VIRTUAL WORKSHOP ON KNOWLEDGE SHARING AND EXCHANGE SESSION

Held on 15th June 2021

Supported by WWF-KENYA

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Table of Contents

ACRONYMS AND ABBREVIATIONS

ADP	Annual Development Plan
CEP	County Energy Plan
CIDP	County Integrated Development Plan
CTN	Climate Technology Centre and Network
CoG	Council of Government
CSOs	Civil Society Organizations
GNESD	Global Network on Energy for Sustainable Development
KPLC	Kenya Power and Lighting Company
KCCWG	Kenya Climate Change Working Group
NDC	Nationally Determined Contribution
RE	Renewable Energy
REREC	Rural Electrification and Renewable Energy Cooperation
SDG	Sustainable Development Goal
SEAF-K	Sustainable Energy Access Kenya
TIPS	Transition Development Plan
VAT	Value-Added Tax
WWF	World Wide Fund

1. Background

Energy poverty is one of the main global challenges of this century despite the major expansion of centralised electricity networks. Energy poverty in developing countries is caused by low levels of electrification and other forms of networked energy provision resulting from economic constraints and inefficient institutions. Energy poverty eradication can be achieved through the implementation of Sustainable Development Goals (SDGs) Goal 7, which aims at sustainable development through the provision of affordable and universal electricity access by 2030. Limited access to energy is a major challenge to achieving SDGs. About 83% of households in sub-Saharan Africa rely on traditional fuels while 74% lack electricity and despite the fact that energy resources are more than sufficient to meet domestic needs, they remain underexploited and access to modern services is limited. The Global Network on Energy for Sustainable Development (GNESD) states that the majority of the world's poor live in rural areas with limited access to modern energy services and thus depend on traditional energy sources, e.g., biomass. The cost of energy causes a heavy economic burden to low-income households in developing countries, with households spending even more than 20% of their total household income on energy uses. Hence, governments in developing countries require innovative ways of tackling energy poverty in order to achieve universal energy for all citizens.

In Kenya, the Government recognizes energy as one of the country's key enablers of economic and human development, since energy provides critical opportunities for the country. With access to affordable energy, businesses can thrive, industries can increase productivity, hospitals can operate properly, households can improve livelihoods and students can study at home at night. Through the Rural Electrification Programme and the Last Mile Connectivity Project, efforts are being made in Kenya to harness the resources of renewable energy, such as wind, solar, geothermal, hydro, and biomass energy, to ensure that all people have access. The Government has been accelerating efforts to raise the connectivity rate through the extension of low voltage networks to households. The connectivity project is expected to reach about 800,000 households with an estimated 3.5 million people by the end of 2020. This, however, represents only 8 percent of the rural households that are estimated to be connected to the national grid. Concerted efforts are needed by all stakeholders to ensure that there is a wider reach at the household level.

It is against this backdrop that the Sustainable Energy Access Forum Kenya (SEAF-K) through the Governance Working Group organized a virtual workshop to share knowledge, experiences, and best practices from different counties with regard to energy access. The virtual workshop was held on 15th June 2021 hosting participants from civil societies, private sector, academia, county government, and a representative from the National Government Ministry of Energy and Council of Governors. A total of 28 participants attended the meeting.

2. Overview of SEAF-KENYA

To understand the Sustainable Energy Accesses Forum Kenya (SEAF-K) and its mandate, Elizabeth Wanja, project officer Kenya Climate Change Working Group gave a brief overview. She noted that SEAF-K is a national network of civil society organizations, development partners, individuals, and practitioners advocating for access and use of clean, affordable, and modern energy services and products. The establishment of the forum aimed at addressing a couple of challenges facing the energy sector in terms of limited level of multi-stakeholder engagement by providing a platform that brings various stakeholders on board to advance energy issues. The four key areas that the network intends to address include; data and information accesses, Technology for production

and utilization of energy services and products, policy frameworks development, and capacity both at the institutional and individual level. She also informed the participants that SEAF-K delivers her mandate through four working groups namely; Research and development/policy advocacy, membership outreach and capacity building, Information communication, and knowledge management. In conclusion, she highlighted the following key milestones that the forum had made since its inception

- Development of Energy outlook for Kitui County and the document is currently being used to inform the development of the County's energy plan
- Participate in counties Sustainable Energy for all processes and supported secretariat activities
- SEAF-K is part of an EU capacity-building programme supporting counties in energy plans development processes

3. The objective of the meeting

To Kick off the meeting, Juliet Makoha the convener of the governance thematic group welcomed participants and appreciated their presence and commitment to the Access to Energy agenda. She gave the main objective as to hold knowledge sharing and exchange programme targeting counties with a focus on devolved energy governance. The specific objectives were;

- Assessing the status of Energy plans development in different counties
- Learning from different approaches/strategies used by different counties in promoting energy accesses
- Comprehending how counties are working with National Government in advocating for energy access
- Learn how the counties are working with civil societies, Community Based Organizations, Faith-Based Organizations, Academia and the Private sector in promoting SDG 7

4. Welcoming Remarks

Irene Mwaura-Project Officer, Energy, and Climate Change WWF-K

Ms. Mwaura appreciated the participants for creating time to participate in the workshop. She noted that it was exciting to see various stakeholders coming together to address energy challenges and share their experiences in the process. In her remarks, she commended the government of Kenya for the strides it had made in ensuring energy access through putting in place legislation and legal instruments guiding energy access processes in the country. She noted that this was an indicator that the country was on the right trajectory in terms of achieving SDG 7. She however cautioned that the country was not there yet and a lot needed to be done. She alluded to the marginalized communities in Kenya which she observed had no access to clean, affordable, and modern renewable energy for their cooking, lighting, and productive use and also ensure energy is used efficiently. In reference to current energy status reports, Ms. Mwaura reported that Kenya was still lagging behind in terms of energy efficiency. She, therefore, challenged non-state actors to collaborate and bridge the gaps as opposed to working in silos and duplicating efforts. She informed participants that on matters of energy, WWF has led by example as it has strongly worked with the Ministry of energy together with other stakeholders to achieve its main outcome which is a low carbon development pathway. This can only be achieved through embracing renewable energy technologies.

Ms. Mwaura further informed participants that the finance bill 2021 specifies that energy production through wind and solar will not attract value-added tax (VAT). This, therefore, creates opportunities that energy actors can pursue and advocate for to create a conducive environment that will promote energy access for all.
In conclusion, she expressed her appreciation to the organizers of the workshop and wished the participants a fruitful engagement and discussions.

John Kioli- Chairman KCCWG, and member of National Climate Change Council

In his remarks, he acknowledged and thanked the representation from the Ministry of Energy, WWF, governance thematic group, Council of governance, Kisumu, Bomet, Nakuru, Makueni, and Kitui Counties for joining the workshop. He remarked that issues of energy planning were key to communities today than ever before. Hence it was important to identify community energy needs and prioritize them in budgeting. He also noted that access to finance was critical and how to tap into these resources needs to be clearly defined for proper energy planning. He added that once the three issues are addressed, they will provide solutions that are practical and easy to implement. Mr. Kioli reiterated that energy planning is not an end by itself but can be looked at through different lenses. For instance, how does it boost health, how does it talk to vaccines, pregnant women going to deliver at night and clinics access to electricity? Secondly, energy can be looked at as an enabler supporting agriculture, livelihoods, and development. Therefore, there is a need to empower people to look at electricity beyond lighting but also see its relevance in economic use. Finally, energy planning can be seen with a lens of security and how it boosts security. Having made these remarks Mr. Kioli thanked WWF for the continuous support they have always offered to advocate for energy access. He also expressed gratitude to SEAF-K leadership and governance group by extension for the advocacy work.

Paul Mbuthi-Deputy Director, Renewable energy Directorate Ministry of Energy

Mr. Mbuthi began by thanking the organizers for inviting him to the important meeting. In his opening remark, he stated that the commitment exhibited by participants joining the virtual workshop was an indicator that they all subscribed to the value that energy brings as an enabler in our development. He remarked that the Ministry of Energy welcomes all efforts that lead to accelerating energy access. He, therefore, termed the workshop relevant as it was in line with the Ministry of Energy's aspirations. He gave the following roles of the ministry;

1. Policy and regulation- providing policies that enable the development of energy and increasing access to energy as well as providing regulations that provide a level playing field for all the players. The legislation includes; National Energy policy 2018 and Energy Act 2019. These are the principal documents that guide energy sector development in the country and they need to be in line with counties' processes.
2. Ensure affordable energy quality for all This is a challenge countrywide but the Ministry is trying to look at it at both the supply and demand side. On the supply side, the Ministry looks at what choices available and how these choices can be made easily accessible to the low-income Kenyans. This is a challenge that has also to be addressed with physical incentives that the government needs to provide to ensure the majority of Kenyans can afford clean energy.

On Energy Planning, Mr. Mbuthi stated that it is a concurrent function shared between the National and County government and each level of government is required to undertake processes of energy planning. Therefore, counties are required to develop county energy plans which will, later on, be consolidated together to Integrated National Energy Plans (INEP). This will therefore inform the Ministry of Energy of different county needs.

To crown it all, Mr. Mbuthi mentioned the following main challenges that the energy sector is facing with respect to accessibility in Kenya.

- Affordability- There is quite a big segment of Kenyans who are not able to afford and this should concern both the National and County Governments.
    - More reasons contributing to unaffordability is lack of local manufacturers of devices that enable modern energy access
- The problem in information gaps- Information barriers are one of the key things that inform whether households are adapting to modern energy solutions because of a lack of awareness. This is a role that civil societies organizations can do by taking up active processes of information dissemination and taking pilot programmes to demonstrate the viability of some energy solutions.

Emmah Nyabicha- Council of Governance (COG)

Ms. Emmah commenced by appreciating the governance thematic group for setting up the workshop to exchange knowledge. She acknowledged that the meeting came up at an opportune moment when counties are working on their energy plans across the board. She also mentioned that more opportunities were emerging in the area of energy planning. She informed the participants that currently the Ministry of Energy was developing an integrated energy planning framework which will guide counties develop their energy plans and this forms a great opportunity to understand the potential and challenges at the grassroots and how the framework will help to feed in and bridge available gaps at the counties. In addition, she noted that there was an EU project on capacity building that is yet to be rolled out. The project will build capacities of the 47 counties on energy matters and also assist their development of energy plans. In taking stock of counties that have already put in place energy plans, Ms. Emmah mentioned that they were only four that had completed, fourteen counties were in progress and the remaining counties were yet to begin the process. Among the challenges, counties are facing in developing the CEPs is a lack of data Ms. Emma reported. She added that data lied at a central core of energy planning hence there was the need for counties to talk to each other and learn from different approaches that they can use to mitigate this problem. In the meantime, Ms. Emma said the Council of Governors is working with the Ministry of Energy and the National government who have a wealth of tools and techniques that can be transferred to the counties. They are also trying to find out channels of collaboration to bridge the data gap. For instance, GIZ is working in Nakuru to bridge this gap a collaboration that COG is willing to support.

The other challenge she noted is inadequate financial resources due to underfunding of the energy docket at the county level. To bridge this gap the COG is trying to stress and come up with programmes to have the buying in of high-level officials at the County such as the governors and the executive as well as the county assembly who play an important role in ensuring energy plans

are developed. The COG is also trying to capacity build the governors and top officials at the county level to understand the energy docket as an enabler of development.

Weak intersectoral planning is also a challenge noted by the CoG. Energy being an enabler it links with various sectors hence there is a need for strong ties. CoG is therefore trying to strengthen this gap through INEP, its stakeholders, development partners, and the ministry of energy. Finally, COG also noted there is poor stakeholder coordination at the counties. Though there is a lot of goodwill taking place through the support of development partners and civil societies, the efforts are not concerted and coordinated leading to duplication of efforts. The COG is working to ensure there is harmony through the INEP framework.

5. Q&A

1. What is the Ministry of Energy doing to help in collecting data to know the rate of energy access to renewable energy in the country? What kind of avenues do you use to obtain this data?
   In terms of avenues used, for conventional energy, respective utilities can provide systematic data as they continue implementing programmes e.g., on electricity Kenya power and rural electrification can provide time-based data of how much they are achieving.
   On non-conventional sources, like biomass, requires national surveys or specific studies on data collection. This is done in a certain time frame and helps in planning for instance to know what's the demand, supply, and necessary interventions that need to be put in place. For Kenya, the Ministry of Energy Works collaboratively with the Kenya Bureau of statistics to conduct this survey during the census.
2. What is the status of universal electricity for Kenya currently? The current status of electricity connections in Kenya is estimated to be 77%. This is based on the number of connections that have been made by the utilities concerned.
3. Which are the four specific counties that have put in place County Energy Plans out of the 47 counties? The counties that have completed their energy plans are; Kitui, Kilifi, Marsabit, Turkana, West Pokot
4. What does the Ministry intend to achieve in terms of energy? It wants to see all Kenyan households able to access clean energy including electricity and clean cooking forms.
5. How responsive are county energy sector budgets to the integrated energy planning model? The INEP provides that energy planning should emanate from the County Integrated Development Fund (CIDP) which will inform the Annual Development Plans (ADP) determining the money that will go to the energy docket. Important to note is that the INEP is still in draft form hence, counties have not begun using it yet to guide their planning but they have been taken through the framework. Hopefully by the next financial year counties will begin using the document.
6. To what extent does CoG support intersectoral energy planning/ budgeting, and do CSOs play any roles in this? CoG has been supporting counties in intersectoral energy planning by creating a platform that brings different sectors together and ensures information and data are shared across all sectors.

7. Can non-state actors tap into the capacity-building fund from the EU? The project is targeted and does not provide a window for the non-state actors at the moment. However, their many opportunities for partnerships that non-state actors can take tap into.
8. From the counties mentioned it's interesting to learn that mostly ASAL-based counties have already finished energy plans. any motivation behind that? The motivation for the framework development could be due to; the needs of the people and the need to develop the county because energy is an enabler that touches many other economic activities.

Reflections

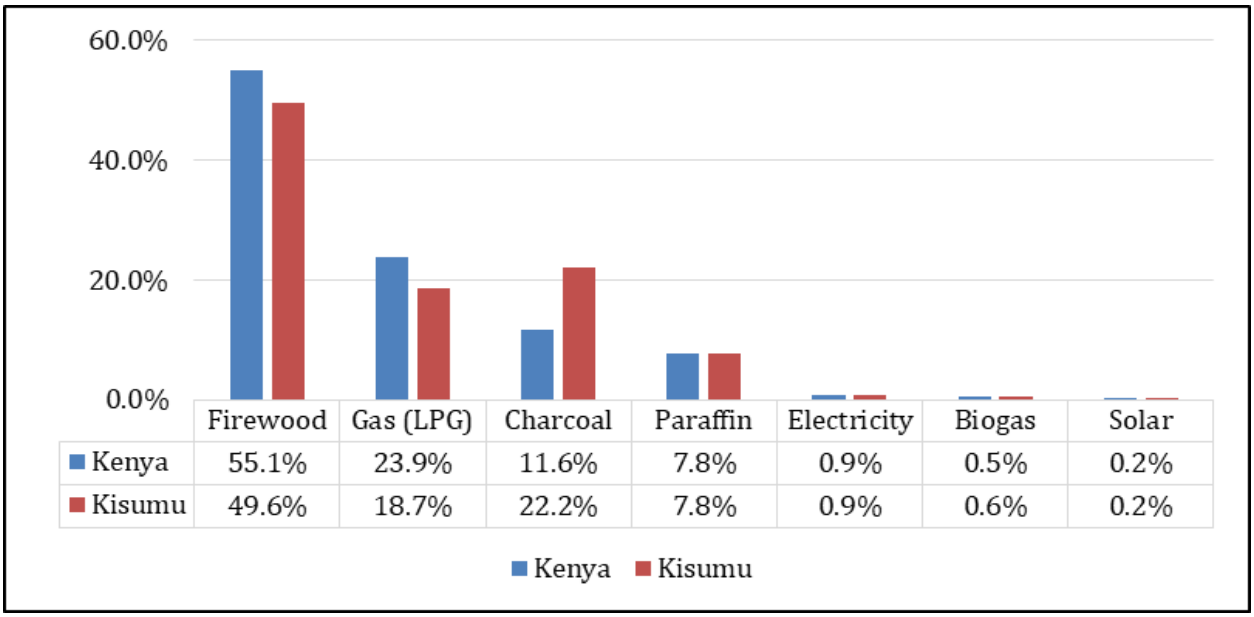
- The SEAF-K network should reflect on how best they can harness, upscale, and leverage existing technologies as per the discussions. There is a need to rope in KIRDI in the discussion as they are the National designated Authority in terms of Climate Technology Centre and Network (CTN) and also think of how best counties could domesticate some of the technologies, especially at the county energy centers.
- There is a need to consider linkages between energy and other nexus sectors and more so energy for productive use for instance in the agriculture sector have boreholes solarized, in the health sector have vaccines attaining optimal temperatures through cooling and reduced respiratory diseases through clean cooking, etc.
- There is a need to advocate for energy access strategy at the center of COVID recovery
- Energy plays a key role in realizing the Nationally Determined Contributions especially in going green. How best can the country leverage climate finance in terms of advancing issues of clean energy especially clean cooking? In recent years focus has been on energy for lighting and leaving behind cooking. How best can the conversation on clean cooking be brought to the table?

6. Status of Counties Energy Plans/Experiences/challenges and strategies put in place to promote energy access

Laban Okeyo- Renewable Energy Director Kisumu County

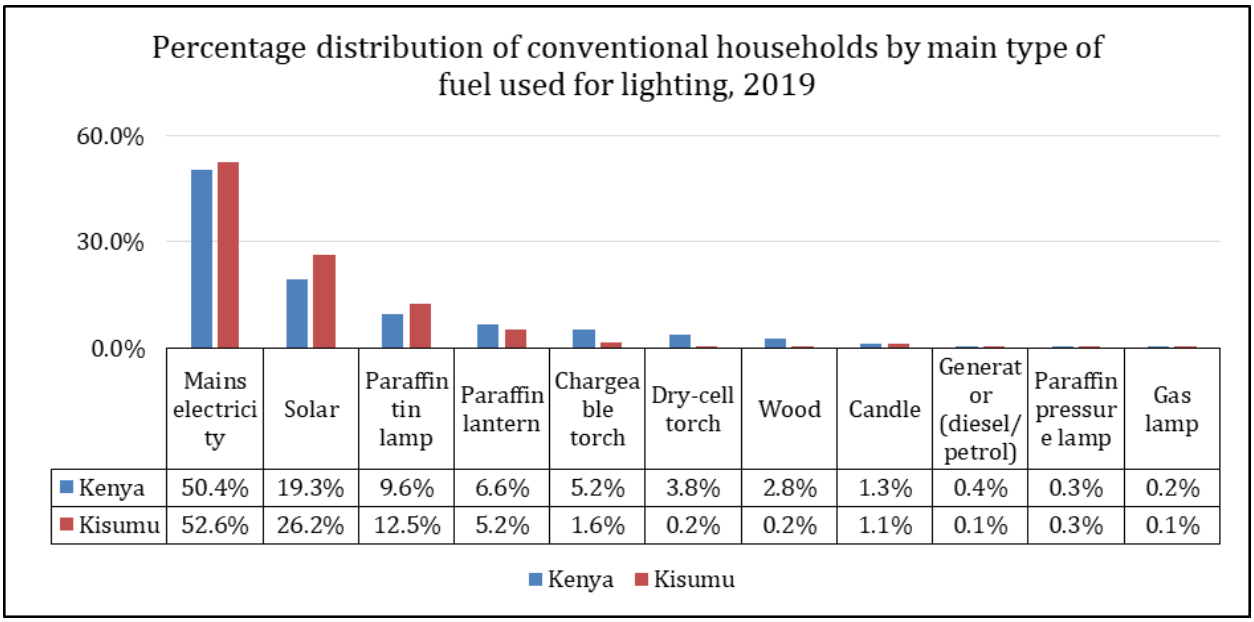
On Energy status for Kisumu County, Mr. Okeyo reported that due to unreliable and limited access to electricity especially in rural areas, energy needs in Kisumu County are predominantly met by biomass. The main sources of energy within the County are electricity and thermal (firewood, charcoal, kerosene, LPG, and solar). The County Government of Kisumu has prioritized access to sustainable, affordable, and reliable energy in its development agenda. This is in line with the Kenya Vision 2030, (MTP III), the National Government's "Big Four Agenda" and further anchored on H.E. Governor Prof. Peter Anyang' Nyong'o's 10-point transformative agenda for Kisumu County.

Fuel consumption for cooking, KP&HC 2019



	Firewood	Gas (LPG)	Charcoal	Paraffin	Electricity	Biogas	Solar
Kenya	55.1%	23.9%	11.6%	7.8%	0.9%	0.5%	0.2%
Kisumu	49.6%	18.7%	22.2%	7.8%	0.9%	0.6%	0.2%

Fuel Consumption for Lighting, KP&HC 2019



	Mains electricity	Solar	Paraffin tin lamp	Paraffin lantern	Chargeable torch	Dry-cell torch	Wood	Candle	Generator (diesel/ petrol)	Paraffin pressure lamp	Gas lamp
Kenya	50.4%	19.3%	9.6%	6.6%	5.2%	3.8%	2.8%	1.3%	0.4%	0.3%	0.2%
Kisumu	52.6%	26.2%	12.5%	5.2%	1.6%	0.2%	0.2%	1.1%	0.1%	0.3%	0.1%

Electricity consumption in Kisumu County, KPLC 2018

Consumer	Number of Consumers	Annual Energy Consumption (GWh)	Percentage (%)
Households	116,332	9.5	5.8
SMEs (Small Commercial)	594,904	48.4	29.5
Private sector within top 100 consumers	55	55.3	33.7
Public sector within top 100 consumers	15	8.3	5.0
F9(Company Installations)	461	0	0.0
Street Lighting	86	0.1	0.1
Other Public and Private sector consumers	111,857	42.5	25.9
KPLC Sub-total	**823,710**	**164.1**	**100**

- 52.6% of conventional households used KPLC supplied electricity for lighting in 2019.
- Electricity consumption in the county is dominated by SMEs, public and private sector as shown in the table.

County priority investment areas/ Opportunities

Mr. Okeyo highlighted the following as opportunities for Kisumu County

- Hydro-Electric Power
- Solar Energy
- Biomass Energy
- Municipal Solid Waste (MSW) Energy
- Wind Energy

PROSPECTIVE ENERGY SOURCE				
Sector	General description	Volume/area	Potential Energy capacity	Location
Waste				
Municipal waste	Biogas production from organic waste collected from markets	- Volume of organic waste 2.5t/day - Volume of solid waste 300 t/day	2,500 m³/day or 5,000 kWh/day	Kibuye Market Mamboleo abattoir Sub-county municipal markets
Bagasse	Electricity from the bagasse- fired electric generating plants in 3 sugar factories	- Quantities to be established from the three companies	21 MW	Muhoroni, Chemelil & Kibos Sugar Factories
Solar				
Solar radiation by area	Energy generation from Solar irradiation (via Solar PV modules)	2,085.9 km²	-Avg. Insolation 5.5 kWh/m2/day - Duration 6.5 sunshine hrs	Entire County
Hydro power	Potential for Hydroelectric Power generation	- Avg. peak flow 195 m3 /s(R. Nyando)	To be established	Awach & Nyando Rivers
Wind	Wind generation around the lake shore	3% of the total area of the country experiences annual mean wind-speeds more than 6 m/s at 100m above ground.	To be established.	Along the lake shore

On-going projects and plans

Kisumu County Government targets to:

- Increase local electrification rate to 90% by the end of 2022 through turnkey partnership investments and programs. e.g., with Rural Electrification and Renewable Energy Corporation (REREC), Development partners, etc.
- Promote investment in key priority areas for sustainable energy development as outlined in the County Integrated Development Plan (CIDP 2018 – 2022). The target areas;
- Solar Mini-grids to power health facilities, water pumping, street & high mast floodlighting, lighting markets, refrigeration and chilling of agricultural produce, etc.
- Clean Cooking Solutions (Biogas, ICS, Briquettes) to reduce indoor air pollution and mitigate Climate Change.
- Construction of an energy centre for capacity building.
- Increase socio-economic benefits for the county through energy access and reliability, energy cost savings, environmental conservation, and improved livelihood.
- Electric Vehicles, Motorbikes, Boats in Kisumu
- Energy Audits
    - Conduct annual energy audits in Health facilities and water pumping stations in collaboration and implement recommendations e.g., Solar Water heating facility at one facility (Kombewa Hospital), Solar Water Pumping in one of the major stations.
    - All community boreholes are solar-powered. This improves energy conservation and efficiency measures.
- High Mast Floodlights and Streetlights (HMFL)
    - The County has the objective of achieving enhancement of a 24hour economy and security improvement.
    - A total of over 300 HMFL have been Implemented in various market centers and other public utility areas.
    - In collaboration with the NG agencies e.g., KPLC, REREC, we are set to achieve street lighting targets within the CBD and the satellite towns (5Nos.).

Relevant Kisumu County Policies in Place

- Kisumu Integrated Solid Waste Management Strategy 2015-2025
- County Climate Change Policy and Act 2020
- Department of Energy & Industrialization Strategic Plan (2019-2023)
- Sustainable Energy Policy (Draft)
- Industrialization & Investment policy (Draft)
- County Energy Plan (Draft)

Challenges Experienced

- Inadequate resources to implement RE & Climate Change projects {Low budgetary allocation}.
- Affordability?
- Lack of adequate data.
- Inadequate capacity (technical, financial) to develop CEPs.
- Inadequate technical know-how on specialized RE technologies e.g., Wind Energy.
- Inadequate knowledge of the community to propose projects and programs in RE & Climate Change during public participation.
- Inadequate strategies for community involvement in RE & Climate Change projects.
- Inadequate implementation of policies??

Lessons learnt/ Recommendation/ Strategies

- Development of County Energy Plans (CEPs), policies require a lot of data. It's important to develop a more robust database of RE sources/ options in the county.
- Collaborate with National Government energy entities/ agencies to Improve the power distribution network in the county more so in rural areas.
- Improve knowledge and capacity building of county officers, stakeholders, and at the community level on renewable energy systems. Develop Energy Centre for capacity building on RE technologies.
- Develop relevant policies and regulations/ domesticate national government policies and ensure implementation of recommendations and compliance.
- Collaboration with the private sector, CSOs, Individual players in the energy sector in advocating for increasing energy access.
- Encourage public participation before, during & after implementation of projects/ programmes.
- Lobby for political buy-in and adequate budgetary allocation for Clean Energy projects/ programmes.

Kisumu County Renewable Energy Partners

- **Sustainable Energy Access and Climate Action Plan (SEACAP) project** - Support Kisumu County to develop measures; - To reduce GHG emissions, Adaptation Actions in response to CC impacts and Access to sustainable energy. Also supports the capacity building.
- **Towards 100% RE in Cities and Regions for Climate Change Mitigation project** - support Kisumu to effectively implement local climate action, by developing a roadmap towards "100% RE" and develop a community-wide 100% RE strategy and action plan.
- **Clean Cooking Association of Kenya (CCAK)** - Collaborating in promoting the adoption of clean cooking solutions.

- **Practical Action, East Africa -** implementing Women in Energy Enterprises in Kenya Phase Two (WEEK II) project.
- **Biogas International –** Collaborating in developing waste to energy projects including promoting the adoption of biogas systems.
- **African Centre for Technology Studies (ACTS) -** Collaborate in research on energy access and adoption of Clean Cooking Solutions with a focus on gender and social inclusivity.
- **National Government Entities -** KPLC, REREC, KENGEN, Private Sector

Paul Towet- Renewable Energy Director Bomet County

In his presentation on the county Energy status, he reported as follows;

Approaches/strategies used by Bomet County in promoting energy access

- Bomet County Energy Asset Map was developed in 2015. Renewable energy options profiled with their contribution to an energy mix
- Prefeasibility studies carried out on mini-hydropower generation sites
- Last Mile Connectivity projects carried out by Constituency Development Fund in all the sub-counties
- Matching Funds with Rural Electrification and Renewable Energy Corporation Projects on transformer maximization targeting 600 households
- Installation of Floodlights in all the wards. Installed 250 units in market centres
- Promotion of Renewable energy Options- Solar, Biogas, Clean Cooking Stoves, in collaboration with partners
- Plans underway to establish an Energy Centre

How Bomet County is working with National Government in advocating for energy access

- Participation during sensitization on the Energy Act 2019
- Budgetary allocation for matching funds with REREC

How Bomet County is working with civil societies, Community Based Organizations, Faith-Based Organizations, Academia and the Private sector in promoting SDG 7

- Development of Renewable Energy Policy
- Training of Artisans involved in installing of improved cooking stoves
- Inducting distributors
- Improvement of Technologies from *Jiko Kisasa* to Rocket stoves

Challenges

- Inadequate budgetary allocation
- Covid 19 pandemic
- Initial Cost of Installation
- Technical breakdowns

Jackson Kinyanjui-Directorate of Climate Change and Energy Nakuru City

In his presentation, he noted that the main focus for Nakuru city in energy access is to access electricity and clean cooking facilities to contribute to the COP treaties and the Nationally Determined Contribution that aims to reduce carbon.

The Energy access programme for Nakuru City consists of the following key element;

- Access for households and small businesses
- Access to clean cooking
- Access to electricity for productive uses

On Energy statistics, Mr. Kinyanjui reported that in terms of clean cooking solutions only 5% of residence in Nakuru use LPG gas, 0.1% use solar and 8% use paraffin. In terms of firewood, numbers are drastic 46% use firewood, and 40% use charcoal. The county is set to address the energy issue by setting targets for clean cooking solutions. Nakuru aims to obtain 100% energy-efficient cooking solutions by 2030. This will be obtained through charcoal regulation which is ongoing as well as increasing production of wood through forest management. The County is also investing in promoting renewable energy. For instance, the use of solar equipments and solarization in street lighting.

The city is also being supported by the covenant of mayors through GIZ to develop a sustainable Energy and Climate Action Plan. This initiative will enable Nakuru to develop its database and generate independent data. In addition, the programme is supporting mitigation, adaptation, and energy access.

Challenges experienced with regards to energy access in Nakuru City

- There is a lack of awareness
- There is limited technical capacity
- Inadequate data
- Taxes on energy products. Currently, the VAT for LPG gas is at 16% which reduces the number of people that can afford this source of energy. Therefore, leading to a shift to other alternatives of energy that are not sustainable such as charcoal burning and increased deforestation for firewood. This also has a negative effect on the climate as more carbon will be emitted in the process.

On policies, Nakuru is currently working on its CEP. It has also passed three legislations; Climate Change Act, Waste Management Act, and sanitation Act. On waste, it provides provisions that permit recycling of waste as Nakuru realizes there is a lot of energy that can be tapped from waste.

Rachel Mwangangi-Assistant Director Department of Energy Kitui County

Ms. Mwangangi began by giving the status of the Energy Plan. She reported that Kitui County had already put a plan in place with the help of Caritas Kitui organization. On energy access, she mentioned that Kitui was at 73.9% on biomass and 36% charcoal use. She recounted that charcoal production in the county was prohibited since 2018. Other partners such as ICRAFT and Caritas have been supporting Kitui County in promoting briquettes and the initiative has picked up well. However, the market is within the County and the hotels around that have been supporting the groups producing. Their currently five active women groups and youths that are producing briquettes for commercial use. Just like charcoal, the briquettes are of high quality. The department of energy Kitui County partnered with KEFRI to train the groups. The raw materials used include cassava binders. On solar energy use, Kitui County is at 32% as per the energy outlook of 2018. The county is doing a lot on a solar market security light and water boreholes solarization.

As for rural electrification, Ms. Mwangagi mentioned that Kitui County was picking up well. The County was partnering with REREC to ensure connection gets to unentered areas/households. On clean cooking, Kitui County has been working with Groot Kenya training over 40 champions on clean cooking targeting one member per ward. This is the same group that participated in collecting data for the development of the energy plan. The establishment of wood lots is also being implemented in Kitui County already 13 wood lots have been done. The programme is supported by ICRAFT who has provided seedlings. They are also supporting the county in the development of Transition development plans (TIPs).

Lessons learned from Kitui County

- Working closely with partners the county benefits a lot and many community members are reached in the process
- Political goodwill is critical especially from the Members of the County Assembly since they influence budget allocation for the energy department. This is evident in Kitui solar security lights

In her closing remarks, she expressed her gratitude to all counties and participants for the fruitful and informative discussions. She also thanked the Governance thematic group and WWF-Kenya for organizing and supporting the meeting.

Annex I

VIRTUAL WORKSHOP ON KNOWLEDGE SHARING AND EXCHANGE SESSION

Tuesday 15th June 2021 | 9.30 am – 12:00 Noon Agenda

Time	Activity	Moderator
9:15-9:30am	Check-in and zoom connection **Brian Omenyi- Coordinator SEA-K**	Jacob Olonde- **CEO, ECAS**
9:30-9:40am	Online etiquette & Brief Overview of SEAF-K **Elizabeth Wanja -Projects Officer, KCCWG**	
9:40-9:50am	Climate setting and Objectives of the meeting **Juliet Makokha, Convener, Governance Thematic Working Group**	
9:50-10:20am	**Welcome remarks** **Irene Mwaura**- Project Officer, Energy, and Climate Change WWF-K **John Kioli**- Chairman, SEAF-K, and member of National Climate Change Council **Paul Mbuthi-** Deputy Director, Renewable Energy, Ministry of Energy	
10:20-10:30am	Overall Overview of counties status on Energy legislations and Plans **Emma Nyabicha- Council of Governance (COG)**	
10:30-11:10am	Status of Counties Energy Plans/Experiences/challenges and strategies put in place to promote energy access 1. Kisumu County- Laban Okeyo, Director Renewable Energy 2. Bomet County- Director Renewable Energy 3. Makueni County- Director Renewable Energy 4. Nakuru County- Director Renewable Energy 5. Kitui County- Director Renewable Energy	
11:10-11:40am	**Plenary/Discussion**	
11:40-12:00pm	Next steps, wrap up and close **Juliet Makoha, Convener, Governance Thematic Working Group**	