10 Competing energy visions in Kenya

The political economy of coal

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Introduction

Having outperformed with the highest rate of electricity access in East Africa (75% in 2018), the Kenyan government aims to achieve universal access by 2022 (MoEP, 2018a). To accomplish this target, coal has emerged as an attractive part of the power generation mix upon the discovery of an estimated 400 million tons of domestic coal reserves in the Mui Basin in Kitui County in 2007 (Boulle, 2019). Since then, the energy sector planning has prioritized the construction of new coal-fired power plants (LCPDP, 2018; MoEP, 2018a).

The long-term planning of the period 2017–2037 as reflected in the Least Cost Power Development Plan (LCPDP) estimates coal to comprise 13.6% (amounting to 981 MW) of the total installed capacity by 2030, increasing from zero of the current level (LCPDP, 2018). Due to the risk of oversupply, the government has reduced the proposed coal capacity in Lamu to 384 MW, one-third of the original plan, through the revision of the medium-term planning (MTP3, 2018). Coal is considered as an important low-cost fuel option for expansion planning, besides geothermal that currently accounts for the largest share of the generation mix after hydropower (LCPDP, 2018). At present, the government has no active carbon-intensive project, except for the medium-speed diesel generation plants. The composition of the generation mix, with more than two-thirds coming from renewables, makes the Kenyan grid one of the cleanest and greenest in the world [polit2]. In line with this low carbon development trajectory, President Kenyatta pledged through its nationally determined contribution (NDC) to the Paris Agreement in 2015 to abate greenhouse gas (GHG) emissions by 2030 by 30% relative to business as usual (MoENR, 2017).

Contradicting its international commitments, the Kenyan government announced in 2015 the construction of the first coal-fired power plant in Lamu County, expected to be in operation by 2024 running on imported coal from South Africa (LCPDP, 2018; MoEP, 2018c). Lamu is a UNESCO World Heritage site, which has attracted wide opposition by local and international actors. In the middle of contestations and local resistance around the environmental and social impacts of the proposed plant, a 25-year power purchase

agreement (PPA) was signed in 2017 between the plant's owner, Amu Power Company and Kenya Power, the single buyer. Since then, the National Energy Tribunal (NET) has overseen several lawsuits for the establishment of the coal plant in Lamu, which has led to delays in its construction due to the breach of regulations when issuing the license to AMU and lack of alignment with the environmental impact assessment (Wambulwa, 2019). Recently, major financiers of the coal plant, notably the Chinese investor, have abandoned the project, allegedly, due to associated environmental and social risks (Shekuwe, 2020). As of March 2021, the construction has not yet begun with the outcome of the NET's stop order in place.

Following such developments, the future of coal in Kenya depends on several dynamics, on which this chapter intends to shed light. In particular, the chapter aims to analyze the underlying economic and political drivers of the policy-making process in the energy sector. It builds on a broad body of literature on the political economy of energy policies¹ and a few earlier studies from the SSA region (e.g., Boulle, 2019; Jacob, 2017). With a particular focus on low carbon energy transition, Newell et al. (2014) conduct stakeholder interviews to explore the role of politics, actors, and institutions in enabling or constraining the pursuit of climate compatible energy development in Kenya. Taking the case of support to solar PV in China and Kenya, Ockwell et al. (2017) develop a political economy analysis of state-led energy transformations to understand how different aspects of statehood influence the nature and prospects of the sorts of transformations. The closest research to ours is Boulle (2019), which uses political settlement theory and discourse network analysis to study the political economy of coal in Kenya. His analysis reveals the importance of political motives and vested interests behind the support for the establishment of coal plant in Lamu, despite a strong civil society opposition.

Adopting the theoretical framework by Jakob et al. (2020) covered in Chapter 1, we seek to understand the complex interplay of different objectives and interests of various actors in shaping the energy sector planning, especially the development of the coal sector in Kenya. The implementation of the framework is achieved by semi-structured in-depth interviews with key stakeholders in the energy sector. The interview data are complemented with the review of secondary literature, including scientific journals and news chapter articles as well as official policy documents. Due to Covid-19 and subsequent travel restrictions; interviews were conducted online via Zoom between September and October 2020. We conducted a total of 18 semi-structured in-depth interviews with policy makers, national and international nongovernmental organizations (NGO), civil society representatives, academics, and industry representatives. To anonymize the interviews, we categorize the actors into four groups: political, societal national, societal international, and business/private sectors.²

The present analysis enables us to gain additional insights and uncover the driving forces behind different competing visions in terms of the support of and opposition to the establishment of the coal sector in Kenya – that is universal

electricity access and energy security, promotion of industrialization, rent-seeking and vested interests, and environmental sustainability. In the remainder of the chapter, we elaborate on these four objectives following a brief discussion on the governance of energy sector.

Energy sector governance: a mix of private sector and state participation

Kenya is one of the first countries in SSA to institute market-oriented power sector reforms, starting by the mid-1990s. The reforms mainly focused on unbundling of power utilities, private sector participation, and creation of an independent regulator. Upon the unbundling generation from transmission and distribution in 1997, Kenya Electricity Generating Company (KenGen) has become solely responsible for electricity generation. KenGen is a partly privatized company with a government share of 70% and owns more than 70% of total installed capacity (Godinho & Eberhard, 2019). Since the establishment of the state-owned utility for transmission, Kenya Electricity Transmission Company (KETRACO) in 2008, a partly privatized transmission and distribution company (with a government share of 51%), Kenya Power and Lighting Company (Kenya Power) has focused on distribution and serves as the single off-taker in the sector (Godinho & Eberhard, 2019). The key actors are illustrated in the following chart.

The generation sector is complemented by several independent power producers (IPPs) that sell electricity through long-term PPAs signed with Kenya Power (World Bank, 2017). As of 2018, there are 12 IPPs in operation – primarily diesel-fired – with aggregate capacity of 695 MW, accounting for about 30% of the electricity generation (Godinho & Eberhard, 2019). The sector still lacks an enabling policy framework for the private investors' participation. The only existing regulation is the feed-in tariff policy of 2012 that enables the private actors to negotiate with the government to sell their energy to the national grid at a predetermined tariff for a given period (Ndiritu & Engola, 2020).

Kenya has recently embarked on a series of reforms through the new Energy Policy and Energy Act of 2019 to align the policy and regulatory framework of the sector with the 2010 Constitution and its devolution framework (Energy Act, 2019; MoEP, 2018b). A key provision is the sharing of the roles of electricity planning, development, services, and regulation between the National Government and 47 county governments. The Act stipulates the county governments to have their own budgets, identify and prioritize their energy needs, and find investors to support the electricity generation within counties [socint3, socint4, socn4].

The Energy Act also envisages creation of new institutions or expanded mandates for existing entities, particularly the Energy and Petroleum Regulatory Authority (EPRA) as the successor to the Energy Regulatory Authority established in 2007 (World Bank, 2017). EPRA together with the Ministry of Energy stands in the center of the sectoral planning and is also responsible for

Figure 10.1 Institutional framework of the power sector.

Source: Eberhard et al. (2016: 102).

authorizing the construction of a power plant, issuing the licenses for IPPs, and determining electricity tariffs [socn1]. Despite its autonomy, EPRA's decisions are subject to an approval of the board, including members from the Ministry of Energy [socint1]. Unlike nuclear and geothermal energy, there is no specific organization for coal, which falls under the responsibility of EPRA and the Ministry of Energy (Figure 10.1).

Driving forces behind the establishment of the coal sector

Based on the interview data, we first derive major arguments for pro- and anti-coal narratives in Kenya and then cluster these arguments into four broader objective groups: universal electricity access and energy security, promoting industrialization through infrastructure projects, rent-seeking and vested interests, and environmental sustainability.

To facilitate the citation of the interviews, we abbreviate the aforementioned actor group names as *polit* (political actors), *socn* (societal national), *socint* (societal international), and *priv* (private sector).

Universal electricity access and energy security

Electrification of underserved remote areas

A remarkable achievement in scaling up connectivity was made in the last five years with the access rate increasing from 32% (accounting for 3.5 million connections) in 2014 to 75% (accounting for 7.5 million connections) in 2018³ (IEA, 2019). This has been achieved through the government's interventions in collaboration with development partners (MoEP, 2018a). Despite this achievement, there is still a large population mainly living in remote rural areas without access to electricity given the too centralized grid system, as seen in Figure 10.2. The Last Mile Connectivity Program (LCMP) emerged as a part of the interventions to ensure everyone has access to electricity by 2022. The program focuses on rural areas and slums where connectivity is poor (AfDB, 2014). As a complement to the LCMP, the Kenya Off-Grid Solar Access Project (KOSAP) was introduced in 2017, targeting remote, low density, and traditionally underserved areas of the country (KOSAP, 2017).

Lamu where the controversial coal power plant is planned, is included among the 14 marginalized counties targeted by KOSAP. As seen in Kenya's grid map, Lamu region located at the east coast is far away from the distribution and transmission lines, which unveils coal as a fast and cheap solution. A number of interviewees argue that the initial motivation of the Lamu plant was technical rather than being a political interest [socn2, socn7]. Mombasa, the second-largest city, located at the east coast, was highly reliant on diesel-fired power plants for electricity generation. Given the lack of high-voltage transmission lines, it was impractical to evacuate power from Naivasha to Mombasa. The rationale behind the government's decision was to build a coal power plant at the coast, which is relatively cheaper and arguably less polluting than the medium-speed diesel plants, and to meet the energy needs of the region [socn2]. To address this shortfall in the coastal region was among the driving forces behind coal presence in the LCPDP. This technical constraint no longer exists, after a high-voltage line between Mombasa and Naivasha has recently been built. Nevertheless, the contractual obligations from the PPA remain as a driving force for the construction of the coal plant [socn2].

Affordable electricity

High connection charges and high costs of electricity supply to rural and peri-urban households are supplementary arguments to explain the gap in electricity access (MoEP, 2018a). As of 2019, manufacturers in Kenya paid electricity tariffs of 15.6 Kenyan shillings (KShs) (14 US cents) per kilowatt hour (kWh), which is higher than the prices in Ethiopia (4 US cents/kWh), Uganda (12 US cents/kWh), and South Africa (9 US cents/kWh) (Boulle, 2019). For domestic consumers, the electricity charges range from 12 KShs/kWh for the consumption band up to 100 units to 15.8 KShs/kWh for the band above 100 units

Figure 10.2 Map of distribution lines in Kenya.
Source: MoEP (2018a: 29).

(EPRA, 2018). Coal comes into play as a solution for the generation of cheap, baseload electricity. The PPA signed with Amu Power set the price at 7.5 US cents/kWh, which is comparable to the price of geothermal-based electricity [socint2, socint4].

On the other hand, a comparative analysis of the cost of electricity from coal and geothermal easily refutes the hypothesis of coal as a source of cheap

baseload electricity (Kahlen et al., 2019). According to the 2017–2037 LCPDP, geothermal plants will run at an average capacity factor of 77.2% in the reference case, whereas coal plants will run at an average capacity factor of 6.8%. Based on this scenario, the average Levelized Cost of Electricity (LCoE) of future generation is estimated as USD 10.7 cents/kWh for geothermal and a minimum of USD 29.5 cents/kWh for coal (Kahlen et al., 2019).

Since many Kenyan households cannot afford the grid access due to the high connection costs or stay connected given the poor quality of supply, the demand does not grow as quickly as it is projected in strategy chapters in order to justify a coal power plant and the resulting excess supply pushes the prices up [priv1, socint4, socn1, socn2, socn5]. Once coal power plants among other committed energy projects go online, the present installed capacity (of 2.3 GW) is predicted to more than quadruple by 2037, aggravating the market imbalance (LCPDP, 2018).

Diversification of energy mix

Kenya is endowed with rich renewable energy sources, enabling for a green generation mix.⁴ As of 2017, over 65% of the installed capacity relies on renewable energy, primarily geothermal and hydro. While wind and solar have limited role in the current generation mix, their share is estimated to rise to 17.1% by 2037 (LCPDP, 2018).

Kenya has a long history of developing geothermal resources, with a high resource potential of around 10 GW along the Kenyan Rift Valley (Kahlen et al., 2019). It is clean and cheaper than coal as well as not subject to an intermittency risk unlike wind, solar, and hydropower. This makes geothermal a reliable source for baseload electricity [socn1].

While the huge potential of geothermal and other renewable sources weakens the support for the construction of a coal plant [socn7], the need to diversify the options of baseload electricity and the intermittency risks of variable renewables favor fossil fuel for energy security (Kahlen et al., 2019) [polit1, polit2].

Industrialization through infrastructure projects

5000+ MW program and LAPSET project

Energy is considered a crucial sector in the realization of Vision 2030, which seeks to “transform Kenya into a newly industrializing middle-income country providing a high quality life to all its citizens by the year 2030”. The Vision set out a long-term development plan, which depends on the continued development of the energy sector in order to support industrialization (Godinho & Eberhard, 2019). Under Vision 2030, the government targets an annual GDP growth rate of 10%, which currently stands at 5.4% (World Bank, 2021). Delivering this ambitious growth aspiration would require the introduction of infrastructure-related flagship projects. Just after coming in office in 2013,

President Kenyatta launched an ambitious plan aimed at fast-tracking power generation projects, proposing to add over 5000 MW to the national grid within 40 months. The 5000+ MW program was supposed to raise the total installed capacity from 1664 MW in 2013 to 6762 MW, which is about triple the existing capacity today (Boulle, 2019; MoEP, 2013). Considering the present excess supply (of about 600 MW), many stakeholders believe this ambition being a political decision to benefit a small group of political and business elites close to the administration rather than to meet the demand of the society [socn2, socn3].

Coal was seen as an important component into the development and “future” of the Kenyan state through planned infrastructure projects. Coal was supposed to come into play to deliver 1960 MW of the 5000 MW-capacity by 2037. The government was expecting the infrastructure projects, as part of the 5000+ MW program, to create more demand for electricity and eventually result in a market equilibrium [socn1]. The Lamu Port–South Sudan–Ethiopia Transport (LAPSSET) Corridor is the government’s ambitious mega infrastructure project, launched in 2016 with the financial support of China. This mega project aims to link Kenya with Ethiopia, Uganda, and South Sudan, involving the construction of railways and highways between the countries, a new port at Lamu and a crude oil pipeline starting from Lamu.⁵ While the LAPSSET corridor was envisaged to create huge demand for electricity that would justify the construction of the Lamu coal plant, the coal power station was supposed to provide power to various parts of this infrastructure project (Boulle, 2019) [socint1]. However, the flagship projects failed to stimulate the demand as projected and the economic growth rate fell well behind the target in the Vision, which exacerbate the oversupply problem in the sector [socint2, socn7].

President Kenyatta’s political commitment pledged through the 5000+ MW program was iterated in the “Big Four Agenda”, which was announced at the beginning of his second term in 2017. The agenda has four focus areas: food security, health care, affordable housing, and manufacturing, with electricity generation being a key input for manufacturing (Boulle, 2019).

Promoting local coal industry

Following the discovery of the coal reserves in Kitui County, the political commitment to expand electricity generation capacity for economic growth has created a push for the establishment of a local coal industry from coal mining to coal-based electricity generation. In the eyes of the political elites, coal is believed to fuel economic growth, improve the transmission and distribution infrastructure at the coast, and create new jobs along the value chain [socint1, socint2, socn7].

Although the financial justification of the Lamu coal plant was initially to use domestic coal, Kenya has no active coalmine yet and the domestic coal is not of sufficient quality, thereby the Lamu coal plant will run on imported coal

from South Africa (Kahlen et al., 2019; MoEP, 2018c) [priv1, socint4, priv4]. That the reality contradicts with the discourse around local coal industry and import independency makes the case against the coal plant easy for anti-coal campaigners [socint1, socint2].

As mentioned earlier, the excess power also weakens the support for the Lamu plant [priv1, socint2]. According to the expansion planning in the LCPDP, the addition of 981-MW Lamu coal plant in 2024 will aggravate the supply-demand imbalance as the surplus margin would surpass 1500 MW being 43% above the sum of peak and required reserve, with 32% excess energy during the year (LCPDP, 2018). To avoid the cited oversupply risk, the proposed installed capacity of the Lamu project has been reduced to 328 MW in the latest revision of the medium-term planning (MTP3, 2018).⁶

Donor dependency

Despite a state-led policy formulation in the energy sector described in the “Energy sector governance: a mix of private sector and state participation” section, Kenyan state-owned enterprises lack the financial capacity to lead the project, which is mostly undertaken by external donors and development partners [socn1]. The involvement of international actors in the project development leaves them a room to influence the policy-making process. This can be either directly through the funding of a certain project or indirectly through sanctions conditioning the financial support on certain criteria [socn4, socn7]. The sanctions might be quite dissuasive for African governments given their dependency on external funding. Unlike IPPs, whose role is rather limited to power generation, international donors, primarily the World Bank, IMF, and European Union are considered influential actors in the policy formulation, including the decision to stop fossil-fuel investments in the region [socn4].

Vested interests and rent-seeking

Coal and link with Kenyan political elites

Given the financial inability of the state-owned enterprises, two local companies with close ties to Kenyan ruling elites leveraged their interests in state power and embarked on the coal project. Amu Power, a consortium made up of two local companies (Centum Investment and Golf Energy) and a Chinese company (China Power) emerged as top players in the construction of the coal plant in Lamu. Neither of the Kenyan companies had an experience in coal plants; Gulf Energy is an investor in the oil and gas sectors and Centum is mostly involved in real-estate investments, besides a power project on the development of geothermal. Chris Kirubi, the owner of the Centum Investment, besides his close relations with Kenyan ruling elites and the first family, is also known for his good connections with high-level politicians within the East African region [socn1, socn2]. A well-known board member of Kirubi’s company is

Donald Kaberuka, the former President of the African Development Bank (AfDB), who expressed the Bank's support for the Lamu plant during his service (Boulle, 2019).

The proposed coal power project reflects the broad nature of energy sector deals in Kenya and demonstrates the fact that even with all the euphoria about Kenya's vast renewable energy potential, there is a deep connection between the Kenyan state and fossil-fuel interests from the private sector. Rent-seeking dominates and energy deals are awarded based on connections to political elites as one interviewee put it:

There's a thriving green energy market in Kenya – Kenya is a leader in the region for green energy, everyone talks about Kenya –, but when you talk about really doing deals and doing them transparently, there isn't a system for getting projects done. It's very top-down, and it's who you know, and not what you know, or what your capacity is.

[priv1]

The same respondent goes on to add that the country has too much electricity already and there is no rationale for building the coal plant but political elites with vested interest are still pushing ahead.

China as the major investor

China emerged as a key player in Kenya during the reign of President Mwai Kibaki and his "Look East" approach, which aimed at attracting financial assistance from China as opposed to traditional western donors. Following Kibaki's legacy, President Kenyatta has established a close relationship with China to meet the need for funding for infrastructure and power projects. The President's support for China's involvement in Kenya began with the "Belt and Road Initiative (BRI)" in 2013. BRI is a plan to connect Asia, Africa, and Europe through infrastructure projects involving the construction of roads, ports, railways, and pipelines (Boulle, 2019). As part of the initiative, Standard Gauge Railway (SGR) project financed by the Chinese Exim Bank was launched between Nairobi and the port of Mombasa. This line is planned to be connected to the Ethiopia-Djibouti railway, as well as to Lamu port and the neighboring countries being part of the LAPSSSET corridor (Boulle, 2019).

Reiterating his political support for China's involvement, in May 2017, President Kenyatta signed an agreement with Amu Power and China Power Global for the construction of the Lamu coal power plant. The president's eagerness to cooperate with China in the Lamu project is also linked to the reluctance of western lenders in funding coal projects [socint2, priv1]. Of the USD 2 billion power plant, USD 1.2 billion is secured by the Industrial and Commercial Bank of China (ICBC) and the rest come from shareholder equity of the Amu Power (Boulle, 2019).

China having invested in both Lamu coal plant and LAPSET project is expected to retain key interests in both projects [socint1, socint4]. The local NGO Save Lamu has recently published a press release citing an official at the ICBC announcing the unexpected withdrawal of the Chinese investor. The decision was allegedly taken due to environmental risks, given that the plant was to operate using dirty, low-quality coal imported from South Africa. Although ICBC has not officially announced it, subsequent news confirms the move (IEA, 2020; Yi, 2021). The withdrawal of China as the main investor cast doubts about the viability of the project.

Environmental sustainability

The role of climate change in energy policies

Kenya is one of the few African countries to have regulations to reduce GHG emissions [socn1]. The environmental concerns linked to carbon emissions and to a larger extent to food and water security are increasingly taken up in energy policy papers [socn1, socn3; socint4]. Following its NDC pledged to the Paris Agreement, the government enacted the National Climate Change Act 2016 and National Climate Change Action Plan (NCCAP) 2018–2022. Henceforth, climate change objectives have been mainstreamed in the sectoral planning. The latest LCPDP is the first planning document showing how the projected generation pathways would influence national GHG emissions up to 2030 (Kurdziel et al., 2019; LCPDP, 2018). However, there is a lack of alignment of the projections of the LCPDP with those of NCCAP, which undermines the relevance of some mitigation actions (Kurdziel et al., 2019).

Despite the increasing role of climate change in energy policy formulation, the implementation of climate actions remains sluggish mainly due to the lack of an efficient mechanism for monitoring, reporting, and verification (Mooldijk et al., 2020) [socn6]. Besides, the uneven distribution of power among different departments and their potential competing interests create a discrepancy in the execution phase [socint3]. The discrepancy becomes evident when it comes to the construction of Lamu coal plant, the exploitation of (oil) wells in the Turkana region, and the infrastructure projects such as the construction of roads and railways run by diesel power [priv3, socint3].

Challenges in the renewables sector

Despite the country's huge potential in the renewables sector and declining costs of the renewable energy technology, existing financial and technical challenges favor pro-coal arguments. The hidden upfront costs associated with the integration of variable renewable energy to the grid system ranks the first amongst other challenges [priv1, socint2, socn2]. In this regard, off-grid technology appears as a complementary solution in particular to electrify remote rural areas out of reach of the grid system, as discussed in the “Electrification of underserved remote areas” section (Moner-Girona et al., 2019).

Financial constraints constitute a key constraint on the development of the off-grid solar market as well. Small and medium enterprises, composing the majority of the market, are generally incapable of accessing international funds, which makes them particularly susceptible to the lack of domestic funding [priv4]. Besides, the off-grid technology is still too costly given the high reliance on imported solar products mainly from China [socint4, socn5, socn6]. While private entrepreneurs lead the market, there is yet no adequate incentive to facilitate their participation. The government is reluctant to provide financial risk guarantee for investing in these nontraditional renewable energy sources. Apart from the feed-in tariff, there is no enabling regulatory framework to ease the issuing of licenses to operationalize the projects and the accession to the credit markets for capital financing [priv2, priv4, socint1, socn3, socn4].

On the demand side, the low demand for off-grid technology stays as a major constraint on the sectoral development [polit1]. The lack of awareness in the society about the effectiveness of off-grid solutions further hinders the demand creation. Many people still believe that solar power cannot work as a source of electricity [priv2, socn3, socn6, socn8]. Such demand- and supply-side challenges prevent the renewable sector from fulfilling its potential, while providing legitimacy for the use of fossil fuel.

The role of civil society in Lamu

Unlike its East African neighbors, Kenya has a very vibrant civil society organization. Besides the NGOs, including Save Lamu, deColonize, Green Belt Movement, who have been leading the anti-coal campaign in Lamu, local communities have been an active part of the protests. The vibrant feature of the Kenyan civil society can be linked to the institutional legacy as regards public involvement in the policy formulation process. Any policy both at national and subnational levels involves public participation through consultation and feedback talks before going to the parliament⁷ [polit1, polit2, socn3, socn8]. Many stakeholders, however, criticize its effectiveness, as the invitation calls to these meetings reach only a limited segment of the society and some interested parties in certain power projects generally dominate the decision-taking process at the expense of public interests [socn7]. The renewal of PPAs for diesel-powered generators, which were supposed to be switched off due to their high costs, demonstrates the enormous power of private actors and their cronies within the state. Even with their high costs, these PPAs were framed by Kenyan elites as necessity, urgent, and vital national undertakings. The diesel-powered subsector is an integral source of political financing for various competing factions of the Kenyan ruling elites. With next elections scheduled for 2022, the ties between private players and state officials are likely to be strengthened [priv2, socn2].

The effectiveness of public involvement is questionable also because of the strict hierarchies in place in the decision-making. Most of the time neither technocrats nor state officials have a choice other than fully supporting the decision approved by the government. Nevertheless, there is still scope

to interfere with the policy formulation [priv2, polit2]. The stop order of the NET for the construction of the Lamu plant illustrates the influential role of the civil society, who drew the attention to the requirements of the environmental impact assessment that had not been performed [socn1]. Eventually, in June 2019, NET canceled the license issued by the National Environmental Management Authority approving the impact assessment and the stop order has been in force since then.

Lamu being a UNESCO heritage site also gave campaigners some international leverage and spotlight resulting in effective combinations of domestic and international pressures [priv1, socn1, socn7]. Anti-coal activists framed their campaign against the coal plant beyond just climate change to include the local adverse impacts of coal on public health and impacts from air pollution, local environmental damage, local fishing industry, as well as corruption and bad governance [priv4, socint2, socint3, socn1].

Following the strong opposition nationwide and its echo on a global scale, many interested parties have abandoned the Lamu project [priv2, socn4, socn7]. This experience points out the importance of ensuring community support to go ahead with the power project that has adverse environmental and health effects (Yi, 2021). Although in August 2017 the AfDB confirmed their interest in providing a partial risk guarantee to support the construction of the power plant in Lamu, shortly afterwards, in November 2019, the Bank's acting vice president declared the withdrawal of their financial support for the coal plant and projected no plans to move forward (Winning, 2019) [socn1]. Subsequent to the AfDB's backstep, General Electric (GE) has declared their exit in September 2020 (Juma, 2020). The involvement of GE was the backbone of the cheap electricity narrative given the supercritical machines and superefficient technology the company would provide [priv1, socn7]. Finally, in November 2020, the main financier of the project, the Chinese investor, allegedly, pulled out the project due to environmental risks. Although there still needs an official declaration by the ICBC about the underlying reason behind their decision, the withdrawal of AfDB and GE as well as the international pressure to exit coal have likely played a role in this decision [socn4]. The move of ICBC might further involve a financial motive as the project is financially too risky to go forward given the inadequate demand for an additional capacity of power [priv1, priv4]. In line with the global trend, the increasing challenges of attracting financial donors to invest in coal seems to remain as one of the drivers for leaving the future of coal in Kenya in doubt.

Policy implications and concluding remarks

This chapter has provided an in-depth case study of the political economy, conflictual climate policy, and the broader economic and political drivers of the policy-making process in the highly contested Kenyan energy sector. We have argued that energy policy-making terrain and implementation of various energy projects is shaped by the nature of the political-economic institutions

governing Kenya's energy generation at various competing interests at play. The case study offers a better understanding of various challenges and opportunities facing the Kenyan energy sector, which relate to the four objective categories, universal electricity access and energy security, promotion of industrialization, rent-seeking and vested interests, and environmental sustainability.

As we have shown with respect to Lamu, Kenya's ruling elites' grand national visions and ideas around coal-fired power as the driver for modernity, industrialization, and energy security were met with dissent at the subnational level. Local protests and successful litigation which has so far halted the proposed coal power plant show the power and agency of civil society actors in shaping domestic political economy of energy and climate policy, a new terrain in sub-Saharan Africa. The chapter through the Lamu case study has demonstrated the importance of political mobilization by domestic civil society actors who have so far confronted the powerful private coal consortium and their political backers within the Kenyan state. Local mobilization in Lamu and the emergence of a relatively new breed of domestic anti-fossil-fuel activism in Kenya further highlight the need for recognition and effective participation of local actors especially surrounding communities in the design and implementation of energy projects. Proper inclusion and public engagement will ensure future energy projects get the necessary backing and social license from local actors who are going to be directly affected by their socioeconomic and ecological impacts.

Kenya faces a critical juncture at the time when renewable energy sources are increasingly becoming the backbone of the country's overall energy mix while interests in fossil-fuel energy generation are also increasing as reflected in recent policy pronouncements and various developments strategies discussed in this chapter. While we will not speculate on whatever will happen to the future of Kenya's energy sector, it is clear that competing energy visions will keep unfolding in years to come. The political economy of energy is a crucial analytical element for understanding how such various competing claims and policies in the energy sector are conceived, executed and at times contested by various societal actors at both the national and subnational level.

Recent withdrawal of major commercial banks from Lamu's coal project, which began with South Africa's Standard Bank followed by the AfDB and mostly recently the ICBC and pull out by America's GE, sends a powerful message to the Kenyan political elites and the consortium of local investors that global appetite for coal projects is declining. These recent developments offer Kenya a window of opportunity to reassess its energy aspirations and tap into country's vast renewable energy resources which included geothermal, wind, and solar. The Kenya grid is already one of the cleanest and could become even more cleaner with more renewables and a move away from coal.

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Appendix

This chapter contains supplementary online material at www.mcc-berlin.net/pecoal/ch10.

Notes

- 1 For a detailed summary of the literature, see Dorband et al. (2020).
- 2 Of the 18 interviews, 8 societal national members, including NGOs, consultants, think-tanks, and academics, represent the largest group. This is followed by four interviews with the societal international group including international organizations, development corporations, and international academics. Private sector is proportionately represented by four interviews. Policy makers constitute the smallest group in the sample including two interviews. To balance the representativeness of the groups, the interview data were complemented with desk research from official documents, policy papers, newspapers, and scientific reports. See online appendix for the interview questions.
- 3 These official statistics reported by governmental authorities might differ from other data sources and need to be taken with caution, as they might be overestimated.
- 4 See online appendix for the details of the power generation mix of Kenya.
- 5 www.lapsset.go.ke/#1461328897545-6227748f-d226, retrieved on 23.03.2021.
- 6 For technical details on the changes across strategy papers of targets, capacity factors, and timelines for coal power plants in pipeline, see Boulle (2019) and Godinho and Eberhard (2019).
- 7 To illustrate, the Ministry of Environment and Forestry has recently published a framework to facilitate civil society engagement and coordination for the implementation of the NCCAP (MoEF, 2020).

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