

Design and Assessment of water-energy-food-environment Mega-Systems

The dynamic equilibrium of state effectiveness: the factors eroding and supporting Ghana's 'state within a state' – the Volta River Authority

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FutureDAMS

Working Paper 020

March 2022

ISBN: 978-1-913093-19-8

Cite this paper as: Ayanoore, Ishmael., and Dye, Barnaby Joseph (2022). The dynamic equilibrium of state effectiveness: the factors eroding and supporting Ghana's 'state within a state' – the Volta River Authority. FutureDAMS Working Paper 020. Manchester: The University of Manchester.

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Abstract

This paper explores the underlying political factors shaping the capacity of the Volta River Authority (VRA). The VRA appears to resemble a pocket of effectiveness, retaining a strong degree of expertise and implementation capability, but it suffers from electioneering-focused political pressures. The VRA is therefore hamstrung, and cannot currently meet the definition of a pocket of effectiveness, yet it performs vital roles for the Ghanajan state. Using original empirical fieldwork into the VRA, this paper makes two main contributions. First, it questions a high-performance approach to understanding bureaucratic effectiveness, asserting the need for a more realistic threshold of 'good enough' effectiveness. This builds on the literature on bureaucratic effectiveness, and the importance of muddling through, but applies it to an organisation that must survive politically expedient decision making by the government and its leadership, which has undermined its fiscal position and technical abilities. Second, we argue that wider societal ideas and ideologies have been overlooked as factors shaping organisational performance. We show how historically ingrained public perceptions about VRA's modernist developmental role worked in a path-dependent way, and influenced continued support from politicians and the wider public. In this case study, path dependency is also key in material terms but the present-day flux of VRA's bureaucratic capacity can only be understood if these wider structural factors are placed against the contemporary political incentives at play in Ghana. The fine balance of these factors shapes the conditions that underline VRA's 'good enough' effectiveness, limiting the organisation's operational independence, and its capacity to undertake capital projects, while simultaneously supporting its ability to resist change and maintain a high degree of performance.

Keywords

Electricity, Political Economy, Pockets of Effectiveness, Bureaucracy, Development

Acknowledgements

The authors would like to acknowledge the support of Dr Tom Lavers, who led the conception of the overall political economy work of the FutureDAMS project and provided advice throughout the research and analysis process, commenting on a number of drafts. We would also like to thank Dr Emmanuel Obuobie and Dr Deborah Darko for their advice and help in securing interviews. This project was financed by the FutureDAMS research consortium, a Global Challenges Research Fund (GCRF) of UKRI.

1 Introduction

The Volta River Authority (VRA) is one of Ghana's best known institutions. The Authority implemented the country's largest infrastructure scheme, the Volta River Project, and manages Ghana's biggest power plant, the Akosombo Hydropower Dam, which is also a national tourist attraction. The VRA is regarded as one of the most prestigious parts of the Ghanaian state, providing key electricity-sector planning, project implementation and operational functions, while also regularly featuring as a popular destination for tertiary-level graduates and national service interns. Simultaneously, however, VRA suffers from a number of underlying challenges shaped by Ghana's party-political system. Principally, these concern fiscal issues, preventing the Authority from purchasing fuel for electricity generation on a regular basis, and detrimental political interference in decision making, such as decisions to curtail VRA's fiscal power and its policy-making scope. The VRA thus represents a bureaucratic contradiction, retaining a strong degree of expertise, displaying resistance to patronage and implementation capability, while also suffering from competitive electioneering-focused political pressures that have detrimentally impacted its budget and electricity-sector functions.

This contradiction between the VRA's apparent effectiveness and its simultaneous serious shortcomings presents a conundrum to the current literature on state capacity and pockets of effectiveness. Scholarship in this field recognises the state as uneven, an amalgamation of different units and relationships, capable of producing a pocket or niche of effectiveness within either an entire organisation or a mere ministerial team. The literature has also largely moved from treating such enclaves as isolated islands, as apolitical realms of rational decision making separated from the state and wider politics (Evans, 1995), to a more embedded approach. As recent works by Hickey (2019), Mohan (2019) and Abdulai and Mohan (2019) demonstrate, pockets of effectiveness, when they exist, are contingent on a broader political context, particularly the power relations of the ruling elite. Organisations, and especially their leaders, must muddle through difficult political battles to defend their interests and capabilities. Although describing the difficulties bureaucracies must deal with, the current literature does not adequately explain cases like the VRA that are further down the spectrum of imperfect competence. The Authority plays a vital developmental role in Ghana, and maintains key expertise yet, on many of the metrics defining pockets of effectiveness, it fails. It has politically appointed leaders who have, at times, undermined the organisation, pursued corrupt initiatives and failed to prevent patronage appointments, creating a fiscal position that undermines the Authority's ability to perform mandated tasks.

The VRA case also contradicts the standard prescriptions for competitive, clientelist-type states. Heterodox development theorists have used the experience of late 20th-century developmental states to posit the political factors supporting the generation of effectiveness. They argue that strongly centralised states can insulate the civil service from changing political agendas and societal pressures which might otherwise selectively benefit particular groups and hand out employment to political affiliates. Such states have also been able to institute Weberian norms, adopt meritocratic hiring practices and discipline individuals not performing well. Recent pockets-of-effectiveness research by Hickey (2019), Bukenya and Hickey (2019) and Abdulai and Mohan (2019) have built on this political-economy work to account for the success, failure and longevity of organisations' capacity. They show that competitive and clientelist political settlements, such as in Ghana, can undermine the creation and maintenance of high-performing organisations, making their existence fleeting. Short-term, often survivalist, political priorities cause major contestation over policy and resources. These, combined with state bureaucrats bypassing formal rules and laws, tend to subvert organisations' leadership, their budget and *de-facto* or *de-jure* policy-making power. Thus,

competitive, clientelist societies with frequent changes in political leadership tend to undermine the sustained political sponsorship organisations need to build or maintain capability. Abdulai (2021), for example, finds that Ghana's pockets of effectiveness have struggled to maintain their performance over time under such political conditions. The VRA, by contrast, has maintained a position of relatively stable internal capability and a degree of independence, despite this wider context of subverted bureaucratic pockets of effectiveness in Ghana.

In examining this puzzle, this paper makes two arguments. The first is to assert the need for a greater focus on what we term 'good enough' effectiveness, referencing Grindle's (2004) call for a more pragmatic, strategic approach to governance reform. Building on Hickey (2019), Bukenya and Hickey (2019) and Abdulai and Mohan (2019), we should have a greater appreciation of those organisations capable of muddling through and maintaining expertise and implementation capability, but should also study this lower down the performance spectrum. Achieving development objectives, particularly within developing country contexts, often depends on such imperfect effectiveness, on partially hamstrung governmental organisations that can still generate results in some areas while failing in others. Building on the existing literature, the VRA also demonstrates the dynamism of this state capacity in action, showing the flux of supporting and degrading influences that continually reform the Authority's decision-making power, independence and capacity.

Our second central contribution concerns the role of ideas and social status. Sociological analyses of pockets of effectiveness, like that of McDowell (2020), who uses Ghanaian case studies, emphasise the importance of internal organisational sociology, including identity, perceived status and beliefs, to sustaining a work ethic. We complement such sociological explanations, and those relying on material power, by arguing that wider public perceptions of an organisation are equally vital. In the VRA's case, a historically grounded imbuing of the organisation as powerful and competent, and as a flagship of Ghana's high modernist development ambitions have helped to maintain a degree of reverence towards the institution, supporting political respect, independence and recruitment. Wider norms and beliefs are therefore worthy of attention as important influences on the bureaucracy's performance.

We now turn to analyse the literature on pockets of effectiveness and the interplay between bureaucracies and development. This starts with the literature on pockets of effectiveness and the underlying political factors generating such capacity. We then outline the critiques and new iterations of the pockets-of-effectiveness literature before launching into an application of this to Ghana. The empirical case of the VRA is then detailed, followed by an analysis and presentation of our key conclusions around path dependency, ideology and the maintenance of 'good enough' effectiveness under short-termist, election-focused and clientelist politics.

2 Understanding bureaucratic capacity

There is a growing academic interest in the role of bureaucracies in generating development. This is partly rooted in the increasing attention paid to market-economic reforms from the 1980s, the so-called structural adjustment programmes, and in later recognition in the 1990s that the implementation of these reforms, and the fulfilment of development agendas, relied on the state's capacity. Simultaneously, heterodox scholars of development have highlighted the successes of a number of East Asian countries – including Korea, Taiwan and Singapore – and the crucial role of centralised, relatively authoritarian states in their success. Evans' (1995) work gained particular prominence, as he argued that state effectiveness is increased when power is significantly delegated to a bureaucracy, allowing it to act independently according to technocratic advice rather than

political priorities. Ideally, such independence supports so-called 'Weberian characteristics', typically referring to meritocratic practices in recruitment and promotion, underpinned by a rational—legal administration. Other characteristics include the importance of a culture of achievement, with a sense of pride underpinning ambitions for higher civic purpose. Independence from politics is understood to create a supportive environment and prevent its opposite: clientelist practices whereby patronage dominates appointments and decision making.

However, achieving ideal bureaucratic practices across an entire state is a near impossibility in any global context, and perhaps particularly so in developing countries, where there tend to be less powerful formal legal governance and higher degrees of patrimonialism. This claim links closely to Migdal's (2001) State-in-Society approach, and Hagmann and Péclard's (2010) Negotiating Statehood framework, where they understand the state as a network, not as a monolithic entity, with different organisations and actors with distinct interests, ideas and beliefs negotiating political power and bureaucratic functioning. Grindle (2012) and Roll (2014) developed this insight into the 'pockets—of-effectiveness' concept, where smaller units of the state can defy wider patronage norms and dysfunction to establish high performance, even within more competitive and clientelist contexts. A classic example might be Nigeria's state oil company, but also Ghana's Cocoa Board (Whitfield, 2018) and, for specific periods, its revenue collection authority (Abdulai & Mohan, 2019), all three of which serve important political functions and have enjoyed some degree of independence, expertise and capability to deliver policy and mobilise revenue for the ruling elite. McDowell takes the pockets-of-effectiveness concept further to argue that niches of effectiveness exist below the organisational/agency level, and can be vital to the state's overall performance.

While increasingly mainstream as a concept, there are growing debates about how these pockets should be defined. Earlier literature, and particularly the work of Evans, emphasised the idea of organisational islands, separated from surrounding politics. Additionally, much of the mainstream good-governance literature prescribes autonomy and separation from the state to limit the influence of politics, with the latter assumed to lead to patronage, wasteful spending and corruption (North, 1990; Jeffries, 1993). Informed by principal-agent theory, bureaucracies in these authors' view should be governed by strict decision-making controls to limit patronage activities and corruption. These prescriptions assume that rational policy making is possible, that the state's implementation capabilities and civil service can, at least in certain pockets, be separated from politics. However, these idealised conceptions of neatly bounded rational government have frequently failed to capture the messiness of intra-state relations, the delegation of political decision-making power and the dynamic factors remaking the politics-bureaucracy interface. As Chemouni and Dye (2020) argue. the emphasis on autonomy and independence misses the necessary intertwining of expertise with legitimate political ambitions. This relationship is better captured by Svara's (2001) model, which refutes the idea of a strict dichotomy between civil servants and politicians as a myth, and conversely understands a successful relationship involving input from both parties in the creation and implementation of policy goals (Chemouni & Dye, 2020). Moreover, Grindle (2012) and others (Abdulai & Mohan, 2019; Bukenya & Hickey, 2019) argue that degrees of patronage, including through non-meritocratic recruitment, can coexist with high-capacity organisations and short-termist motivations to maintain political power. The classic East Asian developmental states, for example, have retained degrees of patronage alongside growing meritocratic recruitment and promotion (You, 2017). This is not to argue that patronage is positive, but rather that its existence is not disqualifying.

These arguments elicit questions about how such pockets of effectiveness emerge and are maintained. The literature here is divided between those emphasising the importance of the broader political economy and those focusing on organisations' internal sociology. The recent pockets-of-

effectiveness project of the University of Manchester's Centre for Effective States and Inclusive Development has furthered the conceptualisation of such effective niches as politically embedded (Hickey, 2019; Abdulai & Mohan, 2019). Its approach draws on the political settlements framework promulgated by Mushtaq Khan (2010, 2018). Khan posits that a narrow distribution of power among a cohesive ruling elite (ie one without strong internal contestation) facing little external societal threat to its dominance, is better able to forge broad agreement over a long-term development vision and can more easily direct resources towards long-term goals. These could include efforts to support an increase in bureaucratic capacity and pursuit of Weberian ideals. Theoretically, this would enable the concentration of resources in particular agencies and the shielding of bureaucracies from other political and societal pressures acting against meritocratic practices and expert decision making. This does not mean that pockets of effectiveness are incompatible with politically contested and competitive, clientelist political-economy contexts. Rather, it suggests that such conditions would undermine the longevity of organisations' effectiveness and the creation of new high-capacity agencies.

An alternative approach emphasises organisations' internal sociology as the key starting point. McDowell's (2020) recent monograph is prominent here, with her analysis emphasising the vital role of performance culture, hard work and pride in members' differentiated status. Leaders are important in this process, but she draws particular attention to the importance of their discretion over hiring, firing,¹ promotion and discipline. The argument here is similar to the political-settlement-inspired research on pockets of effectiveness above that emphasises the importance of 'techno-pols': expert technicians who take on leadership roles and fight political struggles on behalf of the bureaucracy (Bukenya & Hickey, 2019; Hickey, 2019; Abdulai, 2021; Abdulai & Hickey, 2016). However, McDowell (2020) argues that effectiveness can emerge without this. Despite the importance of political support in her pockets-of-effectiveness case study, McDowell also shows that friendly, lessactive support, or outright indifference from political leaders can also generate enabling conditions. Such conditions give discretion to civil servants, who can use it to cultivate an organisational esprit de corps. These differences notwithstanding, both perspectives share a complex, blurred conceptualisation of the relationship between civil servants and politicians, and of the embeddedness of any niche of effectiveness in a broader political economy. Our paper shares this grounding. Furthermore, rather than the earlier focus on excellence and the highest level of performance, as characterised by Evans (1995), it builds on recent work cited above showing that, to survive, pockets of effectiveness must often enter trade-offs that hamper their effectiveness in some ways. However, with VRA, we are looking at an institutional case further down the spectrum of effectiveness. Particularly with its fiscal situation, the analysis below shows how external intervention has reduced VRA's ability to perform in areas such as system reliability and maintenance, while the Authority nevertheless maintains capability in important functions such as planning. Thus, the paper more explicitly asserts the value of 'good enough' capacity and an appreciation of the imperfect.

Our analysis considers what the threshold for 'good enough' and for competent imperfection is, and how they are produced and maintained. The answer to the first question draws on Grindle's definition of 'good enough governance' (Grindle, 2004, 2017). She uses the term to refer to governance that does not cross the threshold of becoming detrimental to achieving development and poverty reduction. Similarly, we define 'good enough' as the level whereby an organisation has the competence to plan and implement policy in some areas, performing key public duties, but is

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¹ Both in the formal sense, or given difficulties and civil servant protection, this can involve moving an individual out of a specific unit.

simultaneously hamstrung in others. The organisation should contain some degree of the features associated with pockets of effectiveness, whether in staffing, recruitment practices, expertise or independence to conduct technical assessments and critiques. However, it may not be able to achieve long-term development objectives and may contribute to economic problems, especially regarding the state's debt. Thus, 'good enough' organisations will simultaneously be significantly compromised by degrees of patronage, outside societal pressure and/or significant political intervention, but will contain areas of competence, and will perform some key development-policy tasks.

Our second central argument is to emphasise the importance of wider societal ideologies, beliefs and perceptions in generating bureaucratic capability. This builds on Weber's original argument about the importance of an internal self-regard, an *esprit de corps*, a collegial culture focused on achieving organisational high performance. McDonnell broadens this emphasis on sociology, and the way it generates an internally recognised status and badge of honour that is crucial to explaining high-capacity teams within the Ghanaian state and their reproduction among new recruits. However, much of the literature (e.g. Roll, 2014) avoids going further to treat ideas and ideology as a serious influence on bureaucratic effectiveness and rather focuses exclusively on strategic interests as significant. Whitfield's (2018) insightful study of Ghana's Cocoa Board, for example, explains the organisation's trajectory through contestations and shifts in political power and the electoral interests of the elite. Others using the political settlement framework have gone further. Bukenya and Hickey (2019), and Hickey (2019) discuss the role of shared ideas among the elite informing pockets of effectiveness. They analyse the influence of ideas about who should own new oil discoveries, and how revenue should be managed, in determining decisions over what institutions should be created and their commitment to building capacity.

We extend this point by demonstrating that ideologies about development also matter. They shape the justifications for organisations and for practices, as well as an organisation's public status. In the VRA's case, we find the Authority imbued with modernist ideologies about development, implemented by a technical elite through top-down, large-scale technological transformation reminiscent of Scott's (1998) high modernism. This has bolstered VRA's prominent status within Ghana, whether in the view of state elites or of the general public, helping to reinforce its recruitment capability, allocation of resources and decision-making power. Thus, analysis of wider societal ideas, cultural standing and status, and not just of an organisation's internal sociology, are important factors shaping bureaucracies and their performance. In this paper's VRA case, ideology's importance works partly through path dependency. The term refers to how "initial moves in one direction elicit further moves in that same direction" (Kay, 2005, p 553). Typically, it involves three specific mechanisms. The first uses an economic metaphor, whereby significant sunk costs make continuing along a policy path more probable: a completed infrastructure project, for instance, is likely to be accepted and used because it exits (Beyer & Wielgohs, 2001; Arrow, 2000). Similarly, the second mechanism argues that initial investments create continuity because they cause returns on that investment (Pierson, 2000). The third mechanism concerns the influence of historically established interest groups, particularly civil servants in reputable agencies, in influencing continuity (Arrow, 2000; Pierson, 2000). Alongside these important endowed material resources and legal powers, we argue that ideology also works in a path-dependent way. Status, and association with current and future development can be historically established and passed on in the popular imagination, supporting an organisation's political backing, resources, employment attractiveness and esprit de corps.

We now turn to examine the political economy of Ghana and the way it shapes the country's bureaucracy, before detailing the VRA's history and its capacity. In doing so, we adopt the premise that bureaucratic capacity is dynamic. McDowell (2020, p 20) describes this conceptual foundation, with her approach "emphasising the dynamic tension of entanglement, of being embedded-yet-distinct, which underscores how distinctiveness is an active and ongoing accomplishment, rather than a given or natural endowment of the topography, as implied by the term island". Indeed, this point recalls earlier attention to policies' evolution and internal and external contestation (Thomas & Grindle, 1990; Brinkerhoff, 1996), an approach asserting a non-linear process of policymaking (Brinkerhoff, 1996). Our conceptualisation of the history, and the supportive and dismantling tendencies behind policy effectiveness contributes to this emphasis on dynamism, demonstrating the contestation bureaucratic agencies face.

3 Ghana – the interaction of party politics with the bureaucracy

Ghana's politics is marked by its highly competitive nature, a feature that drives short-termist election-focused policy making and clientelism (Whitfield, 2011). This competition has historic roots, with the country lacking a dominant precolonial state or ethnic group: Ghana is the 12th most diverse country globally (McDonnell, 2016), with the largest linguistic cultural group (at 43% population), the Akan, split (McDonnell, 2017). Largely, these divides have tended to form around two major political traditions. One was initially personified by independence leaders Danguah and Busia and is now led by the New Patriotic Party (NPP), whose key constituencies lie in the Akan group and the Asante region. The NPP is somewhat conservative and supportive of the chieftaincies. The second tradition was pioneered by the inaugural President Kwame Nkrumah, and reformed by President Jerry Rawlings and the National Democratic Congress (NDC), albeit in a more populist guise. Both Nkrumah (and Rawlings (1979, 1981–2000²) presided over periods of one-party dominant rule, with considerable power concentrated in the Presidency enabling a push for modernisation plans, industrial policy and reforms. However, these periods were short-lived, and since the return to multiparty democracy in 1992, both presidential and parliamentary elections have been keenly contested. This also makes elections significantly expensive for both parliamentary and presidential candidates (CDD & WFD, 2018; Whitfield, 2018).3

The competition between these two dominant ruling groups has had a number of longstanding influences on the structure of the state, the distribution of decision-making power and policy-making processes. The concentration of power within the executive emerges as a key feature, where the President and ministers deploy their strong control over decision making to ensure electorally beneficial policy making. This trend, though having roots in the Nkrumah era, became entrenched within Rawlings' reign, with almost all key positions in government filled by people dependent on his support (Nugent, 1999). This supreme power of the Presidency remains in place.⁴ In addition to appointing ministers, the president chooses the boards and heads of state agencies and companies.⁵ Key state agencies, including the VRA, are therefore directly accountable to the Presidency rather than to the relevant line ministries.⁶ This is demonstrated in the swiftness with which the boards and leadership of supposedly independent government organisations are replaced after an electoral transition, particularly for agencies handling significant volumes of finance, or with

² Rawlings was the elected President between 1992 and 2000.

³ For example, spending on advertising rose from US\$30 million in 2004 to \$100 million in 2008.

⁴ President Atta Mills (2008–12) tried to change this, with a commission reporting on how to reduce the Presidency's power, but his death in office spelled the end for this process.

⁵ Twenty Interviewees across the Centre for Democratic Development, University of Ghana, Ministry of Energy, VRA, MIDA, GIZ, JICA, MCC and World Bank, 2018–20.

⁶ Interviews, researcher and senior World Bank officials, 2019–20.

direct influence over the electorate, such as the electricity distribution company, the Electricity Company of Ghana (ECG) and tariff-setting Public Utilities Regulatory Commission (PURC).⁷ The short-term electoral focus of Ghana's political system thus undermines the independence of public institutions, with both *de jure* and *de facto* governance practices aligning civil servants with political interests.

The short-termist focus of Ghana's democracy also negatively affects ministry and governmentagency budgets. Rent seeking is also widespread, typically involving the government handing out contracts to allied companies who can then support politicians' personal wealth and campaign finance. A recent example concerned the Ameri power plant, with connections to the president's family, but this practice has been more widely studied with regard to local content development in the oil and gas sector (Ayanoore & Hickey, 2021). Additionally, governments tend to provide universal giveaways as part of electioneering strategies and to conform to geographic patterns of spending calculated to maintain or bolster support of Ghana's strongly regional voter base. Both the NDC and NPP retain strongly dominant areas (eg Volta versus Asante regions, respectively) and compete over swing regions (eg Greater Accra and Central). The state's budget – and that of specific policy programmes – is typically filtered through this geographical electoral lens, as exemplified by quantitative analysis of the spending variations in electrification (Briggs, 2012; Cuesta-Fernández, 2018) and education (Abdulai & Hickey, 2016) under the two parties. President Rawlings particularly accelerated this with his campaign vision of modernity, involving the extension of roads and electricity to his electorally strong rural areas (Nugent, 1999). More widely, politicians are consistently pressured to maintain populist spending policies, such as subsidies for fertiliser and low tariffs, even if – as in the latter case – they are below the system's cost, as is the case for electricity (Dye, 2020). Moreover, money planned for spending on specific policy areas is frequently diverted. A recent example is the spending on the NPP's Free High School policy, largely through a specific fund generated by petroleum resources, and earmarked for capital projects in a variety of key sectors (Fusheini et al, 2017). A further cost pressure stems from handing out jobs to party foot-soldiers and cronies, either through employment in public schemes such as the Youth Entrepreneurship and Employment Programme (Whitfield, 2018), or by directly increasing the payroll of agencies, with implications for the bloating that has characterised bodies such as the ECG. The budgets of ministries and state agencies are therefore squeezed on multiple fronts.

A number of academics have argued that overall, Ghana's short-termist political system significantly undermines the performance of the state (Abdulai & Crawford, 2010). Brierley (2020), for example, notes that increased political oversight of civil servants, rather than leading to increased accountability as posited by some theorists, serves political ends in Ghana. Politicians push civil servants to increase rent extraction for the state, but end up diverting this money towards electoral objectives. In contrast to a meritocratic system, civil servants' progress is frequently influenced by political parties (Brierly, 2020. This is partially echoed by Abdulai and Crawford (2010), who find widespread corruption and capacity gaps, and McDonnell (2017; 2020), who reports that many civil servants have an additional job, with implications for a weak performance culture. This partly stems from the lack of money to pay sufficient wages but also from a weak work-ethic culture among many parts of the civil service, something rooted in a lack of meaningfully delegated decision-making power or budgets to support performance. Both these combine to undermine meritocratic recruitment and the prestige of government work. Altogether, Ghana meets many of the predictions associated with the character of a competitive, fractured, and clientelist state. Pressures to win elections, to keep warring factions onside, and to build up sufficient campaign finance generates rent seeking,

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⁷ Others, such as the Energy Commission, have more consistent leadership.

short-termist policy making and strong executive control, which in turn undermine the work culture, budget and technical influence of the country's bureaucracy.

However, McDonnell (2017; 2020), in line with her 'Patchwork Leviathan' thesis, argues that this short-termism is not uniform across the state and that specific units, departments and agencies retain important Weberian characteristics. Her central example is the budget office of the Ministry of Finance, with a strong work ethic and pride among its staff contrasting with the rest of the ministry and able to persist over time. Such effectiveness appears to have been more widespread under Rawlings's one-party state; Whitfield (2018) describes this era's raft of high-achieving techno-polls running key state agencies focused on industrialisation and development. The transition to democracy and competitive elections gradually pushed these individuals out as pressure to force through side payments and kickbacks increased, but this does underline the variation in effectiveness over time. Additionally, there are examples of effective state agencies, such as the Cocoa Board, which manages the purchasing and marketing of cocoa, one of Ghana's major exports. Both political parties are strongly incentivised to support its narrow role in collecting crucial finance for the government, in extracting products from farmers and in increasing cocoa farming productivity. Narrow support for the Cocoa Board therefore exists, although it is confined to the organisation's ability to raise revenue, not to upgrading the sector's position in global value chains (Whitfield, 2018).

A complex, varied pattern can be seen in the oil sector, where recent works find significant operational disruptions within the Ghana National Petroleum Company (GNPC). GNPC's capacity has both thrived and ebbed following its establishment by the Rawlings regime in 1983, despite strong incentives to foster effectiveness and increase state revenues (Asante et al, 2021). Tsatsu Tsikata, a close ally of Rawlings, pioneered the Corporation's operations with a statist agenda to gain control over oil, using his political connections to build GNPC into a relatively independent national oil company with a cadre of capable technocrats (Mohan et al. 2018). However, the NPP directly targeted and dismantled these close links between the Provisional National Defence Council⁸ (PNDC)/NDC and GNPC upon assuming power in 2001, citing the corporation's statist character as responsible for the unsuccessful exploratory attempts under Tsikata, as a result of limited foreign investments. The party drastically downsized GNPC as part of a political calculus to rid the corporation of NDC appointees, which included jailing Tsikata for causing financial loss to the state, despite these moves undermining the capacity GNPC had built over the years (Mohan et al, 2018). Upon returning to power in 2009, however, the NDC reversed the NPP's restructuring plans, reinvesting in GNPC's capacity to play a leading role in negotiations with international oil companies (Hickey et al, 2015). This has remained in place, with the Corporation regarded as a relatively 'efficient agency', as reflected in its increased equity participation and in its total assets since the commencement of oil production in 2010.

The discovery of oil simultaneously increased GNPC's precarity, however. The discovery meant that the corporation has major potential to generate rents and it has therefore faced increasing capture by top politicians. The president unilaterally appoints the Corporation's top management and members of the governing board, including considerable numbers of middle to junior-level positions based on partisan political considerations (Asante et al, 2021). This, coupled with the regular purging of perceived political appointees, undermines the corporation's bureaucratic capacity and is "highly disruptive" to its plans (African Natural Resources Centre, 2019). A major challenge of political interference is that GNPC struggles to finance its own budget, as a result of its resources increasingly

⁸ The forerunner to the NDC

being expended on so-called 'quasi-fiscal expenditures', the diversion of funds towards other government spending upon request by the finance minister (Asante et al, 2021). This undermines the Corporation's capitalisation capacity, and means it relies on loans and cash reserves earmarked for key projects to fund important administrative and operational expenses. Overall, GNPC remains central to oil production in Ghana, progressively investing in its capacity and exploration remit. However, political interference continues to undermine its independence and power, including its ability to plan for the long term (PIAC, 2020). This stands in contrast to other countries' establishment of pockets of effectiveness in the oil sector in spite of arguably worse competitive, clientelist norms – Nigeria being perhaps the premier exemplar.

In sum, there is evidence that parts of the state, within particular narrow remits, are high performing. However, Ghana's 21st-century political context contains many drivers undermining the civil service's capacity, and the establishment of new pockets of effectiveness, even in key strategic areas such as the governance of oil. The above analysis primarily focuses on strategic interests to explain this pattern, especially those related to short-term election strategies, and on the concentration of political power and what it enables. Ideas feature less, and ideology is essentially absent. How does the VRA fit into this picture? It was established during an earlier period of post-independence relative unity as a bureaucratic enclave but has suffered from government interventions and its break-up into different utilities. The following section analyses the VRA. We first detail its history and its founding, then turn to our main focus of explaining the VRA's 21st-century performance.

4 VRA, founding and history, 1961-2000

The Volta River Project is arguably the most significant single legacy of President Kwame Nkrumah, one of Ghana's independence leaders. The project was the key component of Nkrumah's development plan, consisting of a modernisation mission that was supposed to leapfrog the country into a transformative future through the construction of the Akosombo Dam and the Volta Lake, and a large-scale spatial reorganisation (Miescher, 2022). Nkrumah took direct inspiration from the American dam-building modernisation model adopted by the Bureau of Reclamation and the Tennessee Valley Authority (TVA) (Hoag, 2013). The model espoused dams as capable of generating a totalising modernising transformation underpinned by the reordering of society and the environment along scientific lines through the technologies of electrification, irrigation and industrial development. The TVA founders were especially zealous in proclaiming dam infrastructure as the bedrock of total societal transformation, modernising backward smallholder farming communities with urban living, electricity, planned large-sale agriculture and industrialisation (Klingensmith, 2007). The TVA and Bureau directly supported the Volta project with technical advice, including visits from key officials and ministers from both sides. The VRA thus emerged as a TVA-style agency to lead the Volta River Project (Miescher, 2014b), with a wide-ranging mission to transform and manage the Volta River valley, Akosombo Dam and electricity grid (Klingensmith, 2007).

Miescher's (2014a) history of the project recounts the steps taken to realise this vision, including the creation of a state-of-the-art resource centre and library on river-basin planning and dam development. Nkrumah himself initially headed the VRA, overseeing a technocratic recruitment drive. Efforts to secure qualified staff went beyond wages. As with other hydroelectric dam agencies, the VRA established its own departments for staff welfare, including schools, a hospital and accommodation. To support its financial power, the VRA directly collected revenue from international sales to neighbouring countries and from Volta Aluminium Company Ltd (Valco), the aluminium smelting plant that was the lynchpin of the Volta industrialisation plan. Overall, this independent

revenue and institutional independence shaped a perception of the VRA as a state within a state, an organisation unto itself.

This reputation enhances the VRA's public status. The Akosombo Dam is a national symbol, stamped on bank notes, and Ghana's largest power plant. The dam rapidly became a major tourist destination, even while under construction (Hoag, 2013), and now attracts about 70,000 visitors a year (Miescher, 2014b). Moreover, VRA's status has been enhanced, with the Authority overseeing the technical planning and assessments for additional hydropower dams at Kpong and Bui until the NPP government established the Bui Power Authority (BPA) to operate the latter. This action does not appear to have been a slight to the VRA, however, with the dam's key planners stating that BPA's creation stemmed from conditions over its funding by the Chinese government, and revenue management for loan repayment, rather than a calculus to reduce VRA's influence over hydroelectric generation.9 Indeed, VRA staff constituted the majority of BPA's initial leadership and trained its officials. The Authority continues to lead hydropower planning and construction in Ghana, as evidenced by the under-construction Pwalugu Dam, which was planned in detail for a decade. VRA's expertise in electricity planning and project management meant that it was also turned to in the 1990s to build Ghana's first thermal power plants, and currently owns five oil and gas plants. 11 Thus, despite the recent boom in private power producers (Dye, 2020), VRA remains Ghana's primary electricity generator. The Authority also plays a key role in electrification, managing the distribution grid in Ghana's Northern regions through a subsidiary, the Northern Electricity Distribution Company (NEDCo). The VRA's size and revenue meant that it was entrusted to subsidise the cost of electrifying this more sparsely populated area. Electrification became a key electoral issue in the 1980s under President Rawlings. Rawlings used the electrification of towns and rural communities in northern Ghana as an important electoral mobilisation mechanism, helping him to cement his party's enduring popularity in these areas. Overall, VRA's prominence in the planning and delivery of major development projects has made it near indispensable to successive governments for electricity generation and the country's electrification mission. We now turn to this article's main focus - the VRA's effectiveness in the 21st century.

5 VRA under the Fourth Republic: gradual erosion or resilience?

We now turn to examine how this state agency survived the transition to Ghana's democratic Fourth Republic. Focusing on the period 2001 to the present day, we first analyse key features of the VRA and its degree of merit-based practices, its independence in technical decision making and its influence over sectoral policy making and work culture. We demonstrate how these findings are rooted in VRA's history and embedded societal perceptions. However, we also demonstrate that, throughout the past decade, VRA has been undermined and has had to muddle through competing sets of short-termist policy making by governments focused on individual and party-political power. The result is a considerable degree of retained competences, but simultaneous dramatic fiscal challenges.

5.1 Meritocratic practices

In terms of recruitment and internal appointments, VRA largely follows meritocratic practices. Interviews and survey data reveal that the organisation retains a high level of control over who is employed, with an approach targeting highly qualified and technical persons (Table 1). Over 90% of

⁹ Interviews, senior officials, Energy Commission and VRA, 2020.

¹⁰ Interviews, senior officials, VRA, 2020.

¹¹ Namely TAPCO (T1), TICO (T2), TT1PP, TT2PP and KTPP.

the staff surveyed from across the Authority's departments had a master's degree in a range of fields, including 'electrical engineering and renewable energy systems', 'energy justice and environmental sustainability' and 'energy and power systems management'. This is possible to maintain given the high demand for VRA jobs. Working for the Authority is regarded as among the best careers to have, something rooted in its autonomy over remuneration and allowances. Both core and administrative staff are paid well relative to typical public sector workers. 12 VRA also uses performance incentives, conducts regular capacity building and makes flexible loan schemes available to staff, as well as providing schools, housing, hospitals and medical insurance extending to immediate family members.¹³ An active VRA union protects these benefits. Promotion is also reported to be meritocratic, often based on demonstrable staff performance and commitment to capacity development.¹⁴ Despite claims of some instances of political influence in our study, such appointments are not overt and those within VRA suspect it is most likely confined to the top managerial level.¹⁵ Even where political influence is levied, candidates are generally considered competent.¹⁶ Although junior-level employment is sometimes determined by close connection to a politician or senior member within VRA, this practice does not match up to the level of cronyism associated with recruitment within the broader public sector, and is not reported to affect performance.¹⁷

Table 1: Factors influencing recruitment of entry-level positions in VRA

		Rank from 1 –not important to 5 –very important					
		1	2	3	4	5	Total
1	Recruitment exam				2	118	120
2	2 Technical competence			1	11	108	120
3	Educational qualifications				10	110	120
4	Professional experience		6	9	41	64	120
5	Political party affiliation	93	10	10	5	2	120
6	Identity (ethnicity, religion)	111	8	1			120
7	Identity (gender)	112	2	2	4		120
8	Social connections (eg family, school, etc)	104	10	5	1		120

Training, expertise and organisational culture

Alongside these meritocratic practices, underpinned by financial incentives, the VRA commits to internal training. At junior levels, staff receive training from the VRA Academy, including field training from the more senior and experienced staff. Most operational and senior staff have postgraduate degrees, but their skills are also consolidated and built routinely through on-the-job and international

¹² Interview, senior official, Energy Commission, 2020.

¹³ Interviews, senior official, VRA, 2020.

¹⁴ Interviews, senior official, VRA, 2020.

¹⁵ Interviews, senior official, VRA, 2020.

¹⁶ Interviews, senior and junior officials, VRA, 2019–21.

¹⁷ Interviews, senior and junior officials, VRA, 2019–21.

training, alongside participation in conferences and workshops. Funding support for capacity building by international donor agencies such as the World Bank, African Development Bank, Deutsche Gesellschaft für Internationale Zusammenarbeit and the Japan International Cooperation Agency have helped to improve the expertise of VRA engineers in building a resilient energy system, including integrating mini-grids and renewable energy technologies. These training experiences support VRA's expertise in technical—economic models of power-supply planning. The VRA conducts water and power system modelling using internationally recognised programmes, including static and dynamic analyses aimed at ensuring power-system reliability, which are then shared with Ghana's other major utilities, the transmission firm GRIDCo and the distributor in the nation's South, ECG. Modelling also supports the Authority's project execution capability. Unsurprisingly, then, VRA has been the key organisation entrusted with implementing diversification to thermal electricity generation, solar power and new dams.²⁰

Notwithstanding the important relationship between these material incentives and the staff competences within VRA's bureaucracy, both senior and junior staff emphasise the role of the Authority's organisational culture in ensuring meritocratic practices, with a focus on training and capability. Interviewees noted that successive CEOs and unit heads have upheld the notion of VRA as a key conduit for development in Ghana and, in so doing, reinforced the Authority's organisational culture of professionalism, work ethic and commitment to delivery.²¹ This echoes McDonnell's (2017; 2020) findings about other parts of Ghana's high-performing civil service teams, where a strong organisational culture has been key to the performance and longevity of capacity.

5.2 Instances of and resistance to corruption

The VRA predominantly use petitions and public discourse to fight political interference and internal corruption, reinforcing evidence of the Authority's power and the agency of its staff. The VRA is not immune to the tendency within Ghana to use state agencies as a vehicle for rent seeking. This primarily occurs through contracts for services or materials which are awarded without competitive bidding to party cronies and politicians, thereby turning public procurement into revenue for personal enrichment or electioneering activities. The table below, demonstrating significant and sudden increases in administration expenses, indicates the presence of this type of activity occurring without contextual justification. A prominent recent example is the 2011-16 system upgrade to the Oracle E-Business Suite. A senior staff appraisal letter (VRA, 2016) to the VRA board imputed corruption when the contract, initially priced at US\$4,262,000, doubled to \$8,264,810 in 2016, while the project consultancy fees also doubled from \$242,000 to nearly \$1 million. Another overt case involved the CEO extending his contract past retirement age and adding a 40% annual bonus in 2016 (VRA, 2016). However, VRA staff fought against these issues. The Senior Staff Association used these examples to petition the president to remove a number of executives from office in 2016, an initiative which succeeded. This further demonstrates a resilient work ethic and performance culture within VRA.22

Table 2: Growth of administrative expenses

¹⁸ Interviews, senior official, VRA, 2020.

¹⁹ These are exploring scenarios including a wide range of factors, from demand changes to pressures on fuel capacity.

²⁰ A 2 MW pilot project in Navrongo is using solar power.

²¹ Interviews, former senior official, Ministry of Energy, 2020–21.

²² Interviews, senior official, NEDCo, 2020.

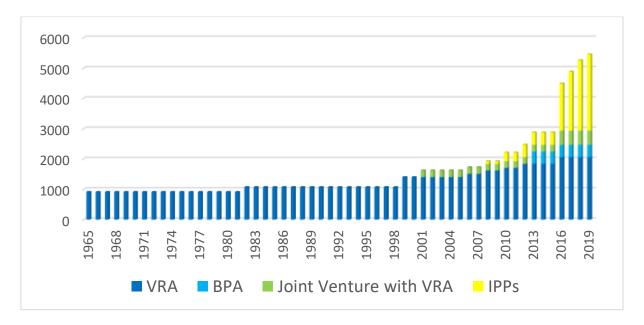
	2010	2011	2012	2013	2014	2015
Administrative expenses	-165,094	- 201,504	- 220,617	- 231,001	- 394,599	- 687,195
Growth in administrative expenses		22%	9%	5%	71%	74%

Source: VRA (2016). VRA senior staff association petition on the state of the Authority and removal the executive from office.

5.3 Path dependency and social status

The VRA's organisational history mirrors the importance of path dependency. This is evident in material terms. The early establishment of a training school, for example, has helped to foster a culture of learning and personal development. Alongside this, the VRA's schools, hospital and housing help to maintain competitive benefit packages. Path dependency also involves institutional elements. The unionisation of both senior and junior staff, alongside the particularly high social standing of the former in terms of education and political power (see below), make it difficult to interfere in VRA's remuneration practices. This in turn supports the Authority's ability to recruit highcalibre applicants and maintain expertise. The VRA's dominance over power generation (Figure 1), and its electricity distribution role in Ghana's north, also confers material power. The Authority's mix of hydro and thermal power allows it to offer the cheapest tariffs, undercutting the influence of Independent Power Producers (IPPs) and the Bui Power Authority. Moreover, its size essentially means that VRA engineers have been central to most government negotiations around investment in power generation and its institutional management, including with external donors such as the World Bank. VRA's budget has also been supported by its historic ability to sell power to the private sector and neighbouring countries. At the VRA's formation, Ghana's relatively small grid meant that the Authority sold much of its electricity to such external customers, mainly to an aluminium plant built as part of the Volta scheme. Although this has changed over time, with much of the power transmitted to the national grid, revenue from such external sources remains more reliable than payments from ECG (see below), again supporting VRA's fiscal position and autonomy. The VRA enjoyed solid financial health between the late 1980s and the end of the 20th century, with profits often exceeding 50% of power sales, even reaching 80% in 1990, from sales to Valco and exports to neighbouring countries (Brew-Hammond, 1996). The Authority's strong income status insulated it from ECG losses and placed it well above the dire financial problems its peers in other developing countries faced (Brew-Hammond, 1996). Overall, VRA's history provides a number of key pathdependent advantages enabling high capability.

Figure 1: Ownership of installed power generation (MW)



The materialist elements notwithstanding, we argue that ideational factors also matter in explaining VRA's organisational culture. The Authority's history shapes much of its enduring societal respect – a sense of its importance and perceived national status, which helps to engender political support. The status of Akosombo Dam remains undimmed, with the dam synonymous with the history of Ghana's liberation from colonialism and with the country's development. This image has been continually cultivated over time: during its inception and construction, a model of the dam toured the country, with videos proclaiming its benefits. This recognition persists, with school trips organised for all children from across the country. Such an aggrandised status is also reflected in policy making. The Authority acts as a de facto government advisor on electricity issues, despite officially ceding this advisory position to the new Energy Commission in 1997.²³ Politicians, in many cases, place considerable degrees of trust and reliance in the VRA's advice on electricity generation, even deferring to Authority judgements as sacrosanct, according to some sources (Akabzaa, 2014). The Chief Executive Office of the VRA has often forged close relationships with successive presidents. ministers and senior technocrats within the energy sector,²⁴ with one senior Energy Commission official noting that "all [political] parties respect VRA, the ministry often recruits from them. [They] are regarded as the best people ... in a meeting [the minister], he will listen to the VRA rather than me [from the Energy Commission]". 25 This is similar to one senior VRA planner's view that "if the energy commission is presenting something, [the ministry] will still want to know what I [in VRA] think [especially if on hydropower]". 26 The historically formed ideology of modernising development has thus been imbued in the Akosombo Dam and thereby the VRA. This status has been continually reinscribed since, not least through the ongoing celebration of the dam.

5.4 Political intervention and the undermining of VRA's fiscal position

However, these conclusions around VRA's capability, culture and performance mask persistent fiscal challenges stemming largely from government interference, motivated by short-term election-focused decision making. This interference, seen across electricity payments, dam operation, procurement and an unbundling agenda to split up the VRA, harms the Authority's budget, as

²³ Interview, researcher, Centre for Democratic Development, 2019.

²⁴ Interviews, former senior official, Ministry of Energy, 2020–21.

²⁵ Interview, senior official, Energy Commission, 2019.

²⁶ Interviews, senior official, VRA, 2019.

manifested in spending and recruitment freezes. The following sections detail this interference and their knock-on impacts on the Authority's capacity.

Electricity payment issues

As Dye (2020) details, perhaps the major underlying challenge to Ghana's electricity sector relates to fiscal payments: public energy tariffs are not set at a level allowing system-cost recovery. Non-payment of electricity bills by government agencies to the distribution company ECG and directly to VRA through NEDCo, alongside ECG's debts to VRA, worsen the problem. The causes of these three issues are political, with electoral pressures leading both the NDC and NPP governments to supress public tariffs while diverting spending for electricity payment towards vote-winning projects or rent seeking. These fiscal problems hit VRA worse than other utilities for two reasons, with table 3 below showing the lower cost of VRA's tariffs compared to the IPPs. First, VRA's budget is pressured, as it not only has a generation role but also distributes electricity to the northern parts of Ghana with its subsidiary, NEDCo. This is significant, as this part of Ghana is more sparsely populated, which increases technical-distribution losses. The VRA maintains this distribution role, given the strategic importance of electrification as a vote-winning strategy and the belief that the Authority can sustain some financial losses given past profitability. Thus, NEDCo's typically higher technical and commercial (non-payment) losses (Asumadu-Sarkodie & Owusu, 2016) undermine VRA's budget and thereby its ability to recruit, remunerate and maintain capability.

Table 3: PURC-approved tariff, January 2016

Item no	Power generator	Electricity gen (GWh)	Tariff GHp per kWh	
	VRA Hydro			
1	Akosombo GS	3,955	7.5780	
2	Kpong GS	738	15.5355	
	Hydro subtotal	4,693	8.8298	
	VRA thermal			
3	TAPCo	2,102	40.3863	
4	TTIPP	745	43.8124	
	Thermal subtotal	2,847	41.2825	
	VRA bulk generation charge	7,540	21.0816	
5	Bui	969.0	39.2625	
	IPPs			
6	SAPP – Phase I	1,077.0	57.3791	
7	SAPP – Phase II	1,050.0	53.4548	
8	KARPOWERSHIP	1,050.0	52.0875	
9	CENIT	867.0	59.3242	
10	TROJAN – 1	158.0	68.2410	
11	TROJAN – 2	313.0	82.1243	
12	TC Energy	7.6	37.5000	
13	13 BXC Ghana 21.4		75.6750	
	Subtotal IPPs	5,793.0	54.3871	
	Composite bulk generating charge	13,333.0	35.5525	

Source: VRA (2017). Why VRA thermal assets must not be sold: Press release.

Second, as a state-owned company, VRA cannot resort to the measures taken by private companies. The VRA's government-appointed board vetoes any move to take the state to court, while limiting officials' ability to criticise policies publicly. Moreover, the government exerts considerable pressure to keep plants operational. 'Keeping the lights on' forces the VRA to operate the Akosombo and Kpong dams against hydrological analyses, particularly during power shortages. This has forced VRA to operate its dams below the technical reservoir minimum – 240 ft at Lake

Volta.²⁷ When this occurs, the Akosombo plant air intake causes damaging vibrations and cavitation on turbine blades.²⁸ In 2014, for example, VRA forecasted that inflow for the next two years risked placing the reservoir below the minimum operating level (Table 4), and proposed a load shedding schedule to avert this (Kirk, 2014). The government rejected this proposal, however, and instead instructed the Authority to continue producing power to mitigate the growing public outcry over electricity shortages that had started in 2012.

Table 4: Outline of 2014 hydro-generation and impact on 2015

		Scenario 1		Scenario 2				
		10 MAF	17 MAF	25 MAF	10 MAF	17 MAF	25 MAF	
2014 decisions and	No of Akosombo's operational units	3 units from Nov 2014		4 units from Nov 2014				
implications	2014 annual hydro (GWh)	6,964 GWh 7,202 GWh						
	End of 2014 elev (ft)	238.5	244.9	251.8	240.3	246.6	253.2	
Implications of 2014	Hydro in 2015	2,950	5,300	5,900	2,450	5,300	5,900	
decisions on 2015	Average daily hydro generation	8.1	14.5	16.2	6.7	14.5	16.2	
power production	No of Akosom units (off peak/peak)	2 off-peak and 3	3 off-peak and 6	4 off- peak	2 units	3 off- peak and	4 off- peak	
·	pourpoury	peak for 3	peak for 6	and 5	nat	6 peak	and 5	
		hrs	hrs	peak for 6 hrs		for 6 hrs	peak for 6 hrs	
	2015 minimum elevation (ft)	235.31	237.40	244.11	235.25	236.06	243.34	

Source: VRA (2014). 2014, 2015 reservoir management strategy for the Akosombo Dam.

Another detrimental impact involves VRA's assigned role as the off-taker of gas from Nigeria, which it then provides to private companies. However, the latter have regularly stopped payment, mainly as a result of payment deficits or delayed payment by ECG for power it buys from the IPPs. More than 70% of the gas VRA has procured from Nigeria since 2003 is given to Sunon Asogli, a gas-based IPP. As of 2017, however, the company owed VRA over \$203,443,267, a condition that significantly contributed to the Nigerian state's gas industry suspending gas supply to the Authority (VRA, 2017). Another unprofitable off-taker arrangement occurred with Ameri and cost the VRA a loss of \$218,989,409 between 2016 and 2017, with an average loss of \$11,525,758 per month (ibid). A similar outcome emerged from a liquid fuel purchase agreement with CENIT, an IPP owned by SSNIT. Although the 2012 agreement required both parties to buy fuel in turns, CENIT failed to meet its part of the contract and, as of 2017, owed VRA for some 1,068,654 barrels of fuel worth \$65,361,020 (ibid 2017). Altogether, about 70% of VRA's debt relates to fuel procured for the operations of the IPPs (ibid). This position is worsened still by the government's directive since 2009 compelling VRA to sell power to Valco at a heavily subsidised rate, further contributing to the Authority's financial problems. The result is a significant debt issue. Since the directive, Valco has

²⁷ Interviews, senior official, VRA, 2020.

²⁸ Interviews, senior official, VRA, 2020

struggled to pay its electricity bills of about \$2 million a month, often only paying \$1 million, with a total debt of \$141 million as of August 2017 (VRA, 2017).

Table 5: Losses incurred by VRA as an off-taker/buyer

IPP	Prices VRA buys power from IPPs (GHP)	Price VRA sells power (GHP/Kwh)	Loss/Kwh of power to VRA (GHP)	Percentage of cost of power purchased from IPPs recovered
TICo/TAQA	40.3863	21.0816	19.3047	52
Ameri	64.2039 (14.5918) cents @ GHS4.4/US\$	21.0816	43.1223	32.83

Source: VRA (2017). Why VRA thermal assets must not be sold: Press release.

Altogether, VRA's fuel support requirements, off-taker responsibilities and inadequate tariff receivables combine to expose the Authority to huge financial losses, limited cash flows, foreign exchange losses, including high interest rates, and reputational challenges, particularly in its thermalgeneration commitments.²⁹ Consequently, despite building and maintaining expertise, and its planning competence and implementation capability, VRA suffers from the broader malaise seen in most of Ghana's public institutions. In turn, this is driven by short-termist policies pursuing election votes, rent seeking and party or personal power, all characteristics of Ghana's clientelist and highly competitive democracy (Gyimah-Boadi & Yakah, 2013). Inevitably, such financial constraints affect the Authority's ability to effectively recruit and remunerate staff and maintain the required technical support and infrastructure. However, analysis thus far suggests that, while harming the Authority's capacity, clientelism and budgetary shortfalls have not overwhelmed VRA. To understand the Authority's resilience, its ability to muddle through and survive, we turn to the battles fought over the adoption of the standard reform model, which by default or design, would shrink VRA and thereby its power and influence over the electricity sector.

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²⁹ Interviews, former senior official, GRIDCo, 2019.

5.5 Unbundling and the attempts to reduce VRA's power

Resistance and adaptation to the Power Sector Reform Programme (PSRP).

As outlined above, VRA started as the sole electricity utility. This changed with the introduction of the ECG in 1967 but further shifts only occurred in the 1990s and 2000s (Edjekumhene et al, 2001; Kapika & Eberhard, 2013). These decades saw years of studies and debate about how Ghana should reform its electricity sector, and whether it should adopt the World Bank's prescribed Standard Reform Model for improving the efficiency and economic sustainability of the electricity system. This shaped the creation of two independent regulators that had to approve the VRA's tariff pricing and oversee whole energy-sector planning; in doing so, it affected VRA's power. The reform processes created a rival advisor to the government – the Energy Commission, responsible for sectoral planning - which meant that VRA's tariffs now had to be formally approved. However, proposed reforms were less challenging to VRA's power than had been initially anticipated. Reform hawks had pushed for unbundling VRA into multiple generation units, a transmission agency and northern distributor utility company (Edjekumhene et al, 2001). Ghana was not alone here, with other countries in Africa - Uganda being foremost - adopting these policies to varying degrees (Gore et al, 2019; Kapika & Eberhard, 2013). The VRA, however, resisted this unbundling move, arguing that such plans would prevent the Authority's envisioned role in the West Africa Power Pool project and its ability to provide adequate and affordable electricity for Ghanaians (GoG, 1995). Such resistance persuaded the power-sector reform committee to allow VRA to retain its hydropower and thermal plants under a subsidiary - VRA Therma - and to keep its northern distribution company, while delaying the formation of a National Transmission Grid Company.³⁰ This demonstrates the VRA's continued ability to influence policy, including through building ties with the World Bank (Edjekumhene et al, 2001).

2000-08 NPP government. However, a further challenge to VRA came with the new NPP government's first tenure (2001 to 2008). Leaders within the NPP disliked the VRA's hegemony and autonomy within Ghana's electricity sector, particularly its income tax exemption and foreign exchange retention from power exports and Valco sales (Edjekumhene et al, 2001). By appointing one of its founding members as Chairman of VRA's Board, the NPP government rolled out the Devolution and Decentralisation initiative that significantly restructured the Authority's bureaucracy. including altering key decision-making responsibilities by merging some departments and creating new ones, within a political calculus to rid VRA of adherents to its statist roots. The NPP deemed that both the Authority's autonomy and its historically close connection with Rawlings potentially aligned it to the NDC, which would mean it might frustrate the former's agenda.³¹ Alongside this bureaucratic restructuring, the NPP pushed the PSRP further, compelling VRA to cede its transmission task to a separate state-owned company, GRIDCo, in 2006 (although it was not fully operational until under the NDC in 2008), a move principally rationalised by the need to create an independent arbiter for competing generation utilities.³² However, the VRA successfully resisted the full implementation of the NPP's restructuring plan, maintaining a significant degree of its power. A key resistance involved dissuading the government from merging the VRA's distribution arm, NED, with the ECG, using the financial costs of the proposed merger to rationalise this. The costs entailed either losing well paid NED-VRA staff, paid twice as high as their counterparts in ECG (Table 6), or raising ECG's salaries to match those of VRA, something financially unsustainable as this required Ghana Cidi ¢73 billion annually - (MoEN, 2006).

Table 6: NED and ECG wage bills, 2006

Agency	Total staff	Total wage bill	Monthly wage	Average wage	Average
	strength	(2005)	bill	per	difference
				person/month	
NED	674	¢35,630,468,280	¢5,938,411,380	¢8,810,699.40	¢4,265,983
ECG	5,300	¢144,522,000,000	¢24,087,000,000	¢4,544,716.00	
	0,000	p:::,022,000,000	<i>p</i> = .,ee.,eee,eee	7 .,5,7 10.00	

Source: Ministry of Energy (MoEN) (2006).

Ongoing resistance to the unbundling of thermal power generation.

The VRA has also continued to face pressure to split, or sell off its thermal power plants. This originated in the 1990s reform plans, but was rejuvenated by the NDC's return to government in 2009. In 2010, the finance and energy ministers jointly sought cabinet approval to sell off VRA's thermal plants (Duffuor & Oteng-Adjei, 2010). This plan was partly justified by reports of operational inefficiencies and a high number of plant outages (World Bank, 2013), but was primarily rationalised by the need for ¢750 million for the upgrade and maintenance of plants between 2012 and 2017 (World Bank, 2013). With VRA unable to stump up the cost, such funding could only come from the government or an asset sale. The ministers proposed the latter, involving the sale of three plants (the 126MW Tema Thermal 1 Power Plant (TT1PP); the 49.5MW Tema Thermal 2 Power Plant (TT2PP); and the 220MW Kpone Thermal Power Plant (KTPP)). The ministers proposed either longterm PPA agreements or gas supply guarantees to make these plants economically viable. Little action followed this initial unbundling commitment. However, in his 2015 State of the Nation address, President Mahama reiterated the need to split VRA. Executing this renewed commitment, the deputy power minister tabled a cabinet memo in February 2016 seeking approval to consolidate all existing Volta River hydroelectric assets under a 'reconstituted VRA' - involving the merger of Bui Power Authority (BPA) and VRA, and the creation of an autonomous 'Ghana Thermal Power Company Limited' (GTPC) (Jinapor, 2016). With elections that year, further action did not occur but, upon assuming office in 2017, the NPP took it on.³³ In May 2017, the energy ministry publicly made the case for this unbundling, accusing the VRA of 'straying' into thermal power generation, and claiming that its limited capacity was saddling both itself and the state with huge debts³⁴ (*Daily Graphic*, 2017). However, the VRA publicly resisted, emphasising its legal mandate to undertake thermal generation as stated in the amended Volta River Development Act 1961 (Act 46).35 Additionally, the Authority argued that its low revenue was caused by government interference and the impacts of droughts, as well as the hydrological effects of climate change (VRA, 2018, 2019). Thus, VRA has mounted internal and public campaigns against the unbundling proposal, petitioning the energy minister and the president, issuing press statements and publicly criticising the restructuring plan as "difficult to justify" in newspapers and on media platforms (Antwi-Darkwa, 2017).

³⁰ Interviews, senior official, GRIDCo, 2019.

³¹ Interview, former minister, Ministry of Energy, 2020.

³² Interview, senior official, Energy Commission, 2020.

³³ Interview, senior official, Ministry of Energy, 2020.

³⁴ Daily Graphic (2017). Restructuring the VRA to focus on hydrogeneration, 23rd August, 2017.

³⁵ The preamble to the Volta River Development Act 1961 (Act 46), as amended (p 3), states that the act provides "for establishment of an Authority charged with the duties of generating electricity by means of the water power of the Volta River, and by other means". Section 10 (a) adds. "by such means as the Authority may think fit".

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The VRA has also continued to face pressure to split, or sell off its thermal power plants. This originated in the 1990s reform plans, but was rejuvenated by the NDC's return to government in 2009. In 2010, the finance and energy ministers jointly sought cabinet approval to sell off VRA's thermal plants (Duffuor & Oteng-Adjei, 2010). This plan was partly justified by reports of operational inefficiencies and a high number of plant outages (World Bank, 2013), but was primarily rationalised by the need for ¢750 million for the upgrade and maintenance of plants between 2012 and 2017 (World Bank, 2013). With VRA unable to stump up the cost, such funding could only come from the government or an asset sale. The ministers proposed the latter, involving the sale of three plants (the 126MW Tema Thermal 1 Power Plant (TT1PP); the 49.5MW Tema Thermal 2 Power Plant (TT2PP); and the 220MW Kpone Thermal Power Plant (KTPP)). The ministers proposed either longterm PPA agreements or gas supply guarantees to make these plants economically viable. Little action followed this initial unbundling commitment. However, in his 2015 State of the Nation address, President Mahama reiterated the need to split VRA. Executing this renewed commitment, the deputy power minister tabled a cabinet memo in February 2016 seeking approval to consolidate all existing Volta River hydroelectric assets under a 'reconstituted VRA' – involving the merger of Bui Power Authority (BPA) and VRA, and the creation of an autonomous 'Ghana Thermal Power Company Limited' (GTPC) (Jinapor, 2016). With elections that year, further action did not occur but, upon assuming office in 2017, the NPP took it on.³⁶ In May 2017, the energy ministry publicly made the case for this unbundling, accusing the VRA of 'straying' into thermal power generation, and claiming that its limited capacity was saddling both itself and the state with huge debts³⁷ (*Daily Graphic*, 2017). However, the VRA publicly resisted, emphasising its legal mandate to undertake thermal generation as stated in the amended Volta River Development Act 1961 (Act 46).38 Additionally, the Authority argued that its low revenue was caused by government interference and the impacts of droughts, as well as the hydrological effects of climate change (VRA, 2018, 2019). Thus, VRA has mounted internal and public campaigns against the unbundling proposal, petitioning the energy minister and the president, issuing press statements and publicly criticising the restructuring plan as "difficult to justify" in newspapers and on media platforms (Antwi-Darkwa, 2017).

6 Conclusion

As we have shown, the Volta River Authority represents a complex case of bureaucratic effectiveness and significant compromise. On the one hand, there is clear evidence of the Authority's expertise. It is able to recruit strong candidates, and has qualified personnel in technical positions. VRA also maintains a long tradition of internal training and improvement of employees. Continued above-average wages and educational, housing and healthcare benefits make the Authority an attractive employer, even if the private sector offers higher salaries. Moreover, there is evidence of a strong work ethic and performance culture, perhaps best demonstrated by the active resistance to corruption and any weakening of the VRA's financial and policy-making power. However, VRA cannot meet the standard of a pocket of effectiveness, as government policy making has greatly undermined its fiscal position, to the extent that it cannot perform technically necessary maintenance work and delivers relatively unreliable power in Ghana's north. VRA's poor fiscal position stems from

³⁶ Interview, senior official, Ministry of Energy, 2020.

³⁷ Daily Graphic (2017). Restructuring the VRA to focus on hydrogeneration, 23rd August, 2017.

³⁸ The preamble to the Volta River Development Act 1961 (Act 46), as amended (p 3), states that the act provides "for establishment of an Authority charged with the duties of generating electricity by means of the water power of the Volta River, and by other means". Section 10 (a) adds. "by such means as the Authority may think fit".

the state's protection of public and private actors when they do not pay for electricity, and from the way it forces VRA to de-risk private sector investments. VRA has consequently faced repeated significant financial hardship, resulting in financial support from the state and donors (e.g. the World Bank). Thus, the Authority is far from insulated: while able to minimise the impact of patronage and lessen corruption, VRA is heavily affected by the government's politically expedient decisions, which hamper its ability to remunerate staff and perform technical functions effectively and efficiently. The reasons for this weak policy-making and fiscal insulation lie in Ghana's short-termist political cycle, which continues to push the government towards financially unsustainable decisions in the pursuit of votes. Equally, the intensity of political competitiveness and frequency of clientelist or pork-barrel relations with voters encourage rent seeking and the diversion of spending towards electioneering.

While unable to immunise itself from this short-termism, the VRA has retained a remarkably consistent level of capacity. VRA has the expertise, sociological culture and work ethic to take on highly technical tasks of energy-system planning, the execution of new dams and thermal power plants, and the integration of solar and wind. Its in-house training schemes and recruitment practices equip it with a competent workforce able to run and maintain the plants. Thus, the VRA, though hamstrung, remains able to improve the capability of the Ghanaian government in planning the electricity sector and executing projects, offering critiques and even occasionally correcting the direction set by the government. The Authority has muddled through these political challenges, preserving its core functionality. We argue that this case demonstrates the importance of considering imperfect effectiveness, or the ability to limit the negative impact of political interference and corruption to maintain capability. Thus, VRA appears to represent a level of 'good enough' bureaucratic excellence; not the heady heights of a pocket of effectiveness, but nonetheless an important contributor to the state and a site of expertise and capacity.

Alongside asserting the importance of this 'good enough' aspect of state institutions, we have demonstrated the importance of ideology as an influence on bureaucratic effectiveness and, in particular, the Authority's ability to muddle through, and to maintain status and respect. VRA has a number of material structural endowments, most obviously the power-generation infrastructure, training institutions, offices and educational, housing and healthcare facilities that provide infrastructure and enable it to continue offering competitive employee benefits. Additionally, the Authority has a strongly unionised workforce, one which is able to organise effective internal and public campaigns against policies that undermine VRA and its workers. However, these material path-dependent factors work alongside ideas and ideology. Complementing the sociological approach that tends to focus internally on organisations, we argue that wider social perceptions of an institution matter. Nkrumah's imbuing of the VRA with high modernist development dreams, and the Authority's intertwined association with a flagship national infrastructure symbol in the Akosombo Dam, has instilled the idea of the Authority as a quardian and deliverer of national development, with that development occurring through the top-down implementation of large transformative infrastructure. This idea has strengthened the VRA's reputation for expertise, a key factor behind its bureaucratic strength, which in turn has generated degrees of political deference, wider public support and strong employment interest, enabling competitive recruitment. This demonstrates the importance of studying societal ideologies and perceptions, rather than only the material political economy of internal organisational sociology, when explaining bureaucratic effectiveness.

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