

2020

ANNUAL REPORT



CLEAN
COOKING
ALLIANCE

LETTER FROM THE CEO

Last January, we kicked off 2020 with significant momentum. It was only weeks after a successful [Clean Cooking Forum](#), and the same month as the largest-ever private equity investment in the clean cooking sector, as Circle Gas [acquired KopaGas's technology](#) in a US\$25 million transaction.



No one could have ever predicted what would soon follow, as the devastating impacts of COVID-19 hit families, businesses, and economies around the world. In the face of the pandemic, and despite monumental challenges, the Clean Cooking Alliance (CCA) has remained committed to its work to build an inclusive industry that makes clean cooking accessible to the millions of people living without it.

As shown throughout this report, the CCA Team has worked closely with its global partners to provide critical resources and advocacy to help businesses, governments, consumers, and investors respond to this global crisis. In addition to [direct support](#) to mitigate COVID-19 impacts, we also launched the new [Cooking Industry Catalyst](#) program and helped secure commitments of more than US\$16 million from the European Commission and the African Development Bank for the new [Spark+ Africa Fund](#). Both initiatives will help accelerate clean cooking sector growth, while complementing pandemic response efforts.

I am also proud of other efforts by the CCA Team to continue strengthening the sector, including the ongoing development of a Clean Cooking Systems Strategy, our market building program in Haiti, and

countless workshops, webinars, and activities on topics such as standards implementation, a new Women in Clean Cooking mentorship program, global advocacy efforts, and new research into household air pollution and its relationship to COVID-19.

Despite challenges ahead, I remain optimistic about 2021 and beyond. A vast amount of work is already underway, as is our engagement in numerous partnerships, such as the Sustainable Energy for All (SEforALL) Youth Summit; the High-level Dialogue on Energy, hosted by the United Nations; and the 26th UN Climate Change Conference (COP26).

As always, I thank CCA's partners and donors, without whom none of the progress we made in 2020 would be possible. The strength of CCA and the clean cooking sector continues to inspire me daily, and I look forward to continuing to build momentum toward our shared goals.

Sincerely,

A handwritten signature in black ink, reading "Dymphna van der Lans".

Dymphna van der Lans
CEO, Clean Cooking Alliance



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Cover Photos: Circle Gas (left) and Green 66 (right)

Expanding Access to Biogas During a Pandemic



Esther Altorfer (on the right in the photo on the left, above) works at Sistema.bio with a team of 130 sales agents and staff members, serving 3,400 clients in and around Nairobi, Kenya.



Photos: Sistema.bio

Biodigesters may not have been designed with social distancing in mind, but in the era of COVID-19, they have proven to be exceptionally well-suited to it, according to Esther Altorfer, Managing Director of East Africa at [Sistema.bio](#). Unlike many other cooking technologies, biodigesters eliminate the need to leave home to collect or purchase sources of fuel.

“Those who have biodigesters can still cook, fertilize their farms, and grow food without leaving their homes. Our product is built for resilience,” said Altorfer.

The pandemic did, of course, impose some unique challenges for Sistema.bio. For instance, Kenya’s travel restrictions meant the company had to find different ways to attract new clients. One strategy it adopted was providing sales agents with financial incentives that are paid the same day, rather than at the end of the month, thereby providing instant

financial relief during a time of economic hardship.

“Everybody adapted really fast,” said Altorfer. “We sold more biodigesters in mid-2020 than we did earlier in the year, which was quite an encouraging sign.”

The pandemic also forced Sistema.bio to become more creative when communicating with existing customers. “We had already digitized our data collection through a mobile app that allows us to connect with customers over the phone, but we began developing tools for remote troubleshooting, as well,” said Altorfer.

Underlying all these efforts was the constant need to keep Sistema.bio’s team apprised of any operational changes.

“This situation is hard,” said Altorfer. “It’s important to remind everyone of our mission, why we’re here, and of the amazing impact that [Sistema.bio] is having on the lives of Kenyan farmers.”

Sistema.bio is a member of CCA’s Venture Catalyst portfolio, and Esther Altorfer was a finalist for CCA’s 2019 Woman Entrepreneur of the Year Award. This story is [part of a series](#) showcasing women entrepreneurs in the clean cooking sector.

COVID-19

Measuring the Impacts and Supporting the Response

COVID-19 brought unprecedented hardship, threatening progress toward many of the development goals that CCA and its partners are committed to achieving.

Like many other sectors, clean cooking was heavily affected by the pandemic's immediate health risks and associated socioeconomic consequences. To better understand and more effectively respond to these uncertainties, CCA undertook a number of activities in 2020, including:

- [Surveying](#) companies, investors, donors, and other stakeholders in the clean cooking sector. The survey's

300 responses showed that reliable access to clean cooking solutions could be in danger. Of the 111 enterprises that responded to CCA in April 2020, two-thirds expected moderate to severe disruptions due to COVID-19.

- Developing an [online hub](#) to share guidance, funding opportunities, and other resources to help companies and individuals adapt to the changing landscape, including

through a special edition [newsletter](#) dedicated to COVID-19 responses by CCA and its partners.

- Collaborating with the World Bank, EnDev, GOGLA, SEforALL, and other partners on the "[Energy Access Industry Barometer](#)," a survey that gathered market data from 613 energy companies across 44 countries. This survey, too, found that COVID-19 impacts were dramatic and far-reaching.



Kip Patrick/Clean Cooking Alliance

COVID-19 (continued)

- [Advocating](#) for effective policies to respond to COVID-19 and to “build back better,” including by incorporating clean cooking in COVID-19 emergency response plans, committing to long-term health goals, engaging global media to publish stories that highlight impacts on the sector, and [improving gender equality](#) in the transition to sustainable energy.
- [Exploring](#) the possible connections between air pollution and COVID-19, including holding a workshop in August 2020 with experts in household air pollution, epidemiology, immunology, virology, and infectious disease.
- Highlighting the innovative ways in which [women entrepreneurs](#) and other [clean cooking business leaders](#) are adapting their operations to retain, or even expand, their customer base. In addition to publishing these leadership insights, CCA hosted a [webinar](#) in July 2020 with SEforALL, ENERGIA, and members of the People-Centered Accelerator on women’s roles as industry leaders during these challenging times.
- [Calling attention](#) to the ways in which people in humanitarian settings—most of whom rely on polluting, open fires or inefficient stoves—may face particularly high risks from COVID-19 due to their exposure to air pollution.



Prashanth Vishwanathan/Bloomberg

What are the connections between air pollution and COVID-19?

Researchers have posited several hypotheses linking Household Air Pollution (HAP) and COVID-19 infection and severity. In September 2020, CCA developed and released a request for proposals to research the links between chronic HAP exposure and COVID-19 in low- and middle-income countries, where millions of people are exposed to dangerous levels of HAP from cooking and other sources. Following a competitive selection process, CCA awarded funding for two studies, with the goal of better understanding how reducing HAP could identify high-risk communities and mitigate future respiratory pandemics.

Clean Cooking's Largest Private Equity Deal to Date

In January 2020, U.K. holding company [Circle Gas Limited](#) paid US\$25 million to acquire technology and manufacturing capabilities developed by [KopaGas](#), a pioneer in the pay-as-you-go (PAYG) cooking gas market.

Through this deal—the largest private-equity investment in the clean cooking sector—Circle Gas plans to expand KopaGas's existing business in Tanzania, as well as to introduce the technology in Kenya, together with leading telecom company Safaricom.

Circle Gas' approach centers on a smart meter that releases liquified petroleum gas (LPG) until a customer's funds run out. Accounts are easily topped up through electronic transfers.

"Households in many markets will finally be able to buy LPG in small, daily quantities that will save them money versus charcoal and kerosene," said Circle Gas CEO Volker Schultz.

"There are many reasons that we believe now is the right moment to invest," said Schultz. "Mobile money transactions have become ubiquitous and entail minimal transaction costs. The costs of the smart meter have already been engineered down sufficiently to be attractive. Finally, it is unacceptable that, in the 21st century, nearly three billion people are forced to cook with charcoal, firewood, or kerosene."

For other clean cooking companies seeking to scale up, Schultz has this advice: "First and foremost, focus on the customer. I don't believe it is possible to succeed in this market without an attractive offer that keeps improving and adjusting to customers' needs. The customer needs to remain central to what we do. Second, focus on the company's profitability and the huge potential for positive societal impact."



Photos: Circle Gas

Circle Gas' proprietary smart meter, located directly on the LPG cylinder, reports gas consumption back to Circle Gas systems to support billing and the scheduling of replacement cylinders.

KopaGas is a previous recipient of technical assistance from CCA. This story is [part of a series](#) about business leaders from across the clean cooking sector.

INDUSTRY DEVELOPMENT

CCA works with a global network of partners to build an inclusive industry that makes clean cooking accessible to the billions of people who live each day without it. In 2020, CCA implemented a wide range of activities to support market and business growth, as showcased in the following pages.



Cooking Industry Catalyst

In 2020, CCA launched the [Cooking Industry Catalyst](#), a program to demonstrate the clean cooking sector's opportunity for commercial viability and impact at scale. The program made progress across its three components: the Market Catalyst, the Demand Catalyst, and the Venture Catalyst.

MARKET CATALYST

CCA hosted two investor-focused events that were designed to build awareness of technical developments, business model innovations, and emerging investment opportunities:

Clean Cooking Investor

Roundtable: Hosted in partnership with Shell Foundation in September 2020, this roundtable brought together funders who had already invested or were actively exploring investments in the clean cooking sector. The roundtable was the first in a series that aimed to share market insights and intelligence, identify key sector challenges, generate ideas about how public and private sector actors can collaborate to accelerate market development, and encourage collaboration on future co-investments.

Clean Cooking Investment

Series: Supported by GET.invest, the first convening of the [Clean Cooking Investment Series](#) took place in November 2020. Leading companies, investors, and other stakeholders from across the clean cooking sector were invited to a two-day virtual event, covering topics ranging from investment readiness and asset financing, to results-based financing and consumer demand. CCA has planned a virtual, follow-up event for late 2021.

DEMAND CATALYST

Activities under the Demand Catalyst align closely with the Venture Catalyst and aim to support increased demand for the products being offered by businesses in the Venture Catalyst portfolio and in its pipeline. With the Venture Catalyst ramping up in 2020, CCA's Demand Catalyst focused on reviewing past activities on behavior change and demand creation, and gathering

information and knowledge from other behaviorally focused interventions within the clean cooking sector and adjacent sectors. CCA also explored partnerships for joint programming and integration of clean cooking into existing initiatives, as well as possible new areas of intervention, to drive demand by facilitating greater affordability, availability, and awareness of clean cooking solutions.



Peter Irungu/KopaGas

INDUSTRY DEVELOPMENT *(continued)*

VENTURE CATALYST

In May 2020, CCA launched the [Venture Catalyst program](#), bringing together a portfolio of 31 enterprises in 14 countries (as of December 31, 2020). These enterprises manufacture and distribute a broad spectrum of clean cooking technologies, including biomass stoves, advanced biomass fuels such as pellets and briquettes, ethanol stoves and fuels, biogas systems and supporting technologies, LPG solutions, and electric cooking appliances. Several of the enterprises provide services such as consumer financing and last-mile distribution, which can support access to many clean cooking solutions. The enterprises were selected for their potential impact on the future growth of the clean cooking industry.

Based on their needs, Venture Catalyst enterprises receive support and expertise from CCA staff or third-party providers of technical assistance, and may receive direct grant funding. The top three types of projects in the Venture Catalyst pipeline are capital raising, product research and development, and operations.



ATEC

VENTURE CATALYST PORTFOLIO COMPANIES

as of December 31, 2020



Countries indicated relate to primary operating markets except for (*). In those cases, countries indicated relate to HQ locations.

Norway

Blue Flame Stoves* (Ethanol stoves)

United Kingdom

Connected Energy*
(Biogas monitoring systems)
Village Infrastructure
Angels* (Electric stoves)

Netherlands

Mimi Moto* (Biomass stoves)

Germany

Fosera* (Electric stoves)

Israel

Home Biogas (Biogas systems)

Cambodia

ATEC (Biogas systems)
OTAGO (Biomass briquettes)

India

Greenway (Biomass stoves)
SP Eco Fuel (Biogas systems)

Ethiopia

Obamastove (Biomass stoves)

Uganda

Lifeline Fund (Biomass stoves)

Rwanda

BioMassters
(Biomass pellets and stoves)
BBOXX (PAYG LPG)

Zambia

Emerging Cooking Solutions
(Biomass pellets and stoves)
Wid Energy Africa (Consumer lending)

Mozambique

Green 66 Innovations
(Ethanol and stoves)

South Africa

PayGas (LPG refilling stations)

Lesotho

Africa Clean Energy/ACE
(Biomass stoves)

Kenya

Acacia Innovations (Biomass briquettes)
Bidhaa Sasa (Last-mile distributor)
BioLite (Biomass stoves)
BURN Manufacturing (Biomass stoves)
Circle Gas (PAYG LPG)
Consumer's Choice (Ethanol and stoves)
Giraffe Bioenergy (Ethanol)
HavGas (LPG gas and stoves)
KOKO Networks (Ethanol and stoves)
M-Kopa Labs (Electric, LPG, biogas, biomass stoves)
Mwangaza Light (Last-mile distributor)



Spark+ Africa Fund

In December 2020, the African Development Bank [announced](#) its commitment, together with the European Commission, to invest more than US\$16 million of first-loss capital in SPARK+ Africa—a pioneering sector-focused investment facility to scale up clean cooking solutions in Africa. Spark+ Africa is an ecosystem fund—its pipeline targets not only clean cooking companies, but also enterprises from other sectors that are relevant to the production, financing, and delivery of clean cooking solutions, including off-grid solar companies and microfinance institutions. Targeting a total fund size of US\$50–US\$70 million, the Fund is being implemented together with Enabling Capital, a Swiss asset management firm, and is expected to launch in 2021.

Policy Strategy

As part of its work to foster an enabling environment for industry growth, CCA completed more than 50 consultations with policymakers, local alliances, nongovernmental organizations, and companies, to inform the development of a new policy strategy. The new strategy, completed in December 2020, focuses on developing and disseminating knowledge products that clearly lay out the costs and benefits of policy interventions and that sharpen the case for taking action. In line with this strategy, CCA will continue providing clear, tangible recommendations for decision makers on the issue of access to clean cooking.

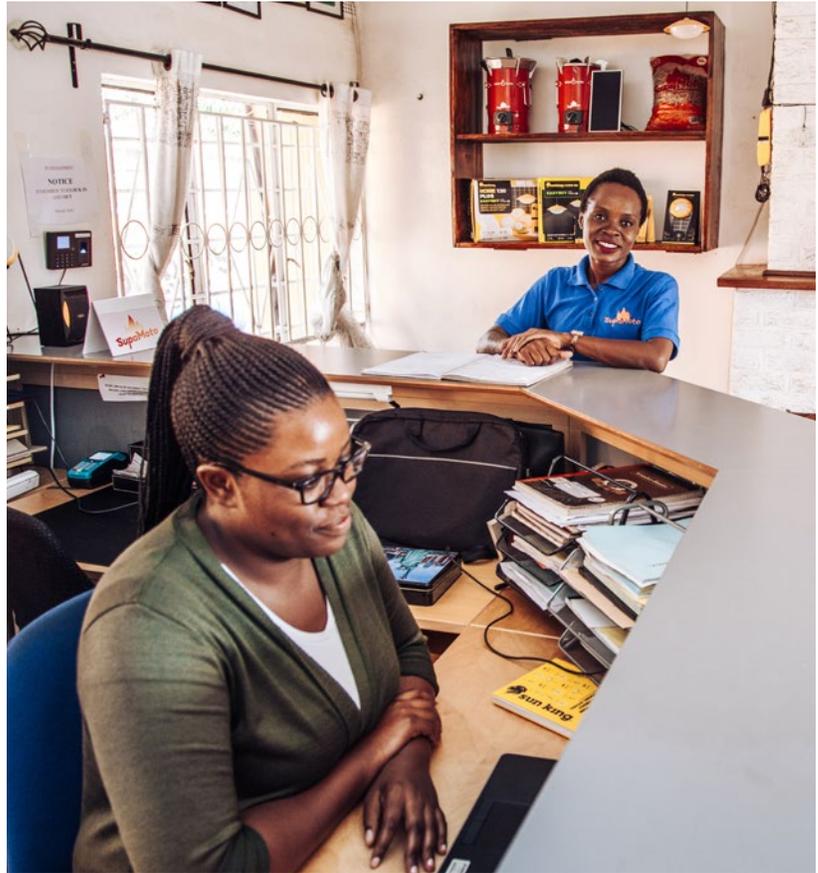


Women's Empowerment

WOMEN IN CLEAN COOKING MENTORSHIP PROGRAM

In November 2020, CCA launched the [Women in Clean Cooking \(WICC\) Mentorship Program](#) to provide targeted professional development support to rising women leaders in the clean cooking sector. CCA hosted the program together with SEforALL and the Global Women's Network for the Energy Transition.

The 12-month program targets early- to mid-career women working in clean cooking, and includes one-on-one mentoring, virtual networking opportunities, and curated knowledge-transfer webinars and skill-building trainings for professional leadership and career advancement. The inaugural mentorship cohort consists of [30 mentees](#) from across Africa and Asia, selected from a pool of over 150 applicants.



EEP S&EA



HavGas

HIGHLIGHTING WOMEN'S ENTREPRENEURSHIP

In June 2020, CCA partnered with SEforALL, ENERGIA, and members of the People-Centered Accelerator to host an engaging conversation with five women entrepreneurs. Representing business models ranging from solar lighting distribution to biodigester programs, the speakers offered insights into how their roles as industry leaders are shifting as a result of COVID-19, and how they are devising innovative ways to remain operational during a challenging time. Also, in January 2020, CCA launched a [series of articles](#) about women entrepreneurs, featuring the top five finalists from CCA's 2019 Woman Entrepreneur of the Year Award.

2020 HIGHLIGHTS

By accelerating access to clean cooking solutions, CCA and its partners around the world aim to improve health, reduce climate and environmental impacts, empower women, and improve livelihoods. In 2020, CCA delivered impact across multiple areas of work, including research, women's empowerment, national policy, global advocacy, and strategy development.

Developing a Monitoring and Evaluation Framework

In June 2020, CCA completed its [Monitoring & Evaluation \(M&E\) Framework](#), a foundational tool which aims to systematize program and project measurement and learning across CCA's work. The M&E Framework includes CCA's Theory of Change, a list of standard indicators tracking against the Theory of Change, and a three-level approach comprised of guidance and requirements at the project-level, organization-level (including evaluation and learning), and sector-level. The M&E Framework aims to strengthen CCA as a learning organization and will be revised periodically to reflect the ways in which CCA's strategy and role in the sector evolves.



Rodney Rascona

Engaging on New Kenyan Government Tax Policy

In June 2020, in response to Kenya's passage of a 2020 Finance Bill that included several Value Added Tax (VAT) measures directed at clean cooking products, CCA coordinated with partners—including Kenya's Ministry of Energy—to petition against this reintroduction of a VAT on cooking fuels and products. CCA also released a Request for Proposals to develop a strategic, evidence-based advocacy plan to present to the Kenyan government on global best practices in taxation of social goods (such as clean cooking fuels). This activity will result in a cost-benefit analysis to determine the direct impact of the tax changes on stakeholders throughout the value chain, as well as a policy brief to be presented to the Kenyan government.



MECS

Putting Clean Cooking on the G-20 Agenda

In September 2020, energy ministers from the world's 20 largest economies formally recognized the importance of clean cooking as part of the G-20 Energy Ministers Meeting. CCA joined partners including SEforALL to successfully advocate for the inclusion of clean cooking in the official [G20 Energy Ministers Communiqué](#), delivering the highest level of support possible within the G-20 framework and receiving a commitment to furthering significant progress on clean cooking and energy access in 2021. From the Communiqué: "We reaffirm our commitment to work together to accelerate progress on clean cooking and electricity, including through adoption and investment in technologies, to ensure access to energy as soon as possible."



Sistema.bio



Mukuru Clean Stoves

Funding Research into Clean Cooking's Impact on Women's Empowerment

In June 2020, a CCA-funded [study](#) exploring how the introduction and adoption of improved cookstoves affected family time-use and gender dynamics in rural Kenya was published in the journal of "Energy Research & Social Science." This research found that a majority of the women involved in the study used time that had been freed-up because of reduced cooking times to engage in economically productive tasks. Results from this, and other similar studies, suggests that improved cookstoves have a significantly positive impact on time-poverty in households that are reliant on inefficient fuels.



Developing Investment Cases for Nairobi and Kathmandu

In 2020, CCA and Duke University worked to finalize an urban cost-benefit and policy analysis for Nairobi and Kathmandu. For each location, the analysis models partial uptake and use of cleaner cooking choices and the corresponding net benefits of each transition. The interventions include stove subsidy, combined stove and fuel subsidy, combined stove subsidy and financing, combined stove subsidy and behavior change communication, and lastly, a ban on polluting fuel. By providing a quantitative comparison of the costs and impacts of different policy options—which had not previously been modeled at a local level—this work can inform policymakers about the relative merits of different strategies for accelerating clean cooking transitions. For both cities, the analysis found that combining stove financing and subsidies was beneficial for many stove/fuel transitions. The analysis also provided a menu of options based on policymakers' priorities, as well as recommendations for other governments. A detailed analysis report will be released in 2021.

Engaging through the Award-Winning “Clean Cooking Is...” Campaign

In its second year, the “[Clean Cooking Is...](#)” campaign—the world’s first global advocacy effort designed exclusively to drive greater support for and investment in clean cooking—



CLEAN COOKING *is...*

attracted an additional 18 partner organizations and drove millions of social media engagements promoting clean

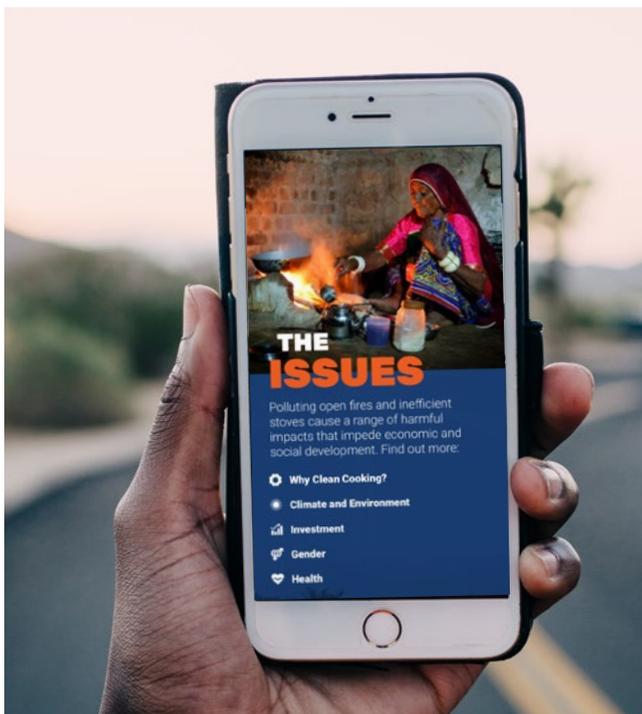
cooking's myriad co-benefits ahead of such major moments as International Women's Day, Earth Day, World Environment Day, Climate Week NYC, and World Pneumonia Day. In addition, as part of its global climate engagement, the campaign released a [video](#) highlighting clean cooking as a proven and critical part of the climate solution. The campaign also was named an Honoree for the [2020 Webby Awards](#). Known as the “Oscars of the Internet,” these highly regarded awards are given annually to celebrate digital excellence.



Connected Energy

Building Capacity for Implementing Standards and Testing

In partnership with the U.S. Environmental Protection Agency, International Organization for Standardization, World Health Organization, and other key stakeholders, CCA led two [regional standards implementation workshops](#) in 2018 and 2019 for participants from Asia and Anglophone sub-Saharan Africa. The third in-person regional workshop, planned for participants from Francophone Sub-Saharan Africa in 2020, was postponed due to COVID-19. Therefore, CCA launched a virtual workshop series to provide support for these countries to begin developing and implementing national standards. Taking place from October 2020 through March 2021, the series consisted of two simultaneous tracks for 140 participants from 11 countries: one for policymakers and development partners, and one for employees of testing centers and laboratories. The series equipped country delegations to develop national action plans for implementing clean cooking standards, identifying short-, medium-, and long-term goals.



Charles Etoroma/Unsplash (hand/phone)



CLASP

Revealing the US\$2.4 Trillion Impact of the Lack of Clean Cooking Access

The lack of progress in expanding access to clean, modern cooking is costing the world more than US\$2.4 trillion each year, according to [a report](#) released in September 2020 by CCA, the World Bank, and the Modern Energy Cooking Services program. The report used a new multidimensional approach to measure access to modern energy for cooking across six factors, examining not only whether it is clean, but also whether it is efficient, convenient, safe, reliable, and affordable. Using this methodology, the report estimated that US\$150 billion is needed annually to reach universal access to modern energy cooking services by 2030.



Hugues/Flickr

Showcasing the Consumer Journey in Africa

To illustrate the critical role of women in clean cooking—both as consumers and, increasingly, as suppliers of modern technologies and fuels—CCA interviewed women in Africa about their experiences. [From Ghana](#), school cook Lucy Anipa shared how an improved stove reduced fuel expenditures, saved time, and made for a cleaner and healthier work environment. [From Kenya](#), entrepreneur Charlot Magayi described how, in the midst of COVID-19 restrictions, her stove company found creative ways to reach customers and even saw increased demand for clean cooking products.

Highlighting Leadership in the Clean Cooking Sector

In January 2020, CCA launched the [“Clean Cooking Leadership Series”](#) and [“Woman Entrepreneurship Series”](#) to promote innovation and success in the clean cooking sector and to highlight the important role of women entrepreneurs. Both series include interviews with stakeholders from across the sector and focus on topics such as business expansion, pioneering technology, investment strategies, and addressing the challenges of the COVID-19 pandemic. The series featured companies from East and West Africa, South Asia, and the Caribbean.

Burn Manufacturing



Maximizing the Health Benefits of Clean Household Energy in Peri-Urban Nepal

After completing a two-year project that increased access to and encouraged the use of clean fuels and technologies, in November 2020, CCA released a [report](#) highlighting its findings. The study found that participants purchased and widely used electric induction stoves, leading to a significant reduction in the use of LPG and traditional stoves. In addition, community-based outreach activities were effective in increasing purchases and consistent use of clean cooking solutions, and a conditional cash transfer program resulted in significant disuse of traditional stoves. To help scale access to clean cooking in Nepal and elsewhere, CCA is currently developing the most compelling research findings into policy briefs.



Maximizing the Health Benefits of Clean Household Energy in Peri-Urban Nepal

Summary Report



CLEAN COOKING SYSTEMS STRATEGY

In June 2020, CCA launched the Clean Cooking Systems Strategy initiative, using a co-creative approach that has, to date, engaged nearly 100 different stakeholders from around the globe.

These stakeholders included leaders in international finance and development, impact investors, industry associations, enterprises and entrepreneurs developing and selling cooking solutions, and representatives from adjacent sectors and industries. The emerging Strategy is underpinned by a set of pathways that, if implemented, can address systemic challenges and create opportunities to radically change the trajectory for, and access to, clean cooking under the Sustainable Development Goals. The development of the Strategy consists of three phases:

PHASE 1: EXPLORATION OF THE CURRENT STATE OF THE ECOSYSTEM

This phase, completed in 2020, included the following achievements:

- User Research and Workshops: CCA and consulting firm Dalberg undertook more than 75 in-depth interviews with stakeholders to understand the current state of the clean cooking ecosystem. Stakeholders also participated in workshops that focused on

identifying emerging insights from the consultations and exploring the effects of short- and long-term scenarios on the ecosystem. This phase also engaged with individuals and organizations from adjacent sectors.

- An initial Advisory Group was established to provide guidance on the early phases of the strategy process and ensure sufficient representation, transparency, and inclusivity.

- CCA held a series of webinars to share the outputs and learning from Phase 1. Stakeholders were able to provide feedback and share additional perspectives, both during the webinars and through an online survey.
- CCA launched the [Clean Cooking Systems Strategy](#) microsite as the go-to resource for project updates.

Defining a Systems Approach

A **system** is defined as a web of interconnected and interdependent parts that forms a unified whole. For example, this work has focused on the clean cooking ecosystem, which includes all the components that directly or indirectly influence access to clean cooking solutions.

For the Clean Cooking Systems Strategy, a **systems approach** has been incorporated to explore the clean cooking ecosystem more deeply, identifying not only opportunities and challenges, but also the root causes, precursors, and potential catalysts of the dynamic relationships that link actors within the ecosystem. These relationships have the potential to either accelerate or to inhibit progress toward universal access to clean cooking solutions.

PHASE 2: ARTICULATION OF THE FUTURE STATE

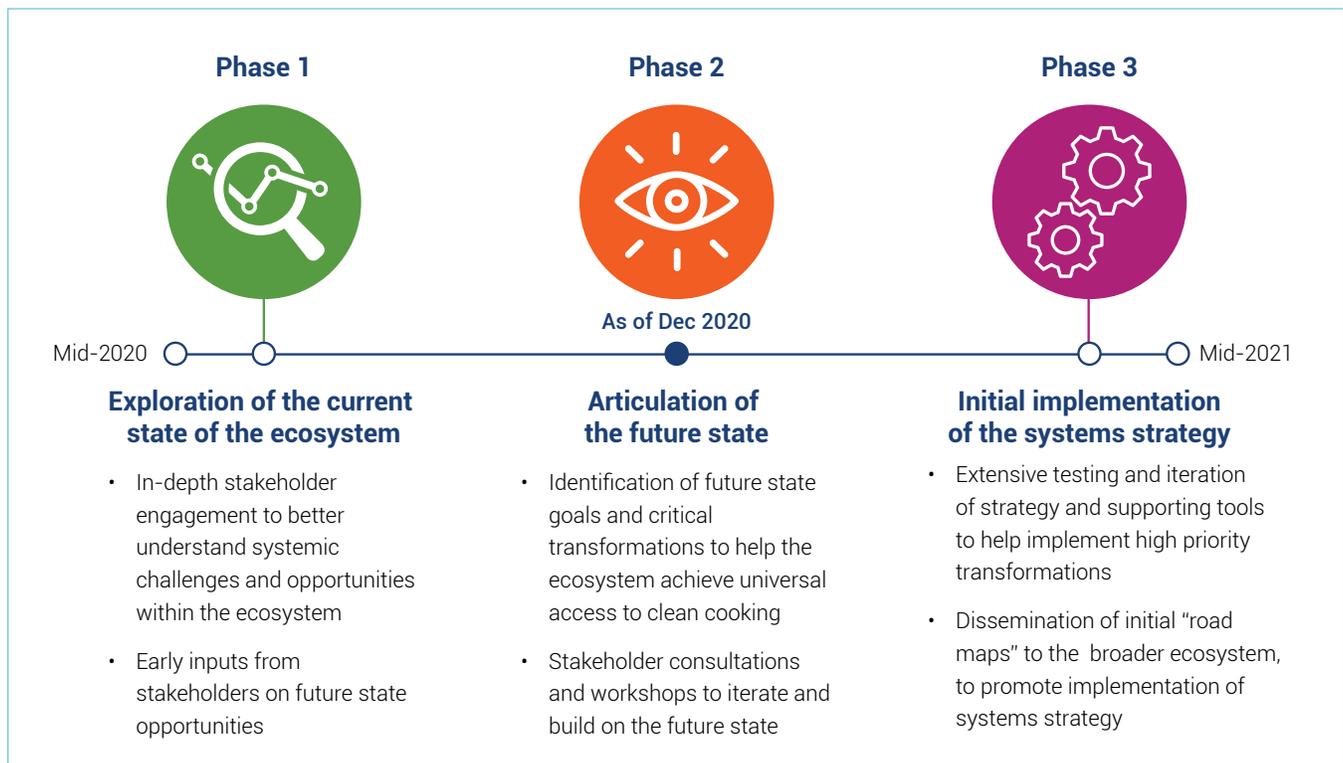
This phase, begun in 2020 and continuing into 2021, uses input from stakeholders to define what characteristics the ideal clean cooking ecosystem should possess, as well as tactical pathways for realizing this ideal future state.

PHASE 3: INITIAL IMPLEMENTATION OF THE SYSTEMS STRATEGY

This phase, which will continue through 2021, will inform stakeholder mobilization and early action in support of achieving the strategy's objectives. The resulting strategy will not be a final report, but rather an iterative and living process that will continue beyond the initial development process.



CLASP



Tackling Clean Cooking and Food Security in a Time of Crisis

Before the pandemic, Kalinda Magloire, CEO of SWITCH S.A. (SWITCH), focused mostly on upgrading school kitchens in Haiti with cleaner, more modern stoves and fuels. Since founding SWITCH in 2012, Magloire and her team have helped transition nearly 400 schools away from inefficient and polluting fuels such as wood and charcoal to using liquified petroleum gas (LPG).

However, SWITCH's business model was recently affected by widespread lockdowns in Haiti, linked to political protests and to COVID-19. As a result, Magloire decided to venture outside of SWITCH's normal activities, teaming up with local organizations in Port-au-Prince to provide healthy, low-cost meals—cooked with modern LPG stoves—to those in need.

"A lot of schools have programs where they offer one meal a day. But now that schools are closed, this meal is no longer there. So that's the negative impact we are trying to mitigate with these community kitchens," she said.

Magloire is also using the program to create economic opportunities for women. With the help of investors, she worked with organizations of women farmers to increase their sweet potato production, which in turn supplied the community kitchens. Since then, Magloire has been helping the farmers secure a second round of investment.

"I see my role as helping people around me, as we go through this crisis," she said. "SWITCH usually helps people gain access to what's below the pot, but in these challenging times, we cannot ignore the difficulties for people to put something inside the pot."



Photos: Kalinda Magloire



Since 2012, Kalinda Magloire (above) and her team at SWITCH S.A. have helped nearly 400 schools, 1,000 food vendors, and 2,000 families in Haiti transition to clean cooking solutions.



Kalinda Magloire was a finalist for CCA's 2019 Woman Entrepreneur of the Year Award. This story is [part of a series](#) showcasing women entrepreneurs in the clean cooking sector.

CLEAN COOKING IN HAITI

With a special focus on supporting women and girls, the Haiti Cookstoves and Clean Energy Market Project seeks to reduce the negative climate, environment, economic, and health impacts of traditional cooking practices in Haiti.

In 2020, CCA made significant progress toward laying the foundation for a long-term, sustainable transformation of the Haitian market for clean cooking solutions. Sector-wide activities included supporting capacity-building for the private sector; developing a Haiti-specific model to support capacity building for the government and other stakeholders; and conducting research and analysis of market development. The project's 2020 highlights include:

- **Launching the Haiti Clean Cooking Fund.** CCA selected Haitian enterprise Palmis Eneji as the first recipient of financial and technical assistance under the new Haiti Clean Cooking Fund. CCA evaluated and worked closely with the clean energy product supplier to develop a gender-focused action plan and will provide gender advisory support throughout the life of the grant to ensure that the company consistently uses a gender lens to inform its strategy.
- **Completing a land use and cover map.** Produced by CCA partner the Stockholm Environment Institute (SEI), the map produced insights not only on Haiti's current



Palmis Eneji

- land cover status, but also on the environment and climate impacts of charcoal production in the country. SEI found a slight net decline in tree cover from 2000 to 2017, with tree cover losses concentrated in small areas of Haiti's northern and southern peninsulas.
- **Continuing to refine tools to guide policymakers.** CCA and SEI made progress on developing the Long-term Alternative Energy Planning System (LEAP) and the Modeling Fuelwood Savings Scenarios (MoFuSS) tools. This includes an online version of MoFuSS, which will allow officials to model the

environmental impacts and production potential of wood energy, both spatially and temporally. Going forward, SEI will provide Haitian officials with a series of trainings on how to use LEAP to devise future energy policies.

- **Conducting a consumer preferences analysis.** This ongoing analysis will guide the design of interventions to increase the awareness of the benefits of clean cooking. It also will help identify effective communication channels in Haiti, allowing CCA to build the partnerships needed to achieve the project's maximum impact.

Nigerian Stove Company Looks to Digital Solutions

Happy Amos, Managing Director of Roshan Global Services in Nigeria, doesn't shy away from a challenge. She founded her own stove manufacturing company in 2013, when Nigeria's clean cooking industry was relatively nascent and male-dominated, and since then has sold more than 20,000 stoves. In 2020, with COVID-19 restrictions severely limiting her company's operations, she quickly realized the importance of shifting public and in-person marketing to digital platforms.

"Everything—from our managerial activities, to finance, to our communications—is online now, except for the production team," said Amos. "COVID-19 has forced us to become more comfortable and familiar with technology."

Amos now uses Facebook and WhatsApp to hold stove demonstrations and training sessions for customers, and even expand her sales and recruitment efforts.

"Since we've started using Facebook as a sales platform, my friends—and even my friends' friends—have started selling 'Happy Stoves' for me," Amos said. "So far, our customers are responding well to the replacement of physical contact with online campaigns.... Videos have convinced a lot of people to buy stoves."

Not only has this approach been beneficial for Amos' business, but it also has boosted economic



Happy Amos

During COVID-related lockdowns, Happy Amos (above) switched from in-person stove demonstrations to digital marketing campaigns, often recording herself cooking and discussing the benefits of her company's improved stoves.

opportunities for women in her community.

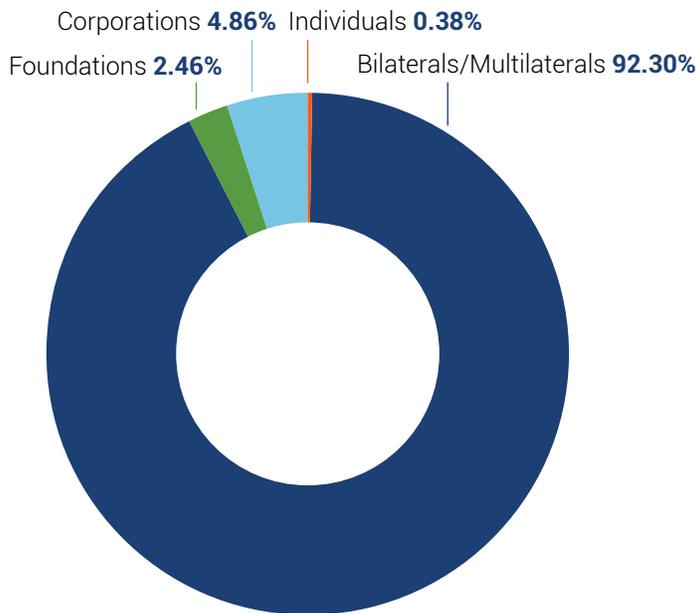
"They are able to make commission, which is great because families are trying to find alternative sources of income or ways to save money right now," explained Amos. "More people are seeing [digital cookstoves sales] as a viable means of earning income. I see it as a win-win: Roshan sells more stoves, and people in my community get to earn extra money."

Happy Amos was a finalist for CCA's 2019 Woman Entrepreneur of the Year Award. This story is [part of a series](#) showcasing women entrepreneurs in the clean cooking sector.

FINANCIALS AND DONORS

The Clean Cooking Alliance is grateful for the generous financial support of its donors in 2020.*

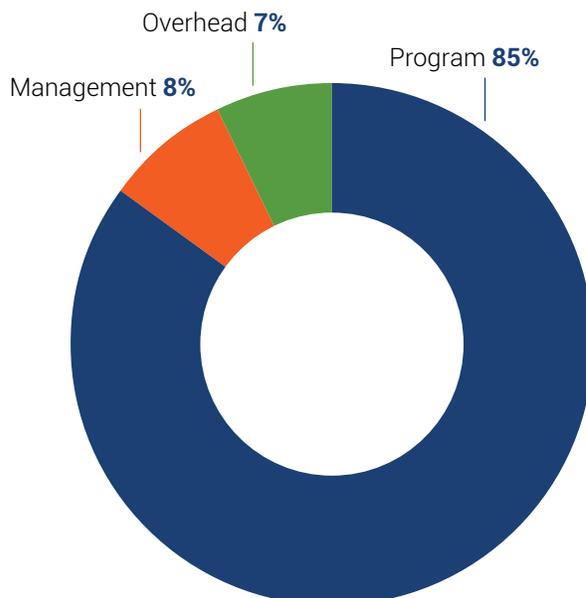
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Developing Technology for Local, Sustainable Energy

At its inception, the founders of [Connected Energy](#), a U.K.-based start-up, set out to design technology that would achieve three objectives: (1) reduce the operational costs of supplying clean energy in developing countries, (2) keep that energy production and distribution local, and (3) help local energy providers thrive.

The company has since developed “Smart Biogas,” a remote monitoring system for small biodigesters that produce gas for cooking.

“It is amazing what data from digesters can tell us about how they’re being fed and used,” said Connected Energy Managing Director Vijay Bhopal. “If properly harnessed, we believe the market for technologies that reduce [operating expenses for biogas] can scale quite dramatically. It is a beautiful example of the circular economy in action, but the business models haven’t always scaled well, to date.”

In July 2020, Connected Energy announced that it had closed its Seed B funding round, bringing its total funding to US\$1.25 million.

“It certainly opens up new opportunities for us,” said Bhopal. “The first thing we have done is to invest in manufacturing, with the intention of scaling up and being able to reduce our price point in what is a pretty low-cost market. Beyond this, we have brought in some new technical staff who will



Photos: Connected Energy

Due to the uniquely challenging properties of measuring biogas consumption, Connected Energy had to create new instruments capable of accurately gauging how much consumers used.

continue to improve the product, as the software side is absolutely crucial if we want to achieve our ambition of unlocking a digitally driven operational model in the biogas market.”

Once Connected Energy launches Smart Biogas at the commercial level, the company hopes to partner with biogas companies working with households, farms, or smaller communities, with an initial focus on South Asia and East Africa.

Connected Energy is a member of CCA's Venture Catalyst portfolio. This story is [part of a series](#) with business leaders from across the clean cooking sector.

LEADERSHIP COUNCIL

CCA's Leadership Council is comprised of high-level global advocates working to ensure that no one's life is limited by how they cook. The Advisory Committee (*), a select group of Leadership Council members, provides strategic counsel to CCA and offers a diverse range of viewpoints that are critical to advancing innovation, investment, and impact across the clean cooking sector.



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