

Multi-Stakeholder partnerships to deliver on the SDGs in the Mont Kenya region

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Abstract

A significant share of the population in the Embu County, Republic of Kenya, relies on energy inefficient stoves to meet their cooking needs. This puts unsustainable pressure on the biomass resources, which account for 68% of Kenya's national energy requirements. This case study highlights the lessons learned from activities conducted in the past 5 years in Embu County, and aiming at promoting more sustainable cooking practices through the adoption of efficient and affordable cookstoves. This paper aims at illustrating how result-based financing mechanisms can be used to structure multi-stakeholder partnerships and develop positive impact programs that contribute to the Sustainable Development Goals. The first section illustrates how innovative private-sector collaborations can be set-up to "Mobilize additional financial resources for developing countries from multiple sources", thus contributing to the 17.3 SDG Target of the 2030 Agenda. It also illustrates that "breaking down silos" requires careful partnerships design. The second section discusses how result-based financing mechanisms can be used to foster such collaborative actions to achieve SDGs. The process used for developing impactful projects is described through the presentation of the measuring, reporting and verification (MRV) mechanism applied to a case study located in the Mont Kenya region: the Hifadhi-Livelihoods project, a 10-year cookstove program developed and funded by the Livelihoods Carbon Fund, in partnership with EcoAct and Climate Pal.

Introduction

Climate change and sustainability are currently at the top of the international agenda^{1,2} and countries at all stages of development have increasingly established national climate change mitigation and adaptation strategies. Making sources of energy, like biomass, sustainable will be imperative to meet the Sustainable Development Goals and the Paris climate objectives. While Kenya is expected to face great impacts from climate change, it also offers great potential for innovative low carbon development and green growth pathways. This paper outlines how new private-sector partnerships and corporate impact investing can address policy and funding gaps to speed the transition to a low-carbon and sustainable economy.

In Kenya, biomass provides 68% of national energy requirements and is expected to remain the main source of energy for the foreseeable future³. Demand for biomass is approximately 35 million metric tons per year and is growing. A large share of this demand is currently met through unsustainable supplies.⁴ This is particularly the case in rural and poor urban areas, such as Embu County, where wood fuels are usually the only available energy source. To meet their daily cooking needs, 90% of rural households burn biomass on inefficient traditional stoves.

Currently the forest cover is about 4%, far from the global minimum tree cover requirement of 10%⁵. The massive and growing deficit in sustainable fuelwood supply, driven in part by local demand for cooking, has led to multiple negative impacts preventing sustainable development. The high rates of non-renewable biomass use results in adverse environmental outcomes such as deforestation, desertification and land degradation.

Local populations are subject to heavy labor in searching, cutting and carrying wood, usually performed by women and girls. The use of biomass in inefficient traditional stoves is associated with great exposure to pollutants, including particulate matter which can lead to acute respiratory infections, identified as a leading cause of illness in Kenya and other developing countries.

Kenya's biomass policy seeks to ensure sufficient supplies to meet demand while minimizing the associated environmental and social impacts. However, since the biomass market operates in the informal sector, this policy has faced serious challenges, such as lack of data, low awareness of technologies available, limited financing, low capacity for R&D, and a lack of political priority in this sector.

¹ UNFCCC, The Paris Agreement, Dec. 2015 <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

² "Sustainable Development Goals. 17 Goals to Transform our World", UN, accessed July 1, 2018. <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

³ Republic of Kenya (2002) "Study on Kenya's Energy Demand, Supply and Policy Strategy for Households, Small Scale Industries and Service Establishments". Ministry of Energy, Government Printers, Nairobi, Kenya.

⁴ Mugo, F. and Gathui, T. (2010) "Biomass energy use in Kenya". A background paper prepared for the International Institute for Environment and Development (IIED) for an international ESPA workshop on biomass energy, 19-21 October 2010, Parliament House Hotel, Edinburgh. Practical Action, Nairobi, Kenya. <http://pubs.iied.org/pdfs/G02985.pdf>

⁵ Republic of Kenya (2016) "Forest conservation and Management Act, 2016 Government Printers, Nairobi, Kenya".

To reduce these effects and create a path for sustainable development, action must be taken to increase the supply of sustainable biomass resources and decrease demand through the use of more efficient biomass cookstoves and charcoal kilns. Improved cookstoves with high combustion efficiency enable the same level of service with less biomass and less smoke. However, the number of households using these technologies is very low in Kenya, especially in rural and poor urban areas where populations cannot afford the cost of improved cookstoves.

To address these specific challenges, EcoAct⁶, a global climate solution provider, and Carbon Manna Africa, a Kenyan entrepreneur, jointly explored opportunities to develop programs to foster the dissemination of improved cookstove in East Africa. They created a joint venture in 2011, named Climate Pal⁷, to establish a local organization capable of disseminating improved cookstoves in Kenya. Feasibility studies and pilot developments informed the launch of the Hifadhi-Livelihoods project⁸ in December 2012: a 10-year cookstove program developed and funded by the Livelihoods Carbon Fund⁹, in partnership with EcoAct and Climate Pal. Emissions reduction from this project have been certified under the Gold Standard¹⁰ since 2013 and carbon finance was used to scale-up the dissemination of improved cookstoves. Partnerships were also set-up between Climate Pal and local stove manufacturers, and between EcoAct and Kenyatta University¹¹ to conduct research on the design and performance of cookstoves.

The first section of the paper describes these partnerships and their respective scope of activities. It illustrates how innovative private-sector collaborations can be set-up to “Mobilize additional financial resources for developing countries from multiple sources”, thus contributing to the 17.3 SDG Target of the 2030 Agenda. It also illustrates that “breaking down silos” to build positive impact projects requires careful partnerships design.

The second section discusses how result-based financing mechanisms can be used to foster collaborative action to achieve SDGs. It presents the strategic partnership engaged in 2016 between the Gold Standard Foundation and EcoAct in the context of the development of the Gold Standard for the Global Goals¹² (GS4GGs) framework. The process used for developing impactful projects will be illustrated through the presentation of the measurement, reporting and verification (MRV) process implemented to certify the broad range of positive impacts delivered by the Hifadhi-Livelihoods project.

⁶ EcoAct, accessed July 1, 2018, <https://eco-act.com/>

⁷ Climate Pal, accessed July 1, 2018, <http://climatepal.com/>

⁸ The Hifadhi-Livelihoods project, accessed July 1, 2018, <http://www.livelihoods.eu/projects/climate-pal-kenya/>

⁹ Livelihoods Carbon Fund, accessed July 1, 2018, <http://www.livelihoods.eu/lcf/>

¹⁰ The Gold Standard Foundation, accessed July 1, 2018, <https://www.goldstandard.org/>

¹¹ Kenyatta University, accessed July 1, 2018, <http://www.ku.ac.ke/>

¹² “Gold Standard for the Global Goals. Leveraging Climate Action for Greater Impact in Sustainable Development.” The Gold Standard Foundation, accessed July 1, 2018, <https://www.goldstandard.org/articles/gold-standard-global-goals>

SECTION 1: Breaking down silos – multi-stakeholder partnerships to substantiate SDG 17.

Operational implementation partnership – EcoAct, Climate Pal and local stove manufacturers

The several partnerships described in this paper emerged after the initial encounter, in 2011, between EcoAct (France) and Carbon Manna Africa, at a climate change conference in Paris. The local entrepreneur, who had developed an improved cookstove prototype, was looking for means to accelerate the dissemination of this technology in Kenya and turned to carbon finance. EcoAct had knowledge of carbon markets and expertise in carbon project development. Together, they jointly formed Climate Pal, a local joint venture, to structure a climate change mitigation programme.

After assessing development potential in rural counties in the Mont Kenya region, they chose to focus on Embu County, comprising three of its sub-counties: Embu East, Embu North and Mbeere South. Embu County has a population of over 500,000 people, whose livelihoods depend heavily on natural resources. Residents of Embu county, particularly in the southern part, further away from Mont Kenya face significant challenges in access to energy, particularly for cooking. Most of the residents depended on wood fuel, burnt over open fires, for their cooking. The residents are, also, generally poorly sensitized as to the adversities of climate change and the need for mitigation action.



Figure 1: The traditional three-stone stove (left) and the improved cookstove disseminated by Climate Pal (right).

A first programme of development activities was conducted by Climate Pal and EcoAct in 2011 and 2012, including : (1) the production and distribution by Climate Pal of several batches of cookstoves to 400 households in Mbeere North and the completion of stakeholder consultations, Water Boiling Tests¹³ and Kitchen Performance Tests¹⁴; (2) the development by EcoAct of the set of required documents for the validation of the first cookstove Program of Activities (POA),

¹³ Global Alliance for Clean Cookstoves, “The Water Boiling Test, V4.2.3”, 2014.

<https://cleancookstoves.org/binary-data/DOCUMENT/file/000/000/399-1.pdf>

¹⁴ Global Alliance for Clean Cookstoves, “Kitchen Performance Test, V3.0”, 2007.

<https://cleancookstoves.org/binary-data/DOCUMENT/file/000/000/83-1.pdf>

worldwide, under the Clean Development Mechanism established under the Kyoto Protocol, and for the validation under Gold Standard. POAs allow for the generation of multiple Component Project Activities (CPA) in different locations ; (3) improvements of the initial stove design in partnership with the University of Nairobi; (4) the development and testing by Climate Pal and EcoAct of business plans and organizational designs, integrating carbon finance and using different approaches for stove distribution, including road-shows, community management.

Meanwhile, EcoAct looked for a funding partner. Several proposals were made to public institutions between 2011 and 2012 to implement a first CPA. However, this occurred at a time where CDM carbon market prices collapsed due to high uncertainty on the future of the Kyoto Protocol. EcoAct thus turned to the private sector and representatives from the Livelihoods Carbon Fund. A ten-year partnership was developed under the name of the Hifadhi-Livelihoods Project, with the following objectives:

1. Provide a solution to energy cooking needs to 60,000 households in Embu County in Kenya, enlisting them into using a more energy efficient cookstove, instead of the traditional three-stone fire. The project would manufacture improved stoves locally and sell them to households at a subsidized price of Kshs 200.
2. Catalyse a reforestation program to reclaim the farm lands in the project area after years of depletion where the beneficiary would receive three tree seedlings to establish a wood lot from which branches of trees would be used to fuel the improved cookstoves. Additionally, fruit and slow-growing traditional trees would also be distributed to re-populate the deforested environment.
3. Promote improvement of health and economic livelihoods in the local communities by creating employment opportunities, in the Manufacturing, Distribution, Management, Monitoring and Repair of cookstoves. The improved cookstove's energy conversion efficiency and low level of carbon emissions would promote health and save users money and time.

Project structure

The success of the local implementation partnership between Carbon Manna Africa and EcoAct is rooted in a robust and evolving organization structure that is designed by Climate Pal to accommodate the need of communities to take ownership of the cookstove program and to structure the management and organization of teams in the field.

The various levels of the program comprise a Board, a management team, field staff, community volunteers, 'ambassadors', and artisans. All commit to the cookstove program agenda of ensuring a sustained focus at their respective levels: policy development and execution, operations efficiency, community level participation and research.

An important component of the successful implementation of the cookstove program by Climate Pal has been its capacity to enlist partner organizations and community groups into the program— micro-finance and table banking groups, women groups, conservation groups, tree nurseries, government of Kenya through Kenya Forest Service (KFS) and National Environment Authority, County Government of Embu. These have officially adopted the cookstove program, and committed to encourage their members to acquire and use the improved cookstove instead of the three-stone open fire hearth, to monitor each other continuously (peer accountability), and to coordinate the repairs and replacement necessities, alongside the organization's field officers in their area.

Climate Pal also developed strong partnerships with local stove manufacturers. After the pilot tests conducted in 2011-2012, a new manufacturer was selected in 2013 through a competitive process and a contract was issued to produce cookstoves that have been checked for quality of their ceramic and metal components. Cookstoves are received in a warehouse and registered to members through various groups by field officers. Documentation of the process

is stored both in a software and hardcopies. Households are identified through a network of Ambassadors in villages where field officer record GPS coordinates, take photos of the cookstoves and monitor the progress of trees distribution for the establishment of a woodlot.

Project development and financial partnership – The Livelihoods Carbon Fund

Created in 2011, the Livelihoods Carbon Fund was looking for Partners to implement best-in-class positive impact projects worldwide. The encounter with Climate Pal and EcoAct was a good fit due to the complementarity of expertise of the three organizations.

The Livelihoods Carbon Fund is an impact investment fund created by private companies to build resilient communities and ecosystems while offsetting their carbon footprint in addition to their reduction efforts. The Livelihoods Carbon Fund invests in ecosystem restoration, sustainable agriculture & agroforestry and rural energy projects. The fund focuses on large-scale projects to simultaneously address poverty, environmental degradation and climate change.

In addition to bringing the upfront financing, the Livelihoods Carbon Fund is deeply involved in the design and the monitoring of the projects in which it invests. Projects are codesigned with grass-root NGOs or project developers to meet the most pressing needs of communities in Africa, Asia and Latin America. During the design phase of the Hifadhi-Livelihoods program of activities, the Livelihoods Carbon Fund contributed to add specific objectives to the program, such as catalyzing a tree planting program and promoting improvements of health and economic livelihoods in the local communities. These additional features were triggered by the expectations of the corporate funders of the Livelihoods Carbon Fund to develop a holistic development program with multiple environmental, social and economic co-benefits for the communities.

The fund also makes sure the project developer has all the appropriate means and resources and brings together all the necessary conditions for the project's success. The Livelihoods Carbon Fund's projects span over 10 to 20 years. A thorough monitoring is conducted with the project developer to foster continuous improvement and guarantee that the project is generating expected results. Returns to the fund are indeed result-based to create a virtuous circle. Moreover, the Livelihoods Carbon Fund fosters new initiatives for carbon projects by making the program of activities and methodologies used in its projects available to other project developers, thus decreasing their investment cost for developing more impactful projects. As illustrated throughout this case study, one of the benefit of the partnership developed with the Livelihoods Carbon Fund, relates to the long-term financial visibility and stability provided for the development of a robust cookstove program. This visibility allows all involved parties to develop longer-term contractual relationships at all levels of the program.

Since 2011, the Livelihoods Carbon Fund has invested 40 million euros in 9 large-scale projects which are already improving the lives of around 1 million people around the world. Through its projects, the fund has planted around 130 million trees, restored 47 000 ha and equipped 120,000 families with efficient cookstoves. The Livelihoods Carbon Fund's projects are expected to deliver around 10 million tons of carbon offsets by 2032.

10 major companies have invested in the Livelihoods Carbon Fund: Crédit Agricole, Danone, Firmenich, Groupe Caisse des Dépôts, Hermès, La Poste, Michelin, SAP, Schneider Electric & Voyageurs du Monde. As a payback for the investment risk they bear, investors in the Livelihoods Carbon Fund do not receive financial dividends but carbon credits with high social and environmental value.

Given the results of the Livelihoods Carbon Fund, some of these companies have launched a Livelihoods Carbon Fund #2 in 2017 to accelerate their actions for climate and the most vulnerable populations. This new impact investment fund, with a target of 100 million euros,

aims at improving the lives of 2 million people and avoiding the emissions of up to 25 million tons of CO₂ over a 20-year span.

Research partnership – EcoAct and Kenyatta University

While piloting development program of activities and implementing the Hifadhi-Livelihoods project, EcoAct and Climate Pal have initiated relationships with local universities and researchers in Kenya. In particular increasingly close collaboration has been established with researchers from the Department of Energy from Kenyatta University since 2014. The scope of collaboration covers energy performance assessments, stove durability improvements and design and testing of new stoves.

In the context of the Hifadhi-Livelihoods project, Climate Pal contracts Kenyatta University for stove testing on a regular basis. This includes water boiling tests¹⁵ and energy efficiency ranking of the various stove designs that are disseminated within the scope of the Hifadhi-Livelihoods project. Such tests are mandatory under the Gold Standard cookstove carbon methodology and feed into the MRV system of the carbon project¹⁶. The protocols used for these assessments are standardized protocols developed by the Global Alliance for Clean Cookstoves (GACC)¹⁷. In 2015, specific protocols were furthermore set-up in the field to monitor both stove quality during the production process and the rate of stoves repairs and replacement for the Hifadhi-Livelihoods project.

In addition and as part of its longer-term R&D strategy, EcoAct has developed and funded a research program to continuously improve the design of cookstoves, in terms of energy performance, practicability and life-span. This program aims at informing operational decisions made by EcoAct and Climate Pal, for the production of cookstoves. For example, a research protocol was developed in collaboration between EcoAct R&D team and researchers from Kenyatta University with a specific focus on: visual assessment, extended run test, external and internal impact tests and corrosion test. The GACC Durability Protocol¹⁸ was adapted in order to allow tests on used stoves instead of new stoves. Innovative protocol adjustments have been introduced within the extended run test in order to monitor temperature variations on different sections of the stoves during heating and cooling cycles. A random selection of two samples of stoves, representing different production batches from different vintages, was operated within the Hifadhi-Livelihoods projects. The stoves collected from users for the purpose of research were replaced to ensure continuity of the project. Finally, a statistical analysis was performed on the tests results to conclude on the main causes of potential stove failure.

EcoAct and the Climate Pal management team were able to relate results from this research with observations and feedbacks from the field. It helped analyze and rationalize past and current practices and led to the identification of several opportunities for improvements of stove design and production process. As part of this research program, new stove prototypes are being produced in 2018 to inform future stove production cycles. It will help EcoAct and Climate

¹⁵ Global Alliance for Clean Cookstoves, “The Water Boiling Test, V4.2.3”, 2014.

<https://cleancookstoves.org/binary-data/DOCUMENT/file/000/000/399-1.pdf>

¹⁶ The Gold Standard Foundation. “Technologies and Practices to Displace Decentralized Thermal Energy Consumption. Version 2.0.” 2015.

https://www.goldstandard.org/sites/default/files/revise-tpddtec-methodology_april-2015_final-clean.pdf

¹⁷ Global Alliance for Clean Cookstoves, accessed July 1 2018, <https://cleancookstoves.org/>

¹⁸ Global Alliance for Clean Cookstoves, “Durability Protocol”, 2014.

<http://cleancookstoves.org/binary-data/DOCUMENT/file/000/000/89-1.pdf>

Pal design Quality Assurance procedures and provide guidance to local manufacturers on the identified most critical verification points.

Another benefit of developing partnerships with academic institutions with strong local knowledge, is the capacity of such institutions to provide third party advice outside of operational considerations and to promote innovation. It also creates opportunities for capacity building for all entities engaged in the research project.

SECTION 2: delivering positive impacts in the Mont Kenya region – SDG 3, 5, 7, 8, 13

Positive Impact financing and certification tools

As discussed in the previous section, the partners of the Hifadhi-Livelihoods project looked at the voluntary carbon market for ways to value the climate benefits delivered by improved cookstoves dissemination programs. Carbon certification generates environmental assets (“carbon credits” or “carbon offsets”) which can be traded to the public and private sectors to generate the finance needed to support the long-term goals of emission reduction activities.

Within the voluntary carbon market, several standards exist which certify greenhouse gas emission reductions. Founded in 2003 by WWF and other international NGOs, the Gold Standard delivers carbon credits based on achieved Green House Gas (GHG) emissions reduction and upon demonstration and monitoring of the social, economic and environmental co-benefits of the project.¹⁹

In 2015 the international community agreed to two new ambitious plans: a global climate plan, the Paris Climate Agreement, and a far-reaching sustainable development roadmap called Agenda 2030, tracked by seventeen Sustainable Development Goals (SDGs). This international context created an opportunity to further value the co-benefits delivered by climate mitigation activities. EcoAct engaged with the Gold Standard Foundation in 2016 and entered into a strategic partnership for the development of the Gold Standard for the Global Goals (GS4GGs). This new effort by Gold Standard will allow for the certification of project contributions to a growing range of SDG impacts over time²⁰. It builds on the experience gained over 15 years by the Gold Standard Foundation in the certification of climate mitigation activities together with the monitoring of environmental and socio-economic co-benefits. Experts from EcoAct provided inputs to the rules and procedures of the new standard, and to several of the new methodologies and frameworks developed.

GS4GGs capitalize on corporates stronger willingness to pay for carbon offsets from projects with co-benefits that are certified^{21,22}. The revision of the Gold Standard framework is also an initiative to future-proof projects in the context of the Paris Agreement and evolving markets. It will allow projects delivering a range of benefits (water, climate, gender, etc.) to engage in

¹⁹ The Gold Standard Foundation. “The Gold Standard Requirements, Version 2.2”, 2012. https://www.goldstandard.org/sites/default/files/gsv2.2_requirements.pdf, 32-34.

²⁰ “Certified SDG Impacts.”, The Gold Standard Foundation, accessed July 1 2018.

<https://www.goldstandard.org/our-work/new-certification-solutions>

²¹ “Business Leadership on Climate Action: Drivers and Benefits of Offsetting”, International Carbon Reduction & Offset Alliance, accessed July 1, 3018,

https://icroa.wildapricot.org/resources/Documents/ICRO4535%20Offsetting%20Report%202017_FIN_AL.pdf,

²² Hamrick, Kelley. “Unlocking Potential: State of the Voluntary Carbon Markets 2017,” EcoSystems Marketplace, May 2017, <https://www.forest-trends.org/publications/unlocking-potential/>

certification of the most relevant SDG impacts compared to a baseline scenario and opt for an SDG Impact Statement or Product.

GS4GGs can be used by a wide range of stakeholders. For instance, corporates can report on the SDG-related performance of the sustainability initiatives implemented within their value-chain. Impact investors can prioritize investments that will maximize impacts aligned with their social, economic and/or environmental goals. As organizations increasingly map their strategies with the SDGs, GS4GGs provides tools to monitor and report on contributions to SDGs.

GS4GGs was published in July 2017 and entered into force on 1st March 2018. The Hifadhi-Livelihood project is currently working on transitioning to this new standard.

Positive impact assessment after 5 years of implementation of the Hifadhi-Livelihoods project

In 2013, the partners turned to the Gold Standard Foundation for the certification of the positive impacts of the Hifadhi-Livelihoods project. Due to the multiple benefits of cookstove programs, the Gold Standard was a natural fit to maximize the return on investment of the certification process.

The Gold Standard requires project developers to follow a rigorous certification process in order to ensure the materialization of climate benefits and to generate carbon credits, according to internationally recognized measurement, reporting, and verification (MRV) methodologies. The certification process started with the production of a Project Design Document (PDD), which provides information on the project design and the application of the selected baseline scenario and monitoring methodology to quantify emission reductions. This documentation was completed by a stakeholder consultation to ensure adoption of the project by local communities, as well as a document (Gold Standard Passport) describing the expected environmental, social and economic co-benefits of the climate mitigation activity. The project was then validated by an independent UN-accredited auditor (DOE), and eventually registered as a Gold Standard project activity.

Throughout the project lifespan, an independent UN-accredited auditor verifies periodically emission reductions and sustainable development monitoring activities. Following this verification, the Gold Standard Secretariat, Technical Advisory Committee, and NGO Supporters can conduct a final review before the project may issue carbon credits.

After five years of implementation, the Hifadhi-Livelihoods project has achieved the distribution of 60 000 cookstoves and issued 481 320 carbon credits, which represents more than 96% of the anticipated carbon credits annually. The Hifadhi-Livelihoods project will continue to generate credits until 2023.

In order to transition to the new Gold Standard certification framework (GS4GGs), all projects shall demonstrate a clear, direct contribution to sustainable development, defined as making direct and demonstrable positive impacts on at least three SDGs, one of which must be SDG 13 (Climate action). Preparing for the transition of the Hifadhi-Livelihoods project under GS4GGs, EcoAct had to demonstrate the causal link between the project and SDG related outcomes.

To this end, EcoAct performed a mapping of activities, outcomes and impacts in order to identify contributions from the project. A total of 11 potential SDG contributions have been identified for the Hifadhi-Livelihoods project. Out of these, five have been considered material enough, direct and justifiable, three necessary conditions for their inclusion in the monitoring

plan and the selection of key performance indicators to monitor these specific SDG contributions over time:

- *SDG 3: Good health and well-being.* Improved cookstoves sold through the project emit less smoke than traditional stove, and reduce health impacts associated with indoor air pollution (e.g. particulate matter).
- *SDG 5: Gender equality.* Improved cookstoves sold through the project consume less wood for the same level of service, and time spent by beneficiaries for wood collection is reduced. In addition, improved efficiency helps reduce the time for cooking. The project beneficiaries, women in majority, now benefit from extra time for other household and economic activities. The project also promotes woman empowerment through a large proportion of women employed in project staff.
- *SDG 7: Affordable and clean energy.* The cookstoves are sold at an affordable price to the local population, with a guaranteed service and maintenance, thanks to the project business model.
- *SDG 8: Decent work and economic growth.* The Hifadhi-Livelihoods project leads to local job creation (artisans, field officers, ambassadors) and contributes to local capacity building through Climate Pal distribution network and collaborations with local enterprises.
- *SDG 13: Climate action.* Improved cookstoves sold through the project consume less non-renewable biomass for the same level of service, which leads to a reduction of GHG emissions.

Under the GS4GGs framework, SDG contributions must be monitored and audited. For the Hifadhi-Livelihoods project, this will occur during the next verification cycle, which will take place in 2019.

Conclusions

After seven years of implementation, the outcome of this multi-stakeholder partnership is a robust cookstove program and a successful Hifadhi-Livelihoods project for which the Livelihoods Fund, EcoAct and Climate Pal were awarded “Best Project Developer – Energy efficiency” and “Best Project Developer - Overall” several times between 2014 and 2016 under the ‘Voluntary Carbon Markets Rankings’ conducted by Environmental Finance annually²³.

In conclusion, the review of the different partnerships involved in this case study illustrate the variety of actors needed to achieve high quality positive SDG impacts. In this particular case study, the success of the consortium lies in the complementarity of actors: (1) Climate Pal, a local program coordinator, in charge of securing local stove production with manufacturers and organizing dissemination and maintenance with a network of field officers, ambassadors and artisans; (2) the Livelihoods Carbon fund, an impact investment fund set-up by a consortium of corporates, taking long-term financial engagements to support the development of impactful projects; (3) EcoAct, a global climate solution provider, bringing climate change and SDG impact assessment expertise, as well as knowledge of carbon market and acting as a pivotal project coordinator; (4) a set of high value complementary partners, including the Kenyan Forest Services and Kenyatta University who help implement high quality tree planting programs and perform research programs on stove robustness and design improvements. Such consortium of actors requires careful partnerships design, so as to ensure clear definition

²³ <https://www.environmental-finance.com/content/news/voluntary-carbon-high-flyers-preparing-for-markets-take-off.html>

of each Partner's role, and to build trust and achieve strong and sustained involvement of all partners.

The work performed so far to assess the co-benefits generated by the Hifadhi-Livelihoods project and the overall EcoAct-Climate Pal cookstove program have been very informative. The selection of the five co-benefits that EcoAct intends to monitor resulted from a trade-off between the demonstrability of the impact, the additional monitoring costs and the benefits of certifying a wide range of positive impacts. The assessment by the Gold Standard of the justification elements for the 5 SDG contributions of the Hifadhi-Livelihoods project will be performed in 2019. The ongoing justification exercise already helps develop coherent messaging around the core co-benefits of the project. It will increase credibility of the positive impacts claimed around the project. It will also foster more interest in the project activities and variables that may have a positive influence on this set of co-benefits.

Achieving the climate and sustainability agendas required by the Paris Agreement on Climate Change and the Sustainable Development Goals, both adopted in 2015, will require not only to massively scale-up and replicate such programs of actions across regions but also to expand a wide variety of low-carbon solutions. It will also require to better connect the pipeline of projects with funding opportunities, through long-term de-risking and impact investing tools. The rulebook currently under negotiation to implement the Paris Agreement and in particular elements of Article 6 will be decisive with regards to opportunities for the deployment of new activities in the future.

With regards to the Hifadhi-Livelihoods project, the partners are currently exploring opportunities for extension. These include extending the Hifadhi-Livelihoods project to another Kenyan county. Before the end of the carbon certification cycle, the partners will also need to investigate carbon market exit strategies to ensure the viability of the cookstove program and to ensure legacy of the Hifadhi-Livelihoods project once carbon credits are removed from the financial equation.

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