COVID-19, Climate and Clean Fuel: Charting a path for Africa's Inclusive Green Economic Recovery

By:

Fatin El-Kabashi Ibrahim

January 28, 2021

2020 was a brutal year for economies the world-over, but its impact was particularly acute on developing African economies. The African continent felt the pandemic's economic shocks since its onset, resulting in the continent's first recession in 25 years. This is mainly due to the key measures adopted by many countries to contain the coronavirus. These measures include border closures, as well as partial or complete lockdowns comprising of the short-term closure of businesses and educational institutions. While these measures offered temporary respite to limit the spread of the virus, it had an adverse impact on African economies. To illustrate this, the World Bank growth forecasts fell from 2.4% in 2019 to between -2.1% and -5.1% in 2020.

In addition to the unique challenges of COVID-19 in 2020, African economies were also battling pre-existing gender and income inequality, poverty and the climate crisis and its devastating socio-economic effects exemplified by that summer's floods in the Sudan, the worst in at least a century. The need for an African clean green transition has never been greater. But such multi-pronged challenges require equally multidimensional solutions which address the climate crisis, gender and wealth inequality and create a sustainable economic recovery.

The darkness of 2020 was pierced by one ray of hope represented by the work of The Charcoal Project (TCP) in the area of clean fuel. This US based NGO has been working in East Africa since it was established in 2009. Its mission is “to promote, facilitate, and advocate for the widespread adoption of clean burning technologies, sustainable fuel alternatives, and policies that support energy-poverty alleviation for those who depend on biomass as their primary fuel around the world”.

TCP’s work specifically supports entrepreneurs (“Participants”) in East Africa (mainly in Kenya, Tanzania and Uganda) with the manufacturing, production and distribution of clean charcoal briquettes and clean cookstoves. These briquettes, made using organic waste, are smokeless and safer to use than traditional charcoal or cooking fuels. In addition, because they burn more slowly than other cooking fuels and provide longer lasting energy, they result in overall cost savings for households. Many of TCP’s Participants are women-led businesses, and TCP’s programs support women throughout the value chain. These programs include training and educating female entrepreneurs in urban, peri-urban and rural communities in the charcoal briquette production, manufacturing and distribution processes. TCP has also provided financing to some of its Participants including providing grants for the expansion of manufacturing or distribution activities and extending impact loans in partnership with impact investors/funds.

During the dark summer of 2020, TCP conducted a series of telephone interviews with a selection of its participants from Uganda and Kenya. The research shows how TCP Participants have been meeting the challenges of COVID-19 and making use of the unexpected opportunities that have emerged. The findings of this research and TCPs wider work in providing access to credit for its Participants demonstrates how TCP’s community-based gender-focused solution to clean fuel production could provide a blueprint for a private sector, female-led, green economic recovery across the African continent in the post-pandemic landscape.

A Case Study in Clean Fuel

A. Clean Fuel in the Time Of Covid-19

TCP’s research showed that its Participants, like many other businesses around the world during COVID-19, experienced negative impacts on demand for their briquettes and on their supply chains. Demand was reduced by some rural customers reverting to firewood and local charcoal as cheaper alternatives, but the biggest impact on revenue was due to the closure of educational and social institutions (churches, schools and colleges) and reduced operations of hotels and restaurants. Participants reported that some of rural customers were reverting to traditional fuels like firewood. With children at home, some customers sent them out to collect free firewood. To combat low demand, some Participants introduced discounts of up to 20% for wholesale customers to encourage purchases. Others offered complimentary products instead. Because customers struggled to pay upfront, most participants offered payment credits/deferred payment plans so customers could pay gradually.

Moreover, at the height of the lock down, Participants had to reduce the number of workers in the factories due to social distance rules and a needed to provide Personal Protective Equipment. This impacted production by reducing output volumes and making order fulfilment difficult.

Participants were met with additional difficulties further down the value chain as the shortage of raw material during lock downs led to increased prices which significantly disrupted briquette production. In particular chardust (needed to carbonize raw material to produce briquettes) increased in price and became less available. There was also a reduction in the availability of raw material like bagasse (the basic component for briquette production) as sugar cane processors reduced production. Participants who acted as distributors experienced price hikes by briquette suppliers, in some cases up to three times the pre-Covid-19 price.

Transportation restrictions impacted raw material procurement from suppliers, resulting in delays in fulfilling orders. Many participants had to cut salaries or let employees go due to the drop in demand or the lockdown restrictions which curbed production in factories and workshops.

However, there were some positive trends that offset the largely negative impacts. Because of the acute supply shocks experienced, producers started to shift away from chardust, instead considering other raw biomass like coconut shells and learning how to carbonize to lessen their reliance on suppliers.

Participants report that household customers stuck to briquettes on the whole and those who had reverted to traditional fuels have started to return to briquettes as economic activity picks up. Because institutional sales will take longer to rebound, many Participants have pivoted to serve the household market, and are building a more stable revenue stream over time.

Another positive trend has been the uptick in the use of innovative pricing, marketing and outreach by Participants. This has included offering discounts and designing offers of complementary products like briquette samples, firelighters, cooking oil and basalt to encourage bulk orders. Participants also utilized both traditional and modern advertising means to successfully expand their customer base. This involved advertising in person through local market stall demonstrations and using social media platforms like WhatsApp and Facebook to advertise products directly to local customers.

B. Access to Credit and Female Entrepreneurs: A Longstanding Problem in the latest Pandemic

TCP's research demonstrated that the biggest obstacle for its Participants has been access to affordable credit which was heightened during the pandemic as participants struggled to secure cash flow during shutdowns or restrictions which decimated revenues for the majority of briquette producers and distributors. Where such working capital was unavailable Participants were unable to offer credit terms to their customers who could not afford to pay upfront for briquettes and in certain cases were forced to close down their activities completely which often meant letting workers go. This in turn meant suppliers of raw materials lost part of their revenue streams from sales to Participants of chardust and raw material used to make briquettes. Working capital was therefore essential to Participants to ensure overheads were met/and to be able to survive during lockdowns

which also impacted household incomes resulting in-turn in reduced customer demand for fuel.

According to the IFC's recent research "there is a credit gap of approximately $285 billion for women-owned SMEs" which leads to unfavorable lending contexts for women. Shockingly, "globally, [only] 46 economies require nondiscrimination in access to credit on the basis of gender". These hurdles in accessing affordable credit include legal or lending requirements "that favor men, such as the requirement for spousal permission to register a company or open a bank account" or most commonly requirements "to provide collateral in the form of property deeds where women do not typically inherit property".

TCP's research echoes this analysis and demonstrates that the difficulties of accessing credit were pre-existing for its female Participants. One participant described taking out a loan from a local financial institution at punitively high interest rates as she had no assets to collateralize the loan. When her income stopped she was therefore unable to make repayments and was harassed by the lenders to repay the loan. It was at this juncture in her life where she discovered TCP in Uganda and decided to start a briquette business which has allowed her to generate enough income to survive and to repay her debts. This case highlights the impact of lack of access to credit by local entrepreneurs and the wider impact on economic activity and growth for developing countries, which has been heightened by the pandemic. For briquette producers in particular, the high interest rates offered by local banks are often an insurmountable barrier to securing a loan as margins on briquettes are not sufficient to service such high rates.

C. Private sector and NGOs - Purpose-driven Partnerships

Beyond savings and loans from family and friends, other financing needed to grow a briquette business is hard to come by. One Participant, Betty Kaddu at Best of Waste Ltd (BOW) in Uganda, was however able to continue as she secured "microgrants from The Renewable Energy Business Incubator in 2015 ($8,000), The Tony Elumelu Foundation in 2017($5,000) and on two separate occasions from The Charcoal Project, in 2019 ($1,000) and 2020 ($250)" which includes a HFI grant that allowed her to stay afloat and continue paying rent and retain employees during the initial lockdowns. A perfect example of the economic potential of the private sector and NGO sector working in parallel to create truly impactful investments.

In fact, acting as a facilitator between local entrepreneurs and private capital investors, TCP partners with impact investors to ease Participants' access to credit. This Participant was introduced to an international impact investor 3rd Creek Foundation through The Charcoal Project which provided her with a low interest $12,000 loan. 3rd Creek focuses on providing sustained solutions to those in extreme poverty by helping SMEs and small social enterprises access critical affordable financing. In fact, almost all of 3rd Creek Foundation's "impact investments have come through similar introductions" as most investors "don't have the capacity to vet cold call applications". The Participant explained that the proceeds will go towards working capital needs, specifically towards buying raw material for briquettes and stoves and to "facilitate the waste pickers with more carbonizing drums to ensure bulk supply of processed waste material". The loan financing will enable the Participant to process larger orders and therefore grow her business. This will in-turn benefit her suppliers who will receive larger orders for raw material and her employees who will be to work additional shifts thus increasing their incomes.

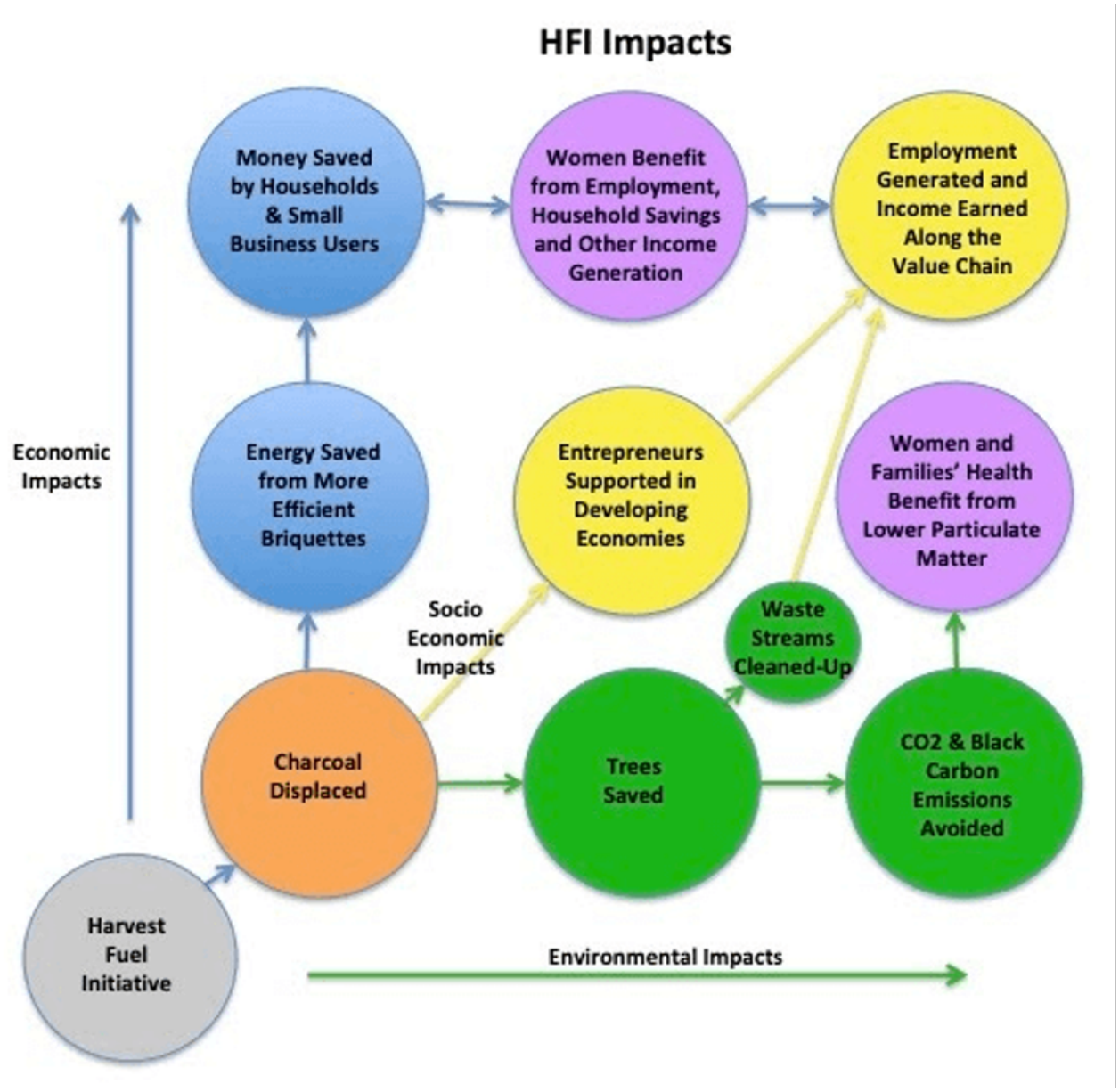
D. Female Economic Empowerment – A Wide Social Impact Net

Various studies in different countries have shown that solutions which economically empower women tend to result in better outcomes for society as a whole. This well-documented theory of change shows that "when women and girls are healthy, educated and economically secure, families and communities benefit too". This is because a woman "multiplies the impact of an investment made in her future by extending benefits to the world around her, creating a better life for her family and building a strong community". According to studies, "women reinvest up to 90 percent of their incomes back into their families, compared to just 30-40 percent by men".

According to research by Global Citizen, investing in women's education and economic opportunities in turn decreases mortality rates and illiteracy and raises "the average gross domestic product (GDP) by 0.3 percentage points and raises annual GDP growth rates by 0.2 percentage points". Solutions which therefore help to "close the gender gap in accessing vital goods and services, education and livelihoods can transform communities through their women and girls". In particular, solutions which support female entrepreneurs have been shown to be most effective in addressing development goals. Research sponsored by the Women's Opportunity Fund produce a ripple effect which is also felt by the economy as a whole. This is because women put their income back into the economy, according to a Forbes study "96 percent of women have primary or shared responsibility for family financial decisions, and 70-80 % of all consumer purchases are driven by women, through buying power and influence". "Investing in women and girls creates long-term social and economic benefits for all individuals, their communities, and the world as a whole.

This theory of change is borne out by the TCP clean fuel case study which demonstrates the virtuous cycle created by empowering female entrepreneurs in the briquette business who not only managed to survive during the pandemic but also thrived. These female entrepreneurs in-turn generated employment in their local communities and secured their families' livelihoods by ensuring their children's school fees were paid.

In TCP's clean fuel case study, the Participant may directly employ only eight people in briquette production but "over 160 people generate income throughout the value chain" of her products which includes "26 people who are retailers, kiosk or market stall vendors [who] benefit from [these] activities…126 waste pickers at the landfill who are registered in the partnership and 5 suppliers of charcoal dust". By adopting a female led, private sector focused clean fuel solution, the briquette business therefore offers "better incomes and additional skilled labor for waste pickers who supply the raw materials". It offers "dignified jobs for briquette manufacturers…and…increased incomes for clean charcoal distributors". The use of charcoal briquettes also results in "increased savings among all households in [for example] the Kampala metro area" as the clean burning briquettes are cheaper and longer lasting than traditional cooking fuels. Beyond these important economic outcomes, there are also the wider benefits of supporting a briquette business "like improving health outcomes for women and children, protecting forests from deforestation, and mitigating climate change", demonstrated by the below diagram. TCPs clean fuel solution is therefore a paradigm of how the private and NGO sector can work together to secure smart and conscious investing which casts a wide "social impact net".



Copyright 2021 The Charcoal Project

Beyond the direct contributions to GDP of the economic activity generated by female entrepreneurship and including women in the labor market, empowering women economically can also be critical for countries and companies to strengthen their competitiveness. This is because it unlocks innovation and creativity which comes from the unique insights and experiences of women in society. As studies show, economies which do not have a more inclusive labour market are left behind as "innovation doesn't happen in closed environments".

This innovation and creativity are illustrated by the creative approaches adopted by the female briquette producers in marketing and outreach methods adopted to meet the challenges of reduced customer demand. Several of the participants described their community-centered approaches which they adapted to the pandemic restrictions. This included hosting outdoor workshops with small groups of female entrepreneurs and setting

up kiosks in the local outdoor fresh food markets to educate, promote and sell briquettes to the local community. The majority of Participants also relied heavily on advertising and marketing through social media platforms from Facebook to WhatsApp groups. Participants were also successful in pivoting to different target customers because of the pandemics wider impacts, for example from serving mainly hotels, restaurants, schools and colleges before the pandemic to serving household customers.

Beyond marketing and sales, Participants adopted innovative approaches to resolve hurdles such as shortages of chardust supplies in the market. This led several Participants to learn how to carbonize themselves thereby reducing their vulnerability to chardust supply shocks.

D. Post-pandemic recovery – a path forward for Africa?

The African continent's recovery from the pandemic will not be an easy one, as noted above the IMF forecasts a recession for the continent for 2020-21 as a result of the economic shocks of the pandemic.

However, this clean fuel case study lays a potential path for a female-led recovery in the other sectors of economies across the African continent. Beyond the clear social reasons for ending gender inequality and empowering women, there is a clear business-case too. According to the International Finance Corporation's research, "gender inequality is associated with income inequality as well as reductions in the variety of goods that countries produce and export…Conversely, advancing equality is associated with a variety of positive macroeconomic impacts, including higher gross domestic product". As the research shows, "just addressing the employment gaps" without resolving any of the other social issues could significantly raise GDP given the above illustrated ripple effect of investing in women. The research therefore supports the "idea that gender equality is a key contributor to growing and strengthening national, regional, and global economies". Conversely, gender inequality and limiting women's opportunities in the labor market actually represents an economic cost to countries, weighing on GDP and stymying growth and innovation.

Conclusion

As the TCP clean fuel case study demonstrates, an intersectional approach is needed in order to address the pre-existing issues of climate change and income and gender inequality and the manifold impacts of the pandemic on health, wealth and stability of nations across the African continent. One approach with a lot of potential is to support private sector development by encouraging collaboration between the public, NGOs and private sectors as demonstrated by TCP's clean fuel initiative.

Public policy is critical in dealing with the immediate effects of and overcoming macroeconomic hurdles and economic shocks caused by overwhelming events such as pandemics. However, many development solutions that focus overly on public policy approaches suffer from inertia, as such policies are often slow and inconsistent and, at times, even met with government resistance and delay.

Substantial achievements can be accomplished by targeting the beneficiaries of the development agenda directly by supporting the private sector. The clean fuel case study is one such example of an intersectional approach which casts a wide impact net and offers a scalable adaptable model for several other industries (such as agricultural food production, renewable energy production, waste management solutions).

African economies could therefore kickstart their economic recovery by investing in sectors such as the clean fuel business, which has a trifecta impact. It can help a local rural or urban community survive and thrive by creating meaningful work; empower female entrepreneurship, which creates a ripple effect across the value chain by bringing women into the labor market or allowing them to continue in it (even where other sectors have shut down or are disrupted); and help countries to transition to cleaner greener economies that provide fuel security and safeguard public health by reducing household air pollution caused by burning traditional fuels.

This is Africa's opportunity. Initiatives such as the TCP clean fuel solution and others offer hope that this could be Africa's defining moment. COVID-19 therefore offers the African continent a unique opportunity to chart its course through to the green revolution and to kickstart a female-led sustainable economic recovery.

View online: COVID-19, Climate and Clean Fuel: Charting a path for Africa's Inclusive Green Economic Recovery

Provided by Afronomicslaw