3.6 Expand the application of targeted digital technologies and data, particularly to better understand usage, enable verification for Results-Based Financing (RBF) and to support business model innovation.

Digital technology, lean data (i.e. the use of low-cost technologies, such as cell phones, to collect data) and big data allow the tracking of usage (and potentially dis-usage) in real time at the household level. The use of data enables a deeper understanding of user behaviors, allows for cost-effective and rigorous verification methods that can help position clean cooking projects as desirable for RBF (including carbon finance and any other financing that requires results are achieved and verified for payment) and provides insights and business analytics that help

enterprises and project implementers better manage and expand their operations and product or service offerings. While the application of digital technologies and data can be widespread, investments into these technologies and data infrastructure are often cost-prohibitive. The cost of a meter can increase the price of a clean cooking solution for end-users, and enterprises often lack the resources to invest in the technologies and infrastructure required to capture data. Therefore, the ecosystem should focus on building out the digital technology and data infrastructure where it can generate the widest benefits, such as improving the robustness and cost-effectiveness of RBF for the clean cooking ecosystem, thereby unlocking more RBF capital and building a stronger investment case for outcome buyers.

Initiative: Piloting and rapidly scaling digital technology and lean and big data efforts, with a greater emphasis on the application of these innovations where data can generate the greatest value



3.7 Build the necessary standards and testing capacity.

International standards provide a single, validated source for testing methods and performance indicators. They facilitate coordination in a global ecosystem and drive innovation, resulting in products with higher efficiency and reduced emissions, critical to national climate agendas. Standards and testing increase transparency, making clean cooking more attractive for climate finance, and inform user choices and trust. Governments need guidance on how to translate international voluntary performance standards for clean cooking into local policy. Testing centers need capacity building to ensure that they can confidently and accurately test and report against the new protocol and performance indicators. As more national clean cooking programs stipulate standards-based performance criteria, and testing centers demonstrate their harmonized abilities, increasingly transparent, comparable and reliable performance reporting will ultimately help improve the quality of products available to the users and enable wider utilization of climate finance as part of national clean energy transitions.

Initiative: Standards and testing program to (i) help countries translate international performance standards into local policy and (ii) strengthen local testing expertise and harmonization through capacity building.

Priority Outcome 4

Maximize immediate and accessible capital that enables all priority outcomes and unlocks future capital.

Funding and financing are critical enablers for success across the whole ecosystem. The magnitude of capital available to address clean cooking access must match the magnitude of the challenge. The issue of clean cooking remains underfunded compared to other development priorities, and the ecosystem has often struggled from a scarcity of financial resources due to insufficient investments from both private and public sources. At least US\$10 billion⁴ a year is required to achieve universal access to clean cooking, yet the level of clean cooking funding currently stands at about \$130 million annually—or roughly 1% of the required investment. Without this funding and financing, progress across the entire ecosystem stalls and ambitions are lowered.

The ecosystem will likely need to unlock the full potential of funding and financing in waves, rather than immediately and all at once. The Strategy focuses on securing capital that is both appropriate and necessary for today's clean cooking landscape. For example, with a few exceptions, clean cooking enterprises today are often small-scale and early-stage. As a result, they often require funding that is concessional, patient, risk-tolerant and a relatively small ticket size. The Strategy targets funding opportunities that are suited to address these capital needs, while also acknowledging that the long-term ambition is to graduate a pipeline of enterprises into capital structures that are more diverse and mature as they grow, ultimately tapping into global capital markets like other mature industries.

⁴ Based on the IEA World Energy Outlook Model, in which the annual investment required to achieve universal access to clean cooking accounting for Net Zero Emissions by 2050 (NZE) scenario is \$8 billion. This amount does not include fuel cost to the user or technology replacement costs (i.e. only first-time access is included).



The Strategy focuses on three high-priority funding and financing opportunities:

- 1. Results-Based Financing⁵**, including carbon credits and climate finance: RBF represents a high-potential funding opportunity for the clean cooking ecosystem. The capital supply available through RBF is sizable and growing, driven by an expanding voluntary carbon credit market, growing momentum for the Net Zero 2050 agenda and donor preferences for innovative financing mechanisms that can catalyze private sector capital. At the same time, the clean cooking ecosystem has had several promising landmark initiatives directly or indirectly supporting RBF for clean cooking, including a large-scale issuance of carbon credits for clean cooking on the voluntary market, several funds that include RBF for clean cooking and several results verification initiatives. RBF can serve to meet several funding needs within the clean cooking ecosystem, including funding to support enterprises and clean cooking project implementers, to help subsidize the cost of usage for low-income households and as a source of funding for public infrastructure and programs.

⁵ Results-Based Financing is an umbrella term referring to any financing that is awarded on the basis of agreed-upon results or outcomes being achieved and verified, including carbon credits and climate finance.

2. Concessional capital: Given the nascent nature of clean cooking markets and the need for ecosystem-building initiatives, there remains a role for concessional capital in the clean cooking ecosystem today. Specifically, concessional capital has several critical uses: establishing blended financing facilities that can crowd in private or return-seeking capital to support early-stage and growth-stage enterprises (both the “business model pioneers” looking to prove their business model and new entrants crowding into the space); funding ecosystem-building initiatives such as research, data platforms, public-private partnerships to build national and regional fuel ecosystems and more; subsidy programs and other strategies that serve the lowest income users; and funding game-changing innovation.

3. National government contributions: As national governments increasingly lead clean cooking transitions, their financial commitments to clean cooking should also grow. National government contributions are important funding sources for expanding large-scale infrastructure (including integrated energy services and supply chains such as transport infrastructure), subsidy programs that serve the lowest income users and clean cooking programs in institutional settings such as schools and hospitals.

These three specific funding and financing sources do not represent the full suite of capital that is required to achieve universal access, nor does the Strategy suggest that these three sources will remain equally important as the ecosystem evolves. For example, over time, the need for concessional capital should reduce as the pipeline for enterprises matures, national markets are less thin and other types of financing become accessible. Instead, the Strategy has prioritized these three as they each represent a significant pool of potential capital, are accessible based on the current state of the clean cooking ecosystem and match the needs of the clean cooking ecosystem today. The ecosystem can only progress by injecting investments into clean cooking and countering a business-as-usual model of operating with scarce resources.

Action Items for Achieving Priority Outcome 4

4.1 Unlock the full-potential of Results-Based Financing.

In the last decade, the clean cooking ecosystem has seen several landmark initiatives that directly and adjacently support RBF, including funds that cover clean cooking, large scale issuances of carbon credits for clean cooking and results verification initiatives. However, the full potential of RBF for clean cooking has yet to be realized. This requires reducing the high transaction costs, driving more innovation and transparency, improving the credibility of clean cooking opportunities among outcome buyers and designing RBF structures and terms with prefinance and follow-on investment requirements in mind. Potential application of RBF includes financing to support the scale-up of enterprises, as one part of the capital stack that these enterprises require to drive meaningful growth (Priority Outcome #3); fund the implementation of national plans/strategies (Priority Outcome #1); and subsidize end costs for the poorest users.

Initiative: A Catalytic Finance Accelerator designed to fund and support pilots, research and innovation on RBF and other catalytic finance applications in the clean cooking space.

4.2 Increase the application of concessional capital.

Both public and philanthropic funders are needed to provide the concessional capital that serves to drive innovation (Priority Outcome #2), fund public goods and equitable access and support early-stage enterprises, setting them up to source other types of capital as they mature (Priority Outcome #3). To do so, concessional capital must be designed to take risks and cover longer timelines, while also reducing any market distortions and avoiding long-term dependence on this funding. However, the amount of concessional capital allocated to clean cooking to date has been inadequate, often does not meet the specific capital needs of funding opportunities (for example, funding timelines are too short, ticket sizes are too large, use is too restricted, or risk tolerance is too low to drive innovation) and favors certain solutions or enterprises at the expense of broader market growth.

Initiative: Scaling blended financing facilities and other forms of concessional capital.



4.3 Increase the application of national government contributions and public funding.

National government contributions and other types of large-scale public funding such as bilateral and multilateral development aid and development finance loans are particularly critical for funding large-scale infrastructure, funding clean cooking programs in institutional settings such as schools and hospitals and funding subsidies and other programs that can help deliver equitable access. Furthermore, given that clean cooking is a central component of achieving climate justice and energy access, as well as other core benefits, there must be an allocation of funding earmarked for these issues to clean cooking efforts.

Initiative: See the Delivery Units Network, as an effort to support country-specific evidence bases, as well as to influence and help mobilize public funding allocations



Priority Outcome 5

Activate the most impactful—and impacted—voices to lead holistic clean cooking transformations.

Clean cooking is a uniquely intersectional issue that sits at the nexus of energy access, health, gender, climate, environment and economic development. As countries transition to clean cooking, they will also see the benefits of economic growth, improved child and maternal health, enhanced quality of life, reduced deforestation and habitat loss, integrated energy planning and infrastructure and more. Clean cooking access is essential to climate justice—without changing the way people cook, the development community is likely to fall short on addressing climate issues in a just and equitable way. Leveraging the inextricable relationship that clean cooking has with a variety of agenda issues can unlock funding and elevate clean cooking as a development priority on national agendas and the global stage. The Strategy seeks opportunities to spotlight clean cooking as central to these related campaigns, draw explicit linkages between shared priorities and promote collective action to secure new funders and allies to the issue of clean cooking.

Furthermore, local leaders, advocates and entrepreneurs, who have historically been underrepresented in global climate and energy dialogues, must be included and empowered to drive the clean cooking agenda in their communities and countries. In the past, many clean cooking efforts failed because they did not understand or respond to context-specific needs, preferences, experiences and circumstances. The Strategy seeks to shift the dynamics of the ecosystem to prioritize local ownership and decision-making, design and deliver solutions that people value and can afford and ensure the long-term sustainability of clean cooking transitions.

Action Items for Achieving Priority Outcome 5

5.1 Elevate and rebrand the opportunity of clean cooking as central to climate, health, energy and human rights agendas.

Many of the Priority Outcomes and Action Items are not possible without deeper engagement among a wider set of funders, national governments and other key audiences not currently engaged by or active within the clean cooking ecosystem. In particular, the clean cooking ecosystem must find ways to elevate and rebrand the opportunity of clean cooking to align with several relevant agendas: as an essential human rights issue, as critical for achieving just energy transitions and climate justice goals, as a solution for conservation and biodiversity efforts in key landscapes and as a central factor in delivering resilient health outcomes and clean air for all.

Initiative: An Evidence to Action Hub that aims to reshape perspectives and narratives among key audience groups through actionable, evidence-based messaging and influence campaigns.

Initiative: Campaign to rebrand clean cooking as a human rights issue and a merit good.

Initiative: Campaign to elevate clean cooking at international events, specifically building formal and informal relationships with relevant power brokers, to ensure clean cooking is integrated into the agenda at global summits.

5.2 Influence audiences that are key to delivering Horizon 1 outcomes.





Specifically, this includes:

- a. Development Finance Institutions (DFIs): Engage senior leadership (including country directors) and investment teams to unlock more funding from DFIs and ensure DFIs are raising the issue of clean cooking with governments. [Initiative: Campaign to Elevate Clean Cooking within the agenda of DFIs]
- b. Climate community, most notably funders, carbon outcome buyers and agenda-setters involved in shaping global dialogues. [Initiative: Climate Finance Campaign.]
- c. Impactful adjacent stakeholders: Build bridges, join forces and harness existing coalitions to align action on interconnected areas and drive systemic, landscape scale impact (e.g. clean cooking means less deforestation and conserving local biodiversity).
- d. Private sector corporations: Activate the wider private sector, not only as carbon outcome buyers, but as active participants in developing and scaling all aspects of the clean cooking value chain, including fuels, appliances, digital technology, consumer finance, etc.
- e. Donors, philanthropic foundations and high-net-worth individuals as a source of concessional capital and RBF.

Priority Outcome Action Items*






Priority Outcome 1: Empower governments to lead

-   • Support national governments to lead ambitious clean cooking initiatives.
-   • Activate local, national and international entities to implement comprehensive clean cooking transitions.



Priority Outcome 2: Foster innovation

-  • Encourage a culture shift that prioritizes innovation.
- Establish a shared innovation roadmap and agenda.
-  • Build the capacity to innovate, particularly within enterprises.
-  • Establish infrastructure and norms to capture and share insights from the innovation process.






Priority Outcome 3: Scale a variety of delivery models

-  • Support market-building activities through national-level planning and public-private partnerships.
-  • Promote tax, tariff and subsidy structures to drive market growth.
- Strengthen enterprises delivering clean cooking solutions.
- Build country-level market intelligence.
-    • Deepen user experience insights to strengthen product design, national planning and implementation, subsidy design, consumer education and more.
-  • Expand application of digital technologies and data to better understand usage, enable verification for Results-Based Financing (RBF) and support business model innovation.
-  • Build the necessary standards and testing infrastructure.











Priority Outcome 4: Maximize pools of capital

-   • Unlock full-potential of Results-Based Financing.
- Increase application of concessionary capital.
-  • Increase application of national government contributions and public funding.



Priority Outcome 5: Activate impactful and impacted voices

-     • Elevate and frame clean cooking as central to climate, health, energy and human rights agendas.
-     • Engage audiences that are pivotal to delivering Horizon 1 outcomes.

*See A Strategy for Horizon 1 Priority Outcomes on page 10



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