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BRIEFING

COMPETING ENERGY NARRATIVES IN TANZANIA: TOWARDS THE POLITICAL ECONOMY OF COAL

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CAN COAL THRIVE IN THE ERA OF CLIMATE CHANGE, low-carbon energy, and the global coal crisis? After years of rapid growth, global coal use fell in 2015, and projections point to a massive decline in the future.[1] A recent report also shows a sharp decline in the number of new coal-fired power plants being planned in the first half of 2016, falling 14 percent globally.[2] Yet, despite the possible global coal crash, Tanzania is planning a number of coal-fired power plants (listed in Table 1) to boosts its energy security and quest for industrialization, which has been declared a top government priority by President John Magufuli.

Whilst the country has a wealth of energy resources, both renewable (biomass, solar, hydro, wind, and geothermal) and non-renewable (coal, natural gas, and uranium), Tanzania's current energy mix is highly dependent on hydropower, which has proved less reliable given recent recurrent droughts. Amid efforts to increase both reliability and capacity, coal has emerged as an attractive part of the broader energy-mix strategy, alongside recently discovered natural gas.[3] Given the abundance of coal, the government unveiled a power production strategy designed to increase the share of coal in electricity production from zero (the current level) to 34 percent (2,900 MW) by 2025 (see Table 2). This new emphasis on coal expansion

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1. International Energy Agency, 'Coal: Medium term market report' (International Energy Agency, Paris, 2015).
2. Reuters, 'Global coal power fall in 2016, led by China and India', 6 September 2016, <http://www.reuters.com/article/us-global-coal-idUSKCN11C2N4> (9 September 2016).
3. According to projections from the Ministry of Energy and Minerals, the share of natural gas-fired electricity is set to rise in Tanzania's energy mix, and natural gas is on track to overtake hydropower as the dominant source of electricity by 2017. This follows the completion in 2015 of the gas pipeline to transport natural gas from the southern region of Mtwara to the Kinyerezi gas-fired power plant (150 MW) in the commercial capital of Dar es Salaam.

has triggered a clash between energy security and sustainability narratives, driven by the struggle between state-sponsored interests in coal-fired power and the emerging and expanding interest in renewable energy and low-carbon development from civil society and the international donor community.

Table 1 Status of current coal projects in Tanzania

Project name	*Investors*	*Coal reserves (million tonnes)*	*Status*	*Proposed coal-fired power plant (MW)*
1 Ngaka Coal Mine	TANCOAL	423	Active mining	270
2 Mchuchuma	TCMRI	428	Advanced project	600
3 Ketewaka	MMRDL	200	Advanced project	Unspecified
4 Mbeya Coal to Power	Kibo Mining	109	Advanced project	200–400
5 Kiwira Coal	STAMICO	35.8	Advanced project	200
6 Namwele, Mkomolo, and Muze	Edenville	173	Advanced project	120–200
7 Maturi	Off routes	50	Advanced project	200
8 Magamba	Magamba Coal Limited	53	Advanced project	200

Source: Based on field visits and interviews with government officials in March–August 2016.

Table 2 Present and projected power capacity in Tanzania by 2025

Source	*Current capacity (MW)*	*Additional capacity (2015–25) (MW)*	*Capacity by 2025 (MW)*
Hydro	561	1,529	2,090.84
Natural gas	527	3,968	4,469.00
Heavy Fuel with Gas Oil diesel	495	–	438.40
Coal	–	2,900	2,900.00
Wind	–	200	200.00
Solar	–	100	100.00
Geothermal	–	200	200.00
Interconnector	–	400	400.00
Total	1,583	9,297.00	10,798.24

Source: Ministry of Energy and Minerals (2014).

This briefing explains the politics behind the recent growing interest in coal investments in Tanzania. It focuses on how various positions on energy security, clean energy, and climate-change policies play out in the Tanzanian context. I draw on political economy approaches, which offer insights into the politics of energy, existing actors and their diverse roles, power relations, and underlying vested interests that influence the selection of certain energy choices over others, depending on the interests of powerful internal and external actors.[4] In Tanzania, for a range of different reasons, ruling elites and state bureaucrats have interests in promoting coal and other fossil-based energy investments that are based on the potential political and economic gains associated with the rents from such investments. Apart from rents, improved energy access is popular with voters, as energy is a sign of modernity and progress. Importantly, these investments and the associated rents are seen as crucial for what Lindsay Whitfield and colleagues call 'the political survival of the ruling elites'.[5]

This briefing is organized as follows. First I provide an overview of the state of coal energy in Africa and the different interests at play. Then, I describe the background to the coal sector in Tanzania, with a focus on planned coal-fired power-generation projects, followed by an exploration of competing energy narratives around coal as framed by different institutions and actors. I conclude that the recent surge in investments in coal in Tanzania calls for a deeper inquiry into the political economy of energy transition at a time when coal investments are increasingly being framed by the ruling Chama Cha Mapinduzi (CCM) elites as projects of national significance on which the fate of the nation depends.

The surging appetite for coal energy in sub-Saharan Africa

According to the International Energy Agency, less than one-third of the population of sub-Saharan Africa has access to electricity, a gap that is increasing due to population growth.[6] With such a substantial portion of its population living without reliable access to electricity, sub-Saharan Africa is the most energy-poor region in the world.[7] In 2012, sub-Saharan Africa's on-grid power production stood at 90 GW, with South Africa

4. Bram Büscher, 'Connecting political economies of energy in South Africa', *Energy Policy* 37, 10 (2009), pp. 3951–8; Lucy Baker, Peter Newell, and Jon Phillips, 'The political economy of energy transitions: The case of South Africa', *New Political Economy* 19, 6 (2014), pp. 791–818; Hubert Schmitz and Ian Scoones, 'Accelerating sustainability: Why political economy matters', *IDS Evidence Report* 152 (2015).
5. Lindsay Whitfield, Lars Buur, Ole Therkildsen, and Metter Kjær, *The politics of African industrial policy: A comparative perspective* (Cambridge University Press, Cambridge, 2015).
6. International Energy Agency, 'World energy outlook special report', 13 October 2014, <http://www.worldenergyoutlook.org/africa/> (14 July 2016).
7. International Energy Agency, 'Africa energy outlook', 13 October 2014, <http://www.iea.org/publications/freepublications/publication/WEO2014_AfricaEnergyOutlook.pdf> (11 July 2016).

accounting for half the power generated.[8] Much of this comes from hydropower, and its vulnerability to droughts means that there is an increasing tendency to view coal power as crucial to addressing this serious problem of energy insecurity. Indeed, as recently as June 2016, the Africa Union's outgoing chairperson, Nkosazana Dlamini Zuma, reiterated this need, predicting that coal will form an important part of Africa's long-term energy-mix strategy.[9]

During 2015, the coal industry experienced the largest drop in global coal consumption in at least half a century. Global consumption fell by 1.8 percent, production was down by 4 percent and coal's share of primary energy consumption fell to 29.2 percent. China, the world's top producer and consumer, recorded a decline in coal consumption for the second straight year in 2015.[10] Yet, paradoxically, despite the recent reduction in global coal consumption, coal-to-power projects are gaining momentum across Africa. Interest in coal is gradually spreading beyond South Africa, where coal supplies 92 percent of the country's electricity, and where two large coal-fired power stations (Kusile and Medupi), each with a generating capacity of 4,800 MW, are currently under construction. Once completed, they will be the third and fourth largest coal-fired power plants in the world.[11]

In line with efforts in other countries, numerous small- and medium-sized coal-fired power plants are being planned across sub-Saharan Africa, including Tanzania (see Table 1), Malawi (300 MW), Zambia (300–600 MW), and Zimbabwe (600 MW). In Nigeria, plans are underway to build a 1,200 MW coal-power plant; in Kenya, there are plans to generate 1,050 MW from a coal-fired power plant in the historical and ecologically sensitive coastal town of Lamu; in Senegal, a 300-MW coal-fired power plant is due to be completed in 2017; and in Mozambique, plans for a 600-MW coal-fired power plant in Tete province were approved in 2014.[12] The majority of coal-to-power projects in African

8. *Ibid.*
9. *Mining Weekly*, 'Coal will be part of Africa's energy mix—African Union', 6 June 2016, <http://www.miningweekly.com/article/coal-will-be-part-of-africas-energy-mix-african-union-2016-06-06/rep_id:3650> (13 June 2016).
10. British Petroleum, 'BP statistical review of world energy 2016', <http://www.bp.com/content/dam/bp/pdf/energy-economics/statistical-review-2016/bp-statistical-review-of-world-energy-2016-full-report.pdf> (28 June 2016).
11. *The conversation*, 'Why South Africa is finding it difficult to wean itself off coal', 15 March 2016, <https://theconversation.com/why-south-africa-is-finding-it-difficult-to-wean-itself-off-coal-55045> (21 May 2016); Carl Death, 'The green economy in South Africa: Global discourses and local politics', *Politikon: South African Journal of Political Studies* 41, 1 (2014), pp. 1–22.
12. *World Coal*, 'Malawi will build 300 MW coal-fired power plant', 8 May 2014, <http://www.worldcoal.com/power/08052014/Malawi_will_build_coal_fired_power_plant_819/> (8 May 2014); *World Finance*, 'Maamba collieries coal-fired power plant to solve Zambia's energy crisis', 7 June 2016, <http://www.worldfinance.com/markets/energy/maamba-collieries-coal-fired-

countries are state-led, involving joint ventures between state-owned enterprises and multinational corporations. However, in recent years China has emerged as the leading financier of Africa's coal boom, providing finance for about half of Africa's currently proposed power plants.[13] Chinese money has become popular among African leaders, as China is perceived to respect sovereignty and does not impose strict good governance conditions and environmental standards on recipient countries. As Alison Ayers puts it, 'Africa's political leaders have a new-found leverage apropos Western conditionalities.'[14]

The extent of these projects has been met with criticism from the global community. To offer but one example, in the foreword to the Africa Progress Panel's Annual Report (2015), panel chair and former UN Secretary-General Kofi Annan pointed out that 'Africa has enormous potential for cleaner energy—natural gas and hydro, solar, wind, and geothermal power—and should seek ways to move past the damaging energy systems that have brought the world to the brink of catastrophe.' He added further: 'The world as a whole stands to gain from Africa avoiding the high-carbon pathway followed by today's rich world and other emerging markets.'[15] Viewing climate change as an opportunity to transform Africa's energy generation, the report emphasizes that Africa should invest more in renewables, which, unlike coal-fired power, can be scaled up more rapidly and decentralized, offering huge potential for both on-grid and off-grid connection. The clash between the interest in fossil fuels and calls to switch to renewables in Africa is one of the competing narratives that are emerging over energy security, development aspirations, and the transition to clean and low-carbon energy as part of the global effort to combat climate change.[16]

power-plant-to-solve-zambias-energy-crisis> (27 July 2016); *ESI Africa*, 'Zimbabwe to develop a 600 MW coal-fired power plant', 28 September 2015, <http://www.esi-africa.com/news/zimbabwe-to-develop-a-600mw-coal-fired-power-plant/> (27 July 2016); *The Guardian*, 'NBET signs off $5b agreement on 1,200 MW coal power project', 7 September 2015, <http://guardian.ng/news/nbet-signs-off-5b-agreement-on-1200mw-coal-power-project/> (28 July 2016); *The Star*, 'Ruto urges support for coal plant and wind power project', 25 August 2016, <http://www.the-star.co.ke/news/2016/08/25/ruto-urges-support-for-coal-plant-and-wind-power-project_c1408777> (28 August 2016); Reuters, 'Senegal's Africa energy to build 300 MW coal plant by 2017', 28 February 2014, <http://af.reuters.com/article/investingNews/idAFJOEA1R00W20140228> (28 July 2016); *World Coal*, 'Mozambique coal-fired power plant receives government backing', 20 February 2014, <http://www.worldcoal.com/power/20022014/Approval_for_Mozambique_coal_fired_power_plant_543> (20 July 2016).

13. *End Coal*, 'China's growing role as funder of Africa's proposed coal plants', 17 August 2016, <http://endcoal.org/2016/08/chinas-growing-role-as-funder-of-africas-proposed-coal-plants/> (21 August 2016).

14. Alison Ayers, 'Beyond myths, lies and stereotypes: The political economy of a "new scramble for Africa"', *New Political Economy* 18 (2013), pp. 227–57.

15. Africa Progress Panel, *Power people planet—Seizing Africa's energy and climate opportunities: Africa progress report* (Switzerland, 2015).

16. *Ibid.*

This clash raises questions of climate justice, which was among the top issues advocated by African climate campaigners leading up to and during the Paris conference in 2015.[17] It was well captured by remarks made in 2015 by Donald Kaberuka, the former President of the African Development Bank, in defending the Bank's decision to approve lending to coal-power projects. In his view, 'It is hypocritical for Western governments who have funded their industrialization using fossil fuels, providing their citizens with enough power, to say to African countries, "You cannot develop dams, you cannot develop coal, just rely on these very expensive renewables." […] To every single African country, from South Africa to the north, the biggest impediment to economic growth is energy, and we don't have this kind of luxury of making this kind of choice.'[18] Similar attitudes have been voiced in Tanzania.

Coal in Tanzania

Tanzania is endowed with substantial coal reserves, especially in the Ruhuhu Basin (Katewaka-Mchuchuma and Ngaka) and in Songwe (Kiwira), in the south-west of the country. Tanzania's known coal reserves stand at 1.5 billion tonnes, although a recent revised estimate suggests that the country could have up to 5 billion tonnes.[19] The coal reserves were first documented by the German geologist Wilhelm Bornhardt, following his earlier geological exploration work in 1896 in what was then German East Africa. Coal feasibility studies were later undertaken by the British colonial government in the 1950s and by Chinese geologists between 1975 and 1979.[20] Despite the reports, coal deposits remained unexploited for many years, as they were deemed unviable due to the remoteness of the deposits and the large investments required to develop them.[21]

Construction of the first coal mine in Tanzania, at Kiwira, was not undertaken until 1983 and not completed until 1988. Coal production started in 1989 under the State Mining Corporation (STAMICO), with technical support from the Chinese government. The mine produced coal

17. Simon Chin-Yee, 'Briefing: Africa and the Paris climate change agreement', *African Affairs* 115, 459 (2016), pp. 359–68.
18. Bloomberg, 'African development bank defends lending for coal power', 19 March 2015, <http://www.bloomberg.com/news/articles/2015-03-18/african-development-bank-defends-lending-for-coal-power> (22 July 2016).
19. Tanzania Minerals Audit Agency, 'Minerals found in Tanzania' (Tanzania Minerals Audit Agency, Dar es Salaam, 2013); *Tanzania Invest*, 'Tanzania coal reserves estimate revised at 5 Billion Tonnes', 5 July 2013 <http://www.tanzaniainvest.com/energy/tanzania-coal-reserves-estimate-revised-at-5-billion-tonnes> (13 April 2015).
20. Interview, senior geologist from State Mining Corporation (STAMICO), Dar es Salaam, April 2016.
21. Clive Sowden, 'Riches out of reach', *Geographical* 65, 10 (1993), p. 56.

and generated 6MW of coal-fired electricity. In 2005, Kiwira was privatized and acquired by TanPower Resources Limited, a company made up of a consortium of local investors. However, as the mine performed poorly, the government decided to resume ownership in 2008, only to hand it back to STAMICO in 2013.[22] STAMICO is still searching for investors to resume production and to construct a 200 MW coal-fired power plant.[23]

Currently, Tanzania has one active coal mine (Ngaka) in the Ruvuma region,[24] but a further six large and medium coal projects involving power generation are in different planning stages of construction in various parts of the country (see Table 1). The most notable coal project is the $3 billion joint venture between the state-owned National Development Corporation and the Chinese Sichuan Hogda group in Mchuchuma, south-west Tanzania. This project, which was expected to start in 2016,[25] involves the development of the Mchuchuma coal mine and the generation of 600 MW of coal-fired electricity, of which 350 MW will be fed into the national grid, with the remainder being used by the iron industry to be established at the nearby Liganga.

In 2014, the Ministry of Energy and Minerals, acting through the state-owned power utility TANESCO, unveiled the Tanzania Electricity Supply Industry Reform Strategy and Roadmap (2014–25), which seeks to meet current and future electricity demand and increase connectivity and access as Tanzania strives to become a middle-income country by 2025. The strategy signifies government interest in diversifying power sources and embracing a broader energy mix, along with a plan to increase power production from 1,583 MW (April 2014) to over 10,000 MW by 2025.[26] Ironically, despite the energy-mix rhetoric, the strategy does not involve an energy mix but long-term projected dependence on natural gas and coal. In fact, the additional coal-fired electricity capacity will amount to 2,900MW, as compared to only 200 MW from wind, 100 MW from solar, and 4,469 MW from natural gas and other sources—as shown in Table 2. The strategy clearly demonstrates the extent of Tanzania's enthusiasm for coal-to-power projects as part of its goal to ensure long-term energy security. In addition, apart from coal, the share of gas-fired electricity is also

22. Thabit Jacob, Rasmus Hundsbæk Pedersen, Faustin Maganga, and Opportuna Kweka, 'Rights to land and extractive resources in Tanzania (2/2): The return of the state' (Working Paper Number 12, Danish Institute for International Studies, Copenhagen, Denmark, 2016).
23. State Mining Corporation, *Kiwira coal mine project document* (State Mining Corporation, Dar es Salaam, 2015).
24. The Ngaka coal mine in Ruvuma, south-west Tanzania, is the only active coal mine in Tanzania at present. The mine is operated by TANCOAL, a joint venture between the state-owned National Development Corporation (NDC) and Australia's Intra Energy Limited (IETL). It was established in 2008 and began production in 2011.
25. Interview, Mchuchuma's coal project manager, Ludewa, June 2016.
26. Interviews, officials from Ministry of Energy and Minerals, Dar es Salaam, June 2016.

expected to rise dramatically. Following the recent discovery of natural gas, the government is promoting policies aimed at maximizing gas-fired electricity projects.[27]

Coal and competing energy narratives

The recent wave of large-scale investments in coal conflicts with Tanzania's ambitious Intended Nationally Determined Contribution, submitted during the 2015 climate negotiations in Paris. Tanzania's Contribution outlines a policy with green aspirations and strategies to commit to a low-carbon future, which include, among other things, a restructuring of the energy sector by increasing investments in renewables, clean technologies for power generation, and the promotion of energy-efficient technologies.[28]

Climate change commitments have featured prominently in key statements and policies such as the Intended Nationally Determined Contribution emerging from the ruling elites, especially from the former president, Jakaya Kikwete, who served as the coordinator of the Committee of African Heads of State on Climate Change between 2013 and 2015. As part of his duties as coordinator, Kikwete delivered the African position on climate change at the 19th and 20th sessions of the United Nations Framework Convention on Climate Change annual climate talks in Poland and Peru, respectively. In the inaugural Committee of African Heads of State on Climate Change gathering in 2014, the President called on African heads of states to cultivate the political will that is crucial to achieving a 'carbon-neutral' world.[29] Under Kikwete's presidency, Tanzania played a leading role regionally in championing the climate-change agenda. Tanzania held the chair of both the Adaptation Fund Board (2008–9) and the UN Framework Convention on Climate Change's Subsidiary Body of Scientific and Technological Advice (2011–13), as well as taking over the presidency of the African Ministerial Conference on the Environment (2012–March 2015).

This vision of African states as leaders in the climate-change agenda has been greatly overshadowed by recent developments related to coal investments that have triggered a clash between the energy security and

27. Although not the subject of this briefing, for more on new legislation promoting gas-fired electricity see Jacob et al., 'Rights to land and extractive resources in Tanzania (2/2)'; Rasmus Hundsbæk Pedersen and Peter Bofin, 'The politics of gas contract negotiations in Tanzania: a review' (Working Paper Number 03, Danish Institute for International Studies, Copenhagen, Denmark, 2015).
28. UNFCCC, 'Tanzania submits its climate action plan ahead of 2015 Paris agreement', 29 September 2015, <http://newsroom.unfccc.int/unfccc-newsroom/tanzania-submits-its-climate-action-plan-ahead-of-2015-paris-agreement/> (4 November 2015).
29. Remarks by President Kikwete at the CAHOSCC meeting in Malabo, Equatorial Guinea (Ikulu, 2014), <http://www.ikulu.go.tz/index.php/media/speech/808> (24 July 2016).

sustainability narratives. These narratives highlight the competing struggles among state-sponsored interests in coal-fired power and the emerging and expanding interest in renewable energy and low-carbon development, as well as both state-led projects and international efforts aimed at greening African economies that are being driven by governments, civil society, and the donor community.[30] While the entrenched coal-power regime in South Africa has so far managed to resist pressure to work toward a low-carbon energy transition,[31] the Tanzanian case is unique because of the scale of the proposed transition to fossil-based generation.

The emerging energy-security narrative presents coal as an essential energy source for Tanzania if it is to become a middle-income country by 2025, a goal outlined in the Tanzania Development Vision (2025).[32] This narrative is backed by enthusiasm and nationalist sentiments around coal fuelled by claims that coal, which is abundant and 'affordable', could play an important role in driving Tanzania's dream of middle-income country status. The central claim of this narrative is that, for Tanzania to develop and industrialize, it must be energy-secure and less vulnerable to disruptions to its energy supply. This claim is well captured in the words of the Minister of Energy and Minerals, Prof. Sospeter Muhongo: 'Coal to electricity is necessary in Tanzania; we will fight energetically to make sure we produce electricity using coal because its cost will be cheaper for citizens and this electricity will boost industrial growth.'[33]

Efforts to achieve increased energy access are also central to the donor-backed 'Big Results Now' initiative, unveiled by the government in 2013.[34] Big Results Now, which is housed in the President's office, seeks to ensure that more Tanzanians are connected to the national grid through increased installed electricity capacity, as listed in Table 1.[35] The initiative links energy security to the wider development goals of poverty reduction and improved living standards.

The Development Vision, Big Results Now, and other initiatives embrace an energy-security narrative that is backed by what can be called an emerging sense of 'coal nationalism' in Tanzania. Coal seems to be a

30. Carl Death, 'Green states in Africa: Beyond the usual suspects', *Environmental Politics* 25 (2016), pp. 116–35; Carl Death, 'Four discourses of the green economy in the global south', *Third World Quarterly* 36, 12 (2015), pp. 2207–24; Dan Brockington, 'A radically conservative vision? The challenge of UNEP's "Towards a green economy"', *Development and Change* 43, 6 (2012), pp. 409–22.
31. Baker et al., *The political economy of energy transitions.*
32. Reuters, 'Tanzania turns to more gas and coal to meet its energy needs', 23 July 2014, <http://news.trust.org/item/20140723140401-5rq3c/?source = shtw> (5 May 2016).
33. *AllAfrica*, 'Tanzania set on using coal finds for power', 16 January 2016, <http://allafrica.com/stories/201601182162.html> (11 February 2016).
34. Big Results Now is a brainchild of former President Jakaya Kikwete but it has slowed in pace since President John Magufuli took office in November 2015.
35. Presidential Delivery Bureau, 'Energy national key priority area overview' (Presidential Delivery Bureau, Dar es Salaam, 2015), <http://www.pdb.go.tz/energy.html> (21 May 2016).

source of national pride, and the resource has been accorded special status as a key ingredient in driving Tanzania's quest for energy security and industrialization, as well as middle-income country status. This pride is so strong that in August 2016, the Minister of Energy and Minerals expressed his outrage over a decision by a Tanzanian-based Nigerian cement company, Dangote Group, to import coal from South Africa instead of using locally produced coal. The outrage led to a total ban on coal imports effective from August 2016, a ban that is serving to reinforce the emerging trend towards coal nationalism.[36]

The counter-narrative is that clean energy is needed for Tanzania to reduce its dependence on fossil fuels and achieve sustainability and low-carbon development. This narrative is grounded in the claim that ongoing and planned coal investments will create obstacles to Tanzania's efforts to meet its obligations to reduce carbon emissions and mitigate climate change, as required by the various international agreements to which the country is a signatory, especially the recently agreed Paris climate deal. The main frustration according to this narrative is the fact that, while some sections of the ruling elite profess support for investments in renewable energy, the government continues to expand investments in fossil fuels, especially coal and natural gas.[37]

The clean energy and pro-renewable energy narrative is also backed by a number of legal instruments, including the national climate-change strategy (2012) and the recently approved energy policy (2015), which both emphasize the development of clean-energy sources through energy-mix strategies as the key to Tanzania's low-carbon future. The clean-energy/renewable narrative is heavily linked to concerns for the environment, particularly carbon emissions, with an emphasis on maximizing the diversification of energy sources through the promotion of renewable energy.

Key proponents of this narrative include a range of international and local NGOs and donors. The World Bank, for instance, is assisting Tanzania with a five-year renewable energy mapping project. The bank describes Tanzania as a country with vast renewable energy potential, especially in solar and wind.[38] Other financial supporters include the United Nations, through the Sustainable Energy for All Initiative, which seeks to widen access to modern energy, improve energy efficiency, and

36. 'Government bans coal, gypsum imports to boost local mining sector', *The Guardian*, 12 August 2016, <http://m.ippmedia.com/en/news/govt-bans-coal-gypsum-imports-boost-local-mining-sector> (18 August 2016).
37. 'As hydropower dries up, Tanzania moves toward fossil fuels', *Reuters*, 29 December 2015, <http://www.reuters.com/article/us-tanzania-hydropower-drought-idUSKBN0UC0SS20151229> (28 July 2016).
38. World Bank, 'Tanzania: solar and wind potential could help meet future power generation goals', 9 June 2015, <http://www.worldbank.org/en/news/feature/2015/06/09/tanzania-solar-and-wind-potential-could-help-meet-future-power-generation-goals> (11 May 2016).

double the share of renewable energy by 2030. Officially launched in July 2016, the initiative is funded by the World Bank, the African Development Bank, and the European Union.[39] Other backers of the clean-energy narrative include international and local civil-society groups.[40] They include Climate Action Network International in collaboration with its Tanzanian chapter and local civil-society partners, The World Future Council and Brot für die Welt (Bread for the World).

Maximizing rents in a clientelist state

The recent surge in investments in coal and other fossil-based energy-generation projects is evidence that the energy security narrative is currently dominant. One explanation for this is that the rents extracted from such projects tend to be quite substantial compared to rents from renewable energy projects. The current and ongoing investments in coal and natural gas mean that the quantity of resource rents likely to accrue to the Tanzanian state, ruling elite factions, state bureaucrats, and their patron–client relations will be massive.

Various forms of rents are likely to emerge from coal investments. They include large-scale fiscal rents accruing to the state and the ruling elites in terms of foreign direct investment, taxes, and royalties related to coal. They also include rents that are likely to be captured and diverted into individual hands by state bureaucrats and party cadres through direct monetary bribes and from the allocation of procurement contracts to supply inputs to coal mines, as well as the profits made by the state through the supply of coal-fired power to residential, commercial, and industrial consumers. Power production and distribution is state-controlled, and this monopoly paves the way for managers of state-owned enterprises with close links to the party to extract rents. As gatekeepers to these investments, CCM elites and state bureaucrats have control over various rent extraction streams emerging from coal.

During President Magufuli's first nine months in power, he has replaced most of the top managers and boards of directors in the key state-owned enterprises. While Magufuli emphasizes that the moves are aimed at instilling fiscal discipline and enhancing the competitiveness of state-owned enterprises, I argue that the recent overhaul of state-owned enterprises signals Magufuli's efforts to change the existing channels of

39. United Nations Development Programme, 'Launch of the sustainable energy for all (SE4ALL) Initiative In Tanzania', 11 July 2016, <http://www.tz.undp.org/content/tanzania/en/home/presscenter/articles/2016/07/11/launch-of-the-sustainable-energy-for-all-se4all-initiative-in-tanzania-.html> (14 July 2016).
40. World Future Council, '100% renewable energy and poverty reduction in Tanzania', 26 April 2016, <http://www.worldfuturecouncil.org/inc/uploads/2016/04/WFC_CAN_BfW_2016_Tanzania_MidTermReport_onlineversion.pdf> (11 June 2016).

rents distribution established by CCM factions under Kikwete by allowing Magufuli's own loyalists and supportive CCM factions to enter the state-owned enterprises. The shake-up of state-owned enterprises suggests that Magufuli is ready to use the daily operations of state-owned enterprises to consolidate power in anticipation of future rents. These recent developments could create frictions within the CCM as various factions and business elite groups connected to the party lose access to stable rent opportunities.

Resource rents extracted by the elites can be deployed for capital accumulation, buying political support, maintaining political stability and keeping the elites themselves in power.[41] With strengthening political opposition in Tanzania, the ruling CCM party-state is very keen to maximize current and potential future rents from fossil-based energy investments, especially coal and gas, and distribute them to the wider population to minimize political dissent and ensure its long-term stability and survival. Potentially, this benefit could render renewable investments less favourable, despite the government's rhetoric highlighting a commitment towards climate change and low-carbon development. At present, ruling elites have no political or financial stake in renewables and clean energy. As Peter Newell recently argued in relation to what he calls the 'incumbent power' of fossil fuels, the transition to low-carbon energy is likely to be heavily contested by elites with vested interests in the fossil-fuel industry associated with coal and natural gas investments.[42]

For these reasons, the wave of large-scale investments in coal and the associated control and allocation of rents potentially serves to strengthen CCM elites further, leading to the hardening of their support for fossil fuel-based energy investments at the expense of renewables. However, increasing fragmentation within CCM and the strengthening of political opposition and civil society could shape the way these investments are made. Despite CCM's institutional strength, power within the party is significantly fragmented,[43] and the party itself is characterized by constant elite struggles spread across various factions. Yet even given the recent level of instability, the ruling elites within CCM have always been able to find the means to collaborate, diffuse tensions, and maintain unity.[44] This means that radical reforms to Tanzanian energy policy are unlikely in the

41. Mushtaq Khan, 'Rent-seeking as process', in Mushtaq Khan and Jomo Kwame Sundaram (eds), *Rents, rent-seeking and economic development: Theory and evidence in Asia* (Cambridge University Press, Cambridge, 2000), pp. 70–144.
42. Peter Newell, 'The political economy of incumbency: Beyond fossil-fuelled capitalism' (Keynote address, the politics of fossil-fuel subsidies and their reform, Stockholm, 16–17 June 2016).
43. Whitfield et al., *The politics of African industrial policy.*
44. Hazel Gray, 'The political economy of grand corruption in Tanzania', *African Affairs* 114, 456 (2015), pp. 382–403.

short term, and that policy in the future will remain in tension with both energy security and clean-energy narratives.

Conclusion

While it remains to be seen how many planned and approved coal-fired energy projects will actually be implemented,[45] this briefing has shown how competing interests around coal energy are unfolding in Tanzania. In view of the competing narratives, it is clear that the energy sector will be a major source of struggle between ruling elites, state bureaucrats, multinational corporations, donors, and civil-society organizations. It is also clear that a successful transition to clean energy will have to be backed by those members of the ruling elite who have a stake in the clean-energy sector. However, the clean-energy narrative is weakened because it appears to be driven mainly by donors and foreign NGOs, especially in the light of the recent declaration by President Magufuli to rid Tanzania of dependence on donors.[46]

The emergence of competing narratives about energy in Tanzania, as in Africa in general, calls for deeper inquiry into the political economy of energy transitions to establish a better understanding of the competing interests at play and the actors involved. While recent studies on energy transition and sustainability are a good start,[47] energy scholarship must provide more insights into the conditions under which energy systems, especially in sub-Saharan Africa, can achieve both energy security needs and environmentally sustainable outcomes without obstructing development aspirations. Poorly executed transitions are also likely to produce winners and losers and accelerate energy injustice, especially in countries like Tanzania. More studies focusing on critical issues such as energy injustice, elite political reliance on rents, and the winners and losers in energy transitions will offer important insights into Tanzania's—and Africa's—quest for low-carbon development.

45. The implementation of such projects largely depends on the interests of the ruling elites and clientelist networks both within and outside the CCM-led government. To discuss the implementation of these projects would take us beyond the scope of this briefing.
46. *International Business Times,* 'Tanzania: President Magufuli slams concept of receiving aid after US freezes $500m grant', 30 March 2016, <http://www.ibtimes.co.uk/tanzania-president-magufuli-slams-concept-receiving-aid-after-us-freezes-500m-grant-1552259> (25 June 2016).
47. Marcus Power, Peter Newell, Lucy Baker, Harriet Bulkeley, Joshua Kirshne, and Adrian Smith, 'The political economy of energy transitions in Mozambique and South Africa: The role of the rising powers', *Energy Research and Social Science* 17 (2016), pp. 10–19; Death, 'Green states in Africa'; Schmitz and Scoones, 'Accelerating sustainability'; Baker et al., *The political economy of energy transitions.*