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Original research article

# Unpacking authoritarian governance in electricity policy: Understanding progress, inconsistency and stagnation in Tanzania

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## ABSTRACT

In Africa, the 21st century has seen increased policy focus on the electricity sector, with targets for providing reliable, affordable power and achieving universal electricity access. But how to understand the policymaking affecting these goals? Recent academic and policy literature has tended to focus on factors like 'political will' and on the positive impacts of democratic and liberal-market institutional reform. However, given the predominance of authoritarianism in Africa, we also need to unpack countries ruled by dominant political elites. This article, using insights from the political settlements framework, addresses this by using the case study of Tanzania. Whilst under consistent de-facto 1-party rule, it experienced two markedly different periods of electricity policymaking in electricity generation, first under President Kikwete (2005–2015) and second President Magufuli (2015–2021). Meanwhile consistent, substantive increases were achieved in electricity access. Using insights from the 'political settlements framework, the article explains these contrasts through shifts in the nature of political power. The article demonstrates that centralised, fragmented regimes contain weaknesses in their ability to implement policy and pursue long-term development, whilst centralised dominant regimes have a weakness from suppressing critique. Overall, this reinforces the importance of analysing the manifestation of political power within the ruling elite, and the way this shapes key political pressures and policymaking horizons.

## 1. Introduction

Many countries in Africa are in need of an electricity revolution. Bar notable exceptions like South Africa and Ghana, countries in sub-Saharan Africa have some of the world's lowest access rates, averaging 44.6% in 2017.<sup>1</sup> In addition, firms suffer from high numbers of outages, on average 8.9 times a month.<sup>2</sup> The need for increased power generation and access is also particularly pronounced given Africa's present and predicted population growth, alongside rapid urbanisation. Consequently, addressing shortages in electricity access and generation is increasingly mainstream, touted as a key ingredient for poverty reduction and economic growth and included in Sustainable Development Goal 7.

It is therefore urgent to understand the gamut of national electricity sectors in Africa but the current literature contains considerable gaps. Chiefly, these concern analyses of power generation and the policy-making practices of authoritarian, illiberal governments which

constitute the majority of political contexts on the continent. There is an important and growing body of work discussing electrification [1–4], the effect of geographic inequalities on electricity distribution policy [5–7] and democratic countries like Kenya and South Africa [8]. Additionally, a number of studies have questioned what determines the adoption of democratic institutional reform and marketization which makes up the so-called standard reform model, the programme for electricity-sector transformation espoused by the World Bank from the 1990s and still widely assumed to be key to delivering financial sustainability and reliable, affordable power [2,9,10]. Its attention tends to be the rule of law, liberal market regulations [2,11], democratic pressures and market ideologies [1,6,12–15].

In contrast, the majority of countries on the continent exhibit political systems that are to varying degrees authoritarian or illiberal, with political economies strongly influenced by informal institutions and practices of clientelism. Evidence about democratic institutions, formal rules and open markets therefore offer limited insight on the inner

<sup>1</sup> World Bank, Sustainable Energy for All (SE4ALL) database from the SE4ALL Global Tracking Framework led jointly by the World Bank, International Energy Agency, and the Energy Sector Management Assistance Program. ID: EG.ELC.ACCS.ZS (<https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS?locations=ZG>, Accessed 21/1/2019).

<sup>2</sup> World Bank, 2018, World Bank, Enterprise Surveys, ID: IC.ELC.OUTG ([https://data.worldbank.org/indicator/IC.ELC.OUTG?end=2018&name\\_desc=false&start=2018&view=map](https://data.worldbank.org/indicator/IC.ELC.OUTG?end=2018&name_desc=false&start=2018&view=map); Accessed 21/1/2019).

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workings of these countries' electricity policymaking. This article's intervention provides one important way of understanding this governmental context, demonstrating that the manifestation of political power and its concentration within the ruling elite is a key determinate of electricity policy and a government's implementation capability. Using the case study of Tanzania, analysis demonstrates how changes in the concentration of political power under two contrasting governments were the key determinant for their different policymaking outcomes. Thus, this article demonstrates the importance of analysing inter-elite relations, informal political power and especially the concentration of power within illiberal governments, rather than the literature's tendency to highlight liberal-market institutions as the key determinant of electricity-sector policymaking.

Tanzania is particularly apt for the study of the politics of policymaking as on the surface, it presents a puzzle. The last 15 years have seen significant advances in electrification contrasting with inconsistent progress, followed by stagnation, in electricity generation. Much of the existing literature focusing on the politics of electricity decision making appears ill-equipped to explain the different political processes causing such variation: Tanzania has been a consistent hybrid, 'democratic-authoritarian' state since the advent of democracy in 1995<sup>3</sup> without significant changes to formal democratic-electoral institutions or competitive 'free' markets. Thus, this article asks what causes such variation within generation policy and between generation and electrification outcomes. Analysis demonstrates the importance of the concentration of political power within the ruling elite. The article shows that a fragmented but dominant political elite will face significant challenges in policy implementation given issues in enforcing coordination, policy coherence and rent-seeking. In contrast, a centralised, cohesive dominant elite has a different weakness, stemming from the ease with which critical voices and technical expertise are excluded. This is demonstrated in Tanzania by the fragmented regime under President Kikwete (2005–2015) that struggled to coordinate policy implementation or control rent-seeking given the prevalence of inter-elite contestation. In contrast, deceased President Magufuli (2015–2021) presided over a centralised, cohesive state. His government's dominance enabled decisiveness but, following longer-standing simplistic modernist and nationalist ideas, alienated much of the private sector whilst pursuing projects with highly-questionable benefits and significant economic costs. Meanwhile, the manifestation of political power under both Presidents supported electrification, involving consistent investment in a highly competent agency which oversaw increasing access to the national grid. Thus, progress towards affordable, sufficient electricity generation failed in Tanzania for different reasons, whilst electrification continued apace. The causes for these outcomes are principally revealed by meticulous unpacking of inter-elite dynamics that show changes to the concentration of political power.

Therefore, this article's conclusions are rooted in theory about the manifestation of political power and how this drives policymaking. Here the article uses concepts from the 'political settlements' approach, which examines the vertical and horizontal dominance of the ruling political elite to appreciate the shifting nature of political power and key pressures on policymakers. However, it does not adopt this approach straightforwardly, as it is also influenced by recent scholarship advocating the co-incision of ideas and ideology with strategic concerns rooted in the manifestation of political power [17,18]; ideas and materialist interests should both be treated as significant as this can reveal the limitations on highly centralised power in creating long-term development. Collectively, underlying ideas and political power influenced contrasting, and apparently inconsistent, shifts in Tanzania's electricity-infrastructure construction and stagnation, providing

<sup>3</sup> On Polity IV's index it has stayed virtually level, 0 Freedom house and stayed within Freedom House's partially-free category albeit on a downward trajectory from 4.3 in 2003 to 3.3/3.4 by 2016 [16].

broader lessons for how to understand the electricity sector in Africa.

Tanzania was chosen as a representative case study of other illiberal states in Africa. Mirroring others like Rwanda, Ethiopia, Angola, Uganda and Sudan [19], the country returned to national, state-led electricity planning, not least in response to a booming, and increasingly urban, population which desires electricity access and reliability. However, achievement of this has been halting, something, also true of neighbours Zambia and Mozambique and others like Sudan. Meanwhile Tanzania, like most countries in Africa, has significant fiscal pressures on its state Utility. Tanesco's (Tanzania Electricity Supply Company) debts continue to mount, with recent figures putting it at Tsh 1.4trillion (around US\$600million<sup>4</sup>), something notably shared, for example, by South Africa, Rwanda and Ghana [9,17,20]. Thus, this Tanzania case study is instructive for understanding other countries sharing its key characteristics, whether electricity issues, or their political cause: a large subset of African countries also have longstanding, dominant ruling parties in a hybrid democratic-authoritarian system, including Zimbabwe, Mozambique, Angola, Rwanda or Uganda.

The article proceeds with an overview of the literature on electricity policymaking in Africa, then turns to the political settlements framework. The following empirical section introduces two contrasting periods in Tanzanian politics and analyses the reasons behind generation and electrification policy. This article is based on extensive primary research. Particularly, it draws on 63 semi-structured, elite interviews of typically one hour, conducted between 2015 and 2019. Participants were selected through a purposive sampling strategy based on their knowledge of, or involvement in, national electricity-sector decision making. This strategy targeted key bureaucrats, including those from the Ministry of Energy's electricity department and the state agencies Rubada (the Rufiji Basin Development Agency), the Rural Energy Agency (REA) and Tanesco. Further interviewees included former energy ministers and officials from 'Western' governmental donors, and private companies, directly engaged in electricity policy and projects. Additionally, analysed grey literature included government policy documents, external consultant reports and newspaper articles. Informal conversations were also held with experts including academics and civil servants between 2016 and 2019. Having collected this data, analysis followed an inductive method that involved re-reading interviews, discerning key themes and facts about who did what when, and why. Here, triangulation between different sources was important, with attention on integrating data from grey literature and news reports with contrasting types of interviewee (e.g. donor vs government officials).

## 2. Mainstream Electricity Policy Analysis in Africa: Missing Intra-elite politics

Political-economy studies of the electricity sector have increased. However, their analytical depth and focus vary. One more comprehensive strand tackles drivers for electrification, relating this to wider historic and core-periphery structures [5,7] or to electoral pressures and embedded societal norms [5,6,14,15]. A frequent focus of the electricity-policy literature [9,10,12,21,22] is the standard reform model which essentially applies the 'good-governance' agenda by separating electricity-system functions to independent utilities, introducing commercial logics and increasing accountability [23]. Therefore, it focuses on introducing stronger, transparent, legal codes, functioning markets and profit motivation [12]. Primarily, scholarship here asks what factors enable the adoption of such reform. Gore et al.'s [10] article on this subject, for example, places primary responsibility on international actors, especially the World Bank.

Whilst increasing understanding of the political influences on electricity policymaking, these articles do not present a framework for understanding the effects of a state's inner workings or those of its ruling

<sup>4</sup> Using latest World Bank figures.

elite. Ahlborg et al. [2], for instance, assume their correlations prove that democracy and ‘institutional quality’-essentially relating to the standard reform model- lead to a focus on delivering services, the suppression of corruption, increased efficiencies and the inclusion of expert advice. Similarly, the World Bank’s recent report [12] on power-sector reform, although identifying the importance of political factors like tariff setting for elections, market ideology and ‘challenging political environments’, otherwise treats ruling-elite politics as something of a black box. Such analysis is particularly absent from policy literature on electricity in Africa. Besides some notable exceptions [including 7,11], many articles analysing ‘political economy’, tend to skirt over the internal workings of the state and its ruling elite, either seeking to map different actors [24] or explain governmental failures limited ‘political will’ or capacity [21,25].

Furthermore, the literature above largely focuses on democratic pressures and liberal market institutions, rendering their conclusions less applicable to the authoritarian spectrum of regimes in Africa. As captured in the international rankings of Freedom House [16] or Polity IV [26], this ranges from the complete absence of political choice combined and severe limits on freedom of expression to countries that look like democracies on the surface, given their opposition parties, functioning parliaments, regular elections and forms of apparently-independent judiciary and media. However, under the surface, one political party or president dominates, formally and informally concentrating power over government and the market economy.<sup>5</sup> In these contexts, the rule of law is largely absent and informal power is often used to foster clientelist networks that maintain those in power by handing out benefits, such as developmental services like electricity access, or contracts to procure power.

Those under the hybrid-authoritarian/illiberal-democracy spectrum have a highly variable development record, as demonstrated by Kelsall’s global study [27]. This suggests that, aside from the finding of electoral pressures as an important driver for electrification [1,2,15], development of the electricity sector is not determined overall by democratic/authoritarian status. For example, whilst all hybrid-authoritarian states, Zimbabwe or the Democratic Republic of Congo contrast with Rwanda, which achieved rapid electrification and, alongside others like Ethiopia and Angola, increases in power generation [17]. Additionally, the above literature favouring democratic and liberal market reforms does not provide tools to understand the rapid economic development, and accompanying power-sector transformations, of predominantly authoritarian states in East and South-East Asian like China, Vietnam and Korea. China, for example, boosted its installed generation from 1989 to 1653 GW in 2016,<sup>6</sup> alongside rapidly advancing renewable energy.

An entry point to unpack the influence of intra-elite politics in these contexts is provided by scholars who conceptualised the ‘developmental state’, typical examples of which include the ‘Asian tigers’ of Singapore, Korea and Taiwan [28–31]. This group of countries is associated with a strong concentration of political power in relatively centralised ruling political-business coalitions that are crucially focused on delivering economic growth. Arguably, their degree of centralised political power underpinned four key policy characteristics. The lack of competitive elections, or their complete absence, allows governments to adopt longer-term policy horizons, rather than respond to their populations’ immediate concerns or to particular interest groups. Equally, centralisation of power in one authority supported the implementation of one, uncontested vision of the country’s future. In-turn, this enabled joined-up policymaking involving coordination of activity across the state and a focused resource allocation on the ruler’s priorities. Additionally, these ‘developmental states’ are argued to contain the conditions for sustained investment in effective bureaucracies [32]. Thus, the alignment of the ruling elite to a long-term programme of economic development appears

key to understanding development outcomes.

This focus on inter-elite relations, rather than the presence or absence of elections and ideas around good versus bad institutions, suggests the importance of studying the manifestation of political power in a ruling coalition. There are a number of ways of analysing failures in policymaking and the difficulties of delivering development through the state<sup>7</sup> but this article uses the political settlements framework as the most influential analytical approach over the last decade. Rooted in the literature on developmental states, the political settlements approach presumes that informal institutions and clientelist practices are important in shaping policymaking. The framework has been principally promulgated by Mushtaq Khan’s [36,37] work that critiqued the neo-classical, ‘good governance’ literature (e.g. North [23]). In brief, the political settlements approach examines the distribution of power and the alignment of different social and political actors’ interests with developmental outcomes [36,38]. Khan [36] conceptualises two pertinent axes of power in ruling coalitions, as shown in Fig. 1; vertical cohesion refers to how supportive and united the senior and junior members of the coalition are whilst horizontal dominance refers to the challenge posed by excluded groups.

Tanzania transitioned between two types of political settlement, moving from a ‘contested dominant’ position to a dominant ‘potentially-developmental’ coalition. The first coalition existed under President Kikwete, involving fragmented elites with significant contestation from within the ruling coalition and a growing external opposition threat. This vulnerability pushes elites to focus on short-term goals in order to maintain their power. It also decreases leaders’ ability to force or effectively coordinate policy implementation and to discipline elites who engaged in self-serving corruption and rent-seeking. Conversely, the dominant settlement, under President Magufuli, involved stronger elite cohesion and stability from the lack of internal or external challenge. This supported more decisive policymaking, the disciplining of political and business elites and direction of capital towards longer-term investments [38–40]. Thus, a lens focusing on the distribution of ruling power can elucidate key political pressures on decision-makers and how inter-elite relations translate into policymaking processes. In turn, this manifestation of political power is an important determinant of policy choices and implementation capacity.

The above typology can, however, run into overly reductive and static analysis. This article does not therefore adopt a straightforward analysis of political settlements but rather follows Behuria et al. [38] who view Khan’s work as a tool to ask questions about the ruling political elite, relating these to the pressures on the state and its electricity-sector decision making. Crucially, this involves understanding the manifestation of political power as fluid, not a static end-state in a typology. Moreover, the article suggests that significant developmental challenges persist under the dominant, cohesive settlement. Political settlements analyses have tended to be optimistic about those with centralised, unified ruling parties with concentrated vertical and horizontal ruling power. However, analysis below demonstrates that dominant political power, although enabling coherent long-term policymaking, can equally stifle dissent and critique, leading to poor selection of projects without significant socio-economic costs. This article’s more critical stance of political settlements in part stems from the role of ideas and ideology within policymaking. They are treated as having equifinality with strategic interests rather than merely rational interests dictating rulers actions. Specifically, high modernist and resource-nationalist ideologies help reveal rationales for the economically-costly policies under President Magufuli’s administration. We now turn to the case study of Tanzania and the way a change in the underlying manifestation of power affected electricity policymaking.

<sup>5</sup> For example, Freedom house records 25 states as partially-free.

<sup>6</sup> CIA Factbook (accessed 04/2020).

<sup>7</sup> For example see Grindle [33,34] or Brinkerhoff [35].

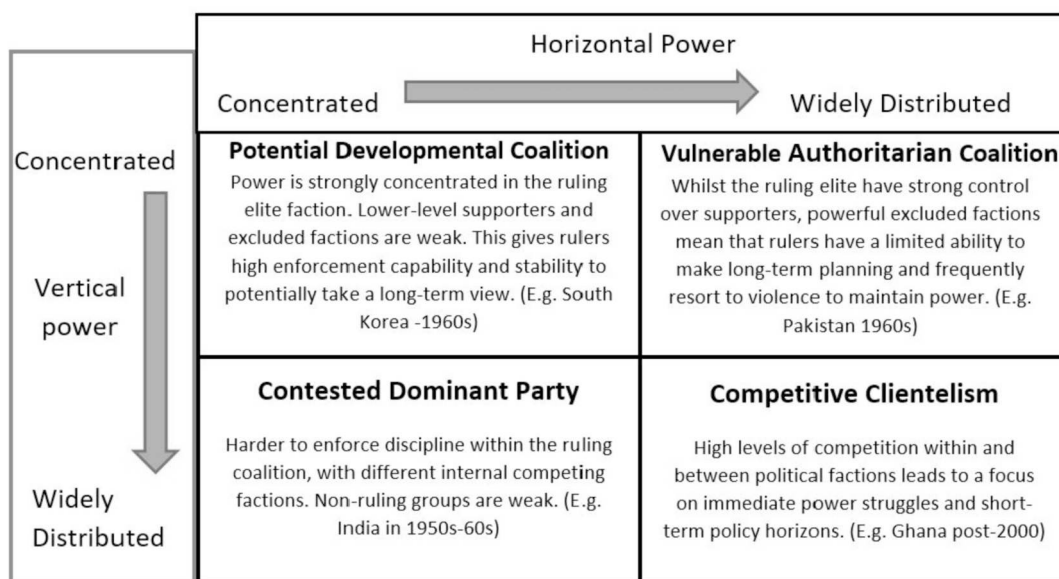


Fig. 1. A simplified Political Settlements Framework typology diagram (adapted from Khan 2010, p.65).

### 3. Explaining Progress and Stagnation in Tanzania 2005–2020

#### 3.1. Political background: the ruling CCM party

One party, CCM (Chama Cha Mapinduzi, originally the Tanganyika African National Union), has ruled Tanzania since independence. However, political settlements analysis helps uncover the profound changes occurring in Tanzania’s ruling elite behind apparent continuity [39,41,42]. President Kikwete’s tenure (2005–2015) saw an acceleration of factionalism within the ruling CCM. These factions have roots in the transition from a socialist to ‘market-led’ economy in the 1980s and furthered with the introduction of elections in 1995 [41–43]. This reduction in the party-government’s economic role also entailed a decrease in state planning. This transition involved a relaxation of prohibitions on politicians engagement in private business [39]. Arguably they also necessitated business-politics linkages given the newfound cost of internal party, and increasingly competitive national, elections [44,45]. Collectively, this intertwining of business and politics, alongside the lessening of CCM’s disciplinary power and the continuing absence of the rule-of-law, increased rent-seeking by politicians; a term meaning the use of public policy to create private profits [42,46]. Simultaneously, devolution, pursued from the 1990s, and democratic changes, empowered CCM’s lower echelons because of their importance in candidate nomination processes.<sup>8</sup> Resultantly, “behind the formal constitutional rules, power is considerably fragmented even at the top of a dominant party system. Despite the appearance of centralised authority, neither the president nor any one particular faction could enforce its agenda within the ruling party” [40]. Prominent splits under Kikwete included a divide between more reformist politicians under parliamentary Speaker Sita and the so-called Mtando network featuring 2005–2008 Prime Minister, Edward Lowassa alongside Rostam Aziz [44,47]. Further public splits occurred later, for instance between Lowassa and President Kikwete alongside Foreign Minister Bernard Membe [42]. Thus, although Kikwete initiated a more state-led form of development which had a resource-nationalist agenda in his second term, his administration’s ability to push change and project construction was limited.

This fractured political settlement changed with recently deceased

President Magufuli in 2015. His ascension was somewhat unexpected, as the two frontrunners - Membe and Lowassa - effectively knocked each other out of the Presidential nominations. Magufuli’s lack of party-entourage, or of an established politics-business group expecting large post-election payoffs, ruptured the status quo [41,44]. In office, Magufuli was far freer to determine policy and centralise power on the Presidency [42,45,48]. This allowed him to exclude other competing factions in the CCM and suppress opposition parties, which were providing increasingly robust competition [41,45,49]. The result was a narrower and more cohesive ruling coalition that acted to pursue an ambitious policy agenda that was stridently resource-nationalist. The following section addresses the effect of these ruling-elite dynamics on electricity policy and considers their impact on key 21st-century energy challenges.

#### 3.2. Electricity policy under Kikwete: stalling implementation

##### 3.2.1. The increasingly ambitious return to state-led planning

President Kikwete, previously an energy minister in the early 1990s, inherited many pressing electricity issues. A corrupt power project, ITPL (Independent Power Tanzania Limited) was draining Tanesco’s revenue in high capacity charges, despite intermittently functioning [22]. Additionally, his tenure started during a prolonged drought-induced power crisis, owing to the dominance of hydropower (see Fig. 2). In reaction to this, Kikwete initiated state-led power planning and sectoral leadership. This started with the re-nationalising of Tanesco. The utility had been listed for privatisation since 1999 [22], although its debts and risky financial position meant that no buyers had come forward. In an attempted bid to make it more marketable, NET Solutions, a South African consultancy, took over management of Tanesco in 2002. They succeeded in increasing revenue collection but failed to invest in the grid or new power plants [9,10]. In 2006, President Kikwete announced that Tanesco would be taken down from the privatisation list. The utility and the Ministry of Energy and Minerals (MEM) then proceeded to lead a new round of national planning for the sector with Canadian firm SNC-Lavalin. This was significant as such government direction had essentially been absent since the 1992 Energy Policy and the 1980s Norwegian-led efforts at hydropower planning [19].

The delayed report, the Power System Master Plan, eventually came out in 2009 and outlined a major programme of power plant construction, primarily featuring hydropower alongside coal and gas projects. This technology choice reflects a persistent national-resource focus,

<sup>8</sup> Something especially pushed by Western donors’ good governance agenda [46].

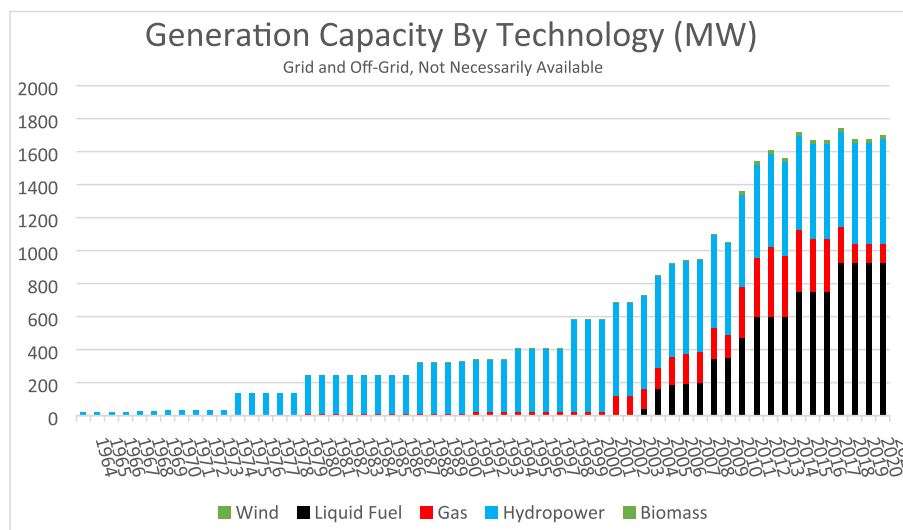


Fig. 2. Showing the increase in installed generation. Compiled by the author using official TanESCO statistics.

utilising domestic coal, gas and hydropower, something informed by a preference to avoid dependence on international actors.<sup>9</sup> Renewables were overlooked partly given that, at the time, they were relatively untested in Africa and comparatively expensive.<sup>10</sup> The central feature of the Master Plan was the intention to take the country from roughly 1000 MW (megawatts) to 3,500 MW of installed capacity. As Table 1 shows, the plan included a number of sizeable projects and the government advanced their planning and implementation. The largest was the 2,100 MW Stiegler's Gorge Dam, with a further eight large hydropower dams, three large coal stations and a raft of gas projects. Alongside generation, new transmission lines were envisaged to connect the plants [51]. Unlike the previous 1990s plans, the first Master plan was followed-up. Ambition grew: the 2012 Master plan called for 6,260 MW by 2025, increasing to 6,350 MW in the 2016 plan despite few plants having been completed by that stage. Moreover, the 2014 Power Sector Roadmap set an even more ambitious target of 10,000 MW, both by 2025. Kikwete's government also began a significant power distribution plan, analysed in detail below. The Rural Energy Agency (REA), created by the 2005 Rural Energy Act No. 8, became operational under President Kikwete in 2007. Technological emphasis shifted; coal and hydropower were prioritised in 2009 but this switched to gas, enabled by the US\$1.2 billion Manzi-Bay pipeline extension, Tanzania's largest investment to date v [52].

This increased state leadership and switch to gas partly stemmed from a reaction to what had been Tanzania's closest national election in 2010, with opposition parties mobilising around an agenda of resource nationalism. This concept calls for greater state leadership over Tanzania's natural resources to boost domestic benefits [44,53], themes echoed by factions within CCM [53]. Thus, discovery of 55tcf<sup>11</sup> of offshore gas, something that placed Tanzania amongst the top-20 global gas-reserve countries, furthered calls for domestic use of this resource. Additionally, the shorter build time for gas plants, and a further power crisis in 2012, increased pressure for immediate boosts of energy generation through gas. Furthermore, Kikwete's government was influenced by high modernism [19,54], a set of ideas expressing belief in the ability of technology, here electricity, to generate development by overcoming backward economic practices and mind-sets. Both sets of ideas are rooted in the socialist vision of founding President Julius Nyerere and his plans for state-led, national development but saw a

revival in the 21st Century, not least in reaction of the poor record of socio-economic progress from the mid-1980s when such ideas were abandoned in favour of market-led development theories.

Overall then, Kikwete's tenure was marked by an increase in ambition, greater government activity and a return to a state-led direction after a near two-decade absence of plans. The purpose of this article is to demonstrate how the underlying manifestation of political power in the ruling elite affected implementation of this ambition. In contrast to the plans, Kikwete's tenure saw modest change. This is most evident in generation. Table 2 and Fig. 2, contrasting with Table 1, lists the seven plants completed during his tenure. Capacity certainly increased, from 833 MW in 2005 to 1616 MW in 2015, with a more diversified mix of fuels underpinned by a completed gas pipeline megaproject. However, this falls well short of the 1000s of megawatts in Table 1 in projects with signed deals or in early implementation. The inability to push projects to completion meant that further droughts in 2011–2012 and 2014–2015, alongside poor maintenance, curtailed hydropower production, causing output to fall well below installed capacity. Moreover, further projects, and particularly those designated for development by the private-sector, failed to materialise. Despite pledges, the undertaking of studies and the signing of Memorandums of Understanding (MoUs), no hydropower or coal plants started construction.

### 3.2.2. Kikwete's fragmented rule undermines implementation

This period's mixed achievement has its roots in Tanzania's fragmented elite politics and its affect on private-sector deals. Divides between different branches of the CCM, entailed factional cabinet splits which in-turn affected government operations and meant ministries often worked relatively independently.<sup>12</sup> Thus, the norm in the energy sector was for the Ministry of Energy and Minerals' (MEM) to make sectoral master plans and initiate agreements with private companies without direct approval from the Presidency or other ministries.<sup>13</sup> As an official explained, 'We do not have the system of big infrastructure approved through cabinet'.<sup>14</sup> Thus, advising consultants found that for 'a lot of projects ... the investor pushing the government [not the government leading]'<sup>15</sup> on projects officially advertised and seemingly pursued by the Ministry of Energy and TanESCO. Indeed, the 2008 Electricity Act gave the MEM minister discretion over implementation of

<sup>9</sup> Interviews, senior civil servants, 2016; [50].

<sup>10</sup> Interviews, senior civil servants, 2016; Power Sector Master Plan 2009; 2012.

<sup>11</sup> Trillion cubic feet.

<sup>12</sup> Interview, senior civil servant, 2017.

<sup>13</sup> Interviews, former minister, MEM civil servants, 2016.

<sup>14</sup> Interviews, civil servant, 2016.

<sup>15</sup> Interviews, consultant, 2016.

**Table 1**

A list of power plants studied and prepared under President Kikwete's administration.

Project/ownership	Technology	Size (MW)	Planned Start Date*	Activity under Kikwete Administration
Malagarasi (Igamba III) <i>TanESCO</i>	Hydropower	44.7	2018	Feasibility and environmental studies complete Funding agreement with Millennium Challenge Cooperation signed Delay caused by discovery of endemic snail
Rusumo <i>TanESCO (shared internationally)</i>	Hydropower	26.6	2018	All studies completed. World Bank loan approval in 2013 Construction from 2017 to 2021
Kakono <i>TanESCO</i>	Hydropower	87	2018	Feasibility Study completed Part financing agreement with the African Development Bank signed
Ruhudji <i>IPP</i>	Hydropower	358	2020	Completed Studies Financing agreement with World Bank Listed as 'committed' in 2012 PSMP
Rumakali <i>IPP</i>	Hydropower	525	2020	Feasibility and design studies completed by Studio Pietrangeli, paid for by MEM MoU signed with China Gezhouba Group Corporation
Mpanga <i>IPP</i>	Hydropower	160	2020	MoU for development signed with Sinohydro who completed prefeasibility and design studies
Iringa <i>IPP</i>	Hydropower	36	–	MoU for development signed with K-Power (Korean) who completed prefeasibility and design studies
Mnyera <i>IPP</i>	Hydropower	670	2029	MoU for development signed with Queiroz Galvão who completed feasibility, design studies and EIA studies- the latter approved by the government
Stiegler's Gorge <i>IPP</i>	Hydropower	2100	2022	MoU for development signed with Odebrecht who completed feasibility, design studies and EIA studies
Kiwira I & II <i>TanESCO</i>	Coal	500	2017–2019	Preparation works started but no full-scale construction
Ngaka I & II <i>IPP</i>	Coal	500	2019-	MoU signed with Intra Energy Corporation (Australian)
Mchuchuma I-IV <i>IPP</i>	Coal	600	2019-	MoU signed with Sichuan Hongda (Chinese)
Singida <i>IPP</i>	Wind	125	2016–17	Feasibility studies complete Negotiations and financing ongoing
Mwanza/Nyakato <i>TanESCO</i>	Diesel	63	2014	Completed in 2013
Kinyerezi I <i>TanESCO</i>	Gas	150	2015	Constructed between 2012 and 2015
Kinyerezi II <i>TanESCO</i>	Gas	240	2015	Financing deal for 85% signed with Japanese commercial and state banks Tanzania stumped up its 15% in 2016, with completion in 2018
Zinga 200 <i>IPP</i>	Gas	200	2015	N/A
Mkuranga <i>IPP</i>	Gas	250	2015	Financing and construction deal signed with Chinese state-owned corporation never sealed and implemented
Mtwara <i>IPP</i>	Gas	400	2016	N/A
Somanga Fungu <i>IPP</i>	Gas	320	2016	N/A
Kinyerezi III <i>IPP</i>	Gas	300	2017	Deal signed a \$300 m deal to develop a PPP with China Power Investment in 2013
Kinyerezi IV <i>IPP</i>	Gas	300	2017	Part of above deal

**Table 2**

List of large (30 MW) on-grid power plants added under Kikwete's Presidency. Compiled by the author using official TanESCO statistics.

Plant Name	Year	MW	Technology	Government Owned/Private Sector Rented
Ubungo I	2009	102	Gas	Government
Tegeta Gas	2009	45	Gas	Government
Ubungo II	2012	129	Gas	Government
Nyakato	2013	63	Diesel	Off-Grid Government
Aggreko Diesel	2006–2009	40	Diesel	Emergency Rented Power Plant
APR Diesel	2011–2014	100	Diesel	Emergency Rented Power Plant
Kinyerezi I	2007–2009	20	Diesel	Emergency Rented Power Plant
Kinyerezi I	2015	150	Gas	Government

reforms [10]. This independence meant that other parts of government, particularly the Ministry of Finance, were not automatically supportive of MEM's plans.

Notably, this affected the adoption and functioning of the so-called 'standard reform model'. This refers to the set of measures which unbundle and privatise distribution, transmission and generation functions

of the electricity system, departing from the 20th Century norm in Africa of a vertically integrated state-owned utility [10]. TanESCO functioned as such an all-encompassing utility from its beginning in 1964 but in 1992, generation was opened up to private firms [22]. Additionally, as set out in the 2014 sectoral roadmap [55], the government officially signed-up to plans for creating a British-style complete unbundling and privatising of generation, transmission and distribution by 2024. However, this plan faced serious opposition from many TanESCO,<sup>16</sup> and MEM civil servants, not least giving growing support for a more state-centric resource-nationalist development approach. This is significant as many these groups are typically CCM members [39,43]. The key point here is that despite official support and the carrying out of preparatory work including officials in TanESCO implementing a split of its utility functions, coordination between the presidency, MEM, TanESCO and other ministries faced major barriers that made achieving such reforms always

<sup>16</sup> Not least signified by earlier protests against private management [20].

unlikely. For example, the finance ministry did not provide the necessary guarantees for Tanesco and MEM's generation plans involving Independent Power Producers (IPPs).<sup>17</sup> Therefore the fragmentation of political power rendered the ability to push the 'standard reform' agenda near impossible, especially given internal party opposition by those supporting resource nationalism.

This manifestation of political power also affected individual projects. Two cases are exemplary here; the Stiegler's Gorge and Mnyera Dams. They were included in the 2009 and 2012 Power Sector Master Plans for construction during the 2010s. President Kikwete appointed a new RUBADA Chairman and Managing Director in the first years of his presidency, instructing them to implement these long-envisioned hydropower projects [19]. The President also linked Rubada with two Brazilian firms to assist planning and start to construction. Brazil's President Lula visited in 2010 bringing the large infrastructure firm Odebrecht in his delegation. They were connected with Rubada, leading to the signing of an MoU to build the Stiegler's Gorge Dam (2100 MW) after feasibility, design and environmental studies [56]. Additionally, President Kikwete went on a return trip to Brazil in 2012, meeting with another firm Queiroz Galvão and linking them to the Mnyera hydro-power project. Both firms signed project MoUs and produced feasibility studies, detailed designs and environmental impact assessments [57].

Initially both dams appeared to have wider government backing. This is particularly true for the Stiegler's Gorge project, long-considered a flagship by the ruling CCM and associated with Tanzania's founder Nyerere. The Prime Minister, Mizengo Pinda, organised a cross-governmental implementation group in 2011 to bring the project to fruition [19]. However, cross government consensus, particularly from the Ministry of Finance, was never reached, meaning that no Power Purchase Agreement or sovereign guarantee between the private developers and government were signed. A change in minister in 2012 cemented the stalling of both dam projects. The MEM Minister William Ngeleja (2007–2012) had appeared supportive of dams and was due to fund more detailed preparatory studies for Stiegler's Gorge. In contrast, the new minister in 2012 (Sospeter Muhongo) echoed another view held by parts of the ruling CCM that Tanzania should diversify its power generation from climate-vulnerable hydropower and rather invest in the nation's natural gas [19]. This U-turn also stalled other hydropower projects: As Table 1 shows, the Ruhudji Dam was nearing construction with the support of World Bank guarantees and the Malagarasi and Kakono projects had funding from the US' 'Power Africa' scheme and African Development Bank respectively. The change also stalled the Singida Wind farm which had been under development by private companies with donor support for a near decade by 2012. Thus, these cases demonstrate that presidential approval, external funding and apparent support from MEM did not signal long-term, cross-government commitment.

Others also note such disconnects and radical shifts in the energy sector under Kikwete's rule. Jacob [58], for instance, analyses the contrast between President Kikwete's leadership on African efforts in multilateral climate agreements and the fossil-fuel promoting MEM Minister Muhongo. This status quo was particularly problematic for private-sector developers as they require strong commitments from across different parts of government in order to raise the money necessary to build power plants. However, even the coal plants favoured by MEM Minister Muhongo, under MoUs with Australian and Chinese firms, failed to progress. The state utility, Tanesco, given its debt and related poor record of payments to private electricity generators, lacked investor credibility.<sup>18</sup> Companies therefore required sovereign guarantees from the Ministry of Finance which weren't forthcoming.

<sup>17</sup> Triangulation from interviews with donors (2015–2016), academics (2016–17) and to junior and senior civil servants in MEM and Tanesco (2015–2016).

<sup>18</sup> Notably ITPL, Songas and Symbion.

Additionally, in Tanzania, developers require clearance from numerous governmental bodies for licencing and operation, for environmental clearances and other health and safety agreements. Rather than being handled centrally as in other countries like neighbouring Rwanda [17], decisions are delegated to numerous agencies answerable to different ministries.

The complexity of these decision-making processes adds uncertainty and lengthens project development, increasing investors' risk.<sup>19</sup> Political fragmentation worsened this, meaning that a project needed buy-in from different elite factions. What might appear to be official government policy -what was listed in ministerial plans as a priority and given a timeline for implementation- was not agreed and supported across the ruling elite. The lack of centralised power meant that the state's ability to prioritise and forge agreements was limited: The presidential approval touted by the developers of dams like Stiegler's Gorge and Mnyera was insufficient to achieve implementation. Thus, the vast majority of power generation projects proposed by the Kikwete administration, which were intended for private sector companies, failed to jump through the necessary institutional hoops and get bureaucrats and politicians on-side.

### 3.2.3. An inability to control corruption

The exception were a small number of government-financed power plants, often bankrolled by donors,<sup>20</sup> or the plants developed by CCM's politicians' corrupt business deals. Kikwete's tenure saw two notable examples of the latter [40]; the new 120 MW Richmond-Dowans and the ongoing 100 MW Independent Tanzania Power Plant (ITPL). The first started as an emergency power plant proposed by 'Richmond', a company registered to suburban Houston (USA) with no prior infrastructure experience. As Cooksey's [63,64] investigation shows, this firm was a front for the Lowassa faction of the CCM to gain rents, with the then-Prime Minister disqualifying all other emergency-power bids [65]. Starting in 2006, the deal involved paying US\$4million a month despite the plant remaining idle until 2009. Additionally, under Kikwete's tenure, ITPL saw another corruption scandal, adding to previous malfeasance in the 1990s and early 2000s [66]. This time, it involved looting the escrow bank account storing revenues generated whilst ITPL was disputed in court. Two businessmen working with high-ranking CCM politician Andrew Chenge, used bribes to acquire the escrow funds [64,67]. Despite the detailed uncovering of this malfeasance by opposition MP Zitto Kabwe, the involvement of senior CCM factions in the deals resulted in President Kikwete only forcing ministerial resignations rather than pursuing prosecutions. Both corruption scandals proved financially costly. Their initial agreements involved inflated tariffs and guarantees to pay even when not operational [64]. This, and the cost of legal battles, increased Tanesco's financial burden: Cooksey calculates that the two plants eventually cost US\$1.5billion [64]. This increased Tanesco's debt to \$250 million by the end of 2015,<sup>21</sup> in turn affecting the delivery of MEM's plans and the trust of more legitimate international investors.

We can again see the influence of Tanzania's fragmented political dynamic on these events. As Section "Political Background: The Ruling CCM Party" established, the slide towards grand corruption and rent seeking had its roots in CCM's history. A loosening of rules separating CCM members from business ventures and the transition to internal CCM and national-level democracy incentivised rent-seeking whilst simultaneously increasing the need for election finance [46]. Moreover, the fragmented nature of the CCM protected such corruption. The

<sup>19</sup> See wider discussion [3].

<sup>20</sup> E.g. Britain's CDC development bank part-financed the Songo-Songo plant; the European Investment Bank and International Development Association lent money for the Ubungo gas plants and Power Africa supported Kinyerezi I & II [59–62]

<sup>21</sup> Despite frequent World Bank bailout loans [68].



distributed nature of power amongst CCM's top cadre meant that President Kikwete was either unable or unwilling to discipline corruption [40]. Equally, Tanzania's degree of authoritarianism meant that there was not an independent judiciary able to stop corruption. Moreover, fragmentation limited the ability to coordinate action on state priorities or hold ministries to account for projects' progress. The main attempt to instil such order was the 'Big Results Now' scheme [44]. In the energy sector, it focused on a small number of projects, primarily the extension to Tanzania's on-shore/near-shore gas pipeline.<sup>22</sup> However, the accountability mechanism it tried to instigate – including performance management contracts – “slipped”, whilst monthly meetings between Ministers and President and strong ministerial targets did not last beyond two years.<sup>23</sup> Ministers' independence meant that enforcement was limited and so the scheme became more performative.

Thus, Kikwete's administration, influenced by high modernism and resource nationalism, planned an ambitious set of energy generation infrastructure projects and actively began implementing them. Despite some notable achievements, most projects went unfulfilled with a fragmented ruling elite preventing joined-up policymaking and cross-government support to de-risk private-sector investment in all but a few corrupt power plants. Thus, officially committed-to policies like the 'standard reform model', were, at best, halting.

### 3.3. Policy under Magufuli

This section demonstrates how a centralisation of power under President Magufuli enabled a radicalisation of longstanding resource nationalist and high modernist development agendas, markedly altering the electricity sector. President Magufuli's lack of previous engagement in CCM's internal factionalism and the absence of a party base gave him far more personal power, which he then used to centralise authority within the party and government [44,48]. Rather than a distributed mode of policymaking spread between powerful ministers and the Presidency, the person of Magufuli was now key. In 2016, the President directly engaged in widespread hiring, firing and enforced job switches for civil servants, cementing greater personal loyalty and ensuring that he could discipline the political elite without facing the wrath of his party [41].<sup>24</sup> This was underlined by the arrest and trial of the ITPL-escrow scandal's principle frontmen in 2017 [64]. Once this centralisation and personalisation of power was achieved within the ruling coalition and government, President Magufuli turned to wider society and the suppression of the opposition. This has included crackdowns on independent newspapers, suppression of meetings, assassination attempts and changes to the constitution to limit parliamentary opposition and government critique [45,49].

During the first years, centralisation generated confusion. The government re-launched a number of dam projects such as the Ruhudji and Rumakali under the banner of the World Bank's "Sustainable Energy for All" scheme,<sup>25</sup> but the reappointed Energy Minister Muhongo maintained that the government's technology prioritisation was first for gas, followed by coal, then hydropower and lastly renewables.<sup>26</sup> Additionally, there was confusion about whether the government's preference was for private sector development of generation, or state ownership and financing of new plants [70].<sup>27</sup> The Ruhudji and Rumakali projects were, for example, listed as IPPs and MEM announcements also

discussed future private-sector projects [70]. In contrast, Magufuli made a speech criticising the history of IPPs and stating that the country needed to rid itself of private producers, particularly the scandalised IPTL [71,72].<sup>28</sup> Under his tenure, the only completed power plant of over 45 MW is Kinyerezi II, with Kinyerezi I's planned extension announced in the 2020 budget. The numerous changes to civil servants, and moreover, the insistence on State House approvals for a wider scope of policies, caused significant delays to decision making, further hampering the ability for private investors to move ahead. By mid-2017 however, a clearer direction was evident. Sacking Muhongo and promoting a relative to head the new Ministry of Energy, Magufuli made the 2100 MW Stiegler's Gorge Dam, remained the Nyerere Dam after Tanzania's independence leader, the flagship electricity project. Moreover, Magufuli firmly rejected an IPP development, closing a number of private-producers including Symbion and Aggreko. Whilst this shift in politics brought some clarity in policy direction, overall installed megawatts have stagnated as Figs. 2 and 3 (below) depict: the completion of the Kinyerezi gas plants did little to raise overall installed generation with private-sector producers coming offline.

How can we explain this? The first answer lies in the way the Magufuli administration rejected international investment. His administration curtailed the influence of Western donors and private capital, discarding the standard reform model which had placed IPPs as the default. Additionally, the Magufuli administration was able to take a hard-line against private capital and international companies, not only in electricity projects but also elsewhere, (e.g. Dangote Cement plant<sup>29</sup> and in mining<sup>30</sup> and petroleum [49,58]). These moves are partly rooted in the principals of resource nationalism and high modernism, which both call for a more state-led development process. Magufuli's radicalisation of these agendas was enabled by the centralisation of political power. Greater ruling-elite cohesion aided decisiveness and meant that rent-seeking, including opportunities offered by international finance, was not needed to appease factions. In theory, foreign investment was supposed to be replaced by tightened government spending controls and enforced taxation [44]. However, the government's finances were stretched thin by the number of mega-infrastructure projects,<sup>31</sup> leaving spiralling debt [as reported by the IMF 73]. Thus, the decision to largely expel the private sector from the electricity system, and reduce donor's engagement, was not compensated by the government, contributing to the stalling of power plant construction.

Additionally, Magufuli's centralisation of power stripped away the influence of technical expertise and independence of civil service agencies. His administration introduced caps and reductions to civil servants salaries, harming the ability of key agencies to compete with the private sector when their salaries were previously competitive [53]. Perhaps more important was the curtailing of agencies' decision making powers, independence and financial autonomy. As Pederson et al. [53] assert, state house involved itself in policymaking on all significant spending decisions and demanded final sign-off on a wide range of policies. For example, Magufuli overruled the utility-regulation agency's<sup>32</sup> formally-independent determination of electricity tariffs in 2017 [53]. This has multiple consequences, one being the erratic nature of policymaking<sup>33</sup>: the Stiegler's Gorge Dam was not understood to be a government priority by donors or civil servants in 2015 and 2016, as proven by external reports [74], ministerial plans [75] and interviews,<sup>34</sup> and yet became the primary power generation project by 2018. This

<sup>22</sup> Interviews, officials, Tanesco, MEM and the President's Delivery Office, 2015–2016 [52].

<sup>23</sup> Ministers didn't like the monthly meetings, feeling they did not respect their position. One official reported a minister saying it “felt like they were queuing for a GP” (Paraphrased, senior civil servants, 2016 & 2018).

<sup>24</sup> Personal observations and collection of news reports 2015–2017.

<sup>25</sup> Actually launched in 2016

<sup>26</sup> ; Interviews with civil servants in MEM and Tanesco, 2015–2016 [69].

<sup>27</sup> Interviews, official from donor organisations, 2015–2016.

<sup>28</sup> Reflecting an often authoritarian approach to the private sector [48].

<sup>29</sup> Stalling its construction for at least four years [63].

<sup>30</sup> E.g. Acacia Mining.

<sup>31</sup> E.g. Central railway project and Dodoma upgrades.

<sup>32</sup> Energy and Water Utility Regulation Agency.

<sup>33</sup> e.g. mining policy [49].

<sup>34</sup> Interviews with donor officials, former ministers and civil servants in MEM and Tanesco, 2015–2016.

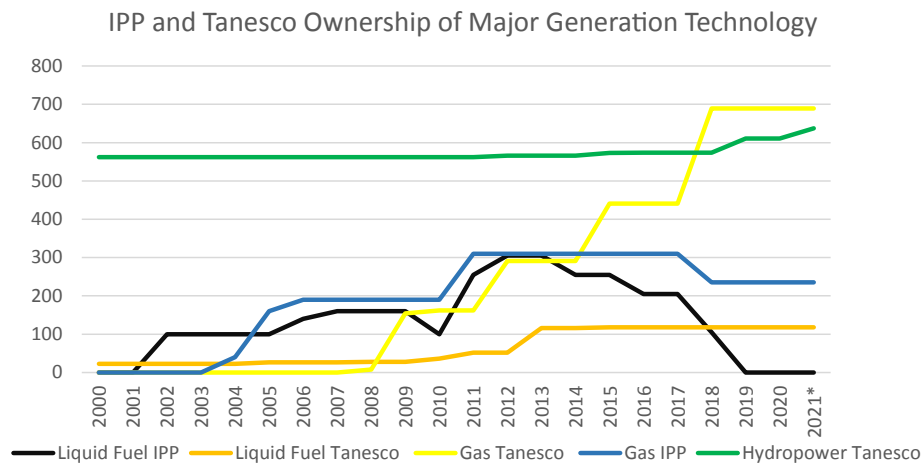


Fig. 3. Demonstrating the Decrease in IPP Ownership under President Magufuli. Compiled by the author using official Tanesco statistics.

decision sparked a number of major concerns. Some of these were technical, including the risk of choosing an inherently bespoke infrastructure with a long construction time. Large dams take longer than comparably-sized fossil fuel, solar and wind plants which consist of readymade modular components. Additionally, the Stiegler's Gorge is located in a particularly remote area. Odebrecht's project report suggested a timeline of around 6 years [76]. This figure is disputable given research [77] recording that in over 90% of cases large dams run over time and budget whilst construction takes on average 8.6 years. Indeed, in contrast to the government's optimistic figures for completion by 2022 at US\$3.6billion, Hartmann [78], using recent comparative dams, finds that the total, excluding socio-environmental mitigation, will be at least US\$7.57billion, rising to US\$9.8billion if a conservative amount of cost-overrun is factored in.

There are also questions over why one large hydropower project is being pursued rather than many, diversified technologies and projects. Tanzania's frequent power crises over the last decade were principally caused by the failure of hydropower dams during years with less rainfall. Given that climate modelling [79,80] predicts an increase in rain variability in the region, the decision to dramatically increase Tanzania's hydropower dependency, through just one dam, appears risky. The planning of at least eight gas plants, eight large dams, three coal plants and two wind-power schemes during President Kikwete's time demonstrates that Tanzania does have large-scale alternative technologies it could combine to meet electricity demand that would also be more climate-proof. Thus, in terms of meeting short and medium term electricity system needs, a costly, climate vulnerable dam with a long build time appears problematic.

There are additional concerns about the dams' socio-environmental impact. The dam is located in the heart of a UNESCO World Heritage Site, the Selous Reserve. The dam's predicted environmental effects mean that UNESCO is likely to strike the Selous from its list.<sup>35</sup> Even if overlooking the dam's environmental effects on the Rufiji River's unique ecosystem, or the economic effects downstream on rich farmland and the country's main fishery, losing the World Heritage Site would be a reputational blow for the large safari tourist industry. A final puzzle has been MEM's implementation choices. The state ploughed ahead with the project without international financing, seemingly in a bid to start construction quickly, and chose Egyptian contractors with no experience of managing the construction of large dams, let alone a mega-dam [82]. Arab Contractors and Elsewedy were chosen over Odebrecht, an experienced international dam builder who had undertaken recent design and

feasibility studies for the project. Again, this choice is puzzling if the desire is a functioning hydropower plant, completed on-time and on-budget.

President Magufuli's centralisation of policymaking and unrivalled position within the party help explain these puzzles. His position at the pinnacle of a pyramidal decision-making and political-power structure, and the accompanying suppression of expertise, led interviewees to report that decisions are difficult, if not impossible, to challenge.<sup>36</sup> Indeed, ministers have threatened to jail critics of Stiegler's Gorge Dam [83]. Magufuli therefore brought clarity by prioritising one project. However, the lack of scrutiny or technical input, as seen in the centralisation of decision-making in the Presidency, appeared to entrench the electricity system's vulnerability to drought whilst stagnating installed capacity at a time of growing energy demand. Consequently, there are significant weaknesses to policymaking when power is concentrated so narrowly in an overwhelmingly dominant ruling coalition.

### 3.4. Contrast in electrification

Unlike the halting progress and stagnation in electricity generation, the newly established Rural Energy Agency (REA) oversaw Tanzania's first mass electrification, increasing grid connections from 10% in 2005 to 32.2% by 2016 [84,85] and 37.7% by 2020 [86], with a rate of 130,000 connections between 2007 and 2013 [70]. This was achieved by extending the national transmission and distribution grids to rural communities, but also by setting up mini-grids around the country, supplied by a mixture of government-owned small thermal plants and privately-developed micro-hydro schemes [5]. REA's ability to achieve relatively rapid electrification was rooted in its isolation from the financial and capability issues hampering other parts of the Tanzanian state. REA, although ultimately answerable to MEM, is organisationally separate and has a stable funding source: As part of its founding Rural Energy Act no.8 of 2005, a Rural Energy Fund was created and managed by a private bank. It collects a levy of up to five percent on IPPs' revenue from electricity sales to the national grid and receives significant contributions from development partners like the World Bank and German KfW and GIZ. The Government of Tanzania has also provided it with healthy annual budgetary contributions.<sup>37</sup> This plentiful revenue liberates REA from the financial troubles of Tanesco, and means that the agency can fulfil its mandate without needing continual buy-in-from a

<sup>35</sup> UNESCO's World Heritage Committee has made a number of statements reiterating the incompatibility of the dam with the site. [81].

<sup>36</sup> Interviews, official from donor organisations (2015–2016), Tanesco civil servants (2016) and a senior party-advisor (2018–2019).

<sup>37</sup> E.g. it was the largest recipient of MEM's budget in 2012.

number of different ministries. Similarly, the support has allowed REA to build capacity, with staff given significant amounts of training and benefiting from a number of seconded consultants and advisors<sup>38</sup> [4]. Staff recruitment has also been strong, with sufficient incentives provided to ensure employment and retention of skilled staff and relatively meritocratic practices.<sup>39</sup>

However, CCM's internal dynamics were as important in enabling REA's performance as budgetary and technical details. Tanesco, for instance, has the same ministerial oversight on-paper and income from electricity sales. Important here is the way in which electrification operates as a direct vote-winner. As analysed by Cuesta-Fernandez [5], the arrival of electricity connections to individual constituents acts as a powerful and immediate demonstration of a commitment to citizen's development and material improvement. Given CCM's base in rural Tanzania, electrification is an important means to maintain voters' support. Electrification's importance also leads to some political manipulation of the planning process (the deciding of which districts are given power first), something exacerbated by fragmentation in the ruling coalition. The increasing competitiveness of the 2010 and 2015 elections reinforced the need to maintain rural voter support and build legitimacy. This underpins the decision to ensure REA's effectiveness, including its budget and bureaucratic independence that allow it to operate according to relatively meritocratic principles. The electoral importance of electrification thus created a rare moment of consensus across the ruling coalition around supporting REA. CCM politics are therefore central to understanding the drivers behind what worked and what did not.<sup>40</sup>

#### 4. Conclusion: the power structure driving policymaking

In conclusion, the Tanzania case demonstrates that the manifestation of political power, its degree of centralisation or fragmentation within the ruling elite, is a key determinant for electricity sector policymaking. Analysing such inter-elite dynamics help explain the weaknesses of policymaking and implementation capability, and the incentives placed on a regime to allow or constrain rent-seeking. This case demonstrates that whilst fragmented regimes contain weaknesses in their ability to implement policy and pursue long-term development, centralised dominant regimes have a weakness from suppressing critique. This demonstrates that achieving goals of reliable and accessible electricity can occur, and face barriers, under a variety of 'political settlements', depending on their precise political economy and history. Therefore, it is crucial to unpack the political economy of inter-elite relations and the manifestation of political power rather than solely focusing on whether a state is authoritarian or democratic, or on formal institutions and the rule of law (the 'good governance' agenda). Analysis of informal structures and relations is equally vital. Consequently, scholars should go beyond 'political will', which Chineke and Ezike [21] treat as an endpoint, and the broad rationales described by Abdul-Salam and Phimister's [25] 'politico-economics' study. Whilst important for understanding Africa's 21st Century electricity sector, the article equally suggests that there are limitations to primarily focusing on democratic institutional reforms [2,9,11] and Gore et al.'s attention to international actors [10].

With this political economy lens, the Tanzania case demonstrates that a fragmented ruling elite will face significant challenges to implementation. President Kikwete (2005–2015) oversaw a fragmented ruling coalition with limited accountability and in which factions competed for rents and power. This had two key implications. The first was to render decision-making and coordinated action across agencies of

the state difficult, stymying policymaking and implementation efforts. The second was to reduce controls on rent-seeking by politico-business groups, partly given that money for campaigning and patronage was key for intra-party and public elections. These characteristics most significantly affected private-sector power plants, given their need for cross-state de-risking guarantees. The exception was for plants providing significant rent-seeking returns, in a small number of state-financed infrastructure projects and in electrification, given the way extending access boosted the legitimacy of the CCM and maintained its electoral support.

Equally, the article demonstrates that a regime with highly centralised political power will face less barriers to pursuing policy agendas. Here, recently deceased President Magufuli's profound centralisation of political and governmental power on himself and presidency enabled a radicalisation of the resource-nationalist approach to high modernist development that eschews the private sector and orientates the government to long-term, state-led infrastructural transformation. Whilst this agenda was not new, the subduing of opposition allowed a more strident pursuit. This led to continued support for electrification and orientation towards one controversial, major dam project. However, this article's analysis reveals that whilst a dominant elite coalition, stemming from its centralised vertical and horizontal power, may enable long-term investment, such strength hides a weakness. The untroubled power of such ruling coalitions allows them to side-line expertise and technical advice, pursuing projects with high short-term social and economic costs and questionable longer-term benefits.

Both manifestations of political power had negative implications for Tanzania's electricity generation, with the first phase producing corrupt power plants that increased the system's cost and the second stagnating installed capacity. Despite the passing of Magufuli, this is unlikely to change quickly. His administration spent the majority of the energy-sector budget on building the foundations of the Stiegler's Gorge Dam that is years from completion. Given the state's spiralling debts, and those of the utility Tanesco, the ability to pursue an alternative energy generation strategy remains limited. Thus, although the system's costs are high and generation supply is yet to increase, this situation seems likely to remain for the medium term. These conclusions contrast with those advocating further adoption of the standard reform model. They demonstrate that a change in rent-seeking occurred, not because of increased accountability or an extension of the market, but because of a shift in the ruling coalitions' power. Moreover, electrification was relatively successful in spite of wider dysfunctionality and the relative absence of the private sector. This complicates the idea embedded in the standard reform model [23,87] that difficult ruling-elite politics can be overcome with devolution and the creation of new 'independent' institutions.<sup>41</sup> One could interpret the Rural Energy Agency as a successful example of this model. However, this article argues that whilst its institutional separation from Tanesco helped the organisation escape the utility's financial troubles, the key to its success was in its sustained, significant levels of funding and political backing which was in turn rooted in the electioneering importance of electrification. Again, this suggests the crucial role of a country's political dynamics to the success or failure of individual energy policies.

#### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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<sup>38</sup> E.g. from Germany's GIZ or funded by the UK's DfID

<sup>39</sup> Interview, Official, GIZ, 2016; Personal communication with reviewers, 2020; [53].

<sup>40</sup> As exemplified by the approach taken in [12].

<sup>41</sup> See North [23].

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