

A photograph of a woman and two children in a kitchen. The woman, wearing a colorful patterned dress and a headscarf, is pointing upwards with her right hand towards a glowing light bulb. She is smiling and looking up. To her left, a young girl in a yellow shirt is also looking up. To her right, a young boy in a light blue shirt is looking up. The background shows a kitchen shelf with various items and a wall-mounted light fixture.

PROMOTING DECENTRALIZED RENEWABLE ENERGY SYSTEMS

Success stories from the Green & Inclusive
Energy Programme in Kenya

2016-2020

A photograph of a woman in a pink headscarf and patterned dress cooking over a small fire in a pot. She is sitting on a green plastic chair. Several children are sitting around her, some on green plastic chairs. They are in front of a mud-brick building at night. A bright light source, possibly a solar lamp, is visible on the wall above them. The title 'FROM BROOKLYN TO NAIROBI FOR CLEAN ENERGY' is overlaid in white text.

FROM BROOKLYN TO NAIROBI FOR CLEAN ENERGY

In 2017, on the side-lines of a Sustainable Energy for All forum held in Brooklyn, USA, an ad-hoc organization that came to be known as the Brooklyn Coalition was formed. The coalition was formed as a result of high-level deliberations that involved different countries, members of the private sector and was fronted by Hivos. One of the founder members of the coalition was Kenya, which, as Paul Mbuti, the current Deputy Director of Renewable Energy at Kenya's Ministry of Energy says, had for a long time "been interested in promoting decentralized renewable energy solutions, particularly in the rural communities."

Pushing for decentralized solutions

Often, when policymakers think about energy, it revolves around large-scale projects. For instance, in Kenya, policy work on energy has for a long-time involved electrification programs: how to get more people connected to the national electricity grid. However, this is the type of policy-making that the founding members of the Brooklyn Coalition — Kenya, Nepal, Netherlands, Schneider Electric, Selco Foundation, SNV, and Hivos — wanted to move beyond. Thus, the goal for Hivos was to get different voices in one room, with all of them agreeing to work together to push for decentralized renewable energy. Each of the entities were to work individually, to

push for renewables agenda in their own areas of expertise and influence but also where possible work together in global forums. Each of these partners acknowledged the urgent need to amplify the importance of decentralized renewable energy solutions which would be directly helpful to communities overlooked by larger-scale energy solutions. For Kenya, joining this coalition was a way to benefit from shared aspirations in renewable energy.

Maimuna Kabatesi, Project Manager, Green and Inclusive Energy Program for Hivos East Africa, says, "a lot of financing in the energy sector is very large-scale. What that means

is that it can't support small projects that will directly impact citizens, particularly those in rural and remote areas. But decentralized renewable energy is usually much smaller projects that can have a huge impact on a community."

Sustainable Development Goal 7 aims to "Ensure access to affordable, reliable, sustainable and modern energy for all." One of the ways in which the Brooklyn Coalition works towards realizing this is by working to ensure that there is financing of small-scale energy projects in the communities they are part of. Another way is by aiming to influence the renewable energy policies in the countries the partners are active in both directly and through close collaboration with government champions.

Clean cooking

A strand of decentralized energy solutions that the Brooklyn Coalition is particularly interested in is clean cooking. Some ways of enhancing access to clean cooking include increasing efficiency of traditional cook stoves and increasing access to efficient and clean fuels including biomass. According to Kabatesi, "There's been lip service paid to it, but there's not been financing, there's not been that kind of push for clean cooking. But over the past few years, globally, and, as a result, in Kenya, this topic has really exploded."

Mbuthi, in speaking about the shift in bringing about clean cooking to the forefront explains, "for many years we've been talking about large-scale national grid expansion where you only address the electricity needs of the community by extending the national grid. So, we realized it is not economically viable to extend the grid to the remote areas which are far off the grid, and therefore the need to provide standalone systems which are what we call the decentralized solutions."

The shift from focusing almost entirely on electrification to include clean cooking in energy conversations is an example of a decentralized renewable energy solution. Now, there is a push for the development of policies for clean cooking. Conversations on the detrimental effects that charcoal, firewood, and other traditional forms of biomass have on the environment, as well as on the health of individuals and families are now taking place. It is instructive that focusing on this decentralized renewable energy solution solves multiple problems, as clean cooking prevents multiple problems: it helps save the environment, and, as a result, mitigate the effects of climate change, prevents respiratory illnesses associated with traditional methods of cooking, and is, on the long-term, cheaper to use than the older methods.

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Paul Mbuthi, current Deputy Director of Renewable Energy, Ministry of Energy Kenya

Bringing together different actors

Rita Poppe, Global Advocacy Officer for Green & Inclusive Energy at Hivos, opines that a key advantage of the Brooklyn Coalition has been that it has been able to bring a group of different actors who have worked together in order to accelerate the transition to universal access to clean energy. At the global forums where the members of the coalition are present, they have been able to push clean cooking policies globally. She says, "by forming this coalition one of the things we achieved was that we had a diverse representation of actors at multiple events." The coalition was recognized by the SDG 7 working group which is guiding the implementation of SDG 7. The coalition was represented in that technical working group which meant that they were able to produce the policy brief on decentralized renewable energy.

In addition, the different partners in the coalition have been able to collaborate with each other. For instance, the different countries in the coalition have been able to share with each other information on best practices in the renewable energy sector. The countries also engage companies to find out what kind of policy changes will lead to clean cooking products being easier to manufacture and sell. Hivos acts as a broker in these deliberations, flitting between the partners to ensure efficient collaboration, and to make sure that efforts are not duplicated. In this way, the different stakeholders can ensure complementarity in their mutual drive to achieve universal energy access.



INVOLVING WOMEN IN KWALE IN CLEAN COOKING ENTREPRENEURIAL ACTIVITIES

Gender roles and a patriarchal society in Kenya means that household cooking and consequent energy sourcing is often perceived a primary responsibility of women. This dynamic is especially visible in rural and/or coastal areas where community traditions remain strong. Kwale County is one such area and one in which the Clean Cooking Association of Kenya (CCAK) saw potential to reach women directly and not only raise awareness of clean cooking methods but also of ways in which the women could benefit directly from the clean cooking energy value chain.

The clean cooking case

Towards the end of 2019, CCAK, with the support of Hivos East Africa's Green and Inclusive Energy programme, began an initiative in Kwale County with the aim to sensitize women in the county about what clean cooking is, how cooking with unclean fuels and inefficient stoves affects their health, their livelihoods, and its impacts on the environment. David Njugi, CEO of CCAK says of this project, "It came about because there was seen to be a need to sensitize people about clean cooking and we wanted to pilot ways of doing that. How do we get more

women into the space? How do we get more women into the clean cooking business? How do we get more women access to these technologies?"

Thus, it was important for CCAK to reach these women. According to a survey undertaken by the association, 59 per cent of households in Kenya use the three-stone method, with firewood as the fuel, as their primary way of cooking. High poverty and low literacy levels in Kwale exacerbate this problem in the county. This was the problem CCAK sought to solve.

Introducing the multiple benefits of clean cooking

Early in 2020, CCAK met women groups in four sub-counties in Kwale County. The meetings were organized by the County Government, with the involvement of various national bodies at the county level. During the meetings, there were sessions to show the women which clean cooking technologies they could adopt, and why they were improvements to the methods the women were using. For instance, the women were told about efficient, cleaner fuels like Liquefied Petroleum Gas (LPG), which is cheaper to use in the long-term compared to charcoal. In addition, CCAK aimed to help the women become self-reliant by starting businesses that produce clean cooking technologies like briquettes and selling them to their communities. They did this by informing the women about various affirmative funds available in the county which they can access to provide seed capital for the clean cooking businesses. These affirmative funds include the youth fund, the women's fund, as well as other special interest group funds. The association also invited manufacturers of clean cooking technologies to advise the women on how they can get started on these businesses. One of the manufacturers invited was Claris Mcharo, a briquette maker from neighbouring Mombasa County who has travelled to four sub-counties to speak with women.

Mcharo informed the women's groups about the importance of clean cooking, showing them the ways in which using clean cooking

methods prevent health problems in the community. She says, "Like our Swahili life here, one house is the sitting room, bedroom and kitchen all together. The smoke affects the children. You will find a child with eye problems... respiratory problems, and all this is because of the smoke." Thus, it was important to her that women stop using cooking methods that use charcoal and firewood as the primary fuel source.

However, some of the people she spoke to were initially resistant to the idea of using briquettes as a fuel source. Briquettes are made from discarded pieces of rubbish like palm fronds, sawdust and pieces of paper. But, as Mcharo puts it, "It used to be a challenge because they would wonder why they should stop using normal charcoal and use rubbish. But we explained to them that while it's rubbish; it's rubbish that we have made useful and can be used by anybody."

Becoming an entrepreneur

One of the aims of CCAK in Kwale is that, in addition to the women using clean cooking methods, they should also become entrepreneurs and ultimately self-reliant. This excited the women; hence, they were particularly keen to take part in the project. As Njugi attests, "We carried out a survey after every training session and what came out is that more than 85 per cent of the feedback was that the sessions were very useful. They learned something new wanted more training, and that they were also interested in getting into that kind of business, or transitioning to cleaner fuels."

Nelly Amoite, the Gender Director, Kwale County concurs, saying, “One big challenge we have is poverty. You will find that someone wants to buy briquettes but they have no money. They, however, were told that if they want to use briquettes, they can assemble into groups and someone will come and teach them how to make them at home.”

The impact of COVID-19

Nevertheless, the implementation project has faced some challenges. With the onset of the COVID-19 pandemic, CCAK was forced to suspend its sessions with the women. As a result, women who had already made the transition to cleaner fuels reverted to the dirty fuels they were using. Martha Ndambuki, a Youth Development Officer who was involved

in the mobilization of women to be trained in Kinango Sub-County in Kwale County bemoans this interruption, pointing out that more sessions were needed, with women, in order for them to shift completely to the cleaner fuels. She says, “Education levels are still low. They don’t know the difference between the charcoal from firewood and briquettes. So, if you try to tell them about briquettes and how they help the environment, they say they’re already used to the regular charcoal. They say, if their parents used it and are still alive, they will also continue to use it but with continuous training and sensitization, they could change their mindset, because change is a continuous process.

CCAK hopes to scale up this project to other counties in the country and has begun efforts towards this goal.



RENEWABLE ENERGY POLICY FORMULATION IN COUNTIES

After the passing of the Devolution Act, 2013 many functions were devolved to counties. However it was not until the passing of the Energy Act, 2019 that counties were required to develop their own county energy plans. While the Ministry of Energy, in conjunction with many stakeholders including development partners, civil society, private sector and academia have been working to increase capacity of the counties in energy for years, energy remains a sector that is a challenge for the majority of counties. There is limited technical capacity to understand energy, and in particular renewable energy. This has resulted in counties with county integrated development plans (CIDPs) that don't reflect the urgency behind energy access. To see the switch to decentralized and clean cooking options that will address the needs of citizens directly requires a policy and regulatory environment that comprehends those needs.

Enhancing understanding of renewable energy policy making

While a few counties have since the passage of this act embarked on fulfilling the expectations in energy set out by the act, most of them have struggled to come up with their own county energy plans, and surrounding policies due to capacity and advocacy skills gaps. To this end, Hivos East Africa along with Green and Inclusive Energy partners Arid

Lands Information Network (ALIN), the Kenya Climate Change Working Group (KCCWG), the African Centre for Technology Studies (ACTS), and the Consumer Unity and Trust Society (CUTS) to enhance renewable energy knowledge, data and policy and regulatory environment in the counties.

Bob Aston, a project officer at ALIN notes, "most organizations had not even interacted

with the Energy Act and hence we had to train the non-state actors in Kajiado and also relevant departments and committees on this. Further, grassroots civil society organizations lack the capacity to engage with and critique renewable energy policies". The process was similar in Kajiado, Kisumu, Makueni, Bomet, and Homa Bay Counties where the organisations assembled community representatives, grassroots organisations, private sector, parliamentarians to enhance understanding of responsive energy policy making and renewable energy.

In these five counties and beyond, the lack of prioritizing energy is reflected in the low budgetary allocation to renewable energy and the delay in the formulation of relevant energy policies within the counties. Maimuna Kabatesi, the Project Manager, Green and Inclusive Energy Program, Hivos East Africa, says, "a lot of counties develop CIDPs that don't factor energy at all but the fact that this is now slowly changing is a positive step."

Securing long-term commitment

The partner organisations had to be creative in their approaches to the counties in order to ensure genuine buy-in and sustainability of the topic of energy beyond the project's lifetime. In all the counties where Hivos supported the program, the building of strong and credible advocacy strategies began with the mainstreaming of renewable energy in county strategic plans like the county integrated development plans (CIDPs) and support of the development of energy policies. This was a tough task that called for the close collaboration of stakeholders at all levels within the county. The end goal of this was to bridge the gaps in the county's energy

sector by setting out the goals and planned activities for the achievement of specific purposes. Further, the policy was meant to support and facilitate the incorporation of a budget for renewable energy in county planning. While policy-making is a slow process in general, the project was also impacted by the 2017 elections in Kenya that saw a change in administration in many of the counties. In addition, the programme partners emphasised at all times the importance of multistakeholder approaches to policy formulation, including meaningful public participation which meant that policy drafting activities were not able to be implemented quickly.

However at the end of 2020, there have been several wins. In Kajiado and Homa Bay, the Renewable Energy Policy is at advanced stages and only awaits the county assemblies' approval. In addition, Homa Bay County has also managed to pass a Climate Change Fund bill, as well as formulated, with input from CUTS, its Renewable Energy Strategic Plan for 2019-2024. Kajiado County too has also produced a Climate Change Bill (in draft).

CUTS has in Homa Bay established the County Reference Group which has made the policy formulation process an all-inclusive process by drawing members from all the 40 wards in Homa Bay. This has given its advocacy in the county a workable and sustainable structure. This method of creating working groups has been created with success in Bomet, Homabay and Kajiado Counties. In addition to the County Reference Group, there are also Renewable Energy Champions also drawn from all the 40 wards in Homabay. These renewable energy champions are meant to

spearhead the county energy strategic plan in their various wards.

In counties where the work begun later, such as Kisumu and Makueni, as well as the early counties the focus by the GIE partners was on supporting the governments in generating data on energy to support the formulation of the mandated county energy plans and related energy studies. To date, GIE partners have supported the publication of 12 studies in these counties that cover renewable issues such as household energy use, institutional

energy use, policy environment, consumer awareness and demands, and gender and social inclusion in renewable energy in these counties. In Kajiado County there was also the production of a Renewable Energy Atlas that maps the county's energy resources. All research was conducted collaboratively with citizens, and with the government reflecting the programme ideals, and ensuring that the information will be useful to county governments and their citizens beyond the scope of the programme.



THE PUSH FOR INCREASED CLIMATE CHANGE BUDGET ALLOCATIONS IN KAJIADO COUNTY

In Kenya, Arid and Semi-Arid Land (ASAL) counties have been heavily affected by climate change. Their vulnerability to climate change has further been exacerbated by multiple factors including lack of awareness of adaptation and mitigation strategies, limited access to climate change information and limited financial muscle. These factors have limited the regions' ability to prevent and respond to the impacts of climate change. Kajiado is an example of an ASAL county in Kenya which has suffered and continues to suffer from the detrimental effects of climate change.

Capacity building

As part of its work in Kajiado County, one of the aims of the Kenya Climate Change Working Group (KCCWG) has been to effectively contribute to the mainstreaming and financing of climate change policies. To do this, KCCWG employed a multi-pronged approach in the county. This ranged from technical input in the development of the County's Integrated Development Plan II (CIDP II) 2018-2022 to its involvement in the formulation of the Climate Change Fund Bill and the Renewable Energy policy.

John Kanini, Chief Officer in the Department of Water and Environment in Kajiado County, says of KCCWG's involvement, "Initially we didn't have a formula on how to allocate funds for climate change because people didn't really understand what climate change was but when KCCWG came in, they used their expertise and experience and were able to educate us on how important it was to allocate funds for climate change in order to help people to be resilient and to adapt to the changing climate."

Since its formation in 2011, KCCWG has been advocating for the mainstreaming of climate finance at various regional, national, and international levels. In this vein, KCCWG incorporated its experience in advocacy at different levels of development and climate change conversations to help Kajiado County formulate its climate change policy. This, coupled with its experience of working in several ASAL counties to help develop natural resource-related management techniques, has been of great help to Kajiado, as the group has been able to build the capacity of policymakers at the county level including the members of the county assembly.

Introducing decentralized renewable energy systems

As part of their implementation under the Green and Inclusive Energy (GIE) programme, KCCWG has been lobbying for a decentralized renewable energy system. This has come to the fore in Kajiado where KCCWG has played an integral part in the drafting of the county's renewable energy policy. This ties in well with the Climate Change Act (2016) which mandates all counties in the country to mainstream climate change in their CIDPs.

Allocating funds for climate change

KCCWG carried out capacity development for county officials on climate change adaptation and mitigation measures, as well as climate change budgeting. This led to a stand-alone additional budgetary allocation of Kshs 5 million (approximately USD 44, 800) for climate change actions in the second CIDP, in addition to funds for mainstreaming climate change across sectors. Neither of these appeared in the first CIDP showing both policy and financing change with regard to funding climate change in Kajiado County.

Under the terms of the county's Climate Change Bill which KCCWG supported the drafting of, at least 1.5 per cent of the county's total budget will be allocated towards combating the effects of climate change. These funds will allow for the County Environmental Committee (CEC) to draft and implement policies that will help the county mitigate climate change. The county environmental committee is an important body in sustainable climate change advocacy but lack of funds has thus far been a detriment to their full operation.

"People didn't really understand what climate change was but when KCCWG came in, they used their expertise and experience and were able to educate us on how important it was to allocate funds for climate change"

John Kanini, Chief Officer Department of Water and Environment, Kajiado County

The allocation of a budgetary fund is important in showing both the seriousness and commitment of Kajiado County in mitigating climate change. Kanini says this "will help us secure other external funding from bodies like the World Bank. Other donor bodies will only give money depending on how much you already have."

Including all stakeholders

This achievement was possible because of the steps taken by stakeholders working with the county, who were committed to ensuring the policy formulation process was an inclusive one. This includes not only KCCWG, but GIE partners Hivos and ALIN, as well as the champion government officials in the county.

The results of this were policy development processes that incorporated interministerial drafting processes and active public participation as well as awareness-raising of citizens, civil society, private sector and parliamentarians at the county level.

Therefore, KCCWG has managed to create a policy ecosystem that incorporates stakeholders at different levels of the climate and renewable energy sector in Kajiado. Embedding climate change into county and sector development planning and budgeting has better positioned Kajiado County to address the effects of climate change in the short, medium, and long-term.



THE KAJIADO COUNTY RENEWABLE ENERGY ATLAS

In March 2019, Kenya passed the Energy Act 2019. This act called for certain actionable goals to be undertaken by both the national and county governments in Kenya. One of the goals of the Act was to mandate Cabinet Secretary for Energy to develop an inventory and resource map of different renewable energy resources in the country in order to reduce the burden of conducting exploratory and feasibility studies on prospective investors. Counties were therefore required to map out renewable energy resources in their counties. Arid Lands Information Network (ALIN), which had worked with Kajiado County previously, was interested in promoting the use of renewable energy in the county. Bob Aston, a Project Officer at ALIN, says, “we wanted to work with the Kajiado County government through the support of Hivos Green and Inclusive Energy (GIE) programme to develop the Kajiado County Renewable Energy Atlas.”

Consultative forum

In October that year, ALIN organized a consultative forum with various stakeholders in renewable energy in Kajiado County. The consultative forum brought together non-state actors, and part of the national government, such as the National Environment Management Authority and the Kenya Meteorological Department to develop the atlas. Kajiado County’s Department of Environment, Natural Resources, and Climate Change was heavily-involved in this process,

invariably, since the department was the ultimate beneficiary of this project.

A comprehensive map and guide

The Kajiado County Renewable Energy Atlas, the product of these forums and collaborations, is a record of renewable energy in the county. It provides information on both potential and existing renewable energy sources in Kajiado County. Further, it captures the health and education infrastructure of the county, for these facets of the community are often key energy users. The Atlas also presents

a map of Kenya Power and Lighting Company electricity distribution in Kajiado County, with the locations of power distribution lines, as well as data about the number of households in the county connected to mains electricity provided.

Consequently, there are maps of borehole distribution in the county, existing solar energy sites in the county and potential solar energy sites in the county. Moreover, there are also maps of Kajiado County's existing and potential wind energy sites (with data about the wind speeds in different parts of the county), potential geothermal energy sites (with data about the geological makeup of different parts of the county) potential hydropower sites, as well as existing and potential biomass sites.

John Kanini, the Director of Environment and Natural Resources in Kajiado County believes the Atlas will aid in the County's development policy. "Some of the information that we have in this Atlas is quite critical because in our County Integrated Development Plans as we have been mentioning that we need to go green, but that information was not available. We know we have the sun and wind in Kajiado

but we don't have a common place where we can get all this information, said Kanini. The Director is optimistic that since the Atlas contains all this vital information in relation to renewables, it will be useful for investors and when sourcing funds for renewables.

According to Aston, the maps in the Atlas are important to an array of people: it will provide researchers, developers, and investors with information about the location of potential and existing renewable energy sites in the county. Additionally, the Atlas will be a key guide when developing the Kajiado County energy plan, which is a requirement of the Energy Act, 2019.

Duplication in other Counties

For ALIN, publication of the Atlas marked the end of a ten-month-long process and the beginning of more similar studies. Already, another county, Bomet County, has expressed interest in working with ALIN to create the Bomet County Renewable Energy Atlas.

