

The Subaltern Response to State-Mediated Development: A Case of Rural Electrification in Masinga Division, 1990 - 2019

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Abstract

This study contributes to the understanding of state-centered development in post-colonial Africa. The existing literature offers an intriguing discourse on the state interventionist policies in planning and implementation of development schemes in the independence era. The underlying theme is that weak state institutions in post-colonial Africa contributed to the government's failure to engender significant development in the continent. The argument is that hegemonic planning and implementation of the development process is the principal reason for the failure of the post-colonial state in its attempt to provide tangible social and economic development in the independence era. Nevertheless, the existing literature does not highlight how rural residents appropriate state mediated development in ways that brings success to them, despite the aforementioned inadequacies. Taking a case study of the rural electrification process in Masinga Sub- County, from 1990 to 2019, this project paper offers a critical focus on the role of subalterns, as agents and architects of rural development. The study deliberately eschews conventional narratives on the rural population as lumpen elements in the development process. The study utilized both primary and secondary data. The research used purposive sampling technique and snowballing methods to identify respondents who were interviewed using a research interview guide. The data collected from the field was thematically analyzed. Thematic analysis enabled the researcher to establish the parameters of social change which were attributed to appropriation of electricity by the rural population in Masinga Division. The research findings knit evidence on how rural population utilized electricity in ingenious ways which changed the social and economic trajectory of the area in the Twenty- First Century. For example, this study reveals that electricity access in Masinga Division provided cheaper alternative sources of energy for the local population, which: enhanced food production through irrigation, supported small micro enterprises, and consequently reduced rural outmigration in this area. These findings contradict the arguments by the scholars on the non-viability of the state funded projects in Africa. The argument is that rural population is capable of appropriating social utilities provided by the state in ways that work for their benefit despite their deficiencies.

Keywords: Subaltern Response, State, Rural Electrification, Social Change, Masinga Division

Historical Background

Electrification in Kenya traces its origins to the beginning of the Twentieth Century, after the colonial state finalized its conquest over African communities, through a strategic blend of force and diplomacy. After 1905, the colonial state initiated unprecedented efforts to achieve effective occupation of the colony through infrastructural development, in attempt to achieve imperial economic goals (Kiereini, 2018). Consequently, this period was marked by development of wide range of social and economic infrastructure such as water supply, road works, and health care among others. Provision of these amenities certainly improved standards of living for the Europeans in the colonial Kenya. Nevertheless, the colonial state sidelined the African population in the colonial infrastructural development. In this context, the origins and development of electrification in the colony was driven by imperial prejudice against the Africans, by the colonial economic policies of colonial self- sufficiency and non- industrialization policy for the local communities (Hasenohrl, 2018). Consequently, the colonial state adopted electrification policies which relegated vast rural areas in Kenya.

However, at independence the post- colonial state embarked on ambitious efforts to expand electricity access to the rural areas in Kenya. Arguably, it was a temporary break from the colonial electrification policies. This was a period when a wave of nationalist euphoria swept across the African continent. During this time, the nationalist leaders attempted to fulfill the pledges they made at the eve of the 1963 election campaign (Cooper, 2002). In a context of high commodity prices for coffee and tea, the post- colonial state launched the first rural electrification programme in 1973. Under this first initiative, a few district headquarters in the country were connected to electricity. Finally, the much vaunted commodity began to penetrate to majority of rural areas in Kenya.

Nevertheless, over the next two decades the process of connecting vast rural communities to electricity stalled. Against the background of both local and global challenges, rural electrification process in Kenya stagnated in the 1980s. For instance, during this time, Kenya like many other African countries experienced unprecedented demographic growth. As a result, the cost of providing recurrent social services such as food, healthcare, and primary education among others usurped capital expenditure. Added to this, the long post- war cash crop boom came to an end in the late 1970s, when oil producing countries began to increase hitherto very low prices (Ilfiffe, 2007). Consequently, global oil crisis plunged Kenya into a huge public debt. Thus, the burden of rural electrification proved to be unsustainable. Arguably, this was a period of disappointment in rural electrification in the country. As a result, colonial tendencies emerged in 1980s, which perceived electricity as an elusive commodity, for majority of rural African population.

However, the late 1990s witnessed major diversification of the energy generation sector. In 1997, KPC demerged from KPLC and was renamed KenGen. Under the Energy Act of 1997 KenGen became in charge of all the public power generation plants while KPLC took charge of only transmission and supply of electricity in the country (Hornsby, 2012). The energy reforms at the time facilitated the participation of the independent power producers in the energy generation to increase competition and efficiency in the sector. The assertion is that the beginning of the 21st Century was a watershed period for The Kenya Power Sector. It was the start of amplified attempts by the state to increase the access to electricity for the rural communities, through increased public and private cooperation in the exploration of diversified sources of renewable energy.

In the early 1990s, the incumbent legislator of the area engaged the government through the ministry of energy, to put in place measures that would ensure the area is connected to the national grid, owing to the fact that the area housed the Masinga Dam energy infrastructure. Rtd. Col Kiluta asked the Assistant Minister for Energy why the Kenya Power by passed centres such as Kaewa, Kikumini and Ekalakala, without due provision for supplying power to the residents and: when ministry intended to supply electricity to the areas which were by – passed (Kenya National Assembly Hansard, 1995). Consequently the government adopted an electrification pattern in the area that started by connecting the major trading centres in the sub - county to the national grid. Masinga Township, the headquarters of the divisional offices and Kivaa, a township adjacent to the Masinga Dam were the first to be connected to the grid. Other townships in the neighbouring divisions like Matuu and Sofia among others were also connected at the same time. By the year 2000, major trading centres in the division had been electrified (Kenya National Assembly Hansard, 1995). This was a significant step as public institutions as well as household got access to the much-desired facility.

Statement of the Problem

Extant literature on state intervention in social development in Africa argues that ineffective post-colonial state institutions contributed to the failure of the post-colonial state to engender social development in the continent. Nevertheless, these studies do not highlight how rural residents appropriated state-mediated development in ways that benefitted them despite the limitations of weak state institutions in Africa. This gap was filled by this study. In essence, this research investigated on how rural residents in Masinga Division utilized electricity in ways which led to social and economic reorganization of the area. The argument here is that there is a way in which rural population appropriate government sponsored development projects with high level of ingenuity within local levels, in ways that change their lives fundamentally, probably than the extant studies have appreciated.

Research Objectives

The objective of this research was to examine how local population in Masinga Division appropriated access to electricity services in ways that changed social and economic activities in this area from 1990 to 2019.

Research Hypothesis

This study was guided by the hypothesis that electrification of Masinga Division profoundly changed social and economic organizations of the rural population in the 21st century.

Literature Review

The extant literature on the electrification of the rural areas in Africa provides interesting discourse on development of electricity services in both Twentieth and Twenty First Centuries. Authors concede that a number of factors coalesced to bring significant impediments to the rural electrification process in the post-colonial Africa. For example, Kenneth Lee contends that low electricity connectivity rates were attributable

to unaffordability of electricity connection for the majority poor households in Africa. (Lee, K. 2016). Mbugua G.K.N maintains that the main challenge of rural electrification in Africa is the designing of electricity distribution grid in a context of a dispersed population. (Mbugua, G.K.N. 2005). According to Jorg & Sievert rural electrification in Sub- Saharan Africa is costly venture in countries where the gross national income is very low. As a result, the cost of rural electrification usurps the perceived benefits. (Jorg, P. & Sievert, M.). On the same note, George and Dionysius argue that financing rural electrification in the Sub- Saharan Africa is the most significant challenge, which contributed to energy poverty in rural areas in the Twentieth Century. (Kyriakarakos, G. Balafoutis, A. & Bochtis, D. 2020).

Moreover, scholars on the post- colonial state institutions in Africa add important insights in the discourse on rural electrification process in the continent. The state in the post- colonial Africa emerged as an important actor in rural electrification process through support schemes and regulatory frameworks. Scholars mainly focus on the ineffective post- colonial state institutions as the most important impediment in rural electrification process in Africa. For instance, Frederick Cooper argues that the post- colonial African state was held together by both local and foreign patronage. In this context, politicians and bureaucrats used state institutions to enrich themselves while pushing the interest of the majority poor to periphery. (Cooper, F. 2002). Similarly, John Iliffe argues that in post- colonial Africa leaders seized state power for their own development instead of providing social and economic resources to the majority poor citizens. (Iliffe, J. 2007). On the same note, Goran Hyden argues that weak state institutions in post- colonial Africa created weak political and economic structure that were hostile to the needs of the majority poor population. (Hyden, G. 2008).

Research Methodology

This research utilized primary and secondary data. The research was carried out in three steps. The first stage encompassed referring to the accessible literatures in the libraries. The secondary sources that were analyzed at this stage included books, academic journals, articles, and dissertations and masters projects on the state and social development. The relevant secondary sources which were selected provided a qualitative yardstick with which I examined the topic on hand. The second level of the research involved the analysis of the primary sources of data. The Afrikaner section of the Jomo Kenyatta Memorial Library at the University of Nairobi was important in accessing the primary data on the energy sector in both the colonial and post-colonial period. Moreover, I obtained data on the connectivity rate in rural areas in Kenya generally, and in Masinga specifically from the National Bureau of Statistics, and from the Kenya Power and Lighting Company, as shown in the following graph and tables.

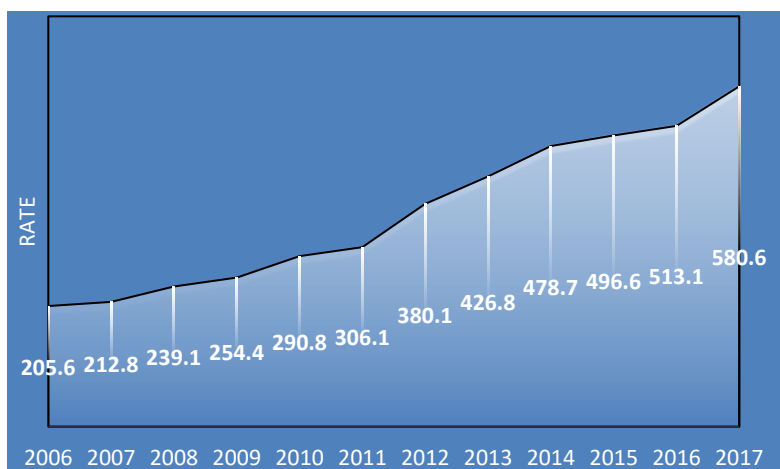


Figure 1: Electricity Consumption: Annual: Rural Electrification in Kenya, 2006- 2015

Source: www.CEIDATA.COM/ Kenya National Bureau of Statistics

Table 1 KPLC Access Rate in Masinga Sub-County as at 2017

S/No.	LOCATION	NUMBER OF CUSTOMER METERS
1.	Ekalakala	802
2.	Ikaatini	103
3.	Ithanga	50
4.	Kangonde	382
5.	Kithyoko	456
6.	Kivaa	861
7.	Mananja	362
8.	Masinga	994
9.	Muthesya	204
10.	Ndithini	256
	TOTAL	4470

Source: KPLC access rate as of 2017

Table 2 KPLC Projected Access Rate in Masinga Sub-County By 2022

KPLC LTD PLC PROJECTED ACCESS RATE IN MASINGA SUB-COUNTY						
Sub-County	County	Access rate as of 2017	Projected access rate after implementation of the last mile project			
Masinga	Machakos	10.29%	18.76%			

Source: KPLC access rate as of 2017

The third phase of this study involved interviews of the key informants. The researcher conducted in-depth interviews with the nurses, teachers, entrepreneurs, and members of households. Interviews lasted from thirty minutes to a maximum of one hour. The researcher considered the fact that the respondents had vital information relevant for the study. The interviews helped the researcher to understand and explore respondents' opinions and experiences, and such detailed information was gathered. Research interviews were guided by a research guide. The researcher directed the dialogue in to focus the conversation to the main themes of the study. This aided to keep the conversation remain focused on the main themes of the study.

Moreover, in gathering evidence on the field, participant observation was indispensable strategy, the researcher observed how the residents used various electric devices available, and the way they were utilized in various daily activities. This strategy helped the researcher to observe how local residents utilized access to electricity in ways which enhanced social and economic changes in the area under study. Lastly, focus group discussions of between ten to fifteen people were used to collect information from women and rural traders. The ultimate objective of the discussion was to highlight the experiences of rural women and entrepreneurs with increased access to electricity in the area. Focus group discussions lasted between one to two hours.

The key informants of the study who included district education officers, medical officers and school heads were purposively sampled. These respondents were the custodians of important data on electricity connectivity in different public institutions in the area. On the other hand, electricity beneficiaries were randomly sampled, because they had much experience on how electricity access or lack of it affected their daily lives. During data collection, field notes were taken to help achieve consistency in the discussion. Moreover, audio and video recording and taking photographs was invaluable in gathering data in the field. After collecting substantial information from the field, reduction of the data followed through the art of abridgement.

The data collected was thematically analyzed. This involved analyzing repeating concepts in the data collected. The process of data analysis was driven by the research questions. Consequently, the data selected focused on key aspects that related to the research questions. Thematic analysis enabled the researcher to establish the parameters of social change which were attributable to appropriation of electricity by the rural population in Masinga Sub-county. Moreover, this approach was particularly useful in providing a complex data description of how people experienced rural electrification. This strategy elicited information about the human side of the research problem; highlighted biases, contradictory opinions, and relationships of individuals, among other issues.

Results and Discussion

In this study I qualitatively examined the implications of the prevalent installation of transformers in Masinga Sub-County from 1990s up to 2019. The study unearthed the role of electricity access in social and economic reorganization, in an area whose residents lived in darkness in the Twentieth Century. The argument is that in order to understand the influence of improved sources of energy on a community, one needs a context where people have lived in energy poverty for long time. From there one is able to trace structural changes after the provision of the much desired power.

At household level, electricity access in Masinga area provided a cheaper alternative source of energy to the residents. Households were able to cut costs on expenditure of fuel such as kerosene, wood, candles and torch. The sampled households argued that they were able to reduce expenditure on household lighting. Respondents reported that electric lighting replaced traditional sources of lightning such as wood, kerosene, candles and torches that were common before electricity connectivity. With access to electric lighting, the sampled households attested that they were able to reduce expenditure on household lighting. In this sense, respondents considered electric lighting to be far cheaper than kerosene lamps. Use of improved sources of energy saved rural families on the cost incurred on lighting. On average, household in Masinga Sub-County spent Ksh. 175 per week on kerosene (Oral Interviews, 2020). Consequently costly kerosene, forced majority of low income earners to stay in darkness at night when there was no money to purchase fuel. With adoption of solar and grid lighting, households went from buying eight litres a month to only one (Oral Interviews, 2020). Moreover, kerosene and hurricane lamps were expensive to maintain since the glass often broke, and the hurricane lamps got rust forcing households to either repair or buy other lamps. A respondent recounted that the money saved on lighting was channeled to other arenas, such as paying school fees, and catering for other domestic obligations. The following table shows the electric appliances that the sampled population owned:

Table 3: Electricity Appliance Ownership in the sampled households in Masinga

APPLIANCE	FREQUENCY	PERCENTAGE
Cellphone	160	100
Television set	120	75
Radio	160	100
Light bulb	160	100
Electric iron	24	15
Electric cooker	7	4.4
Refrigerator	15	9.4

Source: Data Collected from the Field 2020

Putting on gender sensitive lens, access to electricity altered gender relations in rural families in Masinga area. In colonial and post-colonial periods, rural families in Kenya were dominated by patriarchal relations where the male enjoyed various privileges at the expense of women rights (Friedan, 2013). Patriarchal domination of women in most societies in Africa was manifested in gendered division of labour and access to economic resources. Nevertheless, access to electricity in the 21st century brought about sociological phenomena that altered patriarchal relations of males and females' differential access and control over resources, and the livelihoods underpinning men and women bargaining power. Increased access to electricity in Masinga entrenched gender mainstreaming in Masinga since labour saving electric appliances freed rural women from the household drudgery, and as such were able to engage in diverse income generating activities. Rural women increasingly appropriated modern forms of energy in ways that embedded their economic power. These women utilized modern lighting to engage in home based businesses, especially in cases where the village market was located far from the rural household. Such small-scale businesses included hair dressing, electric posho mills and general shops. Similarly, purchase of more quality lighting created more time for craft activities like weaving, which were important sources of income for rural women (Oral Interviews, 2020). In this context, it can be argued that diversification of rural women's economic activities ushered in social changes in gendered division of labour in Masinga.

Table 4: home-based microenterprises from the sampled population in Masinga.

BUSINESS TYPE	FREQUENCY	PERCENTAGE
Charging phone	100	62.5
General shop	25	15.6
Saloon	30	18.7
Vegetable vendor	25	15.6
Dress making	20	12.5

Source: Data Collected from the Field 2020

Beyond gender relations, electricity changed the landscape of leisure and entertainment in Masinga Sub-County. Access to electricity embedded new forms of entertainment in Masinga that were previously perceived as urban leisure practices. For instance, increased access to radios and televisions in the area triggered an unprecedented passion for soccer. Hundreds of youth soccer fans poured into village markets especially on weekends to watch international soccer in crowded halls. On the market streets boys and young men engaged in seemingly endless debates on both local and international games, and followed with intense interest debates on fortunes of their favorite European sides, local clubs and their star players (Participant Observations, 2020). For many young and old people in rural areas today, football represents passion and pleasure. This illustrates important shift in leisure behaviors of rural communities in Kenya: from dance parties, to listening to radios, and from riddling sessions to face booking and sharing memes via WhatsApp, all enabled by increased grid connections and solar power systems in households in the Masinga.

In the realm of health care, rural electrification in Masinga enabled health facilities to provide better medical services. Connection of rural health centres enabled retention of qualified medical officers, who were formerly reluctant to work in the countryside as the working environment drastically improved with access to modern forms of energy. With increased access to sophisticated medical equipment, effective maternal and newborn care services became more prevalent in the village health facilities. This was in contrast to previous dependence on village mid wives for maternal and delivery services for rural women (Oral Interviews, 2020). Medical officers in rural division attested that the working environment drastically improved with connection to electricity. For instance, medical equipment is better sterilized and hygienic standards are maintained more easily. Most important, diagnosis of patients is now done more effectively. Access to electricity facilitated laboratory work, and drugs and vaccines are now kept safely in the refrigerators. All these changes were not possible without the modern sources of power (Oral Interviews, 2020).

Table 5: Electric Appliances in the sampled Health facilities in Masinga

APPLIANCES	FREQUENCY	PERCENT OF CASES
Refrigerators	32	100
Computers	32	100
Security lighting	32	100
Sterilizers	32	100
Television set	32	100
Radios	32	100

Printers	20	62.5
Photocopiers	25	78
X-rays	10	31.3

Source: Data from Field Work 2020

On education, access to electricity changed the trajectory of learning institutions in Masinga in the 21st century. Most significant, after the electrification of the schools, most institutions changed from day school to a pure boarding schools or mixed day and boarding. This was achieved through construction of dormitories. In 2010 there were seven secondary schools that offered boarding facilities, out of twenty five secondary schools at the time. However, the second decade of the century was a watershed period for education in Masinga Division. This period was marked by unprecedented increase in public secondary schools in the region. In 2019, the number of schools that provided boarding facilities increased to twenty four, representing fifty five percent of secondary schools that offered pure boarding and mixed day and boarding facilities to learners (Ministry of Education, 2020). Increased boarding facilities meant that students had more quality lighting and more study hours in the evening. Consequently, small day and boarding schools were able to offer stiff competition to schools considered to be 'big' in the district, because of their infrastructural development, fees requirements and age.

Table 6: Electric Appliances in the sampled schools in Masinga

APPLIANCES	FREQUENCY	PERCENT OF CASE
Electric light bulbs	35	100
Electric bell	35	100
Computers	35	100
Projectors	25	71.4
Printer	30	85.7
Photocopier	30	85.7
Television	35	100
Radio	35	100
Mobile phone	35	100
Electric cookers	10	28.7
Refrigerators	20	57.1

Source: Data from Field Work 2020

Outside the social realm, access to improved sources of energy transformed economic organization of residents in Masinga Sub- County. Advent of electricity revolutionized farming activities for some part of residents in Masinga division. Electrification of community boreholes and increased use of solar powered generators freed a part of population in Masinga Sub-County from the old-age dependence upon nature. Irrigation practices enabled farmers to schedule crop production to fit the demand in the market. With entrenched water supply, farmers were able to produce crops like bananas and sugarcane. Such crops were

uncommon in the area, and people only got the during the market days in the major market centres. Electric pumps lessened the need of many farm workers in agricultural production. In this context, the cost of agricultural production was reduced. Farmers saved on expenses incurred when using costly diesel generators. Prior to access of effective sources of energy, it was expensive for the rural farmers in the area to hire a pump and buy fuel for irrigation every week (Oral Interviews, 2020). Electric pumps entrenched irrigation practices in the area and ensured success of mixed rotational farming.

Moreover, businesses which were enabled by access to quality and more reliable light and heat energy sprung up across the division. Prior to electrification of village trading centres, traders in the area relied on the ineffective and costly sources of power. These included kerosene, acid-batteries and diesel-run generators among others. As a result, operating cost often usurped the profits accrued from the business ventures (Oral Interviews, 2020). Arguably, energy poverty hindered potential entrepreneurs in the area, further delaying economic transformation of the division. For instance, prior the advent of electricity in Masinga, diesel - run flour mills was common in the village markets. After rural market electrification, most of these mills were converted into electric operated mills. Electric mills are more efficient and profitable, because of reduced operation cost. Consequently, rural entrepreneurs were encouraged to open more mills to serve the burgeoning village markets (Oral Interviews, 2020). Generally, electricity - run mills relatively worked to a large capacity, and effectively catered for the needs of the villagers in rural areas in Kenya. The introduction of more efficient flour mills in the village markets freed away many women from the tiresome and time-consuming task of grinding grain at home. In this case, rural electrification in Masinga saved time and energy for the women in the countryside.

The argument here is that the cost of running firms in the interior villages decreased, with increased electrification of business units. Consequently, entrepreneurs were encouraged to start various business activities which were not possible prior to electrification of the markets. In this context services which were scarcely accessed at electrified townships became a common place in the small village markets. For instance, rural entrepreneurs established petrol stations which were initially limited, benefitting the burgeoning Boda- Boda sector in the area. The availability of variety business relieved residents stress of walking for long distances to access services such as welding, hair-dressing and cyber services among others. With benefits of hindsight, electrification of village trading centres in Masinga Sub-County provided viable environment for business activities. Consequently, this created myriad employment opportunities for the previously unemployed young people in the area. For instance, welding workshops, saloons and cyber cafes among others, absorbed young people trained in the vocational institutes in the area.

Despite the size in terms of capital, small micro firms increased employment levels, and enabled the previously unemployed people to participate in income-oriented activities. Arguably, rural electrification acted as an important panacea for rural out - migration in Masinga.

Conclusion and Recommendations

Rural outmigration is a constraint to social development in most parts in Africa. As a result of impoverishment in rural areas, people are enticed to move to the city in search for job opportunities and other dazzles of urban life. Consequently, urban centres expand industrially, while villages naturally contract (Current Science Association, 1935). Rise of small-scale businesses in Masinga Division after electrification of the village markets in the 1990s highlighted the importance of state-funded projects in rural social development, in addressing social and economic challenges that embedded rural incomes and minimized the need to migrate to urban areas. For example, connection of the community-owned boreholes to electricity and solar powered generators freed some residents in Masinga from the old age dependence upon nature through irrigation practices. Similarly, access to quality and more reliable light and heat energy contributed to the surge of small micro enterprises in this area. Moreover, in the social realm rural electrification in Masinga Division enabled healthcare and educational institutions to provide better services for the residents.

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