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Revisiting Mozambique's Economic Trajectory in an Era of Rising Liquefied Natural Gas (LNG) Exploitation: A Contextual Review and Policy Recommendations

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Author

Ben O'Bright

Ben O'Bright is a researcher and policy specialist in the technology sector, focusing on emerging economies and digital democracy. He has previously worked as a natural resources consultant with leading international organisations, foundations, and think tanks. He currently works at

About the series:

The United Nations University-Institute for Natural Resources in Africa in collaboration with the University of Warwick's Centre for the Study of Globalization and Regionalization, University of Leiden-African Studies Centre, Universidade Eduardo Mondlane and University of Ottawa's Centre on Governance undertook a joint United Nations Economic Commission for Africa funded project on "Engaging the Private Sector for Inclusive Extractive Industries and Sustainable Value Chains in Africa." The project was carried out through the study and analysis of four country case studies: Ghana, Tanzania, Zambia and Mozambique. The two-year study examined and prioritized backward linkages in Africa's mineral extraction and natural resources sectors, contributing to on-going efforts at answering the central problematic of how to leverage the latter industries to support, encourage, facilitate, and drive broad-based and sustainable economic growth and development, both transitionally and in key case study states.

Abstract

Mozambique appears to be a modern-day tale of two countries a la mode of Charles Dickens. It is a low-income economy and one which has maintained some of the world's highest annual economic growth rates since 2001. This allows for it to stand in literature as a potential model for the translation of resource wealth into yearly-increased sustainable development. Yet, it is also a country which continues to suffer from the ill-effects of the fortunate endowments of natural resources. With announcements of new liquefied natural gas projects being approved in the country, this paper works to interrogate and revisit the literature on Mozambique's position as either a role model or a pariah with regard to natural resource governance on the African continent. The paper seeks to respond to two overarching research questions. Firstly, has the country truly escaped the resource curse so as to promote sustainable development? Secondly, by what means and mechanisms, especially with regard to natural resource governance frameworks, legislation, and institutions, did it do so? The paper argues that Mozambique represents an excellent case study of how secondary impacting variables are often lost in the hurried excitement of observer proclamations of success with regard to natural resource wealth translation into sustainable development.

I. Introduction

Mozambique is a favourite among observers of natural resource governance. Although experiencing a slight decline in growth estimates over the previous year, Mozambique has continually defied expectations with significant end-over-end real gross-domestic product (GDP) growth rate, with 5.5 per cent in 2017 and 6.8 per cent in the following year (ADBG, Mozambique Economic Outlook, 2016). The African Development Bank credits much of this to a policy approach that seeks to encourage large inflows of foreign direct investment (FDI), an economic backbone derived from natural resources, and a prevalence for export-oriented industries (ADBG, Mozambique Economic Outlook, 2016). Mozambique's rise has prompted headlines such as 'Boom Time for Mozambique, Once the Basket Case of Africa' an allusion to the country's 15-year civil war which ravaged much of its infrastructure, growth-leading sectors, and population at large (Smith, 2012). But as we are reminded by New York University's Centre on International Cooperation, Mozambique's experience provides a salutary story of the challenges and potential of natural resource well. Recent discoveries of resources like gas and minerals provide a major opportunity for additional revenues. But this boom also presents a number of challenges (Bujones, 2014).

Therefore, Mozambique appears to be a modern-day tale of two countries a la mode of Charles Dickens. A low-income economy² and one which has maintained some of the world's highest annual economic growth rates since 2001, allows it to stand in literature as a potential model for the translation of resource wealth into yearly- increased sustainable development. And yet, it is also a country which continues to suffer from the ill-effects of fortunate endowments of natural resources. With announcements of new liquefied natural gas (LNG) projects being approved in the country (Pilling, 2017; Interfax, 2017), this paper's authors argue that now is a ripe and opportune moment to interrogate and revisit the literature on Mozambique's position as either a role model or a pariah with regard to natural resource governance on the African continent. Indeed, they seek to use a robust review of the Mozambique context to respond to two overarching research questions. Firstly, has the country truly escaped the resource curse so as to promote sustainable development? Secondly, by what means and mechanisms, especially with regard to natural resource governance frameworks, legislation, and institutions, did it do so? The paper argues that Mozambique represents an excellent case example of how secondary impacting variables are often lost in the hurried excitement of observer proclamations of success with regard to natural resource wealth translation into sustainable development.

To respond to these questions, the following paper is divided into three sections, each relating to a specific natural resource reserve and a contributing GDP growth stream found in Mozambique. The first resource, namely oil and gas, has been prominent in Mozambique since the mid- 2000s. Secondly, the paper will explore agriculture, which contributes towards more than 25 per cent of the country's total GDP and employs nearly 80 per cent of its labour force (USAID, "Agriculture and Food Security," 2017). Finally, the authors will broach the mining sector. Each of these will be broken down into two specific, analytical components: a deep dive into Mozambique's particular experience, including previous investigation in academic literature; and the provision of selected policy recommendations for the realisation of improved governance of natural resources.

²As per classification by the World Bank, 2016.

II. Hydrocarbon Sector

Mozambique's hydrocarbon sector is divided into four primary offshore areas and one onshore location, each forming the southern section of a natural gas and oil deposit stream extending from Tanzania. Offshore Area 1, sitting approximately 18 miles off the coast of Mozambique and encompassing 2.9 million acres, extends from the Tanzanian border to just north of the Parc Nacional das Quirimbas (Anadarko, 2011). Operated by the American oil and gas company Anadarko, in partnership with Mitsui E&P, BPRL Ventures Mozambique B.V., Videocon Mozambique Rovuma 1 Limited, and Cove Energy Mozambique Rovuma Offshore, it contains the 2011 Tubarão Discoveries, a series of proven natural gas reserves some 4,000 m below the surface of the ocean (LNG World News, 2011; Anadarko, 2011). Oil licensing for Offshore Area 1 was previously owned in 2002 and 2008 by Malaysian firm Petronas, although they sold a 40 per cent stake to Total SA, before handing majority ownership to the French company in 2016 (Zitamar 2016; Petronas, 2008; OGJ Editors, 2012). Licensing for Area 5(A), extending directly south from Offshore Area 1 and located in the Northern Zambesi basin, has been owned by Statoil since 2015 (Statoil, 2015). In 2012, Statoil sold a 25 per cent stake in its exploration license to Tullow Oil after the company had discovered large hydrocarbon deposits off the coast of Tanzania (Koranyi, 2012). Offshore area 4, home to a large portion of the gas rich Rovuma Basin, is owned and operated by the Italian firm Eni SpA. Onshore areas remain underdeveloped, with limited facilities tied primarily to offshore extractive firms: Anadarko and Eni have been developing the Afungi LNG Industrial Park in Mozambique's Cabo Igaro Province jointly, with a maximum capacity of 50 million tons per year, although the first LNG sales from the project are not expected until 2018 (Hydrocarbons Technology, 2017).

By 2014, the National Petroleum Institute (INP) began an auction process for its 5th round of licensing for on and offshore exploration and extraction licenses. Created under Act 25 of 2004 by Mozambique's Council of Ministers, the INP is 'the regulatory authority responsible for the administration and promotion of the petroleum operations' (INP, 2017). The INP is in particular responsible for all the aspects of license issuance, the monitoring and auditing of petroleum operations, the maintenance and storage of national petroleum data, and the facilitation of cooperation between government departments and agencies with regard to natural resource governance (INP.gov, 2017). To date, the INP has been involved in five licencing rounds. The latest made 15 new licences available for geological exploration in 2015, although only 8 were bid on, including bids by a consortium of Rosneft, Russia's state-owned oil company, and ExxonMobil. The bids were for three blocks A5-B, Z5-C and Z5-D (Club of Mozambique, 2016; Addison, 2015). Other offshore blocks included those in the northern areas of the Rovuma Basin, the Angoche Basin, and the Zambezi Delta (Addison, 2015). Onshore, INP's 5th Licensing Round included blocks in the country's southern province of Inhambane, known as the Pande, Temane and Inhassoro fields. Here discoveries of oil by Gulf Oil in the 1950s and 1960s have undergone extraction processes by Sasol, who purchased the licenses for the fields in 2003 (IFC, 2015, 2). The Pande and Temane fields came onstream in 2009 and 2004 respectively (Wood Mackenzie, 2017). The fields are also partly owned by the Companhia Moçambicana de Hidrocarbonetos SA and the International Finance Corporation of the World Bank Group (IFC, 2015, 2). The Palmeria onshore oil field block (P5-1), located just north of the capital Maputo with an area of 9,988 square kilometres, was awarded to the Indian Oil Corporation, India's state-owned hydrocarbons company, in partnership with Delonex Energy for exploration (PTI, 2015).

Since 2015, Mozambique's hydrocarbon sector has seen indications of strong development and contextually significant investment. This is despite the country's lingering debt crisis and the instability of commodity prices on global markets. In 2016, Anadarko proposed to develop the country's first onshore LNG plant with a total of 12 million tons per year (OGJ Editors, 2017). It would finalise agreements, termed marine concessions, with the Mozambican government during July 2017, which would allow for it to design, build and operate marine-based extraction facilities (Anadarko, "Anadarko Reaches," 2017). By June 2017, Eni SpA had finalised a US\$7 billion investment plan in Mozambique's natural gas industry with the formal approval of its Coral South Liquefied Natural Gas Project (Nhamire and Burkhardt, 2017). Once completed, the floating

natural gas plant will position itself above the Rovuma Basin off the coast of Mozambique and will work at a capacity of 3.4 million tons per year (Nhamire and Burkhardt, 2017). Coral is being collaboratively developed by Galp Energia SGPS SA, Korea Gas Corp, and Empresa Nacional de Hidrocarbonetos, a Mozambique state owned enterprise, while onshore facilities will be constructed and owned by Exxon Mobil (Nhamire and Burkhardt, 2017). Rovuma Basin, first discovered in 2010–2012 by Eni, is said to hold between 85 and 180 trillion cubic feet of natural gas, or 20 billion barrels, making it one of the largest finds of this sort in history (Idowu, 2017; Njanji and Barbier, 2017). With its discovery, experts believe the country could become the world's third largest exporter of LNG (Njanji and Barbier, 2017).

The Coral Development Project has even attracted the attention of the Chinese, who hold a 20 per cent stake in the project through the China National Petroleum Company (Macauhub, 2017). With the global demand for natural gas estimated to rise 1.6 per cent a year until 2022, and with China accounting for almost 40 per cent of that growth, an understandable expectation would be that Mozambique would be well placed to take advantage of this ravenous worldwide hunger (IEA.org, 2017). The expectation and reasoning behind Mozambique's active efforts to drive development in its hydrocarbon sector is to attract foreign investment, grow its economy and create jobs for the average citizen. These, in turn are seen as key factors behind a meaningful contribution to poverty alleviation, a priority for the country (Gqada, "Boom for Whom?" 2013, 5). And yet, in part due to unexpected variables, Mozambique has been unable to translate all this foreign direct investment into its hydrocarbon sector into sustainable development. This is to be expected of a country that is likely to fall only behind Australia and Qatar with regard to LNG production. Challenges associated with governance and politics, economic diversification, slow actualisation of LNG projects, and a global expansion in LNG production, especially by the United States, have all coalesced to hamper Mozambique's ascent away from the resource curse.

We can begin with the latter, the United States and others whom have inhibited Mozambique's rise by flushing global markets with LNG. By 2022, the United States is poised to increase its natural gas production by some 40 per cent, positioning it as provider for one fifth of the global demand. This is thanks to a significant augmentation and refinement of extraction processes from shale (EIA, 2017; IEA.org, 2017). This is adding to a 50 per cent rise in global supplies that are expected to emerge by 2021 in Australia, Indonesia, and Russia, competing with Zambia for a market share (Pilling, 2017). Research by the Financial Times in November 2017 indicated that because of the glut in supply, several significant onshore LNG projects, including ENI- and Anadarko-sponsored condensing facilities and ports, have been delayed, pending external purchase and funding contracts (Pilling, 2017). It is possible that the demand from Asian markets in particular may be able to eventually compensate for the high stockpiles of LNG, driving up the value of investment in Mozambique's hydrocarbon sector. However, this has yet to manifest itself fully. Indeed, Gqada contends that the above is a quintessential example of the resource curse, whereby the exporting of a single commodity can bully its way to the fore of a country's economic profile, pushing out other sectors while having a 'concomitant inflationary effect on other non-resource export commodities'. This is known as the Dutch Disease ('Boom for Whom,' 2013, 5). The result is a national economy excessively vulnerable to external price shocks with regard to primary commodities. This is especially the case when the latter are party to an oversaturation of market supply (Gqada, "Boom for Whom," 2013, 5). Without diversification and an improved translation of resource wealth into sustainable development, economic growth from natural gas will do little to spur poverty reduction in Mozambique during the next two decades. This has led to the Institute for Security Studies (ISS) concluding that the commodity is no silver bullet for the country's economic woes (Porter et. al., 2017, 4).

Pilling points to another secondary variable of concern which has inhibited Mozambique's hydrocarbon sector. It is denoted as 'casting-iron legislative frameworks'. He argues that for companies to commit to some US\$40 billion required to operationalise onshore LNG facilities, these foreign actors must see guarantees in law that will protect their investments and allow for the negotiation of commercial terms and flexible financing (Pilling, 2017). Previously, companies including ENI and its Coral South Project, required a deferral of initial financial benefits and first revenues from Mozambique as well as a special taxation regime valid for 10 years after the approval of the company's development plan. There was no requirement for the inclusion

of Mozambique contractors and no requirement that extracted LNG remains in the country (Caldeira, 2017). This fear is compounded by a growing belief that as a country which has relied on a large portion of its budget coming from development aid for many years, the government is more accountable to foreign donors than to the people (Gqada, 'Boom for Whom,' 2013, 15). The result, according to some, is a systematic exclusion of the national assembly from policymaking processes in general, but specifically prominent in the case of the hydrocarbons sector. This results in an uncertain and risk-heightened investment environment for private sector actors and a pervasive belief that there is high-level corruption in the government (Gqada, "Boom for Whom," 2013, 15-16, 18). Indeed, the ISS predicts that large individual windfalls from the natural gas sector, akin to previous episodes of corruption with regard to natural resources in the country, will not necessarily encourage transparency in government (Porter et. al., 2017, 4).

In addition to the above, Mozambique's natural gas sector can only partially offset the country's heavy debt burden. It was driven by revelations in 2016 that during the half of the last decade government actors held significant commercial liabilities valued at US\$1.4 billion or 10 per cent of the country's annual GDP. This accumulated in the form of hidden loans as part of a financing effort for a tuna fish company Ematum, among other enterprises (England, 2016; Machado, et al., "Mozambique's Economic Outlook," 2016, 8). The result was a considerable freeze in development aid and a push of Mozambique's commercial debt stock to 112 per cent of the GDP by July 2016 and 130 per cent by November of that same year (Machado, et al., "Mozambique's Economic Outlook," 2016, 8). By the following year, the debt crisis continued to spiral out of control. In January, the country announced it would not be able to service its commercial dollar debt and promptly defaulted on a US\$727 million Eurobond loan (Hill and Nhamire, 2017). Then, in June, it was announced that some US\$500 million in loans to Mozambican companies were unaccounted for, with an independent analysis determining that Privinvest, the primary supplier in this case, had been invoiced US\$1.2 billion for goods valued at half that cost. (Hill and Nhamire, 2017; Kroll Associates UK, 2017). Several months later, the United States opened a probe into several banks which had been involved in what appeared to be improper loan practices in partnership with Mozambique (Wirz and Strasburg, 2017). As the International Monetary Fund has noted, a country straddled in debt, compounded with a lack of transparency in government and the private sector, may be unable to leverage natural resources for consistent, sustainable economic growth. This is especially the case with aggressive public expenditures in anticipation of boom over bust (Melina and Xiong, 2013).

Ultimately, it is suggested that any failures to manage Mozambique's natural resource endowments appropriately, especially with regard to their hydrocarbon sector, will most likely be a major impediment to the country as a whole. This is especially the case with regard to the most vulnerable of its population (Porter et. al., 2017, 33). Remaining solely reliant on the prospect of economic advancement through hydrocarbons alone will almost certainly inhibit the positive growth of other development indicators, including: the improvement of family planning and care; the strengthening of governance, from legislation to institutions; the increase of graduation and attendance rates for primary education; the extension of health services; expanding infrastructure; and raising agricultural production (Porter et. al., 2017, 34).

With regard to the latter, the ISS argues that evidence from developing countries with regard to the connection between energy intensive economies and inclusive growth have generally been weak (Porter et. al., 2017, 6). In the case of Mozambique, it means that the agricultural sector will most likely continue to be a critical sector for ensuring steady poverty reduction (Porter et. al., 2017, 6). As such, the next discussion in this paper will focus on the country's agricultural sector, using a similar lens of identifying and detailing secondary variables which may continue to impact the resource's ability to contribute sustainably and proactively to growth and development.

III. Agriculture Sector

Despite the excitement for its budding hydrocarbon sector, agriculture remains the primary and largest economic sector in the Mozambican economy. It employs some 80 per cent of the workforce and has contributed a value-added 24.77 per cent of the country's GDP as of 2016 (Ross et al., 2014, 72; tradingeconomics.com, "Mozambique – Agriculture," 2017). Mozambique's potential agricultural land is approximately 49 million hectares or 69 per cent of the total land available in the country, although the arable land covers only 5.8 million hectares today (Zacarias and Esterhuizen, 2015, 2). According to research, rural and peri-urban areas, where the majority of agriculture occur as livelihood, continue to hold some 70 per cent of the population that remains under the national poverty line. (Matteo and Schoneveld, 2016, 3). Estimates suggest that approximately 95–99 per cent of the farmers in Mozambique are smallholders. They work on 1.8 hectares of land or less, often without formal deed, and for the primary purpose of growing staple foods for self-consumption (Matteo and Schoneveld, 2016, 3; Zacarias and Esterhuizen, 2015, 2). The Food and Agriculture Organization of the United Nations (FAO) suggests that 5 per cent of agricultural production comes from commercial farms, of which there are approximately 400 (FAO, "Mozambique," 2017). Cash crops grown include sugar, tobacco, cotton, cashew nuts, tea, and sesame seeds, although maize, cassava, beans, and sorghum remain the largest portion of agricultural growth per used hectare in the country by far (Zacarias and Esterhuizen, 2015).

Crop production in particular accounts for approximately 78 per cent of the total agricultural sector GDP input, with forestry, livestock, and fisheries accounting for 9.1 per cent, 7.1 per cent, and 5.6 per cent respectively. This is according to the country's last agricultural census in 2009 (Ross et al., 2014, 72). According to the FAO's Artisanal Fisheries Census completed in 2012, there are 380,000 artisanal fishermen in Mozambique, who use 39,550 boats of which 2–3 per cent are motorised (FAO, "Mozambique," 2017). Divided into industrial, semi-industrial, and small-scale sectors, fisheries in Mozambique are governed by the 1996 Fisheries Master Plan, the Strategic Plan for the Artisanal Fishing Subsector, and the National Institute for the Development of Small-Scale Fisheries in particular (Benkenstein, 2013, 2). Along the coast, Conselho Comunitário de Pesca (CCPs) are localised co-management committees for the monitoring of fishing practices, the raising of awareness, and conservation (Benkenstein, 2013, 2). This is intended to work in conjunction with Mozambique's Environmental Act 20 of 1997 and the Ministry of Coordination of Environmental Affairs. However, enforcement of the former remains weak due to the geographical size of the country, technical constraints, and limited financial resources (Benkenstein, 2013, 4).

Despite the majority of Mozambicans working in the agricultural sector, the country remains a net importer of food. As of 2014, the country imported US\$1.02 billion in crops, particularly rice, wheat and palm oil, while it exported only US\$699 million in similar sector goods (Zacarias and Esterhuizen, 2015). It follows a trend that has been consistent since 2002: the significant rise in Mozambican food insecurity and attempts at the importing of goods in order to compensate (Zacarias and Esterhuizen, 2015). Poor access to credit, high transportation costs, limited technology, and land grabs by foreign enterprises have all contributed to the situation of net importer status for agriculture, each of which will be discussed further. However, low-productivity subsistence farming is inherently risky and insecure, especially with regard to unanticipated external variables. The 2016 El Niño-derived drought is an example of such an externality which has no subjective control over its impact on the population on the surface, but which can devastate the livelihoods of poor, rural farmers and smallholders. When it struck, the drought in Mozambique prevented crop production during 2015 and 2016 due to a lack of water and a contributing lack of irrigation, for most of the country's harvest is rain-fed (Vidal, "Rivers Dry Up," 2016; Cotterill, 2017). The result was the reliance by several of the most vulnerable provinces, including Mbalavala, Gaza, and Inhambane, on external food aid (Vidal, "Rivers Dry Up," 2016). Ultimately, the drought in 2016 directly impacted some 1.5 million people in Mozambique, eating into potential household income streams and reducing its contribution to the national GDP by 6 per cent in the first three quarters of 2016 (UNICEF, 2016; World Bank, "Facing Hard Choices," 2017, 6). The

sector's overall growth declined between 2015 and 2016 from 3.1 per cent to 2.5 per cent respectively, with a negative contribution in the first quarter of 2017 (World Bank, "Two Speed Economy," 2017, 4). It was only a happenstance that those regions of Mozambique most affected by the drought were those that held the lowest share of total agricultural production that prevented further GDP contribution loss (World Bank, "Facing Hard Choices," 2017, 6). It has prompted the World Bank to label the country as a two-speed economy, with heavy investment and rapid development in the hydrocarbon sector at the expense of others, namely agriculture. Agriculture has only managed to average 10 per cent of the total private investment into the country each year, despite accounting for a considerable portion of the total GDP (OECD, "Investment Policy Review," 2013, 4).

For the local population, sustainable growth derived from agriculture is further hampered by an FDI focus of the government on so-called megaprojects. The story of the latter begins with Mozambique's exit from consecutive civil wars in 1992. As a result of the devastation on the country's economic engine, the first priority for Mozambique's new government at the time was to attract foreign direct investment. This would ultimately become the second part of a growth strategy that had equal reliance on development aid (Zhan, 2013). The expectation was that megaprojects would anchor the economy, including the Mozal aluminum smelter and the Temane gas field, and would attract addition investment from abroad (Zhan, 2013). Temane, for example, has proven gas reserves of approximately US\$1 trillion cubic feet. This prompted an initial investment from the South African firm Sasol in 2004 to ship the extracted product south via underground pipeline (African Development Bank, "Natural Gas Project, 2002). Sasol has since delivered an expanded central processing facility in Temane and began a series of exploratory drillings in the area in expectation of extraction growth in 2019 (Shabalala, 2016). Together, these investments have constituted the Sasol Natural Gas Megaproject. However, derivatives as such have primarily been from the supply of natural gas to South African refineries and power plants, albeit with some indications that new reserves will be used in Mozambique (Shabalala, 2016). Initially, analysis tends to confirm that megaprojects did provide the country with an export boom, pushing numbers from US\$700 million in 2001 to US\$2.7 billion in 2008, after these investments came on board (Wallace, 2011). However, analysis suggests that the focus on megaprojects, especially in the extractives and natural resources sectors, has not had a measurable impact on the country's goal of poverty reduction (do Rosário, 2012, 3). The wealth derived from these megaprojects has simply not trickled down or been distributed in such a way as to foster economic growth for all Mozambicans. Economists at Standard Chartered argue that while the natural resources sector will likely push economic growth as a metric, it does not normally engender the creation of a significant number of jobs (Wallace, 2011).

Interestingly, one of the key sectors not imbued with considerable megaproject investment is agriculture, despite continuing to be one of the primary drivers of the country's economic growth (Santos, 2016, 4). In recent years, only one such megaproject investment has been explored by foreign actors – the Programme of Triangular Co-operation for Agricultural Development of the Tropical Savannahs of Mozambique, also known as the ProSavana agricultural plot in Northern Mozambique. Backed by development cooperation agencies in Japan and Brazil, the programme was intended to bring large-scale industrial agriculture to a 14.5-million-hectare corridor of territory currently occupied by 4.5 million Mozambicans (Nampula, 2014). It seeks to turn the area into Mozambique's breadbasket. Indeed, the opening of the Nacala corridor to investment has attracted several large scale foreign direct investment agreements, including one on agriculture and natural resources with the United Arab Emirates. It was concluded in November 2017 (All Africa, "Mozambique: UAE," 2017). The same can be said for South Africa, which has US\$277 million in cumulative investments in Mozambique's agricultural sector as of 2012 (UNCTAD, 2012, 20). According to civil society, the bidding and land appropriation process has been marred by irregularity, secrecy, and obscurantism. Villages in the rural area argue that there has been consistent violations of a right to free, prior, and informed consent (Club of Mozambique, "Land," 2015). Companies that have begun to invest in the area, including Suni of South Africa, Nitori Holding Company of Japan, and Agromoz of Mozambique, have been accused of land grabbing practices and the forced resettlement of villages (Nampula, 2014). The law in Mozambique dictates that the state ultimately owns all land, but that farmers can apply for leases which can be broken based on circumstance (Nampula, 2014). It is demarking a case of extensively progressive legislation in agriculture,

perhaps even a model for the rest of Africa, being ignored, circumvented, or bent by a national government excited by the prospect of large-scale foreign investment (Wise, "Land Grab Update," 2016).

Land grabbing is unfortunately not uncommon in Mozambique's agricultural sector. A recent example of this was highlighted by Reuters in 2015, when Mozambique's government began internal discussions on the merits of the Lurio River Valley Development Project, which would facilitate the production of cash crops, including livestock, ethanol, cotton, corn, and sugar, for export (Arsenault, 2015). According to recent confidential document leaks, the project was funded in part by three companies: Companhia de Desenvolvimento do Vale do Rio Lúrio, managed by the financial firm Turconsult, which itself is operated by a Frelimo-linked businessman Rui Monteiro; Agricane, a Malta and South Africa based agricultural consulting firm; and Arcadia Agricane Limited, a multinational company based in Mauritania, with links to a range of mining and natural resource projects worldwide (ANCIR, "Elusive Beneficiaries," 2016). The result of the project was estimated to affect 500,000 locals and the immediate displacement of 20 per cent of that number (Arsenault, 2015). When Mozambique was undergoing a push for the development of a biofuels sector, the Procana Project in the province of Gaza occupied a land segment deemed by the government as marginal. This was despite the fact that several hundred smallholders, cultivators, livestock farmers and the like used the area for their own subsistence survival (Borras Jr. and Franco, 2011, 45). It exemplifies earlier references to the detrimental preference of Mozambique's government for marketable megaprojects over small-scale, broadly effective, but less attractive reforms and investment. Instead of broadly supporting subsistence farmers, Mozambique operated the Agriculture Promotion Centre (CEPAGRI) for many years, designated with the primary task of attracting large scale investment by foreign actors into the country's agricultural sector. After it had been closed in 2016, the CEPAGRI was argued to have failed in achieving this objective, having been unable to negotiate the completion of any agricultural megaprojects.

A generous tax break for foreign investors, including the establishment of special agricultural economic zones that allow for customs and tax exemptions as well as an easing for the repatriation of profit, has been used to attract them to the country. At the same time it equally inhibited the government's ability to invest in long-term sustainability solutions, including infrastructure and transport (Santos, 2016, 9). To date, most Mozambicans are not connected to the electrical grid, with the majority of megawatts produced being exported to South Africa (PwC, 'Africa Gearing Up,' 2013, 57). Transport links are said to be in disarray to this day in part due to a failure in investment after the civil conflict in the country while airports, roads, railways, and ports are significantly underdeveloped. This hampers both export opportunities to global markets as well as regional integration (PwC, "Africa Gearing Up," 2013, 58). In the agricultural sector specifically, crops remain primarily rain fed, with a mere 2.7 percent of the country's cultivated land using irrigation as of 2007 (Dominguez-Torres and Briceño-Garmendia, 2011, 23). ProSavana investors walked away from the project, primarily due to resistance from communities, and a fundamental lack of infrastructure to allow easy and cost-effective export of cash crops to Asian markets (Wise, "Land Grab Update, 2016).

Of course, infrastructure is not simply power generation and water access it is also the means by which farmers can be informed of market openings and competition in other regions. The Financial Times points to a 2013–2014 example of pigeon peas, normally not a crop grown in high quantities, but which was quickly adopted by farmers after the demand in India increased (Cotterill, 2017). At the same time, Indian farmers simultaneously began to increase production, requiring Mozambicans to cut prices considerably. Had Mozambicans been able to rely on an agricultural marketing board for information and access to other markets, they would have been able to react faster to the rise and fall of crop demands (Cotterill, 2017). The same situation was true in the mid-to-late 2000s, when the Mozambican government announced an intention to develop its biofuel sector through large foreign investment (Borras Jr. and Franco, 2011, 42). Hearing these proclamations and official intentions, villagers began to clear forests and plant jatropha, a staple source of biofuel (Borras Jr. and Franco, 2011, 44). But as the government shifted its focus to other natural resources, villagers were left without any farm implement supply, financial support, or export and market guidance, resulting in fields of unused agricultural products (Borras, Jr. and Franco, 2011, 44). Unfortunately, smallholders continue to lack an institutionalised method of government support for market access and export.

Agriculture in Mozambique continues to be a critical driver of the GDP contribution every year. Indeed, with the amount of untapped agricultural land in the country, the sector is poised to become even more important in years to come, especially when considering the volatility of prices for other commodities, like oil and gas. Furthermore, there are some indications that Mozambique is beginning to concern itself with the welfare and growth of the country's agricultural sector. In 2011, the Government of Mozambique launched its Strategic Plan for Agricultural Development, a national reflection of the Comprehensive Africa Agricultural Development Programme. This was designed to orient the country's agricultural industry away from subsistence farming and towards a sustainable, industrialised sector that contributes to food security and raises income (Pauw et al., 2012, 2). Mozambique has launched its National Agriculture Investment Plan 2014–2018, with a similar mandate. In order to unlock the potential of the agricultural sector, reduce poverty, and contribute meaningfully to sustainable growth, the analysis of the United Nations Conference on Trade and Development (UNCTAD) argues for a higher degree of commercialisation, improved production, higher yields, and a diversification of the labour force concentration beyond agriculture (2012, 83). In addition, a limited phase of private land ownership as collateral for smallholders could be an important mechanism for access to credit and finance. Also, the government should ensure a comprehensive set of pre-defined and transparent requirements for land allocation to large scale investments to be available publicly (UNCTAD, 2012, 83). Next, UNCTAD recommends that the government explores investment opportunities to collaborate with other sectors. Also, regulatory frameworks must be established to enable large foreign actors to contract smallholders to farm (2012, 83). Government could also work to provide further support for fostering business linkages between FDI and local suppliers and labour (OECD, "Mozambique," 2013, 5). Finally, as with hydrocarbons, there should be further emphasis on export diversification, despite Mozambique adding new products to its agricultural basket (OECD, "Mozambique," 2013, 21).

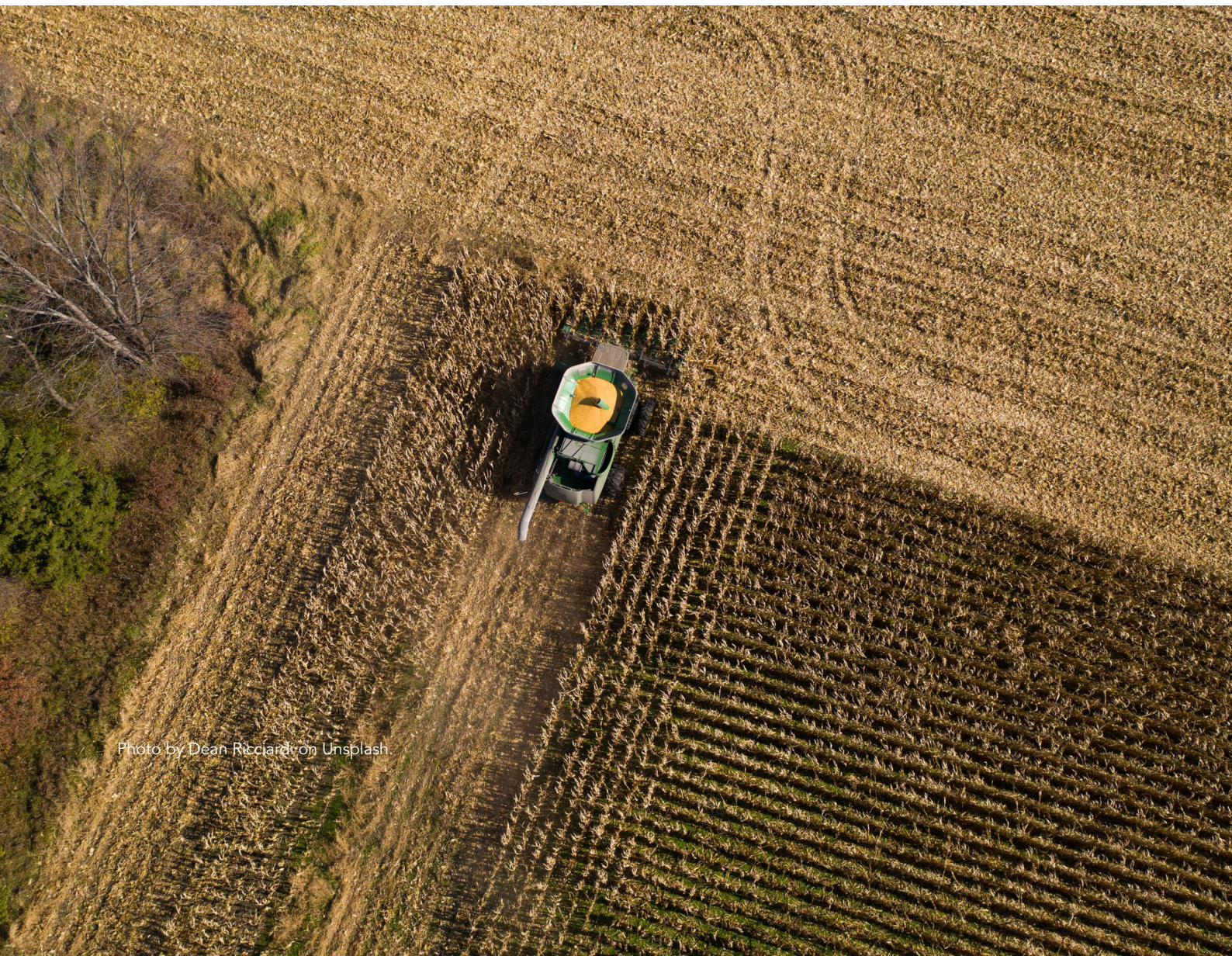


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IV. Mining Sector

Mining in Mozambique is an underdeveloped but potentially lucrative opportunity for sustainable contributions to the country's GDP. Historians suggest that mining in Mozambique can be traced back to between 96–212 AD, when the Ziwa and Shona people would extract deposits of gold, silver and copper from deposits in the region (Banze and Silva, 2000). Progressing through the colonial period, the Portuguese administration did little to grow Mozambique's mining sector, opening a Department of Geological Services only in 1928 (Banze and Silva, 2000). Today, Mozambique's mining sector is focused on coal, graphite, iron ore, titanium, apatite, marble, bentonite, bauxite, kaolin, copper, gold, and precious stones like rubies (export.gov, "Mozambique – Mining," 2017; Boswell, 2017). Coal, in particular, has been the principal driver of the mining industry. The first coking coal was exported from the country in 2011 and 2012, while the Nacala-a-Velha Ocean Port is now exporting between 11–18 million tons of the product per year (export.gov, "Mozambique – Mining," 2017; Club of Mozambique, "New Prospects," 2017). In addition, much of the country's focus has been on growing its extraction and export of heavy sands. This includes house minerals as well as those required for titanium production, ilmenite and rutile.

Mozambique's mining sector is governed primarily by its Mining Act 20 of 2014. This came into force on 1 January 2016 with Act 31 of 2015 and repealed a previous iteration from 2002 and the Mining Act. 26 of 2006. According to the the International Comparative Legal Guides (ICLG), the mining industry is fundamentally regulated by Mozambique's highest body, the Council of Ministers. The Ministry of Mineral Resources and Energy (MIREM) is tasked with the direct implementation of government policy as well as with overseeing both the National Directorate of Mines and the National Institute of Mines (ICLG, "Mining Law," 2018). The former agency is responsible for the monitoring of mining activities, employing government inspectors for periodic site visits, as well as the vetting and review of regular report submissions from mining title holders (UNESA, n.d.). Interestingly, information within those reports are to remain confidential (Chiziane, et al., 2015, 47). In addition, both agencies are tasked with the creation of public policies with regard to the sector, managing the allocation of licenses, overseeing procurement, monitoring social and environmental impacts, the approval and analysis of mining projects, overseeing the decommissioning and closure of mines, and supporting other government departments and units with indirect mining sector mandates (ICLG, "Mining Law," 2018). Available licenses include:

- **Exploration License:** Valid for two years for mineral resources in the construction industry or five years for other minerals, it governs all exploration and prospective activities.
- **Mining Concessions:** Provide the legally registered company with the right to extract, develop and process mineral resources.
- **Mining Certificate:** Governs small-scale mining and granted only to Mozambican nationals.
- **Mining Treatment License:** Used in circumstances where the investor does not hold a valid concession, specifically for treatment processes on usable ore and its derivatives.
- **Mining Processing License:** Governs processes for achieving ore concentrate, if the investor does not hold a concession license.
- **Mining Products Commercialization License:** Used for governing the sale and purchase of mineral resources, for both companies and nationals and
- **Mining Passes:** Govern artisanal mining operations and allow the sale of products arising from these operations and activities (CGA, 2014, 5).

According to the Mining Act 20 of 2014, established under the Ministry of Mineral Resources and Energy, the Inspectorate General for Mineral Resources will be placed in charge of overseeing legal compliance by mining companies (CGA, 2014, 4). The Act equally creates the High Authority on the Extractive Industry, whose competencies, powers, and mandate are yet to be defined (CGA, 2014, 4). The National Institute of Mines will work to 'minimise the social and environmental impacts of mining projects, publish guidelines on

public and private sector participation in the mining sector, and propose new politics to MIREM regarding the development of the mining sector' (CGA, 2014, 4). The Act equally requires these organisations to obtain information and registration information digitally (Correia and Gulamhussen, 2016, 1).

The intention of the Mining Act .20 of 2014 was to create a stable environment for the mining sector that would drive foreign investment, although deposits, as was the case with land and agriculture, continue to be owned in full by the state and are in the public domain (Rage, 2016, 2; ICLG, "Mining Law," 2018). This includes all deposits found in soil, subsoil, interior waters, onshore, and in economic exclusive zones (ICLG, "Mining Law," 2018). Licences to mine sites are awarded by public tender and are valid for 25 years with the possible extension for an equal time period only once. Furthermore, the rights to conduct mining activities under the Act can only be provided to Mozambicans as natural or legal persons, thereby removing the allowance for foreign enterprise ownership in previous iterations of enacted legislation (Rage, 2016, 2; ICLG, "Mining Law," 2018). In short, companies must be registered and have their effective headquarters in Mozambique. Mining licenses may be revoked under a number of circumstances:

- non-payment of taxes on surface production after 90 days due
- failure to carry out designated mining activities
- failure to report annually on mining activities
- failure to respond within 60 days to an intention to revoke
- failure to begin mining after 48 months of receiving a concession licence and/or
- failure to begin mining after 24 months of receiving a mining certificate (Correia and Gulamhussen, 2016, 4)

All mining concession contracts must include clauses for a state's share in revenues, local employment plans, value addition incentives, actions for corporate social responsibility, MoUs between companies and the communities, dispute resolution mechanisms, and detailed information on the benefits to be received by mine site adjacent and host communities (Rage, 2016, 2). Investors must ensure the protection of the local environment and ecosystems (Rage, 2016, 3). On local employment, the Mining Law requires companies to first advertise for qualified Mozambicans, however, it does not appear to apply to sub-contracting and a resultant hiring of foreign employees (CGA, 2014, 7).

The Mining Act requires that a percentage of the revenue from the sector are to be allocated directly to the development of communities and that the state must always put the national interests of the country as a whole first when negotiating concessions. Furthermore, relocated persons or communities must be fairly compensated for such, and ongoing dialogue must occur between companies and the community (CGA, 2014, 3). In order to do so, this Act and a previously discussed Act implements the following mining production taxation, assessed for each mining license and concession: 8 per cent for diamonds, 6 per cent for precious metals, stones, and heavy sands; 3 per cent for basic metals; 1.5 per cent for sands and stones; 32 per cent income tax on net profits; 17 per cent value added tax; a fixed-value tax over the surface based on hectare; and a 20 per cent resource- rents rate on net positive cash flows (Rage, 2016, 2; Marrerios Moreira and de Almeida, 2016). Interestingly, the relocation of individuals or communities is to be considered as temporary, unless evidence is provided that confirms mineral reserves in a given area (CGA, 2014, 3). In addition, the new law mandates preference to local provisions of goods and services, foreign service providers must 'associate' with Mozambican companies, and mining companies must be listed on the Mozambique Stock Exchange (CGA, 2014, 4). Equally, the state is legally allowed to purchase resources extracted from mining sites at market value so as to return them back to local businesses and the economy (Rage, 2016, 3).

With the above legal provisions, including efforts to formalise Mozambique's significant small-scale and artisanal mining sector, the country is well placed to leverage the potential of its largely untapped mining sector as part of sustainable growth. As of 2016, however, mining contributed a mere 4 per cent of the country's overall economic activity (Hancock, ed., "Potential," 2016). With that said, there are a number of secondary variables that should be considered prior to lauding the potential of Mozambique's mining sector

to elevate the country far beyond a situation of economic uniformity and a resource curse.

The first of this, as it was with other sectors, is a considerable lack of infrastructure. According to the Extractive Industries Transparency Initiative, as of 2014, the 'estimated coal production potential is four time[s] the capacity of existing infrastructure in the country' (EITI, 2014, 19). Advancements have, however, been made with the rail-seaport terminal infrastructure development now being able to handle some 22 million tons of products, particularly coal, per year (Santos, 2016, 4). In July 2016, a consortium of Chinese companies also announced the development of a rail and road transport corridor from Swaziland to the Port of Chongoene in the Xai-Xai district. This would alleviate pressure on the Port of Beira, currently the primary export destination for the country's coal products (Campbell, "Infrastructure Developments," 2016). In addition, Coal India has equally proposed developing railway linkages to bring coal to a greenfield port. Also, the Japanese firm Mitsui announced a US\$513 million investment in a Nacala Corridor Rail and Port Infrastructure Project in 2016 to facilitate the transport of coal for export purposes (Club of Mozambique, "India Plans," 2016; Mitsui and Co., "Investment and Engagement," 2017). Government officials in Mozambique have noted at times that they were unaware of any such plans, indicating an additional challenge of limited pathways with regard to official communication (Club of Mozambique, "India Plans," 2016).

The expectation of observers remains that development of LNG will continue to attract the largest sum of foreign direct investment into Mozambique's natural resources sector. This will contribute fundamentally to an on-going challenge of single-source resource dependence, although even these have seen considerable delays in activation (Hancock, ed., "Potential," 2016). It has created a situation of considerable risk in Mozambique, whereby dependence on a singular resource, and megaprojects to facilitate its extraction, have not manifested themselves as quickly as was hoped. As such, the country has pinned its economic future on the possibility of the future extraction of resources, specifically on one resource. In doing so, it has failed to develop and deploy effective tools and institutions so as to attract FDI into other sectors, such as agriculture and mining, despite considerable legislative emphasis being placed on the latter. Mozambique thus appears to be putting itself into a situation of resource dependence, rather than using the existing economic growth to move away from it.

Roskill, an international mines and minerals research organisation, has equally pointed to the ongoing political instability, both in terms of corruption and conflict, in Mozambique as continuing to hamper the country's ability to not only attract FDI to the extractives sector but also to subsequently leverage other sectors for a broad-based contribution to sustainable growth. For the African Development Bank tension and instability persist due to the relationship between Resistência Nacional Moçambicana (RENAMO), the primary opposition party, and Frente de Libertação de Moçambique (FRELIMO), the party currently in power, despite the fact that 25 years have passed since the last civil conflict in the country (Santos, 2016, 10). Since the early 1990s, opposition parties have claimed fraudulent election results with nearly every instance of popular vote, with resultant protests leading to military conflict in 2016 (Santos, 2016, 10). RENAMO, for its part, has been demanding that it must be allowed to rule in provinces in which it received the majority of popular votes, reforming election law beyond the current first-past-the-post. They have retained an armed force to enforce this proclamation since 1992, despite peace accords requiring disarmament (Santos, 2016, 10; Bowker et al., "Invisible," 2016). Peace was largely held until 2013, when once again minor skirmishes broke out in the country, perpetuated by a belief on the part of RENAMO that political elites in Maputo have been the primary, and sometimes the sole, beneficiaries of the country's economic growth (Bowker et al., "Invisible," 2016).

Reporting suggests that RENAMO's political agenda is focused on the decentralisation of power in Maputo so as to facilitate improved redistribution of wealth from natural resource exploitation. This is a message that has been particularly salient in the resource rich provinces of Nampula, Niassa, Zambesia, Sofala, and Tete (Regalia, 2017, 14). Based on World Bank indicators, there may be validity to these complaints, as poverty levels have not significantly decreased since the introduction of broad-scale FDI into the natural resources sectors sector. Instead it prompted a larger wealth gap between rich and poor (Regalia, 2017, 20). The resultant situation has been termed by Foreign Policy as Mozambique's Invisible Civil War, in which victims accuse government forces

of rape, torture, and murder, prompting thousands to seek refuge in the neighbouring Malawi (Bowker et al., "Invisible," 2016). For its part, RENAMO has been preventing the effective use of new infrastructure projects, namely highways, by perpetuating attacks on civilian buses and military convoys (Bowker et al., "Invisible," 2016). The result is an inherent increase in risk on the part of investors who invest in extractives and mining. A country can have robust, well-drafted natural resource legislation, but its application will inevitably be inhibited by conflict in the very provinces, regions or territories that house those resources. Without a solution to its political crisis and its invisible civil war, Mozambique will most likely be unable to leverage the mining sector effectively as part of a diversified economic plan to drive sustainable growth.

V. Looking at Tomorrow

This paper has argued that due to Mozambique's prominence in recent news reports regarding the expansion of its natural resource industry, particularly in LNG, that it is appropriate to revisit two important questions with regard to this country. This is done with particular regard for the impact of secondary variables. Firstly, has the country truly escaped the resource curse so as to promote sustainable development? Secondly, by what means and mechanisms, especially with regard to natural resource governance frameworks, legislation, and institutions, did it do so?

Beginning with the first, it has been suggested that the country may not have escaped the resource curse, despite proponents arguing in favour of the opposite. Mozambique appears to be building a reliance on single-source economic contributions, namely LNG, rather than through the diversification and leveraging of other sectors, especially those that currently contribute a significant portion of the country's GDP. Therefore, instead of building infrastructure to push Mozambique away from the resource curse, it appears that the country is negotiating its way into a new dependency, as other countries on the continent have done in the past. It places them in a situation of considerable risk and reliance on the global market prices of LNG, which will most likely decrease over the next decade as other megaprojects worldwide come on board. With regard to legislation, the country does appear to have a relatively robust system of regulatory compliance, especially when it comes to hydrocarbons and mining. But as we saw with the latter, legislation is only as effective as its applicability. With conflict rising once again in mineral-heavy provinces, the ability to deploy comprehensive legislation is fundamentally limited.

There are a number of policy and action recommendations that the government of Mozambique should consider as they prepare for the next ten years of economic development and, hopefully, growth. Firstly, they must manage their existing debt crisis by allowing a full, independent investigation of 2016/2017 loans and improve institutional transparency with regard to future loans. The latter is especially critical for state-owned enterprises, which were at the centre of the previous controversy. Mozambique earned considerable rebuke in the press and by international observers for the debt scandal of years past. This is a situation which may debilitate the country's attractiveness to investors, who prefer stable legislative and financial environments when working in high-risk areas. Included in this recommendation is the need to establish an independent and legally empowered investigative mechanism for corruption in the natural resources sector. Next, the country would do well to develop a comprehensive and strategic plan for economic diversification beyond the sole-source contributing sectors, including agriculture and hydrocarbons. Mozambique must plan for the eventual worldwide glut in natural gas stocks, a moment where they may lose favour as the darling of the LNG investor community.

Continuing, Mozambique would do well to consider ending the integration of select clauses in special taxation regimes that have thus far inhibited or devalued local beneficiation. Examples are the use and sourcing of Mozambican products, services, and operators. In addition, Mozambique should ensure that a percentage of the LNG extracted remains in country, as it plans to do with future exploitation in the Temane region. The

latter works hand-in-hand with enhanced requirements for domestic investment, namely in infrastructure and alternative economic sectors. Specifically with regard to agriculture, Mozambique should continue to push for full adherence to its Strategic Plan for Agricultural Development while starting the drafting process for a new vision for the sector in 2030. The government may also consider reconstituting the Agriculture Promotion Centre, with a renewed focus shifting away from megaprojects and towards sustainable development of the country's agricultural sector. This includes a move from subsistence farming towards the attainment of industrialisation goals. Emphasis, in this regard, should be placed on local ownership achieved through cooperatives and other similar organisational means. Mozambique would indeed be likely to benefit from ending its religious adherence to megaprojects and, instead, pursuing a policy-based refocusing towards small and medium-sized economic development programmes and projects.

The intention of this paper is to act as a reminder that secondary variables may often be missed in the excitement of economic growth. They do, however, matter considerably in a country's ability to leverage that growth for broad-based sustainable development. By negating, disparaging, or disaggregating our perspective of a particular kind of economic content so as to inhibit our ability to view secondary variables as contributory to the whole, we work with only a few pieces of a comprehensive and complex puzzle.



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For more information contact:

International House
Annie Jiage Road
University of Ghana, Legon Campus
Accra, Ghana.

T: +233-302-500396

F: +233-302- 500792



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