

COP27 POLICY BRIEF SERIES

Supporting integrated energy planning at the sub-national level – The Case of Kenya

Murefu Barasa ^{1*}, Sam Bickersteth², and Stephanie Hirmer ³.

Summary

The devolution process initiated by the Constitution of Kenya (2010) is expected to lead to a more equitable sharing of resources, heightened participation in energy planning at the sub-national level, and targeted investments, particularly in areas that have been historically neglected. Sub-national energy planning presents several opportunities, including addressing energy gaps,

attracting investments in the energy sector, mitigating negative impacts associated with the use of traditional forms of energy, and greenhouse gas reductions. However, several challenges must be first addressed, including strengthening the coordination process, building technical and management capacity at the county level, and developing holistic approaches that include non-electric energy sources such as cooking and transportation fuels.

Key Policy Recommendations

- Develop a national repository of County Energy Plans that consolidates the findings and recommendations from sub-national planning outcomes.
- Address critical data gaps, standardize data collection methods, and develop internal capacity at the sub-national level to continuously collect and analyse data.
- Place equal emphasis on energy service provision beyond access. Planning for non-electric energy sources – including thermal applications, such as cooking, and energy for transport – should be strengthened.
- Ensure gender considerations and impacts on health, climate, and environment are integrated throughout the data collection, analysis, and planning process.

Introduction

Kenya's electricity access has risen from 15% in 2000 to 71% in 2020 [1]. The country recorded the highest annualized average change in access rates worldwide between 2010 and 2017. Through an aggressive campaign, the national electricity distributor – Kenya Power – more than doubled the number of customers between 2015 to 2019. Despite this progress, electrification rates vary, ranging from 99% in Nairobi County to as low as 26% in Mandera and Wajir counties [2]. In addition, access to clean cooking solutions remains low at 20%, leaving at least 43 million depending on traditional forms of cooking [3].

The Constitution of Kenya (2010) established 47 counties and an institutional framework that devolves some energy planning and administrative functions to the sub-national level [4]. These 47 counties are established under the First Schedule. An elected governor leads each county and is picked through a competitive electoral process every 5 years.

Since 2010, only eight counties at time of writing have developed County Energy Plans (CEP) in line with the new Constitutional mandate and guidelines set by the Ministry of Energy. Supported by the European Union, the Sustainable Energy Technical Assistance (SETA) programme under the Ministry of Energy aims to build the capacity of Kenyan County governments in energy planning. SETA is targeting at least 17 of the 47 counties. Other initiatives are also supporting similar projects in other counties.

This policy brief aims to characterize the state of the sub-national energy planning in Kenya while highlighting the challenges and opportunities. This brief is based on experience drafting and reviewing CEPs across

four counties and supplemented by a literature review, including an analysis of the County Energy Planning process, the current policy framework, and informal discussions with experts at the Ministry of Energy under SETA.

Devolution in Kenya

The specific functions devolved to the county governments are listed in chapter 11 and the fourth schedule of the Constitution [4]. The devolution process is expected to lead to a more equitable sharing of resources, heightened participation in energy planning at the sub-national level, and targeted investments, particularly in areas that have been historically neglected.

“The devolution process is expected to lead to a more equitable sharing of resources.”

The Energy Act (2019) builds on the provisions of the Constitution and outlines details of this dispensation under various sections including the fifth schedule. Section 5, sub-section 3 states that “each County Government shall develop and submit a country energy plan to the Cabinet Secretary in respect of its energy requirements” [5]. This bottom-up planning process should consider the national vision and circumstances and must align with the national aims. Besides developing a CEP, the role of county governments includes guiding the development of energy resources, regulating the reticulation of electric grids, licensing sustainable charcoal production, and managing the location of fuelling stations.

Challenges and opportunities associated with sub-national energy planning

The Ministry of Energy oversees national energy planning and execution through various parastatals¹, including Kenya Electricity Generating Company (KenGen), Kenya Power, Kenya Electricity Transmission Company (KETRACO), Geothermal Development Company (GDC), and the Rural Electrification and Renewable Energy Corporation (REREC). The primary focus, however, has been on expanding access to electricity and improving supply quality.

Beyond energy access: Other aspects of energy access, including sustainable transportation, energy for cooking, and productive uses of energy (PUE) have typically taken a secondary position. Planning also emphasizes access in general terms, with insufficient attention given to gender inclusion. This is expected to improve with the implementation of the Gender Policy in energy launched in 2019 [6]. There is strong evidence that energy poverty disproportionately impacts women's health, levels of empowerment, access to information, use of time, and levels of income [7]. Consequences on climate, health, and the environment should also form part of this sub-national planning process.

Need for standardization: Through SETA and the proposed Integrated National Energy Planning (INEP) process, the national government is establishing a mechanism to improve the coordination of the planning process. County Energy Plans (CEP) are currently not standardized and differ in scope, implementation timeframe, methodologies, and presentation format. This makes it difficult to aggregate the CEPs into one unified national document. Standardizing CEPs is inherently

challenging as the counties differ substantially, with rural counties such as Turkana being net energy exporters while urban counties such as Kiambu are net energy importers. Integrated planning also requires a national repository for monitoring and tracking progress, which is currently lacking.

Resource and capacity gaps: Counties lack the technical capability, experience, and resources to develop, implement, and update their CEPs. Energy departments at the county level are typically understaffed and under-resourced. Most current CEPs have been drafted through external support, which is often unsustainable. The counties also lack the necessary data and information to sufficiently support the process of preparing and updating CEPs. Due to the 5-year electoral cycles leading to inevitable changes in leadership, full ownership and continuity of the process is sometimes compromised. Implementing CEPs require substantial financial resources. Limited access to funding curtails the ability of counties to realize their plans. The inability to successfully implement CEPs could compromise the counties' appetite to develop new and updated plans.

Responsive and inclusive planning:

Devolution provides the opportunity to develop more responsive national plans in line with the aspiration of the sub-national governments. Closing the affordability and access gap that stands in the way of achieving universal access to energy can be better addressed through

¹ Parastatals are companies or organizations fully owned by the Government or where the Government owns a controlling shareholding stake.



PHOTO: NICOLA STOCKTON / PIXABAY

“Devolution provides the opportunity to develop more responsive national plans in line with the aspiration of the sub-national governments.”

national and sub-national coordination. Counties also have an opportunity to develop energy investment plans outlined in the CEP and attract partnerships, investments, and development funding. Addressing the drivers of greenhouse gas emissions, especially in the cooking sector, can be done at the sub-national level. Access to cleaner cooking options will also alleviate the negative impacts of household air pollution which is a leading cause of premature deaths. The Constitution (2010) mandates the county governments to develop regulation and licensing procedures for charcoal production, transportation, and distribution [4]. Unsustainable charcoal is one of the leading drivers of environmental degradation and greenhouse gas emissions in Kenya [8].

Recommendations

These recommendations provide actionable options for enhancing sub-national energy planning processes.

- **Develop an online national aggregation platform:** As counties develop their County Energy Plans (CEPs), elements of these plans need to be standardized, collected, analysed,

and presented through a national repository that tracks the needs, aims, and processes through a consolidated national narrative. This will also foster transparency and accountability while sharing best practices across counties.

- **Develop data collection approaches and templates:** Addressing critical data gaps (especially on non-commercial energy sources, including traditional biomass) and standardizing data collection methods across counties is critical. This should be complemented by developing an internal capacity to collect and analyse data continuously. This will not only improve the integration process but also save time and costs.
- **Promote holistic planning:** Place equal emphasis on energy service delivery, especially for non-electric energy sources, including thermal applications, such as cooking, and energy for transport which are not exhaustively included in the current planning processes.
- **Integrate gender and climate change concerns:** Building the 2019 Gender Policy [6] in energy, ensure gender considerations and impacts on health, climate, and environment are integrated throughout the data collection and planning process.

References

- [1] IEA, IRENA, UNSD, World Bank, WHO. (2022). Tracking SDG 7: The Energy Progress Report. World Bank, Washington DC. Accessed June 2022: <https://www.worldbank.org/en/topic/energy/publication/tracking-sdg-7-the-energy-progress-report-2022>.
- [2] Kenya National Bureau of Statistics (KNBS) (2019). Kenya Population and Housing Census, Government of Kenya, Nairobi. Accessed June 2022: <https://www.knbs.or.ke/2019-kenya-population-and-housing-census-results/>.
- [3] IEA, IRENA, UNSD, World Bank, WHO. (2019). Tracking SDG 7: The Energy Progress Report 2019, Washington DC. Accessed June 2022: <https://www.irena.org/publications/2019/May/Tracking-SDG7-The-Energy-Progress-Report-2019>
- [4] Government of Kenya. (2010). Constitution of Kenya, 2010. Nairobi. Accessed June 2022: <http://kenyalaw.org/kl/index.php?id=398>.
- [5] Republic of Kenya (2019). The Energy Act No. 1 of 2019, Kenya Gazette Supplement No. 29. Government Printers, Nairobi. <https://www.epra.go.ke/download/the-energy-act-2019/>. Accessed June 2022:
- [6] Republic of Kenya Ministry of Energy (2019). Gender Policy in Energy. Ministry of Energy, Kenya. Accessed June 2022: <http://energy.go.ke/wp-content/uploads/2019/10/Gender-Policy-in-Energy.pdf>.
- [7] Winther T., Matinga M., Ulsrud K., & Standal K. (2017). Women's empowerment through electricity access: scoping study and proposal for a framework of analysis, Journal of Development Effectiveness, 9 (3), 389–417, DOI: <https://doi.org/10.1080/19439342.2017.1343368>.
- [8] Republic of Kenya Ministry of Energy (2019). Kenya National Household Cooking Sector Study, Ministry of Energy, Nairobi. Accessed June 2022: <https://eedadvisory.com/wp-content/uploads/2020/09/MoE-2019-Kenya-Cooking-Sector-Study-compressed.pdf>.

ACKNOWLEDGEMENTS:

Dr Stephanie Hirmer (Oxford University) and Prof. Jim Watson (University College London) have led the curation of this policy brief series. The policy briefs underwent an anonymous (double blind) peer-review process. They were edited by Simon Patterson (Loughborough University) and designed by Sarel Greyling (Sarel Greyling Creative).

This material has been produced under the Climate Compatible Growth (CCG) programme, which brings together leading research organizations and is led out of the STEER centre, Loughborough University. CCG is funded by UK aid from the UK government. However, the views expressed herein do not necessarily reflect the UK government's official policies.



AUTHOR INFORMATION:

¹**Murefu Barasa** (EED Advisory): [Conceptualization, investigation, and writing – original draft]

*Corresponding Author: mbarasa@eedadvisory.com

²**Sam Bickersteth** (The Policy Practice): [Conceptualization and writing – original draft]

³**Stephanie Hirmer** (University of Oxford): [Funding acquisition, conceptualization, and writing – original draft]



CITATION: Barasa, M., Bickersteth, S., and Hirmer, S. (2022). Supporting integrated energy planning at the sub-national level – The Case of Kenya. Climate Compatible Growth Programme COP27 Policy Brief Series (Version 1). Available at: <https://climatecompatiblegrowth.com/evidence-on-ccg-for-the-etc-2022/>



The views expressed in this material do not necessarily reflect the UK government's official policies.