

EXTRACTIVE RESOURCES - INDUSTRIALISATION LINKAGES: OPPORTUNITIES, CHALLENGES AND LESSONS FROM TANZANIA



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Synopsis

Since at least the mid-2000s, extractive resource politics in Tanzania took a turn to a more resource nationalist governance framework with the Tanzanian government seeking not only to increase fiscal benefits from resource extraction but also to capitalise on resource extraction to bolster industrialisation. Much of the talk has been around promoting local and state participation in extractive activities, leveraging raw minerals to feed into industries, local mineral beneficiation, and increasing revenue capture and management to fund relevant industrialisation interventions such as infrastructure. Tanzania is not the only resource-rich African country that has recently sought to capitalise on its natural endowments to catalyse industrialisation. At the regional level, the African Union adopted the Africa Mining Vision (AMV) in 2009 with the main objective of catalysing on Africa's rich natural resource endowment to bolster industrialisation. Across Africa, local content policies have become the common strategy used to link resource extraction to industrialisation and/or economic transformation.

Of course, Tanzania's urge to achieve a resource-based industrialisation does not come from nowhere. Several opportunities exist for Tanzania to capitalise on its extractive resources to promote industrialisation. These opportunities include: existence of a wide range of mineral and energy resources which are crucial for industrialisation; strong political will to push an industrialisation agenda; a supporting sectoral and broader policy and legal framework; and strong government resolve and measures to improve the

business and investment environment through, inter alia, regulatory reforms, and construction of mega infrastructure projects.

Experience from countries such as Norway, United States of America, South Africa and Zambia which have (un)successfully implemented a resource-based industrialisation strategy shows that extractive resources can contribute to industrialisation provided there is an enabling policy and legal environment, a transparent, accountable and collaborative/participatory governance regime, concerted investment in education, training and skills development, a clear vision for extractive-industrialisation linkages, and institutional and policy alignment. While many of these exist in Tanzania, more still needs to be done before strong linkages between resource extraction and industrialisation can be forged. For instance, while many government documents point to a resource-based industrialisation, there appears to be no indication that the government is really bent on practically promoting resource-based industrialisation. There is no clear vision and/or strategy to link resource extraction and industrialisation. Further, emphasis on local content requirements has not gone hand in hand with necessary capacity and skill improvements among the local firms to enable them take advantage of the opportunities.

Potential for extractives to contribute to Tanzania's industrialisation exist. More needs to be done in terms of local capacity building; education and training; research and development; developing a clear policy implementation strategy; improving the business and investment environment; open and participatory governance; legislative stability and/or predictability. The experiences of several countries in implementing local content requirements and other policy measures to push for resource extraction-industrialisation linkages offer valuable lessons for Tanzania.

1. Introduction

1.1. Introduction

This report presents findings and insights on the linkages between extractive resources and industrialisation in Tanzania. The study for which this report is written was commissioned by HakiRasilimali. This report presents, discusses and draws conclusions and/or recommendations from the findings of the said study.

As per the terms of reference (TORs), the main aim of this study was 'to produce a critical analysis of the linkages between extractive resources and industrialisation within the context of Tanzania's industrialisation agenda.' The specific objectives of this assignment included the following:

- i. To identify the opportunities for Tanzania to achieve a resource-based industrialisation.
- ii. To examine how resource revenues can best be used to promote a resource-based industrialization.
- iii. To examine Tanzania's extractive resource governance framework in relation to the country's industrialization agenda.
- iv. To identify lessons for Tanzania from countries that have (un)successfully achieved resource-based industrialization.

1.2. Background

Africa is known to be a very resource rich continent with many of its countries endowed with one or more high value mineral and hydrocarbon resources. Despite being richly endowed with high value resources, resource rich countries continue to be known by their traditional role in the international political economy: the exporters of raw mineral and crude oil resources and importers of manufactured goods (Ohiorhenuan and Keeler 2008; Bush 2008). Can resource rich African countries leverage their natural endowments to spur industrialisation? Throughout Africa, resource-based industrialisation has recently dominated development politics. The 2009 Africa Mining Vision puts forward an argument for a resource-based industrialisation strategy. The Vision notes that Africa can successfully adopt and implement a resource-based industrialisation strategy like other countries such as Finland, Sweden, Germany, and the United States, Malaysia, Brazil and South Africa did in the past (African Union 2009). Individual African countries have also sought to promote a resource-based industrialisation strategy, often through promoting mineral value addition activities and adopting and implementing local content policies

Tanzania has committed itself to realising its Development Vision 2025 by, among others, catalysing on its resource endowment to bolster industrialisation. The confidence in promoting a resource-based industrialisation strategy stems from the country's rich natural resource endowments. Tanzania is not only endowed with gold and natural gas for which it is famously known but also a range of other industrial minerals, metals and other mineral resources. Minerals such as

gold, iron ore, nickel, copper, cobalt, silver, diamond, tanzanite, ruby, garnet, limestone, soda ash, gypsum, salt, phosphate, gravel, sand, dimension stones and graphite, coal and uranium, natural gas and helium gas are abundantly found in several regions of Tanzania. In the past 20 years, a Foreign Direct Investment (FDI) based extractive strategy has greatly contributed to Tanzania's record economic growth which has averaged over 6%. However, despite impressive economic growth, several studies have shown that mineral extraction has failed to diversify Tanzania's economy, let alone benefitting it adequately (Curtis and Lissu 2008; Curtis 2012; Lange 2011; Poncian 2019c; Roe 2016).

In response to the challenge of an FDI-based resource extraction strategy, Tanzania appears to be pushing for a resource-based industrialisation strategy in which the state plays a significant role (Jacob et al. 2016). Such ideas as transparency and accountability, resource nationalism, local content, mineral value addition, revenue management, etc. appear to take centre stage in Tanzania's resource-based industrialisation vision. For instance, the first Five Year Development Plan (2011/12-2015/16) earmarked mining as a strategic sector that can drive Tanzania's industrialisation through generating industrial raw materials and inputs to energy plants for generating adequate power to fuel industrialisation, and generation of higher revenues to government which can then be used to finance interventions in other sectors relevant for industrialisation (United Republic of Tanzania 2012a). Similarly, the current Five Year Development Plan (2016/17-2020/21) specifically focuses on mineral value addition as a key strategy to promote a resource-based industrialisation (United Republic of Tanzania 2016a).

Apparently, it appears that much of Africa's resource-based industrialisation mantra focuses on mineral value addition and beneficiation. Although Tanzania's previous

five-year development plan defined resource revenues as a key ingredient in enabling interventions in other sectors for industrialisation, the current plan only focuses on mineral value addition and energy production. This shift in focus away from emphasising the role of extractive revenues in funding critical industrialisation interventions may have something to do with the declining revenue streams from resource extraction. For instance, evidence indicates that overall revenues from resource extraction declined from Tshs 561.738 billion in 2014 to 284.457 billion in 2015 and 156.251 billion in 2016 (<https://eiti.org/tanzania#revenue-collection>). Besides, in relation to the broader economy, revenues from the extractive sector account for just 1% of the GDP, an insignificant proportion to warrant that much focus on using revenues to finance industrialisation interventions. As the Tanzania government envisions an industrialised economy by 2025, it is important to critically analyse how its resource extraction can link with its broader industrialisation agenda by identifying the opportunities, challenges and drawing lessons for the realisation of industrialisation.

Notably, there has been some considerable public discussions facilitated by civil society organisations on the linkages between resource extraction and industrialisation. For instance, during the 2018 Tanzania Extractive Industries Conference (referred to as Jukwaa La Uzidujaji), the main theme of discussion was nurturing industrialisation through mining, oil and gas. The presentations and discussions throughout the two days centred around issues of revenue management, the business environment, local content, public participation in resource governance processes, policy and legal issues, etc. (HakiRasilimali 2019c). However, while this platform provided an opportunity to ponder on how Tanzania's resource extraction can contribute to its grand goal of industrialisation, questions still remain

on what opportunities and challenges really exist and what lessons Tanzania can draw from other countries which have (un)successfully charted the path of a resource-based industrialisation. What opportunities are there for extractive resources to catalyse Tanzania's industrialisation? Is there a relevant sectoral policy framework to guide Tanzania's resolve to use its extractive resources to catalyse industrialisation? What does the existing business environment offer in terms of fostering a resource-based industrialisation strategy? What more could be done to make business environment

more favourable to resource-based industrialisation? How does the government define its resource-based industrialisation? Are there alternatives to its current resource-based industrialisation strategy? How can resource revenues be managed in such a way that they contribute to industrialisation? These questions, which the 2018 *Jukwaa la Uziduaji* did not satisfactorily attend to, necessitated carrying out this study to further explore how Tanzania's resource-based industrialisation can realistically be achieved.

2. Methodology

This study utilised two methods to achieve its objectives: critical literature review, and key informant interviews.

2.1 Literature review

First, this study critically reviewed the literature on the linkages between resource extraction and industrialisation to capture the main themes. The literature review also explored the experience of countries which have (un)successfully adopted a resource-based industrialisation strategy in the past. The focus here was on such countries as South Africa, Norway, United States and Zambia. Lessons were drawn from these countries to help contextualise Tanzania's resource-based industrialisation strategy. Each of these four countries was chosen on strong justifiable considerations. South Africa was chosen on the basis of its being the oldest mineral economy in Africa and one that has had resource extraction-industrialisation linkage measures spanning as far back as the 1930s. Being an African economy with the longest history of mineral extraction, South Africa is well positioned to offer lessons from its long history of mineral-industrialisation linkages. Zambia on its part was chosen for two main reasons. First as a former socialist economy that adopted more or less similar economic policies of nationalisation at roughly the same time with socialist Tanzania. This history of mineral nationalisation followed by liberalisation and now resource nationalist measures puts Zambia on almost an equal footing with Tanzania in terms of the trajectory of resource extraction politics. Secondly, across the East African region, there is no country that has substantial experience in resource extraction. Kenya and Uganda are recent entrants into the extractive business. The Democratic Republic of Congo is radically different from Tanzania in terms of

political stability and governance. Taking all these into consideration, Zambia provided a strong case for its inclusion as a country that is closer to the East African region. Norway was chosen on the basis of its exemplary record of oil resource governance and revenue management. Finally, the United States of America was chosen based on its successful industrialisation through resource extraction. Its economic and industrial hegemony which traces roots to resource-based industrialisation measures of the 19th and 20th centuries were thought to offer invaluable lessons over what it takes to achieve a stable and sustainable resource-based industrialisation.

Further, literature review also focused on key government and regional documents such as the Africa Mining Vision to understand how regional debates and understanding inform Tanzania's extractive resource policy framework in relation to industrialisation. To grasp Tanzania's industrialisation trajectory, we reviewed relevant literature which cover industrialisation in Tanzania. Apart from the key academic literature in this area, we also reviewed critical government documents informing much of the discussion around extractives and industrialisation. Documents reviewed included budget speeches, laws, policies, regulations and strategies. These documents were sourced from the Ministries of Energy, Minerals, Industry and Trade. Further, documents on the broader development framework including the five-year development plans (2011/12-2015/16 and 2016/17-2020/21), and the Long-Term Perspective Plan, the National Strategy for Growth and Reduction of Poverty (NSGRP II) were reviewed. Other documents reviewed included media reports, publications by civil society organisations, and parliamentary reports, especially the annual reports of the parliamentary standing committee

on energy and minerals. Together, these documents formed the basis of subsequent analysis in this work. A few interviews which were conducted as detailed below only served to provide some more insights on the documented government policy and strategies regarding resource extraction linkages with industrialisation.

2.2 Individual interviews

To put the literature review in perspective, we conducted face to face individual interviews with relevant stakeholders from the civil society, political representatives, and academics from higher learning institutions as follows:

- From the political representatives' category, interviews involved chairpersons of three parliamentary standing committees: energy and minerals, constitution and legal affairs, and industries, trade and environment committees.
- From the civil society sector and think tanks, we interviewed a representative from Repoa, Tanzania's leading think tank.
- From the development partners group, interviews were conducted with a representative from Natural Resource Governance Institute (NRGI).
- From the extractive companies, interviews involved a representative from the Tanzania Chamber of Minerals and Energy (TCME), an organ representing the interests of extractive

companies, and one oil and gas multinational corporation which, for security reasons, preferred anonymity. Interview with a TCME representative captured the interests and opinions of the large-scale mining sector while that with an oil and gas MNC represented the concerns and perspective of the oil and gas sector investors.

- Finally, we conducted individual interviews with three academics from the universities of Dar es Salaam and Dodoma. We interviewed those academics with a proven research expertise in the politics and economics of resource extraction.

These interviews sought to capture context relevant information about the theory and practice of resource-based industrialisation in Tanzania. They sought information on the status of extractive-industrialisation linkages, what opportunities and challenges are there for Tanzania to realise its resource-based industrialisation agenda, and what policy choices Tanzania needs to make to foster practical linkages between resource extraction and industrialisation. The gathered information was analysed using an interpretivist approach. In some instances, we drew on insights from interviews to strengthen our analysis. To do so, we cite interview extracts in some places to present the 'real' voices of the interviewees.

3. Resource Extraction and Industrialisation Linkages

3.1. Introduction

Although much talked about, linking resource extraction to industrialisation is not a straight forward thing. This is the case in part due to lessons learnt from the 'failed' forced industrialisation policies of the post-second world war when emphasis was put on value addition to natural resources as opposed to the export of unprocessed raw materials (Auty 2003). The failure of the import substitution industrialisation (ISI) strategy in post-independent Africa was mainly a result of the neglect of performance monitoring, centralised economic planning, and lack of local capacity building to make firms competitive (Auty 2003; Ramdoo 2015). Nevertheless, the failure of the 1960s-1970s ISI did not deter African countries from pursuing a resource-based development strategy. For instance, during the 1980s, the Organisation of African Unity produced the Lagos Plan of Action for the Economic Development of Africa, 1980-2000 in which it noted the grave consequences of Africa's overreliance on export of raw materials and minerals and called for the promotion of forward and backward linkages to make resource extraction more beneficial (Organisation of African Unity 1980)1980–2000.

Although the Lagos Plan was overtaken by the Berg Report and subsequently by the World Bank supported liberalisation reforms of the 1990s (Fessehaie and Rustomjee 2018), the idea of a resource-based industrialisation did not die out. Recently, there has been much talk, at both the national and regional levels, of resource-based industrialisation in Africa. At the regional level, discussions were under way from

early 2000s to promote mineral beneficiation and value addition activities as well as foster backward and forward linkages (Economic Commission for Africa 2011). These culminated into the adoption of the Africa Mining Vision in 2009 (African Union 2009). The Mining Vision urges resource-rich African countries to take advantage of a surge in global demand for metals and minerals to push for resource-based industrialisation:

A resource-based African industrialisation and development strategy must be rooted in the utilisation of Africa's significant resource assets to catalyse diversified industrial development, as was successfully implemented by several erstwhile resource-based economies in the developed world ... and to some extent in more recently in middle income countries Malaysia, Brazil and South Africa (African Union 2009, 3).

From the regional Africa Mining Vision initiative, resource-rich African countries have equally taken several measures in an attempt to make resource extraction respond to their industrialisation and economic transformation goals. For instance, resource-based industrialisation has been a major economic policy goal in southern African countries¹

¹ These countries include Botswana, Zambia, Zimbabwe, and South Africa. For a detailed analysis of resource-based industrialisation in these countries, see Fessehaie and Rustomjee (2018).

in the recent past (Fessehaie and Rustomjee 2018). This has been greatly motivated not only by the surge in global demand for metals and minerals but also by a renewed optimism that Africa can leverage its resource endowment to 'underpin a viable resource-based industrialization strategy that goes beyond supplying raw materials to the world economy' (Jourdan 2013, 372–73). Despite this urge to push for a resource-based industrialisation strategy across Africa, the question that continues to linger is: how can these countries realistically achieve this? Existing studies show that this is not a straight forward question because achieving a resource-based industrialisation is context specific and is conditioned by enabling policy and legal framework, human and technical resources, and the political economy of development at national and global levels (Fessehaie and Rustomjee 2018; Jourdan 2013; Ramdoo 2015; Morris, Kaplinsky, and Kaplan 2012). As one academic staff remarked, linkages between extractives and industrialisation 'do not come magically, you have to create them' (Interview with Academic Staff 2, 18 August 2019).

Nonetheless, the literature points to the fact that resource extraction can bolster industrialisation through creating various linkages, namely, forward, backward, infrastructure, revenues, and knowledge linkages. These linkages are not only relevant to making resource extraction bolster industrialisation, but they are equally important in linking the extractive sector to the rest of the economy. We briefly detail each of these linkages below.

3.2 Forward linkages

Capitalising on resource extraction to bolster industrialisation through forward linkages involves mostly the resource extraction sector supplying raw

materials for industrialisation. It mostly involves mineral value addition and beneficiation activities i.e. processing minerals to produce intermediate or finished goods instead of exporting them in raw form. Forward linkages are good for retaining more wealth in the country, and promoting employment, industrialization and economic diversification (UNCTAD 2017a).

Forward linkages can be achieved either through resource-rich governments making local mineral value addition and beneficiation mandatory by making this one of the conditions for the issuance of a licence (Collaborative Africa Budget Reform Initiative (CABRI) 2016). As we show later, forward linkages are an important component of the existing extractive sector legislative and strategic framework. The Natural Gas Utilisation Master Plan, for instance, is replete with ways in which Tanzania seeks to foster forward linkages in the natural gas sector. Similarly, this appears to be a strategy adopted by Tanzania during its negotiations with Barrick Gold over the Acacia impasse with Barrick reportedly committing to work with the government to establish a smelter in the country (Kurugenzi ya Mawasiliano ya Rais Ikulu 2017). Although it was reported that Barrick Gold had agreed to work with the Tanzania government to establish a large scale gold smelter in Tanzania, a recent Barrick takeover of Acacia deal suggests that the company pushes for this requirement to be scrapped (Acacia Mining Plc 2019). This points to the challenge posed by making mineral processing mandatory. Arguably, making mineral processing mandatory on all mineral extraction licences may end up disincentivising the investors and may be counterproductive especially when it involves upstream resource extraction which has limited forward linkages beyond basic mineral refining (Collaborative Africa Budget Reform Initiative (CABRI) 2016). Alternatively, resource-rich countries may consider creating forward

linkages by enticing investors through reasonable fiscal incentives to invest in downstream mineral value addition and beneficiation.

3.3 Backward linkages

Backward linkages entail how the extractive sector links back to the rest of the economy in terms of how different economic sectors service the extractive sector. It involves subcontracting, supplier contracts, input service collaborations, among others (Buur et al. 2013). In most cases, backward linkages revolve around local content and corporate social responsibility with a major focus on local procurement of goods and services, and employment and training of the local workforce. This is the most common linkage that governments across Africa have adopted in attempting not only to enable local participation in extractive projects but also to increase economic benefits through mandatory local content requirements (Collaborative Africa Budget Reform Initiative (CABRI) 2016; Ovadia 2016a, 2014, 2016b; Kinyondo and Villanger 2017). Corporate social responsibility and local content requirements are major tools adopted by Tanzania in its extractive legal and policy framework to forge backward linkages between resource extraction and the broader economy.

Arguably, backward linkages are by far the most beneficial and have a greater development potential relative to forward linkages which are understandably capital intensive and generate limited further linkages (Buur et al. 2013). That said, evidence show, however, that attempts to forge backward linkages through local content requirements in countries such as Tanzania and Ghana have been less successful due to limited local capacity issues, ambiguous and non-enforcement of local content rules and limited intra- and interfirm cooperation (Ackah and Mohammed 2018; Anderson 2016; Calignano and Vaaland 2018; Kinyondo and Villanger 2017).

3.4 Fiscal/revenue linkages

Linkages through the fiscal route entail two main aspects: the way in which revenues are generated from resource extraction and how the generated revenues are managed and/or spent to bolster economic transformation. The proper use of relevant fiscal tools such as taxes, royalties, levies, and so forth can help resource-rich countries maximise financial benefits from their resource extraction. This then can be used in the promotion of industrialisation through, for instance, funding critical interventions in non-commodity sectors (UNCTAD 2017a). This probably explains why Tanzania identified resource revenues as one of the critical areas for fostering industrialisation in its broader development framework i.e. the first Five Year Development Plan (2011/12-2015/16), and the Long-Term Perspective Plan (2011/12-2025/26).

The main challenge in fiscal linkages remains to be the governance part of revenue management. The potential benefits of revenue linkages are likely to be determined by the extent to which the management of revenue collection and expenditure is transparent and accountable both in policy and practice. Making revenues as a critical part of financing industrialisation is also questionable and controversial. The key question here, as an interview with NRGi revealed, is how much revenues would a country have to generate from resource extraction to be able to sustainably finance industrialisation? In the Tanzanian context where revenues from resource extraction have drastically declined since 2015, banking on resource extraction revenues for industrialisation runs the risk of frustrating government's plans and efforts for industrialisation. Finally, for revenue linkages to make a difference in industrialisation, greater efforts would be needed not only in capturing the revenues but also in motivating further investment in exploration and

extraction activities. The decline in mineral production and delays in the commissioning of the LNG project in Tanzania make it harder for adequate revenues for financing industrialisation to be realised from resource extraction (Interview with Academic Staff 2, 18 August 2019).

3.5 Spatial/infrastructure linkages

Infrastructure linkages between resource extraction and industrialisation and/or the broader economy manifests in terms of building essential infrastructure to facilitate resource extraction which in turn create further linkages to industrialisation and the rest of the economy (Collaborative Africa Budget Reform Initiative (CABRI) 2016; UNCTAD 2017a). Spatial linkages can be achieved through strategic investments by extractive companies or a host government in infrastructure, such as electricity generation, roads, rail or ports to promote resource extraction activities (UNCTAD 2017a). In this sense, Tanzania's recent mega infrastructural projects in hydro-electric power production, natural gas processing and transportation, railway, ports, roads and air transport improvements can all be seen to be strategic projects not only for promoting expansion in resource extraction but also for promoting industrialisation and economic transformation. This notwithstanding and as the following extract shows, spatial linkages should be promoted within a specific and clear legislative framework if they have to result in sustainable socio-economic benefits:

... it is important that any investment in new infrastructure linked to extractives is undertaken on the basis of a regulatory framework that clearly defines the obligations and rights of all involved parties, especially where there are concerns about a natural monopoly. The role of the regulatory framework is to provide an enabling environment that will leverage the envisaged benefits of the infrastructure investment and explain the rationale for its promotion in the first place (Collaborative Africa Budget Reform Initiative (CABRI) 2016, 17)

3.6 Knowledge linkages

Knowledge linkages involve measures to create a knowledgeable local workforce and firms to service the extractive sector, as well as technology transfer and sharing. It applies to both the 'the corporate sector, where various technical skills are inadequate and need to be improved, and the government sector, where the skills base for appropriately analysing and regulating the industry ... is invariably weak' (Collaborative Africa Budget Reform Initiative (CABRI) 2016, 22).

Knowledge linkages may be described as a requisite linkage mechanism because it acts as an enabler to all other linkage mechanisms. A strong knowledgeable government, corporate and workforce sector is critical if other linkages must happen and their benefits realised. The main challenge, however, is that knowledge linkages attract less attention from political leaders because it has no visible and tangible political outcomes (Collaborative Africa Budget Reform Initiative (CABRI) 2016).



4. Extractive Resources-Industrialisation Linkages: Experience From Other Countries

4.1. Introduction

Tanzania's (and by implication, Africa's) resource-based industrialisation draws inspiration from countries which have in the past successfully pursued the same strategy to industrialise and transform their economies. Countries such as the United States, Germany, Finland, Norway, Australia, and Sweden are mentioned in the literature as countries which have successfully achieved resource-based industrialisation (African Union 2009; Fessehaie and Rustomjee 2018). Australia, for instance, is said to have taken measures to invest in engineering education, training and research and development with mining accounting for 20% of total Research and Development in 1995/96 (Wright and Czelusta 2007). Because of these measures, Australia reportedly leads the world in mining software systems, is home to global mining exploration ventures and an important global supplier of high-tech services and equipment to meet the demand for safer and cleaner mineral extraction and beneficiation processes (Fessehaie and Rustomjee 2018). Together with this exemplary case of Australia, we provide an overview below of several other countries which have either successfully or unsuccessfully pursued resource-based industrialisation to draw some lessons for Tanzania.

4.2 United States of America

The United States is today known as the global economic power. Its ascendancy to economic hegemony is a result of centuries of socio-economic and technological

innovations. Part of what explains today's US economic transformation and high-level industrialisation is its resolve to promote a resource-based industrialisation strategy. It is reported that the US resource-based industrialisation was based around its iron ore, coal, lead, nickel, zinc, antimony, copper and oil resources (Fessehaie and Rustomjee 2018). But how did it achieve a resource-based industrialisation?

Arguably, the US was able to achieve resource-based industrialisation during between the mid-19th and mid-20th centuries because it was able to create linkages and complementarities to the resources sector (Wright and Czelusta 2007). Thus, the secret to US becoming the leading manufacturing/industrial economy in the world lied in its ability to leverage its resource abundance to catalyse its industrialisation:

Nearly all major U.S. manufactured goods were closely linked to the resource economy in one way or another: petroleum products, primary copper, meat and poultry packing, steel works and rolling mills, coal mining, vegetable oils, grain mill products, sawmill products, and so on. The only items not conspicuously resource-oriented were various categories of machinery. Even here, however, some types of machinery (such as farm equipment) serviced the resource economy, while virtually all were beneficiaries in that they were made of American metal. These observations ... confirm that American industrialization was built upon natural resources (Wright and Czelusta 2007, 185-86).

This successful resource-based industrialisation was achieved through a resolve to invest in collective learning, exploration, transportation, geological knowledge, and technologies of mineral extraction, refining, and utilization (Wright and Czelusta 2007). In general, the US transformed its economy by making mineral development an integral part of broader national development process. This was achieved by putting in place a supporting legal framework; investment in public knowledge infrastructure; and placing emphasis on education in mining, minerals and metallurgy (Wright and Czelusta 2007). In the legal environment category, for instance, the US is known for its liberal framework that shifted ownership rights to minerals from the state and the public to an open access system for exploration, and exclusive rights to mine a specific site upon proof of discovery (Wright and Czelusta 2007; Brown, Fitzgerald, and Weber 2017).

What the US case shows is that resource-based industrialisation is possible for Africa provided governments put in place an enabling policy framework and invest heavily in human and technical resources. The US policy and legal framework especially as it relates to resource ownership and access rights may not be favourable and acceptable to contexts like Tanzania where the state maintains ownership rights over resources on behalf of the public. Further, it may be argued that the US was able to leverage its resource base to industrialise because the global political economy of the 19th and 20th century was permissive of necessary protectionist policies needed to kickstart resource-based industrialisation. Indeed, it could have been a different story if the US was to promote a resource-based industrialisation strategy in the current global political economy context. This, however, does not make the necessity of crafting an enabling policy and legal framework obsolete. As Ramdoo (2015) argues, Tanzania can still work towards having an

enabling policy framework that balances between hard and soft policy instruments and embrace policy shifts to keep up with economic changes.

4.3 Norway

When it comes to extractive resource governance and avoiding the resource curse, Norway is usually cited as an exemplary case. It is understood to be a country that has successfully managed its oil resource and been able to leverage it for its economic and industrial transformation. Norway is understandably one of the very few successful countries whose model of state-owned enterprise that has grown to become one of the leading multinational oil corporations. Because of this, several studies have contemplated on the usefulness and/or applicability of Norway's strategy to resource-rich developing countries which still grapple with resource mismanagement and the resource curse (Holden 2013; Cappelen and Mjøset 2009). Considering a large body of literature showing that many oil rich countries have failed to transform their oil endowment into meaningful economic development, it is worth asking how Norway managed to exploit its oil resource for its industrialisation and transformation.

Norway's successful oil-based industrialisation has to a great extent been made possible by its proper management of revenues and institutional setup to catapult industrialisation. According to Holden (2013), two policy measures are understandably at the centre of Norway's successful resource-based industrialisation: local participation in petroleum activities to enable Norwegian companies gain expertise and take part in the sector, and putting in place a regulatory and fiscal policy framework to ensure that the oil revenues were exploited in a safe and profitable way with a bulk of it accruing to the state. Understandably, the Norwegian oil

revenue management system is characterised with the establishment of the petroleum fund in the 1990s and the adoption of relevant fiscal rules in 2001 (Holden 2013). Oil revenues kept in the Petroleum Fund are invested in international capital markets, a measure which enables the country to separate oil revenues from their spending thus enabling petroleum wealth to be transformed into financial wealth which can then fund various socio-economic services (Cappelen and Mjøset 2009).

One reason for why Norway went for investing its oil revenues in international capital markets was to ensure that the revenues are not flooded onto the local market as local companies had considerable access to capital in the form of possibilities to raise equity and obtain loans in the capital market (Holden 2013). One important feature of the Norwegian oil revenue management system is its transparency, accountability and supervision which enables the Fund to function properly and limits political manoeuvres and mismanagement (Holden 2013).

This revenue management system was important to insulate the Norwegian economy from the Dutch Disease which would have made it difficult for Norway to leverage its oil for industrialisation (Cappelen and Mjøset 2009). But it was not only the oil revenue management that insulated Norway from the oil resource curse but also the government resolve to push for Norwegian participation in the petroleum sector. One way of doing this was to establish a state-owned enterprise, Statoil (now Equinor), to spearhead the participation of Norwegians in the petroleum sector. The main goal of this was to foster technology transfer from foreign companies which would be achieved by Statoil organising learning and technology transfers (Cappelen and Mjøset 2009). Apart from Statoil playing this role, efforts were also made to integrate higher learning institutions into this goal so that they too could develop their education

and research in areas relevant to the petroleum sector and relevant policies were put in place to ensure linkages between petroleum extraction and the supply industry could develop (Cappelen and Mjøset 2009). The result of all this was the development of a vibrant resource-based industrialisation characterised by the emergence and/or revival of industries such as ship making to service the petroleum sector, thus transforming petroleum extraction from one that is capital intensive to a sector that links with the rest of the economy to offset its limited employment potential (Cappelen and Mjøset 2009). In this case, the petroleum sector in Norway functioned as a driver of knowledge development in other sectors which in turn became enabling sectors diffusing technology to the broader economy and supporting the development of new resource-based sectors (Ville and Wicken 2012).

Like the US case described above, the Norwegian case points to the importance of investing in knowledge creation through R&D and training, and technology transfer in bringing about a resource-based industrialisation. More importantly, it points to the significance of proper and transparent revenue management in overcoming the Dutch Disease which can frustrate a country's resource-based industrialisation goals. State and public participation in resource extraction is also important in determining a country's success to pursue resource-based industrialisation. It is important to note that Tanzania has recently taken measures to promote state and public participation in resource extraction, revenue management and has made some commitments to improve its technical capacity in geological surveys. However, how far these measures can go in terms of bringing about a resource-based industrialisation remains to be seen. We turn to this aspect in the next section.

4.4 South Africa

South Africa is the oldest mineral economy in Africa having a history that goes as far back as the 19th Century. This suggests mining has been at the centre of South Africa's industrialisation. Studies have shown that mining has, since the 1930s, played a critical role to the country's industrialisation especially through its multiplier effects to construction and manufacturing industries (Verhoef 1998). Some policy measures were taken back then to promote a resource-based industrialisation. These included protectionist measures which made investment of locally generated capital into the expansion of non-mining domestic industries possible (Verhoef 1998).

Furthermore, an institutional approach was taken by establishing a state enterprise known as Industrial Development Corporation (IDC) in 1940 to further push the country's industrialisation agenda (Jafta 2017). As regards mining and industrialisation, IDC has diversified mining by establishing new mines beyond the mainstream gold mining; and has undertaken mineral beneficiation exemplified by establishing and expanding capacity in carbon steel, stainless steel, ferrochrome, phosphate concentration, phosphoric acid, aluminium, rolled aluminium products, cold-rolled and galvanised steel, and direct reduced iron (Jafta 2017). It has also restructured the steel industry to make it more business friendly and bring in new partners in carbon steel and stainless steel production; and establishing smaller steel mills (Jafta 2017).

More recently in the period from the late 1990s, the South African government has put in place several enabling policy instruments to ensure that its mining industry contributes greatly to industrialisation and inclusive economic development. These measures include a mineral beneficiation strategy for eleven minerals, namely, chromium, coal, diamond, gold, iron,

manganese, nickel, platinum, titanium, uranium and vanadium (Economic Commission for Africa 2017). To see this strategy to fruition, several enabling policy measures are in place. Some of these measures include: 1) amendments of the Income Tax Act to provide incentives to new manufacturing concerns, training to workers and research and development activities; 2) establishment of a new state-owned mining company to participate and execute the developmental agenda of Government, including security of supply for local mineral beneficiation; 3) enactment of the Precious Metals Act, 2005, which ensures that priority is to those applicants whose beneficiation processes will be at the last stage of the mineral beneficiation value chain or will have a positive impact on those beneficiating in the last stage of the mineral value chain; 4) instruments, such as special economic zones, research and development incentives, tax inducements and international trade agreements, were in place to encourage downstream value-addition and investment; and 5) government commitment to provide transport, electricity and water infrastructure to enable greater beneficiation (Economic Commission for Africa 2017).

More importantly, the 2011 beneficiation strategy for the minerals industry of South Africa identifies resource-based value chains relevant for industrialisation. These include energy commodities, iron and steel, pigment and titanium metal production, autocatalytic converters and diesel particulate filters, and jewellery fabrication (Republic of South Africa 2011). Apart from a commitment to provide infrastructural services, the South African government also commits itself to increase industrial financing primarily through its IDC to support beneficiation (Republic of South Africa 2011).

One area where South Africa leads by example when it comes to resource-based industrialisation is the

establishment of the Titanium Centre of Competence in 2009 to foster titanium and titanium oxide production from local raw materials. The grand goal of this is to see South Africa becoming 'a lead supply chain participant within the global titanium manufacturing industry, concentrating on aerospace and defence products and new technologies' (Economic Commission for Africa 2017, 30). Although it is still too early for Centre's goals to be fully realised, its establishment offers critical lessons to countries such as Tanzania which are on a mission to promote a resource-based industrialisation strategy. The titanium project is based on several relevant success factors including: 1) agreement on a national strategy by all key players; 2) securing a mandate to implement the strategy; 3) mobilize the best talent and facilities; 4) identifying and empowering a champion in each collaborating unit; 5) ensuring early industry involvement; 6) sharing and continuously promoting the vision with all stakeholders; 7) sustaining effective communication throughout the collaborator network; 8) recognition of each contribution to ensure ongoing buy-in; and 9) remaining focused and persevering (Economic Commission for Africa 2017, 31).

Although South Africa is still far from full-blown resource-based industrialisation, it can be argued that the measures that have been taken are already contributing to industrialisation especially as far as mineral beneficiation is concerned (Economic Commission for Africa 2017). Furthermore, the steps being taken highlight government commitment to realising a resource-based industrialisation strategy. As in the cases of USA and Norway described above, putting in place an enabling policy framework is central to realising a resource-based industrialisation strategy. The South African case also shows that the government plays a critical role in realising resource-based industrialisation not only through putting in place relevant infrastructure and an enabling

policy framework but also by playing a coordinating role that would ensure that it opens up the local mining industry to the international markets by leveraging trade agreements (Republic of South Africa 2011).

4.5 Zambia

Resource-based industrialisation in Zambia dates far back to the early years of independence in the 1960s when nationalisation policies were introduced. In 1969, for instance, mining assets were nationalised resulting in downstream and upstream linkages becoming a key policy focus for industrialisation (Fessehaie and Rustomjee 2018). A major achievement of the nationalisation policies was the development of manufacturing firms and skilled labour workforce which resulted from investment on extensive technical and vocational education system sponsored by the mining sector (Fessehaie and Rustomjee 2018).

However, the economic liberalisation policies of the 1980s and 1990s shifted the focus away from nationalisation to privatisation. The consequence of this was the erosion of the achievements of nationalisation as local firms were abruptly exposed to competition to which they had no prior preparation. This then culminated in a situation where the mining sector's linkage with other sectors became minimal, transforming Zambia from a country with some level of mineral beneficiation to one in which primary commodity export is the economic mainstay. Sadly, Zambia does not seem to have woken up from the slumber induced by structural adjustment and economic liberalisation. This is reflected in the uncoordinated nature of its resource-based industrialisation strategy.

At the broader level, the Zambian government appears to be pursuing a resource-based industrialisation

strategy. This is reflected in its national Vision 2030 and its Sixth National Development Plan 2011–15 both of which emphasise mining value addition through special economic zones, foreign direct investment, and so forth (Fessehaie and Rustomjee 2018). However, when it comes to sectoral policies, there does not appear to be coordinated strategy that would link mineral beneficiation to the rest of the economic sectors. For instance, the 2008 Commercial, Trade and Industrial Policy neither refers to copper beneficiation nor local content; the 2012 Strategy for the Engineering Manufacturing Sector targets copper fabrication; and the 2012 Cabinet Strategy Paper on Industrialisation and Job Creation seeks to promote local content in the mining sector (Fessehaie and Rustomjee 2018). Unlike South Africa's titanium project which exhibit higher levels of stakeholder participation, the Zambian case exhibits poor industry engagement something that might explain policy incongruence referred to above.

Despite the policy incongruence identified above, Zambia has still made strides in its resolve to promote resource-based industrialisation. For instance, it has been reported that Zambia's traditional role of supplying unprocessed copper to international markets may be changing as recent data shows that the country's exports of refined copper, copper wire and insulated wire make up about 47 per cent of the country's total exports (Economic Commission for Africa 2017). Furthermore, the government has taken policy measures to attract foreign direct investment into downstream beneficiation through granting fiscal and non-fiscal incentives (Fessehaie and Rustomjee 2018). One consequence of the government policy incongruence has been the private sector initiative to setup a local content programme while the mining investors are setting up a skills development fund, measures whose long-term impact on resource-based industrialisation remains to be seen (Fessehaie and Rustomjee 2018). Importantly, it is worth noting that it is

probably because of these private sector initiatives that the Zambian government announced in late 2018 that it would enact the local content laws in 2019 (Zambia Business Times 2018).

The Zambian case provides several lessons for Tanzania. First, it shows that resource-based industrialisation does not only require putting in place a specific policy framework but also ensuring that sectoral policies are in congruence with extractive policies as well as the broader national development policy framework. Second, although resource nationalism can produce the desired results in terms of industrialisation, it needs to be taken with caution. The collapse of resource-based manufacturing firms following liberalisation should provide a critical lesson to show that resource nationalism should cautiously be adopted as much as resource liberalisation should as well be undertaken with caution. Lastly, resource-based industrialisation can be realised when there is coordinated and participatory stakeholder engagement. These and other lessons drawn from previous cases provide a lens through which to study resource extraction-industrialisation linkages in Tanzania.

5. Resource Extraction-Industrialisation Linkages: The Tanzania's Experience

5.1. Introduction

Tanzania has increasingly sought to leverage its natural capital stock to industrialise its economy. The key goal has been to promote an industrialisation strategy that leverages Tanzania's natural resource capital. This optimism to achieve a resource-based industrialisation draws on several opportunities. First, the country is endowed with various mineral, and hydrocarbon resources that could accelerate industrialization if well utilized (Interview with Academic Staff 1, 5 August 2019). For instance, most important inputs for manufacturing is iron/steel and polymers, Tanzania is blessed with rich iron resources in Liganga. Coal and natural gas can provide reliable power supply to ensure industrialization is backed up with reliable power. Since industrialization goes hand in hand with quality infrastructure, Tanzania is also endowed with important materials such limestone, clay, gypsum which can be used for cement production. In short, Tanzania's extractive resources endowment offers a huge potential for industrialization and job creation along the value chain.

It should, however, be noted that efforts to promote a resource-based industrialisation have been around in Tanzania since as far back as the socialist years when the government sought to promote an Import Substitution Industrialisation (ISI) strategy by leveraging local resources. This strategy was, nonetheless, abandoned in the 1980s and 1990s when neoliberal economic reforms were adopted. The extractive sector was made an integral part of Tanzania's economic development strategy with

the mining sector identified as key driver of Foreign Direct Investment flows to the country. The mining policy and mining law passed in 1997 and 1998 respectively opened the mining sector to foreign investment and redefined the state role from a production one to a regulatory and enabler of private investment. The reforms undertaken since the 1990s resulted in tremendous growth in mining activities and investment, making the sector one of the leading forex earners in the country. A major challenge, however, has been the failure to link the mining sector with the rest of the economy and leverage it for the country's economic transformation and industrialisation (United Republic of Tanzania 2011, 2008). A major emphasis was placed on creating conducive business environment to attract foreign direct investment into the mining sector and privatise resource extraction activities to increase tax revenues from private mining activities.

It is in the past decade or so that the Tanzanian government has taken measures to reorient its industrialisation strategy by leveraging its resource endowments. This policy reorientation follows similar measures across other African countries and at the regional level where the Africa Mining Vision was adopted in 2009. Before discussing this recent resource-based industrialisation in detail, it is important to first analyse how the extractive resources-industrialisation linkages have evolved since the colonial period.

5.2 Resource extraction and industrialisation in colonial Tanganyika, 1890s-1961

Resource extraction in colonial Tanganyika was part of the broader colonial economic system whose major goal was to respond to the metropolitan economic interests. The colonial interest in mining can be traced as far back as the 1890s during which large scale commercial mineral extraction in Tanzania began around the area surrounding Lake Victoria (Poncian 2019b). Throughout the colonial period, resource extraction focused around key minerals such as gold, mica and diamonds which were considered to be of great significance to the war and economic needs of colonial powers (Lissu 2001; Society for International Development 2009).

Resource extraction during this period was broadly designed to produce raw minerals for direct export to feed metropolitan industrial needs. Thus, mining was done in the context of drawing the economy of colonial Tanganyika into the international economic system in which the territory would provide raw materials for the Western industries. There were no efforts to encourage local industrialisation through import substitution or mineral value addition (Poncian 2019b). Consequently, mineral extraction during this period provided limited opportunities for Africans in colonial Tanganyika to participate in extractive activities as the sector was more linked to the international economy than it was to the local economy.

5.3 Resource extraction and industrialisation in post-colonial Tanzania

As colonial rule phased out in 1961 and independent governance took over, the major task confronting post-colonial government became one of nation building and achieving rapid socio-economic development that would respond to the great expectations of citizens. However, the nature and character of the state and economic systems inherited at independence meant that the task of achieving economic freedom would be a very challenging one. Efforts were taken to transform the socio-economic and political system including reforming and/or shaping the extractive sector to respond to new national priorities. We provide a brief analysis below of how the extractive sector featured in national economic development strategies paying particular attention on efforts made to forge linkages between extractives and the broader economy.

5.3.1 The early independence years, 1961-1966

As noted above, the attainment of political independence in 1961 meant that the independent government had to work around the clock to achieve sustainable and inclusive socio-economic development that could benefit the people of Tanganyika (Poncian 2019b). In these first six years of independence, the post-colonial government did not do much in terms of revolutionising development policy but instead inherited and continued pursuing a mixed economic system where the state partnered with the private sector to bring about development. In the mining sector, mines that were operated by foreign companies, such as the Williamson Diamond mine in

Mwadui, continued to be operated by private operators (Lissu 2001).

During these early years, two development plans were adopted, namely, the Three-Year Development Plan (TYP 1961-1964) whose focus was promoting growth mainly through increasing investments in activities such as cash crop farming that were expected to bring quick and high returns (Supporting Economic Transformation 2016). This was then replaced with the first Five Year Development Plan (1964-1969) which introduced a growth agenda with emphasis on import substitution starting with simple consumer goods (Supporting Economic Transformation 2016; Resnick 1981). A major emphasis was placed on attracting local and foreign investment into the country. Resource extraction activities were thus defined in terms of their role in facilitating quick development gains, a role which meant that greater emphasis continued to be more on export of raw minerals and less on linking the mineral sector to the broader economy. Further, it should be noted that the mining sector during this time remained considerably small given the fact that not much was achieved in terms of expanding mineral exploration and extraction activities (Resnick 1981; International Bank for Reconstruction and Development 1975). As government efforts to foster a private sector led economic strategy failed to attract in substantial private capital despite generous incentives offered, rethinking the role of the state in economic development could not be optional (Resnick 1981).

5.3.2 The socialist era, 1967-1980s

The adoption of the Arusha Declaration which radically transformed Tanzania's political economic landscape from 1967 was to a great extent a product of government frustration with the failure of the mixed economic system. From 1967 to early 1980s, Tanzania was committed

to a socialist path characterised by centralisation and nationalisation. The major goal of a socialist strategy was to make Tanzania a self-reliant and economically independent country (Mukangara 1991). Active state engagement in economic affairs became a strategy with which to overcome economic dependence (Society for International Development 2009).

This period was characterised by several policy measures involving the extractive sector. Some of the developments in the extractive sector included 1) the establishment of the State Mining Corporation (STAMICO) in 1972 to participate in and protect government interests in the mining sector and mineral resources (Poncian 2019b); 2) the establishment of the Tanzania Petroleum Development Corporation (TPDC) in 1969 to oversee oil and gas exploration and development activities on behalf of the government (<http://tpdc-tz.com/tpdc/aboutus.php>); 3) the introduction of the Mining Ordinance (Amendment) Bill in 1969. This reformed the colonial Mining Ordinance by introducing changes including granting the minister responsible for mining and minerals the powers to issue, renew or refuse to issue mining licences. This represented state efforts to control the mining industry and provide the basis for the nationalisation of certain mining enterprises, especially gemstones (Society for International Development 2009); 4) the reversal of the foreign ownership of mining concessions. Private sector led mining activities were replaced by state-controlled mining although this did not automatically translate into the nationalisation of foreign owned mines (Lissu 2001); 5) the enactment of the Mining Act in 1979 in which many discretionary powers were vested in the government through the minister of minerals. Furthermore, the state acquired an interest in private mining ventures and there were welfare provisions which arguably could arguably constrain private investment in the sector (Butler 2004).

Further, the socialist policies redefined the role and ownership structure of extractive resources. According to the Arusha Declaration, natural resources such as land, minerals, energy resources and so forth were considered as major means of production which were to be publicly owned:

all citizens together possess all the natural resources of the country in trust for their descendants. ...The way to build and maintain socialism is to ensure that the major means of production are under the control and ownership of the Peasants and the Workers themselves through their Government and their Cooperatives. ... These major means of production are: the land; forests; mineral resources; water; oil and electricity ... (TANU 1967, 1, 3).

In terms of industrialisation, it should be noted that the socialist era was all about promoting an import substitution industrialisation (ISI) strategy with efforts taken to encourage domestic production of consumer goods. The mining sector was thus positioned to play a role towards the realisation of this goal. For instance, as part of government efforts to encourage domestic production of goods and services, the Mining Act, 1979 made it conditional for reconnaissance, prospecting and mining licence applicants and/or holders to procure locally available goods and services and employ and train citizens of Tanzania (United Republic of Tanzania 1979). In fact, this was the first time that such local content requirements found their way into the sector's legal regime.

Further, the mining sector became very important in the country's ISI strategy not only through local content requirements but also through its linkages with other sectors such as manufacturing by supplying raw materials and through activities such as mineral value addition and beneficiation. One example of mining linkage with the manufacturing sector during the socialist era is the Wazo Hill cement factory. The factory was opened in 1962 to locally produce cement instead of the original plan for the Tanzania Portland Cement Company which was established in 1959 to import bulk cement (Vleuten et al. 2001). The Wazo Hill factory began production in 1966 using basic raw materials extracted from within the factory vicinity (International Bank for Reconstruction and Development 1975). It was wholly nationalised in the early 1970s and placed under the State Mining Corporation (STAMICO) (International Bank for Reconstruction and Development 1975). Other cement factories utilising locally mined raw materials were opened in Tanga (1980) and Mbeya (1983) (Stewart and Muhegi 1989). Other relevant mineral value addition activities included diamond cutting which was under the Tanzania Diamond Cutting Company Ltd, a subsidiary of STAMICO (Jourdan 1990).

It should, however, be noted that despite efforts to fit the mining sector into Tanzania's ISI strategy, the sector remained relatively small. Similarly, nationalisation measures undertaken during this period meant that private led mineral exploration and extraction activities were curtailed. By the 1980s, the mining sector had virtually become dysfunctional. For example, whereas the sector contributed 34% to GDP in the early 1960s, by 1988 this had declined to just 1% and 0.3% of national revenue (Lange 2006, 3). In the mid-1970s, mining's contribution to gross national product, exports and wage employment was as low as 2%, 8% and 1% respectively (International Bank for Reconstruction and Development 1975, 1). The sector was so small that it could not even supply adequate raw materials to local building material producers, a fact that can be explained by limited investment in mineral exploration and extraction (Ligny 2001). Indeed, not much was done to transform the sector into one that could catalyse the country's industrialisation. Much of the emphasis was placed on rural transformation with agriculture receiving greater attention.

5.3.3 The market economy era, 1980s-2000s

Economic stagnation in Tanzania throughout the late 1970s and 1980s called for serious reform measures. While Tanzania was experimenting with several homegrown measures to revive its economy, the international financial institutions were pushing Africa to adopt structural adjustment programmes which would open their economies up for foreign investment. The period from the 1980s through to 1990s when neoliberal market reforms were forced on African countries has largely been described in the literature as decade of deindustrialisation (Mkandawire and Soludo 1998).

In the context of extractive sectors, African countries were urged by the IFIs to reform their resource extraction policy and legal regimes to open the sector to private capital, often from foreign sources. The World Bank, for instance, produced a document entitled Strategy for African Mining which it used to push African governments

to open up their mining sector to foreign private investment and focus on taxation instead of resource control and welfare policies (World Bank 1992). Tanzania, like other African countries, unquestionably adopted the World Bank's advice and reformed its mineral sector in line with the prescriptions laid down in the Strategy for African Mining. Thus, it crafted a mining policy and law in 1997 and 1998 respectively, completely overturning socialist policies and replacing them with a neoliberal, market friendly regime whose aim was to attract large scale foreign direct investment into the mining sector. Tanzania further adopted an overgenerous fiscal framework characterised by low tax and royalty rates, tax holidays, provisions for profit repatriation, laxity in expatriate employment and in other local content areas (Curtis and Lissu 2008; Curtis 2012; Poncian 2019c).

The main emphasis was to attract in foreign investment and boost large scale mineral production and export. To a large extent this goal was achieved as Tanzania's mining sector expanded rapidly with the opening of several large-scale gold mines, as

well as expansion in gold production and exports making Tanzania one of the top five gold producers and exporters in Africa. But this achievement did not transform the sector from being an enclave to one that would link well with the rest of the economy and bolster economic transformation. As such, resource extraction remained an enclave activity with very limited linkages with the economy and industrialisation. Although the 1998 Mining Act provided for local content requirements such as employment and training of Tanzanians and local procurement of goods and services, no measures were taken to enforce these legal requirements, further making it harder for resource extraction to contribute to industrialisation and/or economic transformation.

5.3.4 The resource nationalist era, 2005-

As the market reforms implemented in Tanzania's mining sector failed to make the sector contribute meaningfully to economic transformation, it became imperative that the country's strategy had to be revisited. Beginning 2005/06 after President Jakaya Kikwete's rise to power, resource nationalist sentiments began to take hold of the country's political system. President Kikwete started taking measures in 2006 by holding meetings with large scale miners in attempts to renegotiate contractual terms, as well as forming a number of committees and commissions to probe the mining sector and advise the government on relevant reforms (Curtis and Lissu 2008; Poncian 2019c; Jacob and Pedersen 2018).

The most important development with significant repercussion on resource nationalism was the formation of a presidential commission, the Bomani Commission, to probe the mining sector's legal and policy framework and advise the government on relevant measures. It was on the basis of the Commission's findings and recommendations

that the sector's policy and legal framework was reformed in 2009 and 2010, institutionalising resource nationalism for the first time since the socialist era (Poncian 2019c; Jacob and Pedersen 2018). From then, subsequent policy and legal reforms in the entire extractive sector have increasingly taken a resource nationalist turn, peaking in 2017 and 2018 with the enactment of three pieces of legislation and two regulations embodying strong resource nationalist provisions.

Policy and legal reforms undertaken in the extractive sector and the broader economy in the past ten years have had an implicit focus on mineral beneficiation and value addition and an urge for a resource-based industrialisation. These deserve a closer examination to identify the opportunities and challenges for a resource-based industrialisation. We turn to this aspect below.

6. Extractive Sector Legislative and Broader Development Framework in Relation To Resource Extraction and Industrialisation Linkages

6.1. The mineral policy of Tanzania, 2009

The mineral policy of Tanzania, formulated in 2009, was a response to public outcry on limited mining benefits. It also was one major outcome of the Presidential Commission to review the mining sector which submitted its report (the Bomani report) to the Presidency in 2008. The Bomani report, among others, urged the government to revive and motivate mineral value addition and beneficiation (United Republic of Tanzania 2008).

The mineral policy of Tanzania envisions a mining sector that contributes 'significantly to the acceleration of socio-economic development through sustainable development and utilisation of mineral resources in Tanzania by 2025' (United Republic of Tanzania 2009, 8). One of the important aspects that the policy focuses on is the question of promoting industrialisation through mineral value addition, local procurement of goods and services, technology transfer, etc. To achieve that, the policy commits the government to improve the economic and infrastructural environment to attract and retain local and foreign private investment that is crucial to transform the sector from an enclave to one that links strongly with the broader economy and contributes to the nation's economic transformation goals (United Republic of Tanzania 2009). The policy further commits the government to provide a predictable

and competitive fiscal regime, to partner with the private sector to provide reliable infrastructure and promote and encourage the establishment of capable financial institutions. Other commitments relevant to supporting a resource-based industrialisation include requirement for mining companies to procure local goods and services, supporting and promoting Tanzanians to supply quality goods and services to the industry.

On mineral value addition as an opportunity for resource-based industrialisation, the policy commits the government to promote investment in the fabrication and manufacturing sectors, promote investment in lapidary, stone carving and jewellery making, and to collaborate with the private sector and regional and international organisations to strategically invest in smelting and refining industries. We noted in the review of experience of countries that have (un)successfully pursued resource-based industrialisation that education, training and technology transfer are critical success factors. In recognition of this, the policy provides for the training of Tanzanians in relevant technical skills, and harmonise relevant laws related to skills development and employment to ensure adequate development of local technical capacity.

Perhaps one of the strongest areas in the policy is the insistent government commitment to collaborate with the private sector to bring about transformation in the mining sector. This is despite the gradual shift

from a regulatory state role to one in which the state aspires to strategically participate in mineral extraction activities. Since the government may not have adequate resources at its disposal to bring about resource-based industrialisation, strategic partnership with the private sector is a welcome policy provision. In general, one could say that the mineral policy of Tanzania creates several opportunities for the mining sector to contribute to the country's industrialisation agenda. In line with the success factors identified in the USA, Norway and South African cases, the 2009 mineral policy creates an enabling environment for both local and foreign investors to invest not only in exploration and extraction but also in mineral processing and in other related activities. The main challenge remains to be the extent to which the government will remain committed to the policy provisions.

6.2. The Mining Act, 2010

The Mining Act number 14 of 2010 was enacted by the parliament in 2010 to repeal the 1998 Act. The Act was passed to operationalise the mineral policy which had been formulated a year earlier. The Mining Act provides for the implementation of the policy provisions and, in a way, provide opportunities for the mining sector to contribute to industrialisation. There are several provisions which point to the opportunities for Tanzania to leverage its mineral resources for industrialisation. For instance, section D of the Act provides for mineral processing, refining and smelting and requires mineral right holders to set aside minerals for processing, refining and smelting within Tanzania (United Republic of Tanzania 2010b). It also provides for non-mineral right holders to apply for mineral processing, refining and smelting licences. This is an important legislative step to ensuring that mineral beneficiation and value addition as aspects for industrialisation are achieved in Tanzania.

Importantly, the Act also establishes relevant conditions to mineral right holders to ensure that mining activities link with the broader economy. For instance, sections 41 (4), and 44 state the content, conditions and obligations of a special mining licence holder. Any application for a special mining licence ought to detail a plan for the training and employment of Tanzanians and for the procurement of local goods and services. Any offer and/or renewal of a special mining licence is conditional on having and/or implementing this plan. Further, section 73 (3) of the Act pegs the granting of a dealer licence for gemstones on the condition that the applicant demonstrates capacity to undertake lapidary. On a broader level, the Act also requires mineral rights holders to list on local capital markets as a strategy to link the sector to the rest of the economy and boost the financial/capital markets sector in Tanzania.

The provisions of the Act can be said to provide basic enabling conditions to make the mining sector contribute to the country's industrialisation goals. The main areas of emphasis in the Act include employment and training of Tanzanians, local procurement of goods and services, and mineral processing, refinery and smelting. That said, it remains to be seen whether these provisions are put into practice. It is almost ten years since the Act was enacted in 2010. However, there have not been studies examining the extent to which the provisions of the Mining Act and the mineral policy have been implemented. It is only the TEITI report that mentions the number of different types of licences that have been granted and/or transferred in Tanzania. According to the latest report, there was no single dealer or smelting licence that was awarded in 2015/16 (TEITI 2018). This casts doubts into the likelihood of the policy and legal reforms resulting into tangible benefits in terms of pushing for mineral beneficiation.

6.3. National Strategy for Growth and Reduction of Poverty (NSGRP II), 2010

The NSGRP is a national poverty reduction strategy that seeks to push for a more inclusive economic growth that can respond to the country's poverty reduction goals. NSGRP was produced as part of the IMF supported poverty reduction strategy papers established in response to growing concerns over the consequences of structural adjustment programmes. The most recent NSGRP was published in 2010. The strategy identifies mining as a driver of growth and socio-economic transformation (United Republic of Tanzania 2010a). In line with the mineral policy goals, the NSGRP commits the government to promote growth in the mining sector as a strategy to make mining contribute to socio-economic transformation and poverty reduction. The strategy identifies priority drivers of growth in mining to include value addition and improvement of the fiscal regime; training of local experts; financing local investors; increasing government shareholding and increasing monitoring; marketing interventions, among others. It also sets strategies to achieve rapid growth in the sector. These include promoting domestic mineral value addition; empowering artisanal and small-scale miners; improving the fiscal regime; improving infrastructure; promoting investment in fabrication and manufacturing sectors to stimulate mineral beneficiation; and promoting investment in lapidary, stone carving and jewellery making (United Republic of Tanzania 2010a, 51–52).

NSGRP also targets the energy sector with an emphasis on developing new mega energy infrastructures in the hydro, natural gas and coal sectors for increased energy production to power industrialisation. This goes hand in hand with increased oil and gas exploration, expanding access to energy in rural areas.

6.4. Integrated Industrial Development Strategy (IIDS) 2025

The IIDS was published in 2011 by the Ministry of Industry and Trade. The principal aim of the Strategy is to 'transform the nation from a least developed country to a middle income country by 2025 through transformation from a weather and market dependent agricultural economy to a self-sustaining semi-industrialized economy' (United Republic of Tanzania 2011, 1). IIDS targets to achieve an annual growth rate of 15% in the manufacturing sector and attaining a gross manufacturing value of US\$16 billion and 23% share in GDP composition by 2025 (United Republic of Tanzania 2011). More importantly, the Strategy speaks directly and emphatically to resource-based industrialisation.

IIDS has a whole chapter ten dedicated on resource-based industrialisation. The Strategy reiterates concerns that the extractive sector has not lived up to its promise:

... Tanzania has successfully developed the mining sector but failed to link its development to the national economy and people's life. We may receive criticism from the next generation that the country has handed the un-renewable national resources to foreign capital without making enough return (United Republic of Tanzania 2011, 66).

IIDS then calls for Tanzania to leverage its natural resource wealth to catalyse industrialisation. In this regard, the Strategy identifies several key policy intervention areas relevant for industrialisation. These include 1) strengthening linkage of the development of the mining sector with the rest of the economy, increase local participation in production, process products locally and provide related services by local entities; 2) raising the

capacity of Tanzania Revenue Authority (TRA) to monitor the mining company activities to raise more contribution to Governmental revenue; 3) preparing petrochemical Special Economic Zone (SEZ) at Mtwara for fertilizer and chemical cluster; and 4) preparing a metal industrial cluster either in Bagamoyo or in Mtwara. From these policy intervention areas, it appears quite clearly that the government positions resource extraction as a critical enabler of industrialisation through two channels: supply of raw materials and generation of adequate revenues to fund industrialisation. In this sense, the Strategy identifies a range of resource-based industries to include fertiliser and chemical industries; natural gas use for industry; gold refining, iron making; nickel smelting; and gemstone cutting and polishing.

To make resource-based industrialisation realisable, the Strategy develops a supporting framework that identifies critical infrastructure (energy, transport, water, ICT), and institutional support for growth including business environment, industrial finance, and so forth. The Strategy also commits the government to leverage Public-Private Partnerships (PPP) to attract private capital and management skills.

It is notable that a national industrial development strategy considers the government's desire to drive a resource-based industrialisation. The Strategy clearly shows a good level of coordination between and among different government ministries and agencies. Unlike Zambia where there is a seeming dissonance between extractive policy goals and broader national development framework, the IIDS reveals a coordinated and committed government effort to peg its industrialisation on resource extraction. As shall be discussed subsequently, some of the government commitments in the IIDS such as fertiliser and chemical industries, infrastructural development, etc. have started being implemented. This

presents great potential and opportunity for resource-based industrialisation to thrive.

6.5. The Five-year development plan, 2011/12-2015/16

The 2011/12 five-year development plan marked Tanzania's renewed state interest in development planning akin that which existed during the early years of independence in the 1960s. Captioned as Unleashing Tanzania's Latent Growth Potentials, the Plan placed emphasis on five targeted areas to unleash the desired growth. The targeted areas included: 1) infrastructure, and in particular large investments in energy, transport infrastructure (port, railway, roads, air transport), water and sanitation and ICT; 2) transformations in agriculture; 3) industrial development specifically targeting industries that use locally produced raw materials such as textiles, fertiliser, cement, coal, iron and steel, as well as development of special economic zones, using public-private partnerships; 4) human capital and skills development, with an emphasis on science, technology and innovation; and 5) tourism, trade and financial services (United Republic of Tanzania 2012a).

From the five target areas, it appears the extractive sector was identified as a key player with regards to infrastructure and industrial development. Indeed, the Plan recognises the mining sector as having a crucial role to play in Tanzania's industrialisation. It identifies two critical areas which can be leveraged to make mining drive industrialisation. These include increased revenues from mining which can be used to promote interventions in other sectors such as infrastructure; and energy production through investments in the sector such as in coal and natural gas extraction and processing (United Republic of Tanzania 2012a). Based on this, the

Plan sets three operational objectives, namely, increased local participation; beneficiation and value addition; and maximisation of mineral tax revenue to finance economic transformation. The key targets were to attain an average annual growth rate of 5%; a 3.7% contribution to GDP by 2015/16; at least 10% of produced basic minerals processed locally for beneficiation and value addition; and employment in large-scale mining increased from 14,000 in 2010 to 18,000 in 2015 (United Republic of Tanzania 2012a, 73).

Although economic growth remained stable during the implementation period of the Plan, several targets were not met. Notably, targets on annual growth rate in the mining sector, local processing of minerals continued to be challenging. Further, plan financing as well as efforts to improve the business environment to attract relevant private capital did not yield much (United Republic of Tanzania 2016a). These issues point us back to an earlier argument that implementation remains to be a major issue as regards moving from primary commodity production and export to processing and industrialisation. So far, there is no evidence to show that the 10% target of locally processing basic minerals for beneficiation and value addition was achieved. Nevertheless, the Plan is yet another evidence to show government determination to pursue a resource-based industrialisation strategy.

6.6. The long-term perspective plan, 2011/12-2025/26

The Long-Term Perspective Plan (LTPP) provides a roadmap and guidance to the country's development direction towards the realisation of the Tanzania Development Vision 2025. The LTPP outlines the envisaged sources of financing for the Plan including general resource mobilization propositions and some institutional arrangement to facilitate and ensure an

effective resource mobilisation strategy (United Republic of Tanzania 2016c). The Plan,

Outlines a development path that is cast in three five-year periods (FYDPs), each with a specific development agenda. The first FYDP aims to remove the economy's growth constraints in order to unleash the growth potential of the country. In the second FYDP the focus will be on nurturing an industrial-based economy whilst developing the country's agriculture and agro-processing sectors to enable Tanzania to become the regional food basket. In the third FYDP focus will be to boost exports of manufactured goods with sharpened competitiveness (United Republic of Tanzania 2012b, iii).

The LTPP stresses the importance of catalysing on Tanzania's natural resources to drive the country's growth and industrialisation agenda. Like the first Five-Year Development Plan described above, the LTPP sees mining contributing significantly to industrialisation and exports through the strategic exploitation of its energy and industrial mineral resources; processed and/or semi-processed mineral outputs; and significant contribution to government revenues (United Republic of Tanzania 2012b). Mining is also identified as one of the innovative funding sources to finance the execution of development interventions for industrialisation and economic transformation necessary to attain a middle income, semi-industrialised status by 2025. The LTPP, in this regard, hints at the possibility of introducing new taxes including a super-profit tax; and taking advantage of recent natural gas discoveries to acquire and use substantial revenues

from the sector as a source of development finance.

Generally, what we learn from the LTTP is consistent government efforts to catalyse on extractive resources to industrialise the economy. Key areas of focus in all the documents reviewed so far include mineral beneficiation, maximising revenue collection to fund development interventions, infrastructure development, recognition of the critical role of private sector in achieving an industrial economy, etc. Importantly, there is a high level of consistence and consonance between extractive sector policy framework and the broader national development strategy and policy framework. Key challenges that remain are implementation and the realisability of the revenues from resource extraction to fund industrialisation given the declining revenue flows and the limited extractive revenue-GDP proportion.

6.7. The National Energy Policy (NEP), 2015

The NEP provides an integrated policy framework for all energy issues including oil and natural gas, renewable energy, etc. It 'provides comprehensive legal, regulatory and institutional frameworks for petroleum, electricity, renewable energies, energy efficiency as well as local content issues' (United Republic of Tanzania 2015a, xxii). Among others, the NEP seeks to improve the business environment to attract and retain private investment and local participation in the energy sector.

One key area of focus in the NEP is sufficient energy production for domestic market and participation in cross-border energy trading. To realise this, the NEP identifies potential resources to boost power production. Importantly, many of the identified sources are extractive energy resources, namely, oil and gas, coal, and uranium. There is greater emphasis on the utilisation of petroleum resources to catalyse socio-economic transformation.

The NEP maintains that petroleum resources belong to Tanzanians and must be utilised in a manner that guarantees benefits to the entire Tanzanian society (United Republic of Tanzania 2015a). Accordingly, this can be done through, among others, maximising revenues while ensuring investors recover their costs; developing petroleum infrastructure for refining, processing, liquefaction, transportation, storage and distribution; promoting linkages with other sectors of the economy and rational use of the petroleum resource.

On revenue collection and management, the NEP provides for proper, transparent and accountable management of oil and gas revenues through establishing a Petroleum Revenue Fund. Further, to bolster resource-based industrialisation, the NEP provides for the investment of revenues in 'national strategic projects for the benefits of the present and the future generations' (United Republic of Tanzania 2015a, 31). While this is a welcome provision, it is not clear what the government means by national strategic projects, and how such projects are identified and determined.

Local content is another important aspect of a resource-based industrialisation strategy. The NEP places significant emphasis on the participation of Tanzanians and local firms across the entire petroleum value chain as a means of linking the extractive sector with the rest of the economy and promoting local ownership of petroleum activities. The NEP lists seven local content objectives to be achieved from petroleum extraction activities. These are: 1) facilitating and developing local businesses and Tanzanians to participate effectively in the petroleum industry; 2) acquiring appropriate technology to enable Tanzanians to manage and operate the petroleum industry; 3) increasing the number of Tanzanians employed in the petroleum value chain; 4) facilitating establishment of maintenance service

centres and strengthen local capacity in fabrication and manufacturing; 5) optimizing benefits of petroleum industry to the social and economic development of the Tanzanian communities; 6) enabling local businesses and Tanzanians to access funding for supply of standard goods and services required in the petroleum industry; and 7) ensuring that Government and Tanzanians have sufficient capacity to participate effectively in the petroleum value chain (United Republic of Tanzania 2015a, 32). These are all notable opportunities to enable Tanzania not just bolster industrialisation but also achieve an inclusive industrialised economy. The local content objectives clearly respond to and are in line with success factors identified when analysing the cases of Norway and United States of America. As one interviewee from Repoa remarked, 'local content is an opportunity, you don't grab it, it goes away' (Interview with a representative from Repoa, 20 August 2019). The local content strategy detailed in the NEP shows the extent to which Tanzania is bent on grabbing opportunities availed by the extractive sector. It remains to be seen how far the government works in partnership with other stakeholders to see these objectives achieved.

It should be borne in mind that a local content strategy is as good as nothing if its implementation is not properly thought out and the government leaves everything to the private sector. It has been shown that in less developed countries such as Tanzania local suppliers may initially be unable to provide goods and services at a comparable price, quality and scale to foreign providers which may thus increase project costs and discourage investment (Scurfield, Woodroffe, and Olan'g 2017). Further, if not properly designed and implemented, local content requirements in the extractive sector may end up reproducing the very resource curse against which they are designed to address by, for instance, increasing

the share of a country's assets that are dependent on a sector that is finite in nature and inherently volatile (Scurfield, Woodroffe, and Olan'g 2017).

Furthermore, local content requirements for economic participation do not necessarily translate into actual participation of local firms and citizens in the extractive sector value and supply chain because this depends on whether 'local firms are fully competitive with international suppliers' (Anderson 2016, 53). Evidence from Tanzania point to the fact that local firms are still lagging in terms of the requisite capacity to propel them into meeting the standards of the extractive companies (Anderson 2016). Arguably, interfirm collaboration would help improve their competitiveness to enable them fully take advantage of the extractive sector opportunities but this too remains low in Tanzania's local firms (Calignano and Vaaland 2017). Further, although local firms take initiatives to improve their services to meet the international standard requirements of the extractive sector, it apparently appears that the Tanzanian government does not provide opportunities for their adequate participation in the extractive sector supply chain (Calignano and Vaaland 2018). Importantly, the local content requirements contain provisions which may still be used by the Multinational Corporations as excuses not to abide with the provisions. For instance, loopholes such as 'meeting the international standards can be used by extractive firms to overlook local content requirements' (Interview with a representative from Repoa, 20 August 2019). This suggests that achieving local content goals requires more than just having a legal and regulatory framework in place, it requires strong monitoring mechanisms and effective implementation measures.

Importantly, there are also financial constraints related to the implementation of local content

requirements in the extractive sector. The Tanzanian government has committed itself and takes measures to promote the participation of local firms such as the state-owned enterprises including the State Mining Corporation (STAMICO). However, these local firms do not have requisite financial resources to enable them to participate in the extractive value chain. One good example here comes from the government's resolve to contract STAMICO to supply gravel for the Standard Gauge Railway construction project instead of an earlier plan to import them from Turkey. This measure, however, became less effective as STAMICO did not have the necessary funding, estimated at US\$ 400,000, to implement the project (HakiRasilimali 2019b).

A resource-based industrialisation strategy can be achieved if there is concerted effort to promote capacity building, research and development. The NEP commits the Tanzania government to create opportunities for research and development to inform energy sector development. It urges higher learning institutions to review their training curricula to include oil and gas disciplines. The Policy also commits the government to facilitate capacity building programmes for the energy sector development; support industries, higher learning and research institutions to conduct research and development on energy related activities; and establish oil and natural gas centre of excellence and strengthen capacity of the training institutions to impart requisite knowledge, skills and innovations to Tanzanians. Notably, higher learning institutions such as the Universities of Dar es Salaam and Dodoma in Tanzania have established degree programmes in oil and gas engineering, finance and accountancy, etc. Notably, oil and gas multinational corporations with interests in Tanzania had taken the initiative to start training Tanzanians in the sector by offering scholarships for Tanzanians to study oil and gas

related programmes in Tanzania and abroad. However, with delayed host government agreement and LNG final investment decision not in insight, companies have started slowing down on this front (Interview with Academic Staff 2; 18 August 2019). Again, while these policy measures are an important opportunity for extractive resource extraction to catalyse industrialisation, what is needed more now is their implementation. Research funding to universities that the NEP commits the government to do remains a nightmare. For instance, evidence indicate that even though Tanzania has set the target of 1% of GDP per capita to be spent on research and development, current expenditure is 0.38% (Hanlin and Khaemba 2017). Further, it has been reported that government funding to higher education institutions in Tanzania has been on the decline trend in the recent past (Mgaiwa 2018).

6.8. The Petroleum Act, 2015

The Petroleum Act was enacted under a certificate of urgency in 2015, a few months before the general elections. The Act provides for regulation of upstream, midstream and downstream petroleum activities, establishment of the Petroleum Upstream Regulatory Authority, to provide for the National Oil Company, to secure the accountability of petroleum entities and to provide for other related matters (United Republic of Tanzania 2015c). The Act establishes several petroleum governance institutions including the Tanzania Petroleum Development Corporation (TPDC) as a National Oil Company, the Petroleum Upstream Regulatory Authority (PURA), Energy and Water Utilities Regulatory Authority (EWURA) to regulate midstream and downstream petroleum activities, and the Oil and Gas Advisory Bureau.

The Act equally provides for efficient, transparent and accountable management of petroleum resources,

and local content. In connection to linking extractives to industrialisation, the Act provides for the regulation of midstream and downstream petroleum activities which include gas processing, transportation and storage; liquefaction; etc. These mid and downstream activities are very vital in linking the petroleum sector to the industrialisation agenda. Importantly, the Act provides for natural gas pricing mechanism that considers international best practices, provides incentives for promoting investments while sustaining supply and demand for natural gas, and that is affordable and predictable to strategic industries and households.

A critical area for an inclusive resource-based industrialisation is local content. In this regard, the Act provides for the participation of Tanzanians and local firms in petroleum activities throughout the value chain. It requires licence holders, contractors and sub-contractors to preferentially procure locally available goods and services, to train and employ Tanzanians, and training and technology transfer. These provisions are very important in ensuring that resource extraction catalyses an inclusive industrialisation (Natural Resource Government Institute 2016).

6.9. The Oil and Gas Revenue Management Act, 2015

We noted in the Norwegian case that proper management of resource revenues not only helps a resource-rich country avoid the curse of resources but also makes it possible for a resource-based industrialisation to be realised. The Tanzania government documents reviewed thus far reveal government intention to properly manage resource revenues and catalyse on that to finance critical interventions for industrialisation. Thus, the Oil and Gas Management Act was enacted in 2015 to make it possible

for Tanzania to manage proceeds from the petroleum sector properly and sustainably. The Act provides for the establishment and management of the Oil and Gas Fund, to provide for the framework for fiscal rules and management of oil and gas revenues and to provide for other related matters (United Republic of Tanzania 2015b).

Keeping in pace with developments in other successful petro-economies of Norway, Russia, etc., the Act establishes the Oil and Gas Fund for the purpose of managing oil and gas revenues. Section 8 of the Act establishes the Fund, states that the Fund shall consist of the Revenue Holding Account and the Revenue Saving Account. It also states the objectives of establishing the Fund. These include ensuring that: 1) fiscal and macroeconomic stability is maintained; 2) the financing of investment in oil and gas is guaranteed; 3) social and economic development is enhanced; and 4) resource for future generations is safeguarded. The sources of revenues to be kept in the Oil and Gas Fund include royalties, government profit share, dividend on government participation, corporate income tax, and return on the Fund investment.

The Act further stipulates for the management of the fund, provides for how the Fund revenues can be used and restrictions thereof, oversight and fiscal rules. On Fund revenue use, the Act prohibits the use of Fund revenues to provide credit to the government, public or private entity; using it as a collateral or guarantee; or for rent seeking and corruption. It instead directs that the Fund should only be used for portfolio investment. As regards fiscal rules, Section 17 (c) provides for the operation of the Fund and states that 'in any fiscal year, at most an amount equal to 3% of the GDP is transferred to the Consolidated Fund for budgetary use, and at least 60% of such transfer is dedicated to funding strategic development expenditure

including human capital development, particularly in the area of science and technology' (United Republic of Tanzania 2015b). As was noted in the Norwegian case where transparency and accountability have been identified as success factors, the Act provides for the transparent and accountable management of the Fund. Section 18 of the Act requires that the collection and deposit as well as disbursement of funds from the Fund be conducted in a transparent and accountable manner. The Act further stipulates that the records of oil and gas revenues and expenditure in whatever form, shall simultaneously be published; information required to be made public be published online on the Government and Ministry of Finance websites; the record of oil and gas revenue and expenditure be subjected to parliamentary oversight; and the Central Bank report on the operational performance of the Fund and publish an audited report in the official Gazette and website of the Bank (United Republic of Tanzania 2015b).

It is no doubt that the Tanzania government has taken seriously the challenges of managing resource revenues and has taken measures to ensure that oil and gas revenues are properly managed and sustainably used to finance interventions relevant for socio-economic transformation. While this is the case, concerns have been raised over the viability of the Oil and Gas Revenue Management Act provisions. For instance, there have been concerns on the viability of the 3% threshold, the need to consider alternative mechanism for financing TPDC, and rethinking investment rules (Scurfield and Mihalyi 2017; Natural Resource Government Institute 2016). Further, the Act should now move into implementation stage. So far, the Fund has not been established yet and regulations to facilitate the law's implementation have not been issued yet. It is not clear why, after four years of being enacted, the Fund has not been established yet. Further, the Act only caters for oil and gas revenues.

There is no similar law for revenues from mining. The broader national development plans talk about leveraging revenues from mining and oil and gas sector to finance critical interventions for industrialisation. A similar law for the management of mining revenues is necessary for proper and sustainable management of mineral revenues (HakiRasilimali 2019a).

Further, the Fund is likely to be affected by controversial and complex Tanganyika-Zanzibar Union politics. Both the Petroleum and Oil and Gas Revenue Management Acts draw boundaries in the applicability of the provisions to both Tanzania mainland and Zanzibar. The laws clearly show that the oil and gas sector is a non-union matter. Consequently, the Petroleum Act provides in Section 2 (2b) that the regulation of petroleum upstream operations, midstream and downstream activities and other matters in Zanzibar shall be governed and administered by institutions in accordance with the laws of Zanzibar unless the relevant operations and activities are jointly undertaken by the union government and the government of the republic of Zanzibar (United Republic of Tanzania 2015c). While these laws provide that revenues from oil and gas activities generated in Tanzania mainland will be used by the union government to finance socio-economic development expenditure in mainland Tanzania and that from Zanzibar be used in Zanzibar, it is not clear how the union government will separate oil and gas revenues from the rest of other revenues to ensure that it does not allocate part of the revenues to Zanzibar. This is especially the case now that the Oil and Gas Revenue Fund has not been established yet. Nevertheless, the Oil and Gas Revenues Management Act represents another government commitment and effort to catalyse on resource extraction to bolster industrialisation.

6.10. The Tanzania Extractive Industries (Transparency and Accountability) Act, 2015

One of the key lessons drawn from the Norwegian case analysed earlier is the critical role of transparency and accountability in explaining Norway's successful transformation of its oil sector into one that contributes meaningfully to socio-economic development. Similarly, transparency and accountability have increasingly been shown to be critical ingredients of good resource governance. Although evidence about their effectiveness is inconclusive, transparency and accountability are one of the ways resource-rich developing countries can use to avoid and/or overcome the negative consequences of resource extraction (Poncian and Kigodi 2018). This is one of the reasons Tanzania enacted the Tanzania Extractive Industries (Transparency and Accountability) Act (TEITA) in 2015.

The TEITA establishes the Extractive Industries (Transparency and Accountability) Committee as an independent government body to oversee transparency and accountability in the extractive sector. The Committee's role include to develop a framework for transparency and accountability; require disclosure of cost of production, capital expenditure, production volumes and export data from extractive companies; promote effective citizen participation and awareness; make reconciliation of payments from extractive companies and government receipts; among others (United Republic of Tanzania 2015d). The Act further provides for the obligations of extractive companies in Sections 15 and 16. This include the obligation to submit to the Committee information on local content, corporate social responsibility, and capital expenditures. There are also obligations to publish information on all concessions, contracts, licences, beneficial ownership, etc.

All these provisions in the Act are significant developments towards a more open and accountable extractive resource governance regime in Tanzania. Although not without weaknesses especially in clarity and specificity of provisions on beneficial ownership, scope of disclosure, etc. (Natural Resource Government Institute 2016), the Act and its provisions represent a step further into good resource governance, a vital condition to increase extractives' contribution to industrialisation. Good as this law may seem, its implementation and contribution to industrialisation is likely to be impeded by government reluctance to disclose some revenue information; and the constraining political and legal environment (HakiRasilimali 2018; Poncian and Kigodi 2018).

6.11. The Natural Gas Utilisation Master Plan, 2016-2045

The Natural Gas Utilisation Master Plan (NGUMP) was launched in 2016 as a strategy for the implementation of the National Energy Policy. A key goal of NGUMP is to promote an 'inter-sectoral coordination in the design and implementation of natural gas development activities' (United Republic of Tanzania 2016b, v). The NGUMP seeks to achieve several key objectives some of which include: 1) identifying current and future demand and supply of natural gas for local and foreign markets; 2) setting framework for development of infrastructure to supply the market; 3) setting financing strategy for gas utilisation projects; 4) maximising the multiplier effect of gas in domestic economy through facilitation of gas to power, methanol, fertilizer, other petrochemicals and establishment of heavy manufacturing industries; 5) promoting the use of natural gas as alternative fuel to charcoal and wood for domestic use, feedstock for value added products, industrial heating, power generation and

in the transport sector; and 6) promoting local content in the natural gas value chain (United Republic of Tanzania 2016b).

In terms of supporting industrialisation, the NGUMP proposes natural gas utilisation options which include: 1) power generation with 8.8 trillion cubic feet (TCF) of gas forecasted to feed into power generation over a period of 30 years; 2) industrial application as an alternative fuel with 3.6 TCF of gas estimated to be needed to fuel light industries for the 30 years of the plan; 3) use in household, institutions and transport sectors with a total of 1.2 TCF projected to be needed; 4) fertiliser (ammonia and urea) manufacturing expected to consume 0.7 TCF for 25 years; 5) methanol which will require an estimated 1.1 TCF for 23 years; 6) methanol to gasoline (MTG) proposed to start in 2023; 7) gas to liquid (GTL) expected to consume 1.8 TCF of natural gas over a period of 20 years; and 8) use in iron and steel production where it is estimated that 1.1 TCF of gas will be needed over a period of 23 years (United Republic of Tanzania 2016b, vi-ix). Thus, the local utilisation of natural gas over a period of 30 years from 2016 to 2045 is expected to consume 19.1.TCF of natural gas.

The successful execution of the gas processing project mentioned above requires a steady source of funding, commitment to infrastructure upgrade and expansion and an enabling institutional framework. The government commits to expand gas processing facilities whenever demand for that calls for and commits to invest in local and regional gas transmission pipelines to connect all regions of Tanzania. On financing the NGUMP, the Plan proposes mid and downstream projects to be financed through the government, public-private partnership or through private funding.

The NGUMP is the most elaborate and detailed energy policy implementation plan. Unlike the mining

sector where such implementation plans are lacking, this one promises in a realistic manner to leverage natural gas wealth to create strong forward and backward linkages to the rest of the economy, more so to industrialisation. Nonetheless, the prospects of this happening hinges on offshore natural gas extraction whose investment decisions have so far not been made. The LNG project whose investment decision should have long been made continue to suffer from delays brought by changes in policy and legal frameworks, delays in Host Government Agreement negotiations and international market outlook for liquefied natural gas (Maennling, Toledano, and Mitro 2017; Interview with NRGI, 1 August 2019; Interview with Academic Staff 2, 18 August 2019). These delays and uncertainty over the commissioning of the LNG project cast doubts into the viability and achievability of the NGUMP. They also serve as a caution to Tanzania's government's resource-based industrialisation strategy.

6.12. The Five-Year Development Plan, 2016/17-2020/21

The second Five-Year Development Plan for the period 2016/17 to 2020/21, which was launched in 2016, is the second of the three five-year development plans for the implementation of the Long-Term Perspective Plan. The Plan, titled Nurturing Industrialization for Economic Transformation and Human Development, seeks to achieve socio-economic transformation through industrialisation, human development and implementation effectiveness (United Republic of Tanzania 2016a). The key objectives of the Plan revolve around socio-economic transformation and include building a base for propelling Tanzania into a semi-industrialised economy by 2025; fostering development of sustainable productive and export capacities; promoting availability of requisite industrial skills and skills for other

production and services delivery; accelerating broad-based and inclusive economic growth that reduces poverty substantially and allows shared benefits among the majority of the people through increased productive capacities and job creation especially for the youth and disadvantaged groups; and improving quality of life and human wellbeing (United Republic of Tanzania 2016a).

On extractives-industrialisation linkages, the Plan promotes a 'resource-based industrialization in order to add value to these resources that Tanzania is well endowed with' (United Republic of Tanzania 2016a, 53). The key interventions envisaged in the Plan to promote a resource-based industrialisation include mineral beneficiation, mineral value addition, establishment of bourses, hire purchase, conditional partnerships between foreign and local companies and large and small miners, infrastructure support, and training and skills development. To realise these goals and interventions, the Plan estimates a total of 4016.34 (104.04 from government and 3912.3 from private sources) billion shillings will be needed to finance key interventions over five years (United Republic of Tanzania 2016a). Accordingly, the government will likely be setting an average of 21 billion shillings annually as part of its mining sector budget. Judging from the performance of the 2016/17, 2017/18 and 2018/19 ministry of minerals budgets, it is likely that the targeted interventions may not be achieved as funding lags. For instance, in the 2018/19 budget for minerals, the government had budgeted 19.65 billion shillings for development projects. However, by February 2019, only 100 million shillings (0.5% of approved development projects budget) had been disbursed (HakiRasilimali 2019b). Similarly, of the 21.783 billion shillings approved for Ministry of Minerals for development projects in 2017/18, only 835 million shillings (3.83% of the approved budget) had been disbursed as at March 31 2018 (Wizara ya Madini 2018). Funding allocation visa viz disbursement

has not just been an issue in the past three years of the current administration. Existing evidence shows that this has been an issue for quite some time now. The following table details the mismatch between budgetary allocations for development projects and actual disbursement during the past five years. As the table below indicates, there has been a downward trend in the disbursement of allocated development projects funding in the ministries of energy and minerals during the past six years, except for 2015/16 when disbursement was higher than the allocated budget. This mismatch between government funding commitment and actual disbursement raises concerns over the realisability of a resource-based industrialisation.

Table 1: Ministry of Energy and Minerals Development Projects Budgetary Allocation and Disbursement Trends, 2013/14-2018/19

Year	Budgetary allocation (billion Tshs)	Disbursed amount (billion Tshs)	% of allocated fund
2013/14	1,100	618	55.82
2014/15	957.2	271.57	28.37
2015/16	502.3	579	115.27
2016/17	1,056	698.61	66.17
2017/18	938.32 (of which 21.783 was for mining sector)	198.66 (0.835 for mining sector)	21.17 (3.83 for mining sector)
2018/19 ¹	19.65	0.1	0.5

Source: Compiled from Parliament of Tanzania (2018); HakiRasilimali (2019b)

Digging deeper into how this budgetary allocation and disbursement disparity may be impacting on government's efforts to forge strong linkages between resource extraction and industrialisation reveals some shocking realities. For instance, there appears to be disparity between government stated goals and actual efforts to realise the goals. We have noted that recent reforms have brought in the state as a key player in the resource extraction politics through its new role as an investor and regulator. The state participates in resource extraction investment through its state enterprises, namely TPDC and STAMICO. For its participation to be of greater impact on extractives-industrialisation linkages, state enterprises ought to be capitalised. However, evidence show that these state enterprises are undercapitalised as they are both allocated limited funding through government budget and have their budgetary allocations not adequately disbursed. For instance, during the 2018/19 financial year, STAMICO was

allocated 8.9 billion shillings to finance three development projects, namely, the smelting of gold concentrates at the Buhemba mine, coal extraction at the Kabulo-Kiwira mine, and gravel extraction project at Ubena Zomozi. However, up to December 2018, STAMICO had not received any amount of money from the government for that purpose (Parliament of Tanzania 2019).

The Plan further links resource extraction to growth and expansion in the manufacturing sector. The main thrust in this sector lies in government's confidence and goal to leverage extractive resources to boost manufacturing in such areas as petro-chemical industries, building and construction materials industries, coal for industrial and household use, and iron and steel. There is also a greater focus on expanding and increasing infrastructure necessary for industrialisation to thrive. Unlike the previous five-year development plan and the LTPP which identified extractive revenues as a significant

funding source to finance industrialisation, the current Plan is silent on that. Although it is not clear why this shift of focus in the current Plan, this shifting focus may plausibly be explained by the volatile nature of resource revenues as well as a declining trend in revenue receipts during the past five years. As in the case of mineral development funding cited above, the unstable and declining government funding of interventions necessary for a resource-based industrialisation may slow the realisation of its industrialisation. An encouraging development, however, is government's commitment and commissioning of mega infrastructural projects in energy, transportation, etc. in the past five years which might push forward its industrialisation agenda.

6.13. The Written Laws (Miscellaneous Amendments) Act, 2017

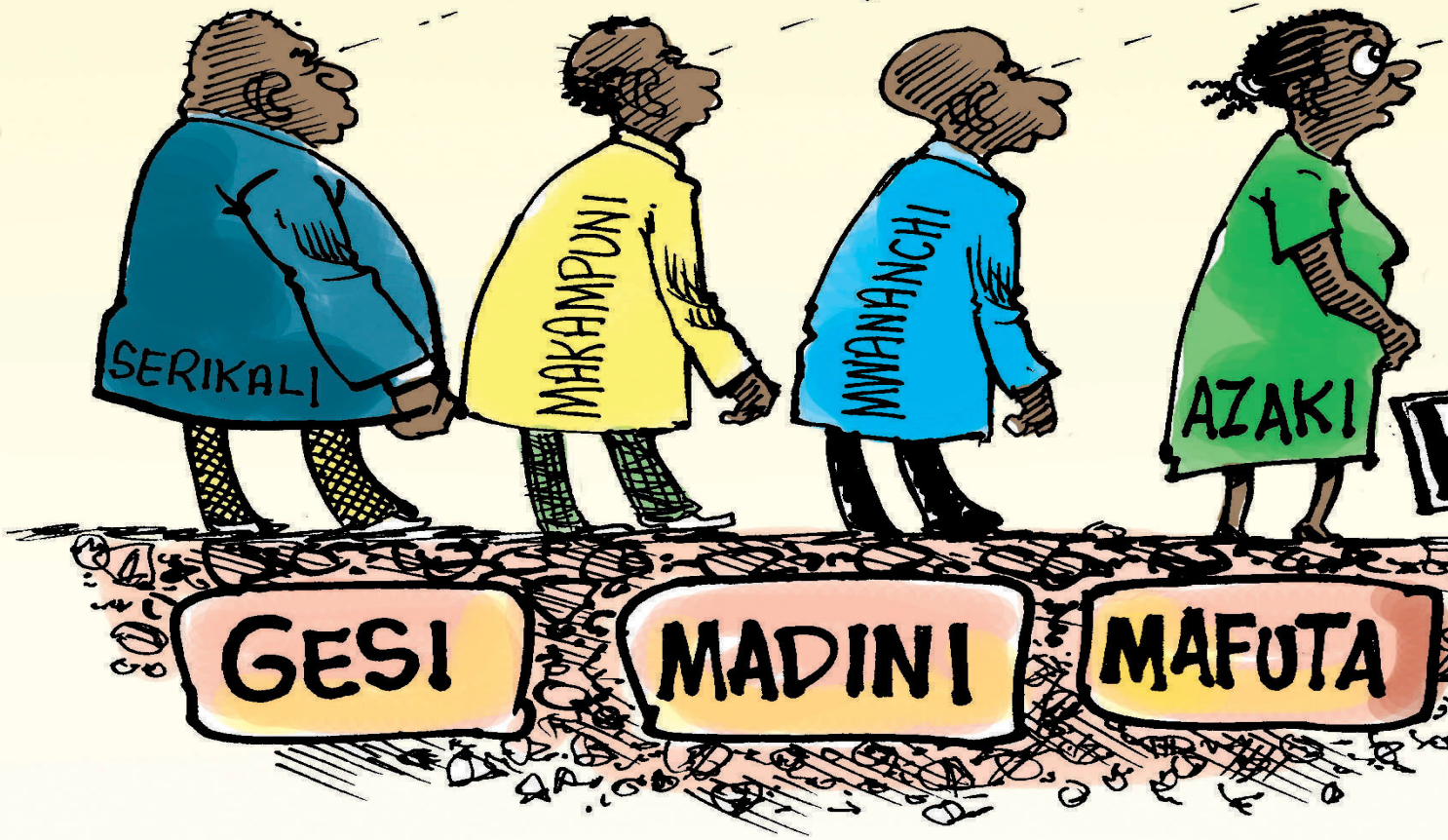
The Written Laws (Miscellaneous Amendments) Act was passed by the parliament in July 2017 to amend provisions in the Mining Act, 2010, the Petroleum Act, 2015, the Income Tax, Insurance Act, Tax Administration Act, and the Value Added Tax Act. The key objective of the Act is to 'amend certain written laws in the extractive industry and financial laws with a view to enhancing control and compliance, ensuring maximum collection of revenues and securing national interests' (United Republic of Tanzania 2017d). The Act can thus be said to be a step to institutionalise resource nationalism and ensure that resource extraction generates more revenues to finance development interventions and promote industrialisation.

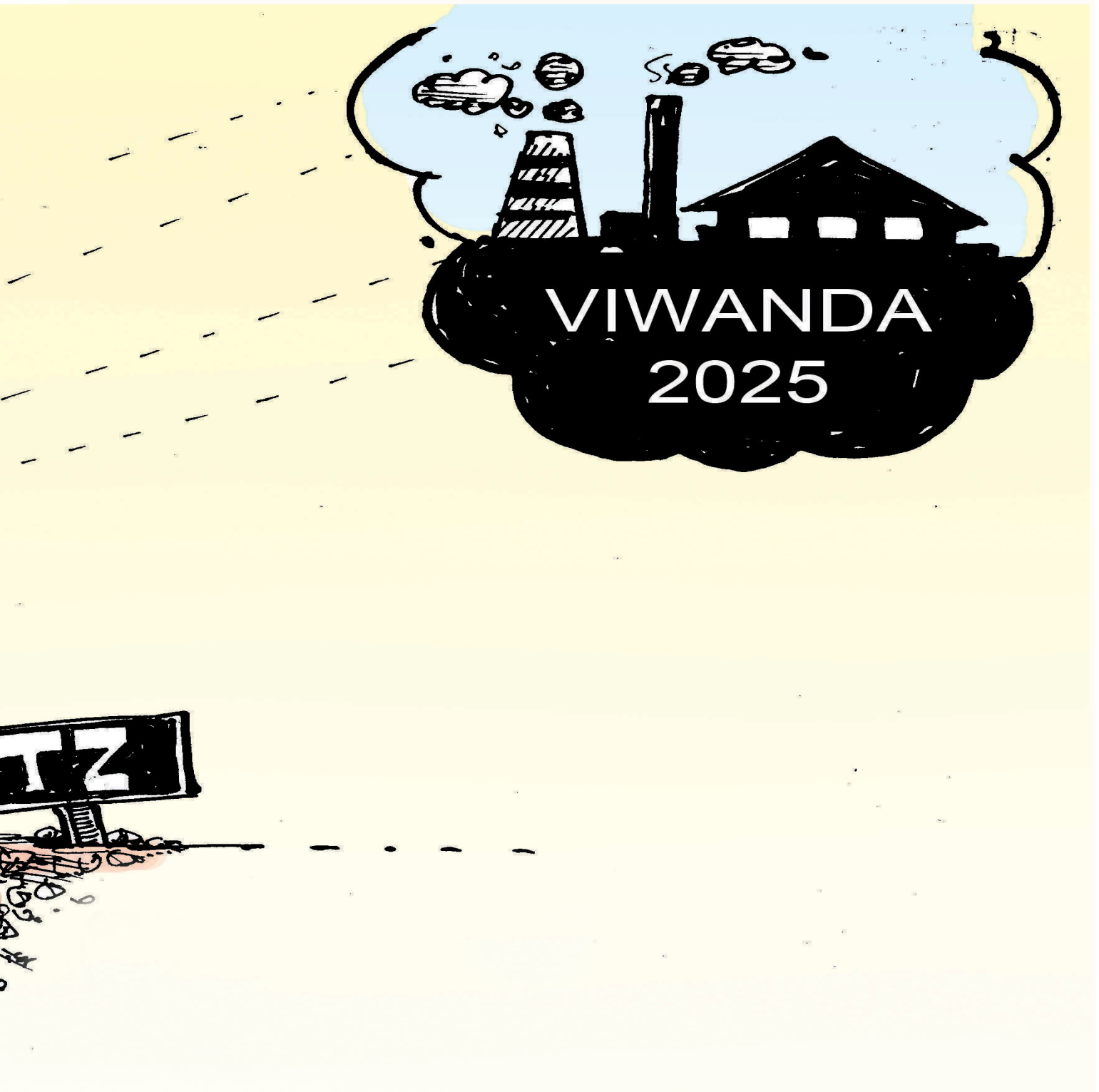
The Act prohibits export of raw minerals and mineral concentrates and requires that all minerals be processed within Tanzania. It also provides for strong local content

requirements including a requirement for mineral right holders to prepare and submit a procurement plan detailing the use of local services in insurance, financial, legal, accounts, security, cooking, catering, health and other services provided or available in Tanzania; and works, goods and equipment manufactured, produced or available in Tanzania. To ensure that local procurement of goods and services really answers to provisions for participation of Tanzanians or local firms, the Act defines a local company as one that is 100% owned by a Tanzanian or a joint venture company where shares owned by Tanzanians are not less than 51%.

While these amendments present an opportunity to link the extractive sector to the rest of the economy and spur industrialisation, their implementation may end up contradicting government intentions. It should be noted that while the government seeks to increase revenue collection from extractive activities, evidence show that revenues collected from the sector have declined in the past three years, a period in which these reforms were introduced (HakiRasilimali 2019a). Further, while Tanzania has introduced tougher local content requirements, reports show that countries such as South Africa and Zimbabwe which had similar local content requirements are already considering relaxing their local content and local participation requirements. In Zimbabwe, for instance, although the thrust is on increasing local content threshold to 80%, government understanding is that that can be achieved without resorting to regulate importation but by formulating a local content strategy to encourage citizens and local corporates to buy products produced locally (Mhundwa and Tome 2019). Further, to be successful, the experience of Ghana from which Tanzania drew its inspiration for its local content, should provide a lesson as Tanzania moves to implementation. Arguably, Ghana has made limited progress in both the employment of Ghanaians and enabling local firms to

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enter the supply chain of the oil and gas industry (Ackah and Mohammed 2018). Consequently, it is argued that it is important for countries banking on local content requirements 'to beware of trying to meet local content targets at all cost, since that may reduce the effectiveness of the oil and gas supply chain' (Ackah and Mohammed 2018, 13).

6.14. The Natural Wealth and Resources Contracts (Review and Re-Negotiation of Unconscionable Terms) Act, 2017

The Natural Wealth and Resources Contracts (Review and Re-negotiation of Unconscionable Terms) Act was equally passed by the National Assembly in July 2017. The primary goal of the Act is to provide for and empower the state to renegotiate extractive contracts whenever it feels they do not cater for the development needs of the country. The Act empowers the National Assembly to review any arrangements or agreement made by the Government relating to natural wealth and resources (United Republic of Tanzania 2017b). It also empowers the government to renegotiate unconscionable terms. Article 6 (2) of the Act defines unconscionable terms to include those that: 1) restrict the right of the State to exercise authority over foreign investment within the country and in accordance with the laws of Tanzania; 2) are inequitable and onerous to the state; 3) are restricting the right of the State to regulate activities of transnational corporations within the country and to take measures to ensure that such activities comply with the laws of the land; 4) are depriving the people of Tanzania of the economic benefits derived from subjecting natural wealth and resources to beneficiation in the country; 5) are by nature

empowering transnational corporations to intervene in the internal affairs of Tanzania; 6) are subjecting the State to the jurisdiction of foreign laws and fora; 7) expressly or implicitly are undermining the effectiveness of State measures to protect the environment or the use of environment friendly technology; and 8) aim at doing any other act the effect of which undermines or is injurious to welfare of the people or economic prosperity of the nation.

While not directly related to industrialisation, the Act and its provisions provide an opportunity for the state to intervene in resource extraction to ensure that extractive activities align to national economic interests including industrialisation. The opportunity availed by the Act to review and renegotiate contract terms may be used to the advantage of Tanzania's industrialisation agenda. That notwithstanding, the Act also presents challenges in terms of attracting and retaining investors into the extractive sector. In fact, the provisions of this Act, the Written Laws (Miscellaneous Amendments) Act, 2017 and those of the Natural Wealth and Resources (Permanent Sovereignty) Act, 2017 have been reported to have negatively impacted on foreign investment inflows into the sector and are said to be part of the reasons for delayed final LNG investment decision and negotiations (Lewis 2018; Isaksen, Kilama, and Matola 2017). The most recent UNCTAD report shows although foreign direct investment inflows are recovering, Tanzania remains the least recipient of FDI having attracted an increase of 18% behind Uganda's 67% and Kenya's 27% (UNCTAD 2019, 37).

6.15. The Natural Wealth and Resources (Permanent Sovereignty) Act, 2017.

Like the preceding two pieces of legislation, the Natural Wealth and Resources (Permanent Sovereignty) Act was passed in July 2017. The Act primarily seeks to reassert Tanzania's sovereignty over its extractive and other natural resources. In reasserting Tanzania's sovereignty over natural resources, the Act makes resource extraction a national interest issue that has to be done with the interests of the people and the nation at the centre. For instance, Article 6 of the Act prohibits any arrangement or agreement for the extraction, exploitation or acquisition and use of natural wealth and resources unless the interests of the people and the nation are fully secured (United Republic of Tanzania 2017a). The Act further prohibits beneficiation of raw minerals outside Tanzania and requires new resource extraction contracts to contain provisions for establishment of beneficiation facilities within Tanzania. To further enhance strong linkages between resource extraction and the broader economy, Article 10 of the Act requires proceeds from resource extraction, exploitation or acquisition to be retained in local banks and financial institutions. Importantly, to protect sovereignty over resources and all provisions contained therein, the Act illegalises foreign arbitration of disputes.

In connection to extractives-industrialisation linkages, this Act offers two main opportunities. First, by reasserting sovereignty over natural resources and conditioning resource extraction to respond to national and people's interests, the Act provides a broader policy space within which the Tanzanian state can shape and reshape extractive activities in line with its development priorities. This leaves a room for the state to manoeuvre

and condition resource extraction to its advantage. Secondly, by defining sovereignty over resources to include local processing, smelting and refinery of raw minerals as well as retaining proceeds from extractive activities in local banks and financial institutions, the Act creates opportunities for extractives to both contribute to industrialisation and broader linkages to the rest of the economy.

That said, the Act contains elements that may work unfavourably against Tanzania's resource-based industrialisation agenda. By requiring resource extraction to be in line with the people's and national interests, the Act creates unnecessary ambiguities and unpredictability. This is because, as some researchers have shown, there is no such thing as national interest, not to talk of the interests of people (Hameiri and Jones 2016). Even if there was to be such thing as national interest, it would obviously not be permanent. National and people's interests change frequently and are therefore unpredictable. This unpredictability of what would constitute national or people's interests runs counter to government's stated commitment to attract and retain investors. An unpredictable policy regime can hardly support a vibrant private sector led industrialisation which the Tanzania government alludes to.

6.16. The Mining (Local Content) Regulations, 2018 and the Petroleum (Local Content) Regulations, 2017

The Mining and Petroleum (Local Content) Regulations were released in 2018 and 2017 respectively as part of the government efforts to implement the Mining Act 2010 and the Petroleum Act 2015 and their 2017 amendments. The Regulations cater for local content requirements

in the mining and petroleum sectors. The specific local content requirements covered in the Regulations include employment and training; research and research development; technology transfer; local insurance services; engineering services; legal services; and financial services. The Regulations are predicated on several key objectives which can broadly be summarised as value addition and job creation, local employment, developing local capacities, local control over development initiatives, supporting extractive related industries, etc. (United Republic of Tanzania 2018b, 2017c).

The Regulations require mineral licence holders to give preference to indigenous Tanzanian companies in procurement of goods and services. The indigenous Tanzanian company is defined as one that has at least 51% equity owned by Tanzanians and has Tanzanians holding at least 80% of executive and senior management positions and one hundred percent of non-managerial and other positions (United Republic of Tanzania 2018b). The 2019 amendments to these regulations, however, redefine an indigenous Tanzanian company to be one in which at least 20% equity is owned by Tanzanians (United Republic of Tanzania 2019). On the contrary, the Petroleum (Local Content) Regulations define a local company to be one which is 100% owned by a Tanzanian citizen or a company that is in a joint venture partnership with a Tanzanian citizen or citizens whose participating share is not less than 15% (United Republic of Tanzania 2017c). That notwithstanding, the regulations require petroleum and mining licence holders to submit to relevant organs their local content plans detailing their measures and plans to procure local goods and services such as insurance, legal, engineering and financial services; training of Tanzanians; technology transfer; research and development, etc. (United Republic of Tanzania 2018b, 2017c).

The local content regulations create opportunities for linking the mining and petroleum sectors to industrialisation in several ways. By preferencing indigenous companies in procurement of goods and services, the regulations make it possible for local companies to secure stable market and work to improve quality of their products and/or services relative to the standards of the extractive sector. Secondly, by requiring mineral licence holders to procure insurance, engineering and legal services as well as keeping the extractive proceeds in local banks and financial institutions, the regulations create opportunities for backward linkages between the mining sector and other sectors of the economy, a crucial ingredient to making resource extraction contribute to industrialisation.

These benefits and opportunities will, however, depend on how the regulations and requirements will be enforced. The case of Ghana cited earlier shows that rigid implementation of local content requirements runs the risk of being counterproductive. Secondly and as stated earlier, studies have shown that local companies in Tanzania do not have the requisite capacity and resources to deliver goods and services meeting the standards of the extractive sector industry (Anderson 2016; Calignano and Vaaland 2018). Third, it appears that local content regulations and requirements are biased towards financial gains and benefits. The main aim appears to be increasing economic gains from mining activities to local companies and Tanzanians. While this is essential especially as far as poverty reduction goals are concerned, it does less in terms of promoting a resource-based industrialisation strategy. Although the regulations point to a local content strategy that links mining to various sectors, much of the implementation has been much more on 'financial gains than building capacity, technology transfer, strategic skills transfer, etc.' (Interview with NREGI, 1 August 2019). Fourth, it appears that the local content strategy for

mining and petroleum sectors has been developed in isolation from the rest of the economy. Though well intentioned, sector specific local content strategies like the one adopted in Tanzania may end up reproducing the resource curse by making local firms focus more on resource extraction to the neglect of all other economic sectors (Scurfield, Woodroffe, and Olan'g 2017). This calls for efforts to have a harmonised local content strategy that cuts across the broader economy. This is important because it would not just link the extractive sector to the rest of the economy but also ensure that other economic sectors get similar attention and that efforts for promoting local participation across the value and supply chains are balanced across the entire economy. Finally, extractives-industrialisation linkages through local content requirements hinges on there being a strong monitoring mechanism. The current local content regulations do not provide for this. In the absence of this, it is difficult to measure the contribution of local content to Tanzania's industrialisation agenda. Thus, this requires the government of Tanzania to establish neutral organs for the monitoring of local content implementation. One way of doing this would be to empower the Tanzania Extractive Industries Transparency Initiative (TEITI), a neutral institution accepted by all stakeholders, to monitor local content implementation (Interview with a representative from Repoa, 20 August 2019). Media and civil society organisations can also come in to monitor local content implementation.

6.17. The Mining (Mineral Beneficiation) Regulations, 2018

The Mining (Mineral Beneficiation) Regulations were issued in response to provisions of sections 60, 61 and 112 of the Mining Act 2010. The Regulations define

mineral beneficiation to include the processing, smelting or refinery of metallic or industrial minerals (United Republic of Tanzania 2018c). According to the Written Laws (Miscellaneous Amendments) Act, 2017, industrial minerals include limestone, gypsum, clays and refractory minerals; agro-minerals for fertilizers such as phosphate; coal; and soda ash. Metallic minerals include gold, silver, copper, iron, nickel, zinc, lead, manganese, chromium, cobalt, molybdenum, vanadium, aluminium, magnesium, and titanium (United Republic of Tanzania 2017d).

The Regulations provide for the rights of a mineral beneficiation licence holders. These include buying or acquiring or selling or disposal of minerals; export of minerals for which a licence was issued; and/or erecting necessary equipment, plant and infrastructure for operating, transporting, dressing or treating minerals. Further, the Regulations set conditions for the grant and renewal of a mineral processing, refinery or smelting licence. The conditions include employing and training citizens of Tanzania and implementing a succession plan; implementing a plan for procurement of goods and services available in Tanzania; and stacking or dumping any mineral or waste product in accordance with environmental management law and regulations (United Republic of Tanzania 2018c).

These regulations present an opportunity for Tanzania to leverage its mineral resources to promote industrialisation through mineral processing, refinery and smelting. They also provide an opportunity to link mineral beneficiation to employment and training of Tanzanians as well as local procurement of goods and services. That said, it remains to be seen how these will be implemented and what strategies are there to further encourage local mineral beneficiation. As we noted earlier, despite having legal and regulatory provisions for mineral beneficiation, there appears to be limited achievement in terms of attracting large scale investment in mineral

beneficiation. Reports indicate that, up to February 2019, nine companies had shown interest in investing in minerals value addition; and of the nine companies, three had already lodged application for construction of smelters and one for construction of a refinery (TCME 2019b). Media reports show that a major gold refinery will soon be opened in the capital city Dodoma and another one in the Lake Zone. It is reported that the opening of these refineries will boost gold refining to 99.9% up from the current 70-85% (Machira 2019; Materu 2019). This is indeed a major milestone achievement in terms of the government's efforts to promote mineral value addition and resource-based industrialisation. That said, will this live to the hype it is generating? Will the refinery and the resulting refined gold be up to the established international gold refinery standards?

From an interview with NRGi, it is important to pay attention to key challenges that may stand in the way of Tanzania's efforts to promote local mineral beneficiation. These challenges include economies of scale i.e. the fact that large scale smelting of minerals such as gold requires adequate supply of feedstock which may not

be readily available in Tanzania; high energy demand; how competitive would smelting in Tanzania be relative to other countries; whether there can be alternatives to large scale smelting with the potential to learn from the experience of Uganda which has been smelting gold; and geopolitical/regional considerations such as, for instance, a consideration to build one regional smelter to overcome energy and mineral supply issues. Government measures to ban export of raw gemstones is a great idea but this should go hand in hand with efforts to attract capital and technology to cut gemstones. Similar efforts need also be taken in the gold jewellery sector to attract and/or improve technology. Finally, forcing investors to build smelters may not work. A case in point here is an earlier agreement between the government and Barrick in which it was reported that Barrick would cooperate with Tanzania to build a gold smelter in the country (Kurugenzi ya Mawasiliano ya Rais Ikulu 2017). However, it appears that the government may have to revisit its earlier decision to force Barrick to build a smelter in Tanzania following a recent Barrick takeover of Acacia Mining Plc (Acacia Mining Plc 2019).

7. Business Environment and Extractives-Industrialisation Linkages

7.1. Introduction

Lessons drawn from the analysis of cases presented earlier (Norway, USA, South Africa and Zambia) point to an inevitable conclusion that an enabling business environment is crucial for resource extraction to contribute to industrialisation. The expansion in extractive resource activities during the period from the late 1990s to 2000s was to a great extent driven by government resolve to improve the business and investment environment in order to attract and retain foreign direct investment. The policy, legal, regulatory and fiscal reforms undertaken in the extractive sector since the mid-1990s could be said to have been a game changer in Tanzania's large-scale resource extraction. The Mining Act 1998 provides an example of a range of generous incentives put in place to attract foreign investors. Unfortunately, whereas the business and investment climate were improved resulting in a mining boom, socio-economic benefits to Tanzania largely remained limited.

A further series of policy and legal reforms in the extractive sector from 2005 have sought not only to increase the sector's contribution to national economy but also to promote active state participation in resource extraction beyond its earlier regulatory and facilitation role. There have also been policy changes, as discussed previously, seeking to entrench local content provisions as a measure to promote participation of Tanzanians across the mining and oil and gas value chains. Further measures taken by the fifth phase administration since 2016 have amplified fears over the predictability of the business environment. The Tanzania government-Acacia

Mining Plc row that has dominated international and local media reports has further made matters worse.

Reports have shown that there has been a decline in FDI inflows in the past three years (UNCTAD 2017b). For instance, FDI flows to Tanzania declined by 15% to US\$1.4 billion in 2016 mainly due to the country's regulatory environment and tax policies towards foreign firms (UNCTAD 2017b). In 2018 FDI inflows to Tanzania also declined by 14% to US\$1.2 billion compared to 2016 (UNCTAD 2018). The UNCTAD report further notes that policy changes in tax administration and mining royalty made foreign investors hold back their investments (UNCTAD 2018). The changing and uncertain business environment had further adverse impact on revenues accrued from extractive activities. It has been reported that revenues from resource extraction shrank from 1,507 in 2016 to 1,020 billion shillings in 2018 (HakiRasilimali 2019a). If anything, these figures suggest that changes in the business environment have a direct impact on investment decisions, production and the likelihood of industrialisation being realised.

Importantly, the government of Tanzania has concurrently been reforming its extractive industry policy, legal and fiscal framework while also taking measures to improve the business environment. We highlight below some of the measures taken by the government to improve the business environment and win back investor confidence.

7.2. Blueprint for regulatory reforms to improve the business environment

The Blueprint was published in 2018 by the Ministry of Industry, Trade and Investment under the auspices of the Prime Minister's Office. The preparation of the document involved wide consultations with various private sector associations and stakeholders as well as the World Bank officials (Kamndaya 2018). The Blueprint aims to improve Tanzania's business environment and attract more investors. Particularly, the Blueprint seeks to address five key business regulatory challenges. These include: 1) existence of high compliance costs in monetary terms and time in starting and operating business; 2) cumbersome pre-approval procedures, which create rent seeking opportunities; 3) presence of a multiplicity and duplicity of processes; 4) detrimental loopholes in some of the laws and regulations that are applied by regulators during the conduct of inspections; and 5) prevalence of high costs in enforcing implementation of regulations, both at the central and local levels (United Republic of Tanzania 2018a, XI).

The Blueprint proposes several regulatory reforms across all economic sectors and institutions. Accordingly, the reforms are to be guided by ten principles which the Blueprint proposes. In the extractive sector, the key challenge that the Blueprint identifies is variation of fees at the local government level which adds on the cost of doing business. The Blueprint recommends that the minister for local government authorities enact Regulations to standardize local government authority payments and fees concerning activities in the mineral sector and address the concern on fees (United Republic of Tanzania 2018a). The Blueprint also notes the multiplicity of regulatory agencies in the extractive

sector and calls for the decentralisation of, for example, NEMC's regulatory mandate and responsibilities to sector regulatory agencies. The document also calls for the streamlining of the administrative and regulatory issues affecting the extractive sector. For instance, the Blueprint calls for the need for the Ministries of Land and Human Settlements, Energy and Minerals to work together in conducting inspections and to harmonise the two annual land rents charged separately by each ministry by amending relevant laws.

The Blueprint represents a major step towards improving the business environment in Tanzania. It represents a clear government commitment in line with its stated goal to improve the business environment in the five-year development plan, 2016/17-2020/21. The Blueprint provides an opportunity for the government to work on the proposed regulatory reforms leading to improved business environment. The main challenge remains to be implementation. The Blueprint is as good as nothing if the proposed regulatory reforms are not carried out. Although the Blueprint was published early 2018, it still has not been officially implemented, with the minister for Industry and Trade reported to have said the Blueprint would officially start being implemented in July 2019 (Malanga 2019). A strong government commitment to improve the business environment ought to be accompanied by a strong commitment to implement the reforms.

7.3. State meetings with the business sector

To improve the business environment and regain investor confidence, the government has been conducting high-level meetings with business and private sector stakeholders. These meetings have, in most cases, been

chaired by President John Magufuli and have acted as an open platform where business stakeholders and investors openly speak out their concerns. Because these meetings are normally attended by the entire cabinet and heads of key government agencies such as Tanzania Revenue Authority, many issues raised by the private sector stakeholders are in most cases resolved instantly and those requiring policy and legal/regulatory reforms taken for further processes.

Some examples include the Tanzania National Business Council (TNBC) meeting, a forum for public-private sector dialogue, conducted in 2017 at which President Magufuli reiterated his government commitment to cooperate with the private sector in planning and implementation of plans, policies and various laws on investment and business, and to remove barriers and bureaucracy that hinder trade and investment. One of the major business environment outcome from the meeting was President Magufuli's order to all government institutions offering services at the Dar es Salaam port to work 24 hours, seven days a week in response to complaints about delays in cargo handling (Tanzania Invest 2017). At the 2018 TNBC meeting, President Magufuli urged the participants to express their concerns freely and assured them of his government commitment to address their business challenges. A key complaint from the business sector was on TRA's heavy handedness in dealing with tax issues to which the President responded by directing the agency to adopt a friendlier approach when dealing with traders (Malanga 2018). In June 2019, the State House organised a one-day forum for traders drawn from across the country. At this meeting, traders were urged to open up and state all challenges they face in their trading activities. Key challenges that were mentioned include unfair taxation regime, harassment by security and regulatory agencies, bureaucracy and corruption (Namkwahe 2019). Another important issue raised by the traders at the meeting was

a call for the government to rollout the implementation of the regulatory reforms proposed in the Blueprint. President Magufuli winded up the meeting by reiterating his government commitment to improve the business environment. Because many of the complaints revolved around the TRA, President Magufuli took measures to instil accountability by firing the TRA commissioner (The Citizen 2019).

On the extractive resources sector, the Ministry of Minerals organised a meeting with mining stakeholders early in 2019. The meeting was officiated and chaired by President Magufuli. At the meeting, several challenges were identified including, notably, complaints over the Value Added Tax (VAT) and withholding tax which many attendees called for revocation. In response, President Magufuli ordered the ministry of minerals and other relevant government institutions to look into how taxes which he described as 'unacceptably high', could be revised (Boniphace 2019). President Magufuli reportedly remarked that 'it is better to have low taxes that will provide room for collection of more taxes instead of imposing high taxes that do not facilitate revenue collection (Gerald 2019). This presidential statement was lauded by the TCME which described it as one that 'gives us hope of better fiscal regime moving forward' (TCME 2019a, 2).

These meetings are an innovative approach to addressing business environment challenges. This is because the meetings give an opportunity to the government to hear directly from the business community. Importantly, these meetings have brought the government closer to the business community thereby helping raise the business community confidence and trust in the government. Arguably, more meetings of this nature should be conducted in order to keep abreast with the necessary changes needed to improve

the business and investment climate. However, as these meetings are conducted occasionally, it would be wise to focus more on strengthening the capacity of government institutions to address various business environment challenges. Financial and technical capacity building to government institutions is crucial to achieve timely improvements in the business environment. This should also go hand in hand with the promotion of transparency and accountability, freedom of speech and freedom of press. These governance issues are critical ingredients of measures to improve the business environment. Recent crackdown on press, and freedom of expression should be addressed if the government is to be successful in improving the business environment, fighting corruption and promoting transparent and accountable governance.

7.4. Infrastructure

Infrastructure is a critical enabler of industrialisation. Understandably, poor infrastructure reduces the profitability of modern sector manufacturing and may therefore inhibit industrialization (Bjorvatn 2000). Infrastructure such as roads, railways, air transport and electricity supply have been shown to play a critical role in national development, in a way enabling and enhancing industrialisation (Palei 2015). It is from this reality that the government of Tanzania has, among others, sought to improve the business and investment environment by investing heavily on infrastructure development and expansion. The government has invested heavily in improving and upgrading the energy, road, railroad, ports and air transport infrastructure across the country.

In the energy sector, for instance, much of the government emphasis has been on expanding power production infrastructure as well as transmission lines. Flagship infrastructure in the energy sector

include the laying of the Mtwara-Lindi-Dar es Salaam gas transmission pipeline, the establishment of gas processing plants in Mtwara and Lindi regions and others in Dar es Salaam, as well as several power transmission lines across the country (Ministry of Energy 2019). Other key infrastructural projects include the commissioning of the Rufiji River hydro-electric power project which has a capacity of 2115 megawatts (Ministry of Energy 2018, 2019). In the transport sector, major infrastructure projects have been around road construction, revival of the national airline carrier, expansion of ports and construction of standard gauge railway from Dar es Salaam to the Lake Zone region.

As stated earlier, these infrastructure projects will prove useful as Tanzania moves to industrialisation. The expansion of railroads, roads, ports, airports and energy infrastructure will go a long way to improve the business environment, cut back on the costs of production and those of doing business and ensure a steady supply of energy for industrial use. Importantly, infrastructure such as the power processing plants at Ubungu and Kinyerezi as well as the gas transmission pipeline will no doubt facilitate natural gas processing for energy production to feed into the industries. While these efforts are commendable, the government is well advised to concurrently focus on the social infrastructure too. The physical infrastructure is definitely a must have if Tanzania aspires to attain an industrialised economy. However, and as noted earlier, the social infrastructure-the skills, freedoms, rights, etc.-are equally important and will need to be addressed if the physical infrastructure is to make a difference. Further, efforts to revive, expand and develop the physical infrastructure should be upscaled and should go hand in hand with similar efforts in addressing the macroeconomic challenges to business and investment climate.

8. Artisanal and Small-Scale Mining (Asm) and Industrialisation

Artisanal and small-scale mining is a relatively large sector in terms of the number of people directly depending on it for their livelihoods. The sector employs between 600,000 and 1,000,000 artisanal miners, accounts for up to 15% or more of total gold production and dominates much of the gemstone production (Kinyondo and Huggins 2019) increasing state investment in the sector, increasing royalty rates, and/or requiring local content. These laws mostly focus on large-scale mining (LSM). However, despite its seeming economic significance, ASM has remained a contentious sector with policy-makers often describing it as an illegal and/or troublesome sector. Much of the ASM activities, such as mineral trading, have largely remained under-regulated in several African countries thus causing the sector to have limited contribution to tax revenues.

Thus, many resource-rich governments in Africa have resorted to regulating the ASM sector as a strategy to capture it in the tax net. In Tanzania, the fifth-phase administration has built on early measures to further promote the interests of the ASM sector. Measures taken by the government to regulate, formalise and promote the development of the sector include presidential order to rescind a large-scale mining licence and redistribute the site to ASM miners; regulation of labour practices; establishment of mineral bourses in several regions of Tanzania to formalise and regulate minerals trading; government order to move the Tanzanite auction from Arusha to Mererani; a ban on export of raw gemstones as a means to promote some local mineral beneficiation; building the wall around the Tanzanite mining site in

Mererani; increased government and donor support to ASM; and policy and legal reforms to provide for designating areas/land exclusively for ASM activities (Kinyondo and Huggins 2019; Huggins and Kinyondo 2019; Hundsbæk et al. 2019) increasing state investment in the sector, increasing royalty rates, and/or requiring local content. These laws mostly focus on large-scale mining (LSM). Other measures include the formulation of The Mining (Mererani Controlled area) Regulations 2019 with the purpose of ensuring high security, effective management of the mining activities and environmental issues in/and around the wall. The regulations declare Mererani as Controlled area.

While it is notable that these ASM formalisation and promotion measures may have a bearing on the practice of ASM and how the sector contributes to national economic development, it remains to be seen how these measures can spur an ASM-linked industrialisation in Tanzania. Some studies have shown that recent legislative measures are actually likely to impact negatively on the ASM sector, thus limiting the sector's contribution to Tanzania's grand goal of industrialisation (Huggins and Kinyondo 2019; Hundsbæk et al. 2019). In fact, as one academic staff member remarked, recent measures to formalise the ASM sector 'have less to do with building the capacity of artisanal and small-scale miners and more to do with recognising them for taxation purposes' (Interview with Academic Staff 2, 18 August 2019).

Indeed, as one interviewee remarked, the ASM sector has great potential to contribute to industrialisation

typically through mineral value addition due to ASM's critical role in supplying minerals for beneficiation activities. However, despite being the sole suppliers of raw minerals to jewellers and other mineral processors, ASM continues to be characterised by shorter value chains typically ending with raw mineral trade (Interview with NRGI, 1 August 2019). This calls for the need to revisit some of the measures such as the mineral marketing centres which could be expanded to include mineral development through, for example, linking jewellers to the centres (Interview with NRGI, *Ibid.*).

Finally, as studies have shown, local mineral beneficiation for which ASM has a major role to play continue to be plagued by limited technical and financial capacity as well as limitations in terms of meeting the local demand for beneficiation (Huggins and Kinyondo 2019). Arguably, government measures to ban export of raw gems was a welcome move but this should have

gone hand in hand with adequate measures to promote local capacity for gemstone cutting. Caution should have been taken before taking a decision to ban raw exports because capacity for gemstone/tanzanite cutting is globally limited except in India where a few families have developed this capacity from several years of non-formal learning and experience and transferred this skill to their succeeding generations (Interview with Academic Staff 2, 18 August 2019). This calls for strong measures and commitment to promote capacity building, technical and financial support as well as rethinking some resource nationalist provisions to make it possible to attract foreign capital and technology into the ASM and mineral beneficiation sectors. Finally, since the ASM sector has greater potential for stronger linkages, its regulation and formalisations should be approached cautiously; its formalisation should not be a rigid system whose aim is to integrate the artisanal and small-scale miners into the broader economic system (Interview with a representative from Repoa, 20 August 2019).

9. Natural Gas Projects and Industrialisation

In the past ten years, natural gas discoveries offshore the south eastern coast of Tanzania have earned the country global attention as a potential LNG exporter. Recent data (as at May 2019) puts the amount of natural gas discovered in Tanzania at 57.54 trillion cubic feet (Ministry of Energy 2019). These gas discoveries were received with great expectations especially bearing in mind that energy production has remained a troubling issue and the regions into which these discoveries were made have historically remained 'marginalised' in terms of how they link to and tap onto national development (Poncian 2019b). Thus, it is not surprising that natural gas has been described as a critical resource for Tanzania's socio-economic transformation with the African Development Bank estimating that gas extraction would add to Tanzania's revenue by an estimated 13% during the first decade of production (United Republic of Tanzania 2013; African Development Bank 2015).

Natural gas appears to be intrinsically linked to Tanzania's industrialisation, at least judged from the governance and institutional reforms undertaken by Tanzania in the sector during the past seven years. Some of these reforms include the formulation of the natural gas policy (2013) and the national energy policy (2015), the enactment of the petroleum, and the oil and gas revenue management laws in 2015. Other measures include the establishment of a national oil company to represent government interests in the sector, the establishment of the Petroleum Upstream Regulatory Authority (PURA) for regulating upstream activities, and the Energy and Water Utilities Regulatory Agency (EWURA) for regulating mid- and downstream oil and gas activities. There have equally

been great efforts to invest in relevant infrastructures for smooth natural gas extraction, processing and transportation. Key infrastructure projects in the gas sector include the completion of the Mtwara-Lindi-Dar es Salaam gas transmission pipeline, and the erection of gas processing plants in Mtwara and Lindi regions and others in Dar es Salaam.

It apparently appears that the government seeks to make the most out of natural gas extraction by, among others, leveraging it to bolster industrialisation. In fact, the National Natural Gas Policy considers facilitating wide domestic utilization of natural gas to achieve rapid broad-based growth and socio-economic transformation through applying it in industries, transportation, institutions, and households; electric power generation and gas to liquids (GTL) conversions; and as a raw material for products such as fertilizer, methanol and ethanol (United Republic of Tanzania 2013). As discussed earlier, the NGUMP provides a roadmap on how natural gas will be utilised showing, among others, linkages between natural gas and the rest of the economy as well as liquefied natural gas production for export, a mega project estimated to require US\$ 30 billion of investment. The National Energy Policy and petroleum regulations discussed earlier also emphasise local content requirements as a strategy to make natural gas extraction respond and contribute to Tanzania's industrialisation and economic transformation.

While it is notable that gas projects mentioned above have great potential to contribute to industrialisation, the realisation of this potential appears to be less certain. First, the prospects of the LNG project which would

be a game changer in the sector remain uncertain as negotiations for a Host Government Agreement (HGA) and a final investment decision continue to be delayed (Lewis 2018; LNG World News 2016). Second, there appears to be uncertainty and government unpredictability over whether it still wants to go ahead with the LNG project, or it has changed its priority. This is further compounded by the government's move to commission the Rufiji Hydroelectric power project which appears to have taken much of the government attention in relation to natural gas. Indeed, concerns raised by honourable Nape Nnauye in parliament in April 2018 over why the government was suddenly backtracking on the Chama Cha Mapinduzi electoral manifesto to have an LNG plant built and instead now focusing on the Rufiji hydro project help show how bleak the situation is with regard to the natural gas sector (MCL Digital 2018).

A change in government from President Kikwete to Magufuli may have more to do with the delays. To make matters worse, the 2017 legislative reforms impacted negatively on the negotiations as investors grew warily of the country's unpredictable policy landscape. Critical legal issues which appear to have slowed progress towards an HGA and an LNG final investment decision include those banning international arbitration of disputes (Interview with an MNC, 22 August 2019). As one academic staff remarked, this legal and policy unpredictability have not only delayed the LNG final investment decision but have equally made companies downscale on their activities including closing some of their offices and cutting back on jobs (Interview with Academic Staff 2, 18 August 2019). It remains to be seen how a resource-based industrialisation can be realistically achieved in these conditions.

10. Extractives-Industrialisation Linkages in Tanzania: Realistic or Utopian?

10.1. Introduction

This chapter zeroes down on the actual practice of resource-based industrialisation in Tanzania. It provides a critical analysis of the preceding review of the policy and legal framework. This analysis starts with a recap of the lessons that Tanzania can draw from the four countries analysed earlier. Thereafter, the chapter proceeds by examining whether Tanzania's resource-based industrialisation is a reality or just a wishful thinking. Finally, the chapter examines how the existing policy and legal framework interacts with the broader political context and what this implies for extractives-industrialisation linkages.

10.2. Lessons from other countries

The experience of four countries, namely USA, Norway, South Africa and Zambia, was analysed. From the experience of these countries, several lessons can be drawn for Tanzania. These are highlighted below.

First, from all the countries analysed, having an enabling legislative framework is a critical requirement for extractives to catalyse industrialisation. This is to say that strong linkages between resource extraction and industrialisation do not just happen, they must be created. And an enabling policy framework that incentivises investment into smelting, extractive related manufacturing activities, power production, and linkages such as local content is very important. Similarly, there

should be enabling policies to boost exploration activities and investment into new extractive projects that can both generate revenues for further investment and keep the extractive sector functional. We have also seen that an enabling policy for extractives-industrialisation linkages ought to incentivise investment in research and development as well as the training of the local workforce.

The Tanzania legal and policy framework examined above addresses some of these issues in its focus on local content and forward linkages. However, it does not clearly define the roles of different stakeholders in, for example, the training of local workforce. Should the training of the local workforce be left to the private sector? What role should the government play in this beyond policy formulation? Further, the existing policy framework is generalist in the sense that it does not clearly state the extractive sector's vision with regards to linkages with industrialisation. Talking about a resource-based industrialisation without clarifying how that can happen amidst similar other industrialisation strategies may frustrate government ambitions for industrialisation. Notably, extractive resources can indeed contribute to industrialisation. But this can only happen when a country has 'the right policies and under the right conditions' (Morris and Fessehaie 2014, 29).

Second, having an enabling legislative framework is not enough in itself. Implementation is as important as having a clear and enabling policy framework. We have noted throughout our analysis of the policy and legal framework in connection to extractives-industrialisation

linkages that implementation continues to be a major issue. Tanzania has relevant policy and legal tools which can be used to create stronger linkages between resource extraction and industrialisation. Nonetheless, not much has been done in terms of having relevant implementation strategies. Even where there have been some implementation strategies, such as in the natural gas sector with the Natural Gas Utilisation Masterplan, these have not been followed with actual implementation. In some instances, as in the case of natural gas, shifting government priorities have meant that the NGUMP can hardly be fully implemented.

Further some of the legal provisions such as those prohibiting foreign prosecution, making smelting of minerals mandatory, and so forth may be made redundant by the recent agreement between Barrick and the government of Tanzania. Accordingly, Barrick Gold Corporation takes over Acacia mines in Tanzania and establishes a joint company with the government of Tanzania to oversee the mines. The Recommended Final offer for the acquisition of Acacia Mining Plc contains provisions which appear to undo the spirit of extractive sector legal reforms undertaken in 2017. For instance, while the said legal reforms banned foreign arbitration, export of raw minerals, and required mining firms to list with the Dar es Salaam Stock Exchange, the Barrick offer uplifts the ban on raw mineral exports and requirement for local smelting, pushes for the delisting of mining corporations from the Dar es Salaam Stock Exchange, and provides for international arbitration (Acacia Mining Plc 2019). As analysts have noted, this contravention of the existing laws gives Tanzania a bad deal (Jacob 2019b; Kweka 2019; HakiRasilimali 2019d). Apart from not getting a better deal, these dynamics question government intentions with how far it can go to implement its 'resource-based' industrialisation agenda.

Third, the experience of South Africa and Zambia

shows that policy coordination and consonance is an important component of vibrant linkages between resource extraction and industrialisation. In the case of Zambia, it was shown that lack of coordination in policy formulation as well as incongruent policies across different sectors have limited the likelihood of a vibrant resource-based industrialisation to take place. On the contrary, the South African case has shown that greater policy coordination and open and participatory policy making processes can produce a credible and acceptable policy output. Although there appears to be great consonance in policies on extractives-industrialisation linkages in Tanzania, the policy making process remains confined to a select few with limited opportunities for broader consultation and stakeholder engagement. This lack of an open and participatory policy making has often produced policies and laws which contain controversial provisions, and which have had to be amended and/or revisited in a short period of time. Despite being congruent, the policy and legal framework governing the extractives sector has in some cases contradicted other legal provisions beyond the extractive sector. A case in point, for example, are the provisions of the Natural Wealth and Resources (Permanent Sovereignty) Act, 2017 which ban access to international arbitration by multinational corporations. While that is the case with the Permanent Sovereignty Act, the Tanzania Investment Act, 1997 and the Arbitration Act still provide for access to international arbitration and no amendments have been made to align with the 2017 law. Coordination and meaningful participation of stakeholders in policy and law making could have addressed this.

Fourth, the government plays a critical role beyond crafting an enabling legislative framework. We have seen in the cases of Norway, USA and South Africa that the government has a major role to play in creating and nurturing the linkages between resource extraction

and industrialisation. Such roles as a commitment to fund relevant interventions, improving the business and investment environment and improving and/or modernising the infrastructure are some of the roles the government can play to facilitate stronger linkages between resource extraction and industrialisation. The government of Tanzania has been playing some of these roles including mega investment in energy, transport and communication infrastructure. There have also been measures to improve the business environment.

That notwithstanding, more would still need to be done in terms of building strong Public-Private Partnerships for the financing and execution of resource-based industrial projects. Given the scarce financial resources available, the government can certainly not fund many of the interventions needed to kickstart and sustain extractives-industrialisation linkages. The private sector can play a major role on this. Since Tanzania's national development framework recognises the centrality of PPP in financing different projects, it is important that a clear strategy for attracting and retaining PPP funding be developed and implemented. This will require some political and policy adjustments especially on how the private sector has been portrayed recently. If PPPs have to deliver to national industrialisation goals, it is important that trust between the public and private sectors is built and protected.

10.3. A reality or wishful thinking? Interrogating Tanzania's resource-based industrialisation

We noted earlier that Tanzania's resource-based industrialisation builds on Africa's resource-based industrialisation drive as detailed in the Africa Mining Vision (AMV). The Africa Mining Vision calls for a Resource-based African Industrialisation and Development Strategy (RAIDS) that leverages 'Africa's significant resources endowment (comparative advantage) to catalyse growth in other sectors [and] provide a viable component of an integrated and sustainable growth [and] development strategy for Africa' (African Union 2009, 5). The Vision emphasises a resource-based industrialisation that builds integrated industrial resource clusters and development of high-level skills to enable Africa take advantage of its resource comparative advantage. It also emphasises building capacity in contract negotiation, expanding and modernising the infrastructure, promoting local beneficiation and value addition, and establish an industrial base through backward and forward linkages.

Arguably, policy and legal measures taken by Tanzania since 2009 could be said to align with AMV goals. Measures such as expanding and modernising the transport, energy and communication infrastructure; fiscal measures to tap more revenues from resource extraction; mandatory local beneficiation and value addition; contract renegotiation and disclosure; and transparency and accountability in revenue management and the governance of extractive resources very much speak to AMV goals. It could also be argued that recent resource nationalist measures taken by the fifth phase administration are even more radical than what the AMV would envision. A case in point, for example, is the banning

of raw mineral exports when local capacity for mineral beneficiation and value addition is almost non-existent; and the reassertion of sovereignty over natural resources to the effect of banning foreign arbitration of investment disputes in the extractive sector. That said, what can one make of Tanzania's resource-based industrialisation? Is it a realistic goal or one that is more of a wishful thinking?

First, it should be borne in mind that several opportunities exist for extractive resources to play a critical role in the industrialisation of Tanzania. The existence of a wide range of industrial and energy resources, a policy framework that emphasises the role of extractives in industrialisation, and the political will to see industrialisation agenda through are some of the opportunities for resource extraction to contribute to industrialisation. However, speaking of a resource-based industrialisation in Tanzania appears to be less realistic in view of the following considerations.

First, resource-based industrialisation presupposes that a country's industrialisation is pegged on the extractive sector, that is, resource extraction becomes the main enabler of industrialisation (Walker 2001). This takes place through the investment of resource windfalls (revenues) into relevant interventions for industrialisation and the establishment of capital intensive resource-based industries such as resource beneficiation and value addition projects (Walker 2001; Morris and Fessehaie 2014). Looking at Tanzania's current extractive and broader development policy framework, it is hard to see a resource-based industrialisation becoming a reality. First, there is no indication that Tanzania's resource endowments are substantial enough to catalyse a resource-based industrialisation strategy. Tanzania's natural resource-base can indeed contribute to the country's industrialisation, but it cannot be an engine and/or a sole enabler of industrialisation. Second, there is

no clear evidence that Tanzania is bent on implementing a resource-based industrial strategy. As such, there is confusion on what industrial strategy the government is bent on implementing. For instance, while the five-year development plans (2011/12-2015/16 and 2016/17-2020/21) talk of a resource-based industrialisation, the Integrated Industrial Strategy talks of not only the resource-based industrialisation but also the agriculture-based industrialisation. It seems reasonable to argue that, far from a resource-based industrialisation, the government seeks to make the extractive sector contribute to industrialisation.

Second, leaving resource-based industrialisation aside, the existing policy and legal framework does not appear to be supported by a strong implementation strategy. Several legislative tools exist in terms of government push to catalyse on Tanzania's extractive resource wealth to promote industrialisation. We have examined these tools above. However, not much exists in terms of clear implementation strategies. For example, as shown earlier, the government has banned the export of raw gemstones and other precious metals in favour of local value addition and beneficiation. However, there is no clear strategy on how capacity for gemstone cutting will be built. There exist training centres such as the Tanzania Gemmological Centre in Arusha which offers certificate and diploma courses in lapidary, gem and jewellery technology, jewellery design and manufacturing, and so forth. It is not clear how these centres and the kind of training they offer can match the internationally renowned gemstone cutting standards. India which leads in this area has developed this capacity not through formal training but through non-formal handing down of this skill from one generation to the other. Similarly, the government efforts to establish mineral bourses and trading centres across the country do not appear to be backed up with a clear strategy on promoting artisanal

and small-scale mining mineral beneficiation and value addition. The main thrust appears to be the need to curb illegal mineral trading and capture more revenues into state coffers. A more robust strategy that links these trading centres to mineral beneficiation and value addition as a strategy to extend the ASM value chain beyond raw mineral supply is needed.

Third, extractive resources-industrialisation linkages in Tanzania also appear illusive due to unstable public-private sector relations. Although the government has taken steps to ameliorate the state-business relations, this has not meant that uncertainty and mistrust between the public and private sectors have been addressed. High ranking state officials and leaders have, on several occasions, portrayed the private sector negatively and described private investors as robbers and exploiters (Poncian 2019c). Arguably, state-business relations have deteriorated during the fifth phase administration because of government's stern measures to curb corruption and state capture (Wangwe and Gray 2018). This notwithstanding, the consequence of such measures has not been all positive when it comes to state-business relations. That President Magufuli has had to reassure the business sector of his government commitment to a private sector led development strategy itself tells more about the nature of state-business relations. The government-Acacia row has equally depicted Tanzania as a country that is becoming anti-business. Media reports following the government's decision to serve Acacia with a US\$190 billion tax bill painted a negative image on Tanzania to potential investors. Given that extractive resources-industrialisation linkages cannot solely be created and sustained by the state, such deteriorating state-business relations cast doubts on the realisability of linking resource extraction to industrialisation. Should Tanzania want to make resource extraction contribute to industrialisation, the state-business relations uncertainty and mistrust must be addressed.

Fourth, even though all government documents identify resource-based industrialisation as a key industrial strategy, there equally appear to be uncertainty and shifting government focus. In the period from 2012, much of the government focus was around utilising Tanzania's offshore gas to catalyse economic transformation. Efforts and investments were made in the gas sector including the laying of over 500km pipeline from Mtwara to Dar es Salaam, the construction of gas processing plants in Mtwara and Lindi as well as similar gas processing plants in Dar es Salaam. The key goal was to leverage natural gas for power production and establish a mega LNG project as a vehicle for gas exports. With the fifth phase administration, things appear to be changing in favour of alternative energy sources. Greater efforts have been shifted towards the Rufiji Hydro-electric power project which is expected to produce over 2100MW of electricity once completed. Because of this new focus, there has been less attention on both using natural gas for power generation and on fast-tracking the commissioning of the LNG project. Consequently, the Mtwara-Dar es Salaam gas transmission pipeline which cost Tanzania US\$ 1.3 billion remains underutilised. According to one of the National Audit Office reports, the Mtwara-Dar es Salaam pipeline is underutilised by 94% (National Audit Office 2017). Can strong linkages between resource extraction and industrialisation still be forged with changing government priorities?

Fifth, and in connection to shifting government priorities, the recent agreement between the government of Tanzania and Barrick Gold Corporation puts earlier resource-based industrialisation goals in doubt. The recent government-Barrick agreement leading to Barrick's takeover of Acacia mines in Tanzania and the establishment of a company co-owned by Tanzania and Barrick Gold Corp is a product of a row between Tanzania and Acacia that began with a ban on export of

mineral concentrates in 2016 (see Poncian 2019c; Jacob and Pedersen 2018). Earlier negotiations between the government and Barrick to resolve the Acacia row had culminated into an agreement which was signed and published in October 2017. In line with the 2017 extractive laws and the broader resource-based industrialisation legislative framework, the agreements reached on 2017 included: a 50/50 share of economic benefits; Barrick to build a smelter in Tanzania to boost value addition; Barrick to make a one-off payment of US\$300 million in good faith; settling disputes within Tanzania; all Acacia's banking transactions to use Tanzanian bank; improving the conditions of local communities adjacent to gold-mining areas; and the work and safety conditions of mine workers to be improved (Jacob 2019b; Kurugenzi ya Mawasiliano ya Rais Ikulu 2017; Barrick Gold Corporation 2017). Undoubtedly, this first agreement was in line with the spirit of the 2017 laws and government's resource-based industrialisation agenda.

Nonetheless, the second agreement between the government and Barrick Gold Corporation culminating into the takeover of Acacia mines by Barrick and the establishment of the Twiga Minerals Corporation, a joint venture company co-owned by Barrick Corporation (84% share) and Government of Tanzania (16% share), appear to backtrack on some of the earlier agreements and contravene the 2017 legal provisions. For instance, the new agreement and partnership between Tanzania government and Barrick includes provisions for lifting the ban on concentrate exports and access to international dispute resolution (Barrick Gold Corporation 2019). The recommended final offer for the takeover of Acacia by Barrick also involved such terms as the lifting of the requirement for Barrick to establish a smelter in Tanzania and lifting the ban on raw mineral exports (Acacia Mining Plc 2019). This agreement not only contravenes government spirit as embodied in the 2017 laws but

also throws into questions government's real intentions with resource-based industrialisation. Further, while the establishment of a joint venture company is a welcome decision especially in relation to direct state participation in resource extraction, it remains to be seen how this will translate into tangible economic benefits, contribute to industrialisation, as well as addressing sustainability and environmental issues that have characterised large scale mining projects in Tanzania. As some studies have shown, a mere change to public-private partnerships in large scale resource extraction does not necessarily result in improvements in how resource extraction links with subnational socio-economic and environmental rights (Jacob 2018; Pedersen and Jacob 2017; Maganga and Jacob 2016). With this kind of agreement in place, can we still talk of a realistic resource-based industrialisation in Tanzania?

Finally, the nature of central-local relations in extractives governance as well as in the design and implementation of extractives-industrialisation linkages leaves much to be desired for. Ideally, extractives-industrialisation linkages ought to be inclusive with the interests of every stakeholder taken on board. It is especially more important for these linkages to include the interests of local communities hosting large scale extractive projects and who bear much of the socio-environmental consequences of resource extraction. Local content requirements can be one of the potential avenues through which local communities can tap into the opportunities presented by resource-based industrialisation. However, the design and implementation of local content policy in Tanzania do not clearly set out how subnational community interests are taken on board and made part of the local content implementation strategy. Further, it is not so much clear on whose interests the local content requirements serve: is it just all Tanzania? The poor and marginalised? Or the well-connected, city-based elites?

Similarly, large extractive projects such as the Mtwara-Dar es Salaam pipeline and the envisaged LNG project are usually designed at the national level and presented as projects of national interest. Their implementation, however, interacts directly with subnational communities through displacement, compensation and relocation. However, because these projects are framed as national projects, subnational community rights are rarely respected (Pedersen and Jacob 2017; Poncian 2019a, 2019d; HakiRasilimali and Oxfam 2017). One example of this is found in the delayed compensation and relocation of the Mbanja ward community in Lindi to give way for the LNG project. It has been over four years now since the valuation exercise was first conducted in the area. The affected community members have neither been compensated nor relocated and it is not clear when that is going to happen. This raises questions over how nationally conceived industrialisation projects can sustainably be undertaken without adequately empowering and including the subnational communities. Whose benefit will Tanzania's extractives-industrialisation linkages be serving?

10.4. Politics and Tanzania's resource-based industrialisation

Politics plays a critical role in the creation and sustainability of linkages between resource extraction and industrialisation. An enabling legislative framework can achieve the desired goals only if the political climate is supportive of a fair implementation of relevant policies, laws and regulations. In the Tanzanian context, there appears to be significant political interference in the implementation of existing legislation. Although sometimes well intentioned, this political interference

has more often created confusion and double standards in the implementation of legislation and in how different stakeholders are treated by the state. Some examples from the extractive sector help illuminate this and show how politics is likely to inhibit Tanzania's drive for an extractive resource-supported industrialisation.

One good example comes from the coal and natural gas sector regarding the preferential treatment of the Dangote Cement factory. In 2016, the government of Tanzania banned coal importation in an attempt to protect the country's sole coal producer, TANCOAL, against competition from imported cheap coal (Jacob 2019a). Since almost all cement factories depended on coal fired power for production, the ban was thus intended to oblige them procure coal domestically as part of the government's broader local content policy (Jacob 2019a). This ban, however, resulted in unintended consequences more so on cement production. Further, the ban generated a huge outcry from the business sector with the Tanzania Confederation of Industries warning that the ban would impact on local manufacturers' competitiveness, affect local cement and steel manufacturers, the booming construction sector and ordinary consumers (Confederation of Tanzania Industries 2018). More importantly, the ban halted Dangote Cement factory production resulting in factory shutdown in 2016 (Jacob 2019a). Although the ban was not lifted even after the government was advised to do so by the parliament, President Magufuli ordered that Dangote be issued with a licence to extract coal for his factory and be supplied with natural gas to power his factory (Financial Times Reporter 2018; Jacob 2019a; Eriksen 2018). This presidential order followed Dangote's meeting with the President at the State House and his complaints in Mtwara during President Magufuli's official visit that coal shortages were disrupting production (Eriksen 2018; Jacob 2019a).

This preferential treatment was problematic in several ways. First, as Jacob (2019) has argued, this preferential treatment of Dangote created a non-level playing field especially as other cement factories (such as Tanga Cement, Mbeya Cement, and Lake Cement) faced similar challenges but did not attract the same preferential treatment. Other investors voiced their concerns and disapproval to this selective preferential treatment. An Australian-based coal mining company, for instance, protested the government's preferential treatment of Dangote cement factory. The company, called Intra Energy Corporation (IEC), has a 70% stake over the Ngaka coal mine, a joint venture project with the Tanzania's National Development Corporation (NDC). IEC raised concerns over this preferential treatment, arguing that,

Tancoal reserves the rights for recourse and protests any change to its resources, which must be a concern not only for all mining companies in Tanzania but also the other cement producers and coal using industries where one customer is allowed special treatment (Financial Times Reporter 2018, para. 7).

Secondly, the preferential treatment of Dangote Cement raises concerns over the applicability of existing laws in the context when a presidential order can just make legal requirements redundant. We have argued that an enabling policy and legal framework is a critical component of a resource-based industrialisation strategy. However, the Dangote preferential treatment case casts doubt on how far an enabling policy and legal framework can go in terms of promoting stronger linkages between resource extraction and industrialisation. The case in

question suggests that laws and policies may not be important in political contexts such as Tanzania where presidential orders appear to supersede the enforcement of laws and policies. This is concerning especially as it portrays the Tanzanian legal system as unpredictable and unstable. With the overwhelming political influence in the enforcement of laws (Legal and Human Rights Centre and Zanzibar Legal Services Centre 2019), it remains to be seen whether government stated policy and legal commitments for a resource-based industrialisation agenda can be achieved.

Another important political dynamic that may constrain the realisation of Tanzania's industrialisation agenda is contradictory and politically motivated statements often made by top political figures. Political statements have been reported to constrain the implementation of national budgets approved by the parliament as top political leaders have been on record of issuing statements that introduce new costs and/or expenditure not approved by the parliament (HakiRasilimali 2019b). As a representative from the Tanzania Chamber of Mines argued in an interview, investors are less concerned about the recent legal reforms in the extractive sector than they are concerned with the contradictory and controversial political statements. For instance, the legal reforms which introduced a provision banning access to international arbitration would not raise concerns from the private sector if there were no political statements pointing to the political interference in the judiciary. A good example of such political statements comes from a statement made by the President in 2016. While speaking at an official event to mark the Law Day in Dar es Salaam, President Magufuli reportedly said the following

I am worried that even the people I am firing because of corruption will easily secure freedom despite watertight evidence against them... There is a case involving people who were caught red-handed with government trophies in 2010, but investigations are still going on. I wonder what they are trying to find out... (Mwangonde and Mesomapyra 2016).

Secondly, they also imply that political interference in the dispensation of justice is immense in Tanzania. It shows that the Tanzanian courts may be working not in the interest of impartiality but to please the powers be. Such issues are what make investors worried about the impartiality and independence of the judiciary. Thus, it is not that investors are worried of the legal prohibition on international arbitration but on whether local judicial organs can independently and impartially dispense justice in the context of existing political dynamics and interference.

Such statements may be interpreted to imply two things. First, they imply that the President has no trust in the judiciary. This can send signals to existing and potential investors that the Tanzanian judiciary is not trustworthy. If the President cannot trust the judiciary, who will?

11. Conclusion and Recommendations

11.1. Conclusions

This study sought to examine opportunities, challenges and lessons for the realisation of a resource-based industrialisation strategy that development policy and strategies aspire to achieve. A critical review of scholarly literature, government policy as well as other documents; analysis of selected country experiences to draw some lessons for Tanzania; and interviews with relevant informants were the key methods used to address the study's main purpose.

From the foregoing analysis, there is great potential for resource extraction to contribute to Tanzania's industrialisation agenda. This is because of several factors, namely:

- Tanzania being endowed with a range of extractive resources with direct contribution to industrialisation.
- Strong political will and constant government push for industrialisation.
- Ongoing regional initiatives such as the Africa Mining Vision.
- An enabling policy and legal framework within the extractive sector itself and the broader industry sector.

While there is great potential for resource extraction to contribute to industrialisation, there exists challenges which, if not addressed, may inhibit the development of strong extractive-industrialisation linkages. Some of these challenges include:

- Policy and regulatory unpredictability
- Lack of policy implementation strategies
- Lack of a clear vision to link extractive sector with industrialization i.e. how does Tanzania want to tap into extractives for industrialisation beyond local content?
- Lack of incentives for private sector and foreign companies coupled with conflicting economic policy
- Lack of state commitment to finance extractive-industrialisation linkages
- Increasing lack of political space for alternative ideas which might stifle relevant innovations for transforming resource extraction into one that promotes industrialisation.
- Limited skills and local capacity
- Contradictions between some extractive legal provisions and other general laws

11.2. Recommendations

From this analysis, the following key recommendations are made:

11.2.1. Recommendations for the government

- There is need to craft a clear implementation strategy to translate extractive and industrial policy goals into reality. Existing laws and policies are as good as nothing if not implemented.
 - There needs to be a clear strategy for local skills and capacity enhancement. The government ought to walk by its talk in terms of expending development resources to build capacity for its state-owned enterprises. The strategy should also detail how local communities link up with the broader national local content policy.
 - Measures should be taken to harmonise extractive laws and other laws. Contradictions between the 2017 extractive laws which ban international arbitration and other laws such as the Investment Act and the Arbitration Act which still recognise and provide for access to international arbitration should be addressed.
 - The government should come up with a clear vision on how extractives will link with industrialisation. This should clearly define the role of extractives in industrialisation: does it envision a resource-based industrialisation or one in which resource extraction contributes?
- This will help the government focus its limited resources and capacity to achieving what it seeks to achieve instead of implementing a strategy that seeks to achieve everything from resource extraction.
- A successful transformation of resource extraction into one which contributes meaningfully to industrialisation requires open governance and strong accountability mechanisms. Measures should be taken to strengthen transparency and accountability both in the extractives and the broader political context.
 - Measures to formalise the artisanal and small-scale mining sector should go hand in hand with building capacity and strengthening the sector's value chain. The government could do well by linking recently established mineral marketing centres and the envisaged mineral centres of excellence to mineral beneficiation and value addition.
 - Forging strong extractive-industrialisation linkages hinges on smart and strong public-private partnerships. This, in turn, requires collaborative decision-making to ensure that the resulting industrialisation strategy is co-owned.
 - There is need to establish clear benchmarks to effectively monitor progress towards linkages implementation. As a country, Tanzania should also come up with reasonable targets and monitor compliance overtime.

- We noted above that the government should craft an implementation strategy and harmonise extractive laws with other existing laws. The civil society should leverage its connections with policy makers to lobby

for legal harmonisation and the crafting of a clear extractive legislative framework implementation strategy. Civil society organisations are well positioned to constantly pressurise policy makers to do the needful

References

Acacia Mining Plc. 2019. "Recommended Final Offer for Acacia Mining PLC by Barrick Gold Corporation." London: Acacia Mining Plc. <https://www.acaciamining.com/~media/Files/A/Acacia/press-release/2019/acacia-2-7-announcement.pdf>.

Ackah, Charles Godfred, and Asaah S Mohammed. 2018. "Local Content Law and Practice: The Case of the Oil and Gas Industry in Ghana." WIDER Working Paper 2018/152. Helsinki. <https://www.wider.unu.edu/sites/default/files/Publications/Working-paper/PDF/wp2018-152.pdf>.

African Development Bank. 2015. *Delivering on the Promise: Leveraging Natural Resources to Accelerate Human Development in Africa*. Abidjan: African Development Bank and Bill & Melinda Gates Foundation. <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=101658816&site=ehost-live>.

African Union. 2009. *Africa Mining Vision*. Addis Ababa: African Union.

Anderson, Wineaster. 2016. "Local Suppliers in Tanzania: Ready for the Petroleum Sector?" *African Review* 43 (2): 51–83.

Auty, Richard M. 2003. "Natural Resources, Development Models and Sustainable Development." *Discussion Paper 03-01*. London.

Barrick Gold Corporation. 2017. "Barrick Comments on Proposed Framework for Acacia Mining Plc Operations in Tanzania." Toronto: Barrick Gold Corporation. <https://barrick.q4cdn.com/788666289/files/press-release/2017/Barrick-Comments-on-Proposed-Framework-for-Acacia-Mining-plc-Operations-in-Tanzania.pdf>.

———. 2019. "News Release: The Launch of Twiga Minerals Heralds Partnership Between Tanzanian Government and Barrick." Dar es Salaam: Barrick Gold Corporation. https://barrick.q4cdn.com/788666289/files/doc_news/2019/10/20/The-Launch-of-Twiga-Minerals-Heralds-Partnership-Between-Tanzanian-Government-and-Barrick..pdf.

Bjorvatn, Kjetil. 2000. "Urban Infrastructure and Industrialization." *Journal of Urban Economics* 48 (2): 205–18.

Boniphace, Ericky. 2019. "Magufuli Gestures for Relaxation of Tax Regime in Mining." *The Citizen*. 2019. <https://www.thecitizen.co.tz/news/Magufuli-gestures-for-relaxation-of-tax-regime-in-mining/1840340-4947170-11byx13/index.html>.

Brown, Jason, Timothy Fitzgerald, and Jeremy Weber. 2017. "Asset Ownership, Windfalls, and Income: Evidence From Oil and Gas Royalties." *The Federal Reserve Bank of Kansas City Research Working Papers*. <https://doi.org/10.2139/ssrn.2963775>.

Bush, Ray. 2008. "Scrambling to the Bottom? Mining, Resources and Underdevelopment." *Review of African Political Economy* 35 (3): 361–66. <https://doi.org/10.1080/03056240802410968>.

Butler, Paula. 2004. "Tanzania: Liberalisation of Investment and the Mining Sector Analysis of the Content and Certain Implications of the Tanzanian 1998 Mining Act." In *Regulating Mining in Africa: For Whose Benefit?*, edited by Bonnie Campbell, 67–80. Uppsala: Nordiska Afrikainstitutet.

Buur, Lars, Ole Therkildsen, Michael W Hansen, and Mette Kjær. 2013. "Extractive Natural Resource Development: Governance, Linkages and Aid: DIIS Report 2013:28." Copenhagen. https://www.diis.dk/files/media/publications/import/extra/diis-rp-2013-28_extractive-dev_lbu-mfl_web_1.pdf.

Calignano, Giuseppe, and Terje Ingebrigtsen Vaaland. 2017. "Development in Tanzania: Experiences, Expectations and Motivation." *The Extractive Industries and Society* 4 (2): 385–97. <https://doi.org/10.1016/j.exis.2017.01.012>.

———. 2018. "Local Content in Tanzania: Are Local Suppliers Motivated to Improve?" *Extractive Industries and Society* 5 (1): 104–13. <https://doi.org/10.1016/j.exis.2017.12.006>.

Cappelen, Ådne, and Lars Mjøset. 2009. "Can Norway Be a Role Model for Natural Resource Abundant Countries?" *UNU-WIDER Research Paper No. 2009/23*. <https://pdfs.semanticscholar.org/f1cd/a4770a78686f5c9d8b3e3cd03ce20497ad50.pdf>.

Collaborative Africa Budget Reform Initiative (CABRI). 2016. "Extractive Industries and the Linkages with the Rest of the Economy." Collaborative Africa Budget Reform Initiative (CABRI). 2016. https://www.cabri-sbo.org/uploads/files/Documents/keynote_paper_2016_extractives_and_linkages_cabri_revenue_management_in_the_extractives_sector_in_africa_english.pdf.

Confederation of Tanzania Industries. 2018. "Fix Energy Challenges, Consider Lifting Ban on Coal Importation to Enhance Industries' Competitiveness," CTI Tells Government." 2018. <https://www.cti.co.tz/articles/fix-energy-challenges-consider-lifting-ban-on-coal-importation-to-enhance-industries-competitiveness-cti-tells-government>.

Curtis, Mark. 2012. "The One Billion Dollar Question: How Can Tanzania Stop Losing so Much Tax Revenue." Dar es Salaam.

Curtis, Mark, and Tundu Lissu. 2008. "A Golden Opportunity? How Tanzania Is Failing to Benefit from Gold Mining." Dar es Salaam.

Economic Commission for Africa. 2011. *Minerals and Africa 's Development*. Addis Ababa: ECA.

———. 2017. *Accelerating Industrialization in Southern Africa through Beneficiation and Value Addition*. Addis Ababa: Economic Commission for Africa.

Eriksen, Stein Sundstøl. 2018. "Tanzania: A Political Economy Analysis."

Fessehaie, Judith, and Zavareh Rustomjee. 2018. "Resource-Based Industrialisation in Southern Africa: Domestic Policies, Corporate Strategies and Regional Dynamics." *Development Southern Africa* 35 (3): 404–18. <https://doi.org/10.1080/0376835X.2018.1464901>.

Financial Times Reporter. 2018. "Dangote Seeks More 'favours' from Tanzanian Govt." Financial Times. 2018. <https://www.ippmedia.com/en/business/dangote-seeks-more-favours-tanzanian-govt>.

Gerald, Crispin. 2019. "Magufuli Orders Review of Mining Sector Taxes." *The Guardian*, January 23, 2019. <https://www.ippmedia.com/en/news/magufuli-orders-review-mining-sector-taxes>.

HakiRasilimali. 2018. *In the Library Volume 1*. Dar es Salaam: HakiRasilimali/PWYP.

———. 2019a. "From Transparency to Improved Revenue Management in the Extractive Sector in Tanzania." Dar es Salaam.

———. 2019b. *HakiRasilimali Comparative Position Statement on Extractive Sector Ministerial Budgets for Financial Year 2018/19 and 2019/20*. Dar es Salaam: HakiRasilimali/PWYP.

———. 2019c. "Nurturing Industrialisation Through Mining, Oil and Gas: Opportunities and Challenges- A Report of the Tanzania Extractive Industries Conference (Jukwaa La Uziduaji) October 24-26, 2018." Dar es Salaam.

———. 2019d. "The Downfall of Acacia Mining Plc. in Tanzania: Will Tanzania Get a Better Deal?" HakiRasilimali. 2019. <https://www.hakirasilimali.or.tz/the-downfall-of-acacia-mining-plc-in-tanzania-will-tanzania-get-a-better-deal/>.

HakiRasilimali, and Oxfam. 2017. "Balancing Infrastructure Development and Community Livelihoods: Lessons from Mtwara – Dar Es Salaam Natural Gas Pipeline." Dar es Salaam.

Hameiri, Shahar, and Lee Jones. 2016. "Rising Powers and State Transformation: The Case of China." *European Journal of International Relations* 22 (1): 72–98. <https://doi.org/10.1177/1354066115578952>.

Hanlin, Rebecca, and Winnie Khaemba. 2017. "The Political Economy of the Tanzanian Science Granting Council." <https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/56815/IDL-56815.pdf?sequence=2&isAllowed=y>.

Holden, Steinar. 2013. "Avoiding the Resource Curse the Case Norway." *Energy Policy* 63: 870–76. <https://doi.org/10.1016/j.enpol.2013.09.010>.

Huggins, Christopher, and Abel Kinyondo. 2019. "Resource Nationalism and Formalization of Artisanal and Small-Scale Mining in Tanzania: Evidence from the Tanzanite Sector." *Resources Policy* 63: 101436. <https://doi.org/10.1016/j.resourpol.2019.101436>.

Hundsbaek, Rasmus, Willison Mutagwaba, Jesper Bosse, George Schoneveld, Thabit Jacob, Maisory Chacha, Xiaoxue Weng, and Maria G Njau. 2019. "Mining-Sector Dynamics in an Era of Resurgent Resource Nationalism: Changing Relations between Large-Scale Mining and Artisanal and Small-Scale Mining in Tanzania." *Resources Policy* 62: 339–46. <https://doi.org/10.1016/j.resourpol.2019.04.009>.

International Bank for Reconstruction and Development. 1975. *Tanzania: Industrial and Mining Sector Survey, Vol. II: Annex I: The Pricing of Industrial Goods, Report No. 647-TA*. Washington, DC: IBRD.

Isaksen, Jan, Blandina Kilama, and Fred Matola. 2017. "Policy Making in the Tanzanian Petro State: Building a Statistical Basis." CMI Working Paper Number 5; Repoa 17/1. Bergen.

Jacob, Thabit. 2018. "State Caught in the Middle: Coal Extraction and Community Struggles in Tanzania." DIIS Working Paper 2018:8. Copenhagen. http://pure.diis.dk/ws/files/2502841/DIIS_Working_Paper_2018_8_FINAL.pdf.

———. 2019a. "When Good Intentions Turn Bad: The Unintended Consequences of the 2016 Tanzanian Coal Import Ban." *The Extractive Industries and Society*. <https://doi.org/10.1016/j.exis.2019.02.009>.

———. 2019b. "Why Criticism of HakiRasilimali and ACT-Wazalendo Doesn't Hold Up." Udadisi: Rethinking in Action. 2019. <http://udadisi.blogspot.com/2019/10/on-criticism-of-hakirasilimali-and-act.html>.

Jacob, Thabit, and Rasmus Hundsbaek Pedersen. 2018. "New Resource Nationalism? Continuity and Change in Tanzania's Extractive Industries." *Extractive Industries and Society* 5 (2): 287–92. <https://doi.org/10.1016/j.exis.2018.02.001>.

Jacob, Thabit, Rasmus Hundsbaek Pedersen, Faustin Maganga, and Opportuna Kweka. 2016. "Rights to Land and Extractive Resources in Tanzania (2/2): The Return of the State." Copenhagen.

Jafta, Xoliswa. 2017. "Industrialisation in South Africa: The Case of IDC." 2017. <http://www.sadc-dfrc.org/sites/default/files/documents/forum/july2017/jafta.pdf>.

Jourdan, Paul. 1990. "The Minerals Industry of Tanzania." Harare. <https://core.ac.uk/download/pdf/29135506.pdf>.

———. 2013. "Toward a Resource-Based African Industrialization Strategy." In *The Industrial Policy Revolution II: Africa in the 21st Century*, edited by Joseph E Stiglitz, Justin Lin Yifu, and Ebrahim Patel, 364–85. London: Palgrave Macmillan UK. https://doi.org/10.1057/9781137335234_15.

Kamndaya, Samuel. 2018. "How Tanzania's New Business Blueprint Will Change Things." The Citizen. 2018. <https://www.thecitizen.co.tz/news/Blueprint-to-open-TZ-up-for-business/1840340-4579062-twcm33/index.html>.

Kinyondo, Abel, and Christopher Huggins. 2019. "Resource Nationalism in Tanzania: Implications for Artisanal and Small-Scale Mining." *Extractive Industries and Society* 6 (1): 181–89. <https://doi.org/10.1016/j.exis.2018.08.005>.

Kinyondo, Abel, and Espen Villanger. 2017. "Local Content Requirements in the Petroleum Sector in Tanzania: A Thorny Road from Inception to Implementation?" *Extractive Industries and Society*. <https://doi.org/10.1016/j.exis.2017.01.007>.

Kurugenzi ya Mawasiliano ya Rais Ikulu. 2017. "Taarifa Kwa Vyombo Vya Habari." Dar es Salaam: Ikulu. http://ikulu.go.tz/index.php/media/press_details/4117.

Kweka, Dastan. 2019. "How Good Is the Deal between Barrick and the Government of Tanzania?" Udadisi: Rethinking in Action. 2019. <http://udadisi.blogspot.com/2019/10/how-good-is-barrick-deal-with-tanzania.html>.

Lange, Siri. 2006. "Benefit Streams from Mining in Tanzania: Case Studies from Geita and Mererani." *CMI - Chr. Michelsen Institute*.

———. 2011. "Gold and Governance: Legal Injustices and Lost Opportunities in Tanzania." *African Affairs* 110 (439): 233–52. <https://doi.org/10.1093/afraf/adr003>.

Legal and Human Rights Centre, and Zanzibar Legal Services Centre. 2019. *Tanzania Human Rights Report 2018*. Dar es Salaam and Zanzibar: LHRC and ZLSC.

Lewis, Ian. 2018. "Tanzania Playing Catch up on LNG Project." *Petroleum Economist*. 2018. <http://www.petroleum-economist.com/articles/politics-economics/africa/2018/tanzania-playing-catch-up-on-lng-project>.

Ligny, Emilia van Egmond-de Wilde de. 2001. "Technological Capabilities: A Core Element for National Development Opportunities? A Study of Technological Capabilities in the Dwelling Construction Sector for Lower-Income Households in Tanzania." In *The Industrial Experience of Tanzania*, edited by Adami Szirma and Paul Lapperre, 194–217. Basingstoke: Palgrave Macmillan.

Lissu, Tundu. 2001. "In Gold We Trust: The Political Economy of Law, Human Rights and the Environment in Tanzania's Mining Industry." *Law, Social Justice and Global Development Journal* 2 (1).

LNG World News. 2016. "Agreement on Tanzanian LNG Project to Be Reached by 2018." *LNG World News*. 2016. <https://www.lngworldnews.com/agreement-on-tanzanian-lng-project-to-be-reached-by-2018/>.

Machira, Polycarp. 2019. "Gold Refinery to Open in October." *The Guardian*, August 21, 2019. <https://ippmedia.com/en/news/gold-refinery-open-october>.

Maennling, Nicolas, Perrine Toledano, and Thomas Mitro. 2017. *International Gas Outlook and Implications for Developing Tanzania 's Gas Projects*. Dar es Salaam: UONGOZI Institute and Columbia Center for Sustainable Development (CCSI).

Maganga, Faustin, and Thabit Jacob. 2016. "Defying the Looming Resource Curse with Indigenization? Insights from Two Coal Mines in Tanzania." *African Review* 43 (2): 139–60.

Malanga, Alex. 2018. "JPM Assures of Better Business Conditions." *The Citizen*. 2018. <https://www.thecitizen.co.tz/News/JPM-assures-of-better-business-conditions/1840340-4349148-1291rtlz/index.html>.

———. 2019. "Blueprint Execution 'Soon.'" *The Citizen*. 2019. <https://www.thecitizen.co.tz/news/-Blueprint-execution--soon-/1840340-5081956-6a5psl/index.html>.

Materu, Beatrice. 2019. "Refinery Set to Turn Tanzania City into Major Gold Hub." *The East African*, September 16, 2019. <https://www.theeastafrican.co.ke/business/Tanzania-refinery-set-to-turn-Dodoma-into-major-gold-hub/2560-5275032-13alx2c/index.html>.

MCL Digital. 2018. "Nape Aishukia Hotuba Ya Bajeti Ya Waziri Mkuu." YouTube Video. 2018. <https://www.youtube.com/watch?v=uDORi9xE6to>.

Mgaiwa, Samson J. 2018. "The Paradox of Financing Public Higher Education in Tanzania and the Fate of Quality Education: The Experience of Selected Universities." *SAGE Open* 8 (2): 1–16. <https://doi.org/10.1177/2158244018771729>.

Mhundwa, Kudakwashe, and Michael Tome. 2019. "Local Content Strategy Threshold Set at 80pc." *Chronicle*. 2019. <https://www.chronicle.co.zw/local-content-strategy-threshold-set-at-80pc/>.

Ministry of Energy. 2018. *Hotuba Ya Waziri Wa Nishati Mhe. Medard Matogolo Chananja Kalemani (Mb.), Akiwasilisha Bungeni Makadirio Ya Mapato Na Matumizi Ya Wizara Ya Nishati Kwa Mwaka 2018/19*. Dodoma: Ministry of Energy. <https://www.nishati.go.tz/wp-content/uploads/2018/05/Hotuba-ya-Bajeti-ya-Wizara-ya-Nishati-kwa-mwaka-2018-2019.pdf>.

———. 2019. *Hotuba Ya Waziri Wa Nishati Mhe. Dkt. Medard Matogolo Chananja Kalemani (Mb.), Akiwasilisha Bungeni Makadirio Ya Mapato Na Matumizi Ya Wizara Ya Nishati Kwa Mwaka 2019/20*. Dodoma: Ministry of Energy. https://www.nishati.go.tz/ks/wp-content/uploads/2019/05/HOTUBA_NISHATI.pdf.

Mkandawire, Thandika, and Charles C. Soludo. 1998. *Our Continent, Our Future: African Perspectives on Structural Adjustment*. Dakar and Ottawa: Council for the Development of Social Science Research in Africa and International Development Research Centre.

Morris, Mike, and Judith Fessehaie. 2014. "The Industrialisation Challenge for Africa: Towards a Commodities Based Industrialisation Path." *Journal of African Trade* 1 (1): 25–36.

Morris, Mike, Raphael Kaplinsky, and David Kaplan. 2012. *One Thing Leads To Another: Promoting Industrialisation by Making the Most of the Commodity Boom in Sub-Saharan Africa*. Cape Town: University of Cape Town.

Mukangara, Daudi Rivelio. 1991. "The Anti-Dependence Strategy of Development: An Evaluation of the Theories and the Strategy with Reference to Tanzania."

Mwangonde, Henry, and Janeth Mesomapy. 2016. "JPM Attacks Judiciary over Anti-Graft War." *The Citizen*, February 5, 2016. <https://www.thecitizen.co.tz/news/1840340-3063408-pj379wz/index.html>.

Namkwahe, John. 2019. "Traders Engage Magufuli in Search for Cure of Business Slump." *The Citizen*. 2019. <https://www.thecitizen.co.tz/news/Traders-engage-Magufuli-in-search-for-cure-of-business-slump-/1840340-5149758-739jegz/index.html>.

National Audit Office. 2017. "Annual General Report of the Controller and Auditor General on the Audit of Public Authorities and Other Bodies for the Financial Year 2015/2016." Dar es Salaam.

Natural Resource Government Institute. 2016. *Briefing: Tanzania's 2015 Extractive Sector Legislation: Recommendations for Effective Implementation*. New York: Natural Resource Governance Institute.

Ohiorhenuan, John F E, and Zoe Keeler. 2008. "International Political Economy and African Economic Development: A Survey of Issues and Research Agenda." *Journal of African Economies* 17 (AERC Supplement 1): i140–i239. <https://doi.org/10.1093/jae/ejm034>.

Organisation of African Unity. 1980. *Lagos Plan of Action for the Economic Development of Africa, 1980-2000*. Addis Ababa: Organisation of African Unity.

Ovadia, Jesse Salah. 2014. "Local Content and Natural Resource Governance: The Case of Angola and Nigeria." *The Extractive Industries and Society* 1 (2): 137–46.

———. 2016a. "Local Content Policies and Petro-Development in Sub-Saharan Africa: A Comparative Analysis." *Resources Policy* 49: 20–30. <https://doi.org/10.1016/j.resourpol.2016.04.003>.

———. 2016b. *The Petro-Developmental State in Africa: Making Oil Work in Angola, Nigeria and the Gulf of Guinea*. London: Hurst Publishers.

Palei, Tatyana. 2015. "Assessing The Impact of Infrastructure on Economic Growth and Global Competitiveness." *Procedia Economics and Finance* 23 (October 2014): 168–75. [https://doi.org/10.1016/S2212-5671\(15\)00322-6](https://doi.org/10.1016/S2212-5671(15)00322-6).

Parliament of Tanzania. 2018. *Taarifa Ya Shughuli Za Kamati Ya Kudumu Ya Bunge Ya Nishati Na Madini Zilizotekelezwa Katika Kipindi Cha Kuanzia Januari, 2017 Hadi Januari 2018*. Dodoma: Parliament of Tanzania.

———. 2019. *Kamati Ya Kudumu Ya Bunge Ya Nishati Na Madini: Taarifa Ya Utekelezaji Wa Majukumu Na Shughuli Za Kamati Kwa Mwaka 2018/2019*. Dodoma: Parliament of Tanzania.

Pedersen, Rasmus Hundsbæk, and Thabit Jacob. 2017. "Reconfigured State-Community Relations in Africa's Extractive Sectors: Insights from Post-Liberalisation Tanzania." *Extractive Industries and Society* 4 (4): 915–22. <https://doi.org/10.1016/j.exis.2017.07.004>.

Poncian, Japhace. 2019a. "Extractive Resource Ownership and the Subnational Resource Curse: Insights from Tanzania." *The Extractive Industries and Society* 6 (2): 332–42. <https://doi.org/10.1016/j.exis.2018.08.013>.

———. 2019b. "Extractive Resource Politics and Government-Community Engagement in Tanzania: A Case of Natural Gas." University of Newcastle. <https://nova.newcastle.edu.au/vital/access/manager/Repository/uon:35558>.

- . 2019c. "Galvanising Political Support through Resource Nationalism : A Case of Tanzania's 2017 Extractive Sector Reforms." *Political Geography* 69: 77–88. <https://doi.org/10.1016/j.polgeo.2018.12.013>.
- . 2019d. "When Government Commitment Meets Community Proactiveness: Governing Gas and Community Engagement in Tanzania." *Energy Research & Social Science* 52: 78–90. <https://doi.org/10.1016/j.erss.2019.01.012>.
- Poncian, Japhace, and Jim Jose. 2019. "Resource Governance and Community Participation: Making Hydrocarbon Extraction Work for Tanzania." *Resources Policy* 62: 84–93. <https://doi.org/10.1016/j.resourpol.2019.03.013>.
- Poncian, Japhace, and Henry Michael Kigodi. 2018. "Transparency Initiatives and Tanzania's Extractive Industry Governance." *Development Studies Research* 5 (1): 106–21. <https://doi.org/10.1080/21665095.2018.1486219>.
- Ramdoo, Isabelle. 2015. *Resource-Based Industrialisation in Africa: Optimising Linkages and Value Chains in the Extractive Sector: Discussion Paper No. 179*. Maastricht: European Centre for Development Policy Management.
- Republic of South Africa. 2011. *A Beneficiation Strategy for Minerals Industry of South Africa*. Pretoria: Department of Mineral Resources. <http://www.eisourcebook.org/cms/South Africa Mineral Beneficiation Strategy.pdf>.
- Resnick, Idrian N. 1981. *The Long Transition: Building Socialism in Tanzania*. New York and London: Monthly Review Press.
- Roe, Alan R. 2016. "Tanzania — from Mining to Oil and Gas." 79. WIDER Working Paper. Helsinki.
- Scurfield, Thomas, and David Mihalyi. 2017. "Uncertain Potential: Managing Tanzania's Gas Revenues," no. September. <https://resourcegovernance.org/analysis-tools/publications/uncertain-potential-managing-tanzania-gas-revenues>.
- Scurfield, Thomas, Nicola Woodroffe, and Silas Olan'g. 2017. *Briefing: Localizing Tanzania's Gas Sector: Determining Optimal Policies for an Emerging Producer*. New York: NRGi.
- Society for International Development. 2009. "The Extractive Resource Industry in Tanzania: Status and Challenges of the Mining Sector." Washington, DC.
- Stewart, D F, and B Muhegi. 1989. "Strategies for Meeting Tanzania's Future Cement Needs." *Natural Resources Forum* 13 (4): 294–302.
- Supporting Economic Transformation. 2016. *Supporting the Preparation of Tanzania's Second Five Year*

Development Plan (FYDP II) 2016/17 –2020/21: Final Report. ODI, DFID and Repoa.

TANU. 1967. *The Arusha Declaration and TANU's Policy on Socialism and Self-Reliance.* Dar es Salaam: Publicity Section, TANU.

TanzaniaInvest. 2017. "President Magufuli Reiterate Support to Tanzania Private Sector But Tax Compliance Remain Key." TanzaniaInvest. 2017. <https://www.tanzaniainvest.com/economy/magufuli-support-private-sector>.

TCME. 2019a. "President Magufuli Calls for a Wider Tax Base and Reasonable Tax Rates to Increase Collections." *Today's News Update*, April 2019. https://tcme.or.tz/news/PRESIDENT_MAGUFULI_CALLS_FOR_A_WIDER_TAX_BASE_AND_REASONABLE_TAX_RATES_TO_INCREASE_COLLECTIONS.pdf.

———. 2019b. "2019 Mining Exhibitions." *Today's News Update*, June 2019. [https://tcme.or.tz/news/2019 Mining Exhibitions.pdf](https://tcme.or.tz/news/2019_Mining_Exhibitions.pdf).

TEITI. 2018. *Tanzania Extractive Industries Transparency Initiative Final Report for the Period July 1 2015 to June 30 2016.* Dar es Salaam: TEITI.

The Citizen. 2019. "Magufuli Demotes TRA Commissioner Kichere amid Apparent Gloom in Business Community." The Citizen. 2019. <https://www.thecitizen.co.tz/news/Magufuli-demotes-TRA-commissioner-Kichere-/1840340-5149262-hb5dgpz/index.html>.

UNCTAD. 2017a. *Establishing Development Linkages in the Extractive Industry: Lessons from the Field.* Geneva: UNCTAD.

———. 2017b. *World Investment Report 2017: Investment and Digital Economy.* New York: UNCTAD.

———. 2018. *World Investment Report 2018: Investment and New Industrial Policies.* New York: UNCTAD.

———. 2019. *World Investment Report 2019: Special Economic Zones.* New York: UNCTAD.

United Republic of Tanzania. 1979. "The Mining Act, 1979."

———. 2008. "Report of the Presidential Mining Review Committee to Advise the Government on Oversight of the Mining Sector." Dar es Salaam.

———. 2009. *Mineral Policy of Tanzania.* Dar es Salaam: Ministry of Energy and Minerals.

- . 2010a. *National Strategy for Growth and Reduction of Poverty II*. Dar es Salaam: Ministry of Finance and Economic Affairs.
- . 2010b. *The Mining Act 2010*. Government of Tanzania.
- . 2011. *Integrated Industrial Development Strategy 2025*. Dar es Salaam: Ministry of Industry and Trade.
- . 2012a. *The Tanzania Five Year Development Plan 2011/2012-2015/16: Unleashing Tanzania's Latent Growth Potentials*. Dar es Salaam: Planning Commission.
- . 2012b. *The Tanzania Long-Term Perspective Plan, 2011/2012-2025/2026: The Roadmap to a Middle Income Country*. Dar es Salaam: Planning Commission.
- . 2013. *The National Natural Gas Policy of Tanzania*. Dar es Salaam: Ministry of Energy and Minerals.
- . 2015a. *National Energy Policy*. Dar es Salaam: Ministry of Energy and Minerals.
- . 2015b. *The Oil and Gas Revenues Management Act, 2015*.
- . 2015c. *The Petroleum Act, 2015*.
- . 2015d. *The Tanzania Extractive Industries (Transparency and Accountability) Act, 2015*.
- . 2016a. *Five Year Development Plan 2016/17 - 2020/21*. Dar es Salaam: Ministry of Finance and Planning.
- . 2016b. *Natural Gas Utilisation Master Plan, 2016-2045*. Dar es Salaam: Ministry of Energy and Minerals.
- . 2016c. *Tanzania Development Plan, Vision and Investment Priorities*. Dar es Salaam: Ministry of Finance and Planning and Tanzania Investment Centre.
- . 2017a. "The Natural Wealth and Resources (Permanent Sovereignty) Act, 2017."
- . 2017b. "The Natural Wealth and Resources Contracts (Review and Re- Negotiation of Unconscionable Terms) Act, 2017."
- . 2017c. "The Petroleum (Local Content) Regulations, 2017." Dar es Salaam: Government of Tanzania. <http://www.ewura.go.tz/wp-content/uploads/2015/03/GN-Petroleum-Local-Content-Regulations-2017-GN-197.pdf>.

———. 2017d. "The Written Laws (Miscellaneous Amendments) Act No. 7."

———. 2018a. *Blueprint for Regulatory Reforms to Improve the Business Environment*. Dodoma: Ministry of Industry, Trade and Investment.

———. 2018b. "Mining (Local Content) Regulations, 2018." Dar es Salaam: Government of Tanzania. <http://www.hakirasilimali.or.tz/wp-content/uploads/2018/01/MINING-LOCAL-CONTENT-REGULATIONS-2018.pdf>.

———. 2018c. "The Mining (Mineral Beneficiation) Regulations."

———. 2019. "The Mining (Local Content) (Amendments) Regulations."

Verhoef, Grietjie. 1998. "Industrialisation in South Africa: A Historiographical Debate?" *New Contree* 44: 13–30.

Ville, Simon Philip, and Olav Wicken. 2012. "The Dynamics of Resource-Based Economic Development: Evidence from Australia and Norway." Economics Working Paper Series 2012. Sydney. <https://doi.org/10.1093/icc/dts040>.

Vleuten, Frank van der, Lex Lemmens, Otto Bos, Caspar Samplonius, Dick Toussaint, and Michel Yhdego. 2001. "Energy Conservation in the Industrial Sector in Tanzania." In *The Industrial Experience of Tanzania*, edited by Adam Szirmai and Paul Lapperre, 262–80. Basingstoke: Palgrave Macmillan.

Walker, M. 2001. "Resource-Based Industrialisation Strategies: A Comparative Analysis of the South African and International Experience." *South African Geographical Journal* 83 (2): 93–104. <https://doi.org/10.1080/03736245.2001.9713725>.

Wangwe, Sam, and Hazel Gray. 2018. "Politics and Business." Oxford. https://edi.opml.co.uk/wpcms/wp-content/uploads/2018/09/03-TID_Politics-Business.pdf.

Wizara ya Madini. 2018. *Hotuba Ya Waziri Wa Madini, Mheshimiwa Angellah Jasmine Mbelwa Kairuki (Mb.), Akiwasilisha Bungeni Mpango Na Makadirio Ya Mapato Na Matumizi Ya Fedha Kwa Mwaka Wa Fedha 2018/19*. Dodoma: Wizara ya Madini.

World Bank. 1992. *Strategy for African Mining*. Washington, DC: The World Bank.

Wright, Gavin, and Jesse Czelusta. 2007. "Resource-Based Growth : Past and Present." In *Natural Resources: Neither Curse nor Destiny*, edited by Daniel Lederman and William F. Maloney, 183–211. Washington, DC: The World Bank and Stanford University Press.

Zambia Business Times. 2018. "Zambia to Finally Get 35% Local Content Regulation." Zambia Business Times. 2018. <https://zambiabusinesstimes.com/2018/09/29/zambia-to-finally-get-35-local-content-regulation/>.

