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Faculty of Commerce, Law and Management

School of Economics and Business Sciences (SEBS)

Corporate Strategy and Industrial Development (CSID)

Masters of Commerce: Development Theory and Policy Programme

MAXIMIZING THE IMPACT OF MINERAL RESOURCES DEVELOPMENT TO BENEFIT THE MOZAMBICAN PEOPLE:

State intervention - the best policy to move forward

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Dissertation submitted in fulfilment of requirements for the Masters degree of Commerce in Development Theory and Policy at the University of Witwatersrand.

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Research protocol number: CECON/1066

Final submission, March 2018

Johannesburg -South Africa

Plagiarism declaration

I, Delton Muianga, declare that

1. The research reported "Mozambique the impact of mineral resources development to the benefit of Mozambican people: State intervention- the best policy to move forward", except where otherwise referenced, is my original research.
2. This dissertation has not been submitted for any degree or examination at any other university.
3. All of the sources I have used or quoted have been indicated and acknoweledged by full referencing.
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Delton Muianga

April 2017

Johannesburg, South Africa

Abstract

This dissertation explores to what extent the abundant mineral resources in Mozambique represent an opportunity for the country to boost its economy and improve its people's living conditions.

The dissertation's central argument is that Mozambique could take advantage of its plethora of mineral resources to achieve sustainable economic growth and inclusive development by augmenting mineral resources linkages: backward, forward, knowledge, fiscal and spatial.
In the context of Mozambique, the heterodox economic development policy is indispensable. It has been arged that Industrial Policy is one of the most dynamic and important developmental policies that a country like Mozambique should adopt to maximize the impact of mineral resources to benefit the Mozambicans.

As a country, Mozambique underwent comprehensive policy and legal framework reform to respond to the sector's current challenges. However, the key finding of the research claims that the current policy and regulatory framework is still limited; it is unlikely to promote sound management of the existing mineral resources.

Key Words: extractive industries, natural/mineral resources, economic, inclusive, developmental, linkages, state intervention, industrial, policy, management and legal framework.

Dedication

I dedicate this dissertation to Stive Biko.

At the time of his death, Biko had a wife and three children for which he left a letter that stated in one part: "I've devoted my life to see equality for blacks, and at the same time, I've denied the needs of my family. Please understand that I take these actions, not out of selfishness or arrogance, but to preserve a South Africa worth living in for blacks and whites." Steve Biko, I Write What I Like.

As a matter of fact for us "Africans" natural/mineral resources means injustice, hopeless, corruption, poverty, conflicts, civil wars ... The struglle of Stive Biko remains relevant:

Why African continent remains home of misery and social injustices?

Acknowledgements

This dissertation would not have been accomplished without a wonderful help from many individuals to whom I am extremely grateful. Well above all others, I would like to thank my supervisor Dr. Paul Jourdan for his inspiring, expert and patient support.

His insights have been essential to the development of my thinking and writing on mineral development economic policy, particularly for this dissertation. Thank you very much Paul!

Thank you very much to Antonio Pedro, for being first person introduce me key reading material on extractive industries economic development policy challenges and perspectives in Africa. Oliver Maponga for enlightening debates on African Mining Vision and strategic mineral resources value chain.

Professor Gilbert Khadiagala for continuous conversation about the political economy of international extractive industries governance mechanisms and regimes.

A special thank goes to Élia Manjate Gemuce, for the friendship and unlimited provided support during the research write up stage of this dissertation.

I am very indebted to my lecturers, Dr. Lotta Takala-Greenish, Dr. Nicolas Pons Vignon and Trudi Makhaya for the well-prepared classes and for the assistance during of my studies and after Wits University.

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Abbreviations and Acronyms

APT	Additional Profits Tax
AMV	African Mining Vision
AIM	Agência de Informação de Moçambique
CSOs	Civil Society Organizations
DRC	Democratic Republic of Congo
DSP	Developmental State Policy
ECA	Economic Commission for Africa
EI	Extractive Industry
FIFA	First-In-First-Assessed
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GFI	Global Financial Integrity
HRD	Human Resources Development
ILO	International Labour Organisation
IMF	International Monetary Fund
ITIE	Iniciativa de Transparência na Indústria Extractiva (Extractive Industries Transparency Initiative)
LNG	Liquefied Natural Gas
NIEs	Newly Industrialising Economies
NGOs	Non-Government Organizations
R&D	Research and Development
RRT	Resources Rent Tax
SADC	Southern African Development Community
SDI	Special Development Initiatives
SML	Special Mining Licenses
Tcf	Trillion cubic feet
UNCTAD	United Nations Conference on Trade and Development
UNECA	United Nations Economic Commission for Africa

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I.1 Introduction

The present dissertation investigates and elucidates various prospects and challenges related to mineral resources extraction, particularly related to the impact of the discovery of coal and natural gas on Mozambique's economy. It examines how the country could build mineral resources linkages to accelerate socio-economic development and economic diversification. This dissertation specifically argues that the existence of a robust Extractive Industry (EI) Legal Framework, principally at the national level, is imperative for promoting local economic development linkages policy, as well as promoting inclusive and sustainable natural resources development and management.

The experiences of minerally-rich countries vastly differ from one another. Most developed countries experience a level of certainty that government intervention and commitment will significantly contribute to the promotion of economic growth and social transformation. In developing countries, especially in the Sub-Saharan Africa context, the reality is that the exploitation of mineral resources is likely to be led by multinational extractive industries companies. Due to the host country's weak national institutions, including insuficient capacity to develop home-based EI policies and strategies, most of the oversight that regulate extractive activities in developing countries are based in international organisations and institutions, such as the World Bank (WB) and International Monetary Fund (IMF).

In the context of political economy, these international regimes in which EI operates contribute to undermining the sustainability of natural resources extraction in developing countries.

Generally, because of the lack of efficience of those regimes leaves national governments with less power and space to develop the originated mineral resources policies, regulations framework and management strategies that would allow an equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development.

Africa has the most significant potential riches. The following is an estimate of the percentage of the world reserves of key mineral resources locacted in Africa[1]:

- Africa has 9.5% of global crude oil reserves and 8.2% of gas reserves;
- More than 90% of continent's oil reserves (and production) are in Libya, Nigeria, Algeria, Angola and Sudan;
- Africa produces more than 60 metal and mineral products, including gold, platinum group minerals (PGMs), copper, nickel, diamonds, aluminium, uranium, manganese, chromium, bauxite and cobalt.
- Africa accounts for about 30% of global mineral reserves, including:
    - 38% of uranium
    - 42% of gold
    - 88% of diamonds
    - 60% of cobalt
    - 90% PGM reserves.

According to Calitz (2016), the African mineral resources economies have the potential for sustaible economic growth and inclusive development, but numerous countries are affected by the alleged commodity boom, both as exporters and importers. Commodity exporting countries that were prudent in how they dealt with the windfall gains of the boom will obviously be in a better position than those that squandered the benefits (i.e. having spent the proceeds in a non-sustainable way).

Clearly there is a significant difference between having reserves and supplying commodities for domestic use or exports. For supply to materialise there has to be a low risk of appropriation, financially viable mining opportunities, investment in mining in technology, transport, project management skills, availability of the right type of labour, marketing facilities, favourable socio-political conditions, effective demand and a credible price determination mechanism. (See Acemoglu, Johnson, and Robinson (2001); Bohn and Deacon (2000), as quoted in IMF, 2015a, p. 48). Cust and Harding (2014) provide evidence that institutions substantially affect oil and gas exploration. (IMF, 2015a, pp. 47-48).

1 Calitz, Estian (2016). Reflections on Possible Ways Forward to Foster Economic Growth, Inclisive Development and New Partnerships. Notes for participation in a panel discussion on " The end of the Communidy boom and challenges for development in Soutrhern Africa". Policy Forum of the Ruling Parties in Southern Africa, 31.05-01.06.2016, Maputo, Mozambique.

This dissertation argues that developing countries, especifically in Africa, endowed with diverse mineral resources still face several developmental challenges. To ensure sustainable and inclusive mineral resources development, a knowledge-driven African mining sector that catalyses and contributes to the broad-based growth and development of and is fully integrated into a single African market through:

- Down-stream linkages into mineral beneficiation and manufacturing;
- Up-stream linkages into mining capital goods, consumables and services industries;
- Side-stream linkages into infrastructure (e.g.electricity, logistics, communications, water, skills and technology development (HRD) and R&D;
- Mutually beneficial partnerships between the state, the private sector, civil society, local communities and other stakeholders;
- A comprehensive knowledge of its mineral endowement.

This is the policy perspective that this dissertation offers for African countries like Mozambique, rich with mineral resources to adopt whilst those resources still exist.

However, evidence shows that Africa faces several challenges which serve as a bottleneck for its developing countries to use their natural resources to enhance economic growth and developmenmt. International Mineral resources regimes and mechanisms exist that govern the extractive industries sector and have been adopted by many developing countries: Publish What You Pay (PWYP); the Extractive Industries Transparency Initiative (EITI); the Kimberly Process Certification Scheme (KPCS); the US Congress's Frank-Dodd Act and continental guidelines such as the African Mining Vision (AMV), including the on-going development process of the Southern African Development Community Strategy on Mineral Resources Develoment (kind of regional domestication of the AMV). The reality is that the process of conceiving and implementing those mechanisms still do not meet the needs of local contexts, but instead serve foreign interests, mostly because they are supported financially and technically by those who have an interest in exploiting mineral resources in developing countries to maximise their shareholders returns.

The political economy of EI regimes is based on the logic that there is no investiment without expectation of profit. Following this line of thought, it would make sense to say that the existing mechanisms are designed to benefit the interests of multinationals firms in the

sector and the development of their home countries, not necessarily to help developing countries from where the minerals are extracted (Khadiagala, 2015). Considering that mineral resources are finite, it could lead to a situation where multinational companies exploit all minerals and leave only empty holes, turning natural resources into "a curse rather than a blessing" for the country. The adoption of state intervention policy is indispensable in Africa, especially in those countries bestowed with mineral resources.

The implementation of state intervention policy on the EI sector is important because the multinational companies operating in the sector tend to be much more powerful than most minerally-rich African countries. They have a greater understanding and better knowledge of the geo-composition of existing resources and reserves, as well as financial resources and well-educated lawers (for contract negotiations) than the countries where the resources are exploited, which places them in stronger positions during negotiations regarding their short-term, profit-centered interests (Amsden, 2012; Akyuz & Gore, 2001; Di John, 2011). As these scholars concur, multinational mineral companies are profit-oriented. Their mandate is not to ensure good governance of the EI sector, which entails sustainable mineral resource exploitation that will lead to social and economic development and growth in the countries and communities where mineral resources are mined. Currently, after depleting the resources or if operations in the country are no longer economically sustainable for them, this means that most multinational companies simply move on to the next potentially mineral-rich country.

To uphold the argument that the global mechanisms of mineral resources are not fair for good governance of natural resources in developing countries where the mineral are exploited, Khadiagala (2015) presents two fundamental reasons for the negative impact of the global mechanisms of mineral resources governance in developing countries. His two arguments are:

> …fundamentally, regimes of restraint … seek to contain errant and predatory elite behaviour in weak, corrupt and dysfunctional states. Fashioned largely in the context of civil wars, these mechanisms have increasingly hampered the evolution of practices anchored in solid local frameworks of responsibility and national ownership.

Additionally, he states that "…governance mechanisms, regimes of restraint have been enfeebled by the inordinate fixation with transparency at the expense of accountability and participation". (Khadiagala, 2015, p. 24-25). These two critical aforementioned aspects of contemporary mineral resources regimes are noteworthy to this research because of claims to promote transparency and the sector's sustainability. However, the issue is that the idea of transparency and good governance is part of a larger parcel of neo-liberalism principles that were adopted by most developing countries after the end of the Cold War just to respond the World Bank and IMF requirements.

Accordingly, scholars such as Mkandawire (2010), Amsden (2010; 2012) and Chang (2012) feel that neo-liberalism principles are essentially related to a free, efficient market and good governance, exhorting state's to little-to-no intervention in the "natural" forces that regulate the economy. In the context of African states and most other developing countries, those principles were unsuccessful, both economically and for state-building objectives. Ironically, this has contributed to the development of weak states, characterised by high levels of corruption and socio-economic inequalities (Fenster, 2005).The inception of this work stems from the shared concern of these researchers that the current Global Mineral Resources Mechanisms are still distant from or not interested in promoting fair resources exploration, particularly when it comes to ensuring that developing countries benefit from their natural resources to implement development policies that focus more on promoting capital investiment through exports of substitute products and creating opportunities for small and medium enterprises. Furthermore, policy which invests in modern production technologies in order to diversify economies from non-extrative industries could significally contribute to job creation, which represents a critical problem in most minerally-rich African countries (Amsden 2012, p.126).

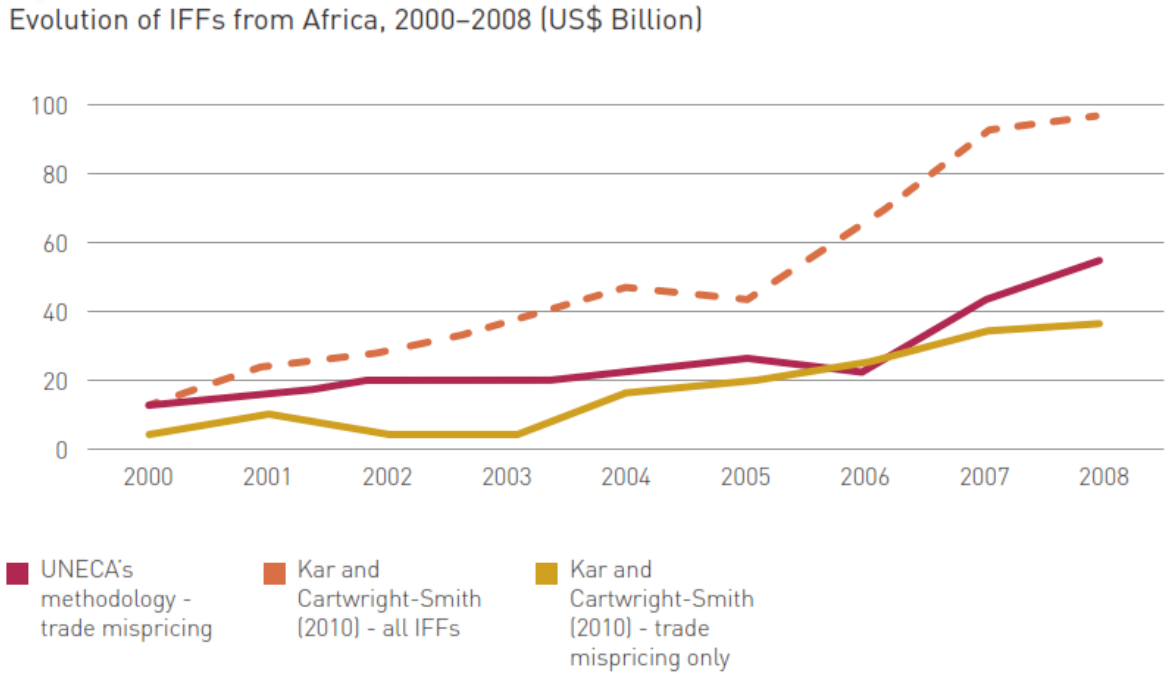
Evidence supports that the current Global Mineral Resources Mechanisms are inefficient. For instance, the Democratic Republic of Congo (DRC), between 2010 and 2012, lost $1.36 billion in revenue related to mineral resources business with foreign investors (Africa Progress Report, 2013). Between 2005 and 2009, the same report demonstrated that in Zambia, 500, 000 copper mineworkers paid more taxes to the Zambian Government than the multinational copper mining companies payed to the state. Additionally, the organisational report from Partnership Africa Canada (Khadiagala, 2015, p. 24) states that in the last five

years Zimbabwe has lost almost R16 billion in diamond business between the local elites and multinationals mineral exploration companies.

In fact, there was a recent report by the African Development Bank and Global Financial Integrity (2013), "Illicit Financial Flows and the Problem of Net Resources from Africa. The report concluded that within the last 20 years the entire African continent has lost $1.4 trillion in illicit financial flows- most countries that have suffered are those rich in mineral resources. The report further argues that in southern Africa, illicit flows of money have doubled to approximately 13 billion USD.

All of the money being lost in Africa has occurred under the watch of international regimes, which are governed according to neo-liberalism principles, particularly the Bretton Woods Institutions who deal with natural resources. These facts raise critical questions about the origins, purpose, efficiency and legitimacy of the entire global political and socio-economic governance system, including mineral resources governance mechanisms.

Figure 1.1 Cumulative Illicit Financial Flows 2000-08 (US$ billions, trade mispricing only).



Source: UNECA (2015).

I.2 Mozambique: Socio-economic development, challenges and perspectives for sustainable EI development

Since the end of a 16-year civil war, Mozambique has had one of the fastest-growing economies in Africa, with an annual growth rate of 8% (United Nations Conference on Trade and Development [UNCTAD] 2014).The UNCTAD World Investment Report (2014) and the World Economic Forum (2015) classified Mozambique as one of the leading African countries in terms of positive economic performance and optimistic forecast. For instance, UNCTAD's World Investment Report categorised Mozambique among the "top ten" business-friendly countries in Africa. The report also regards Mozambique as one of the top five countries on the continent in terms of attracting foreign direct investment (FDI). In the upcoming years, it is expected that FDI will contribute approximately 88 billion US dollars (USD) per year, six times more than Mozambique's current gross domestic product (GDP). Potentially, this growth was due to record high flows associated with infrastructure and mineral resources projects that are taking place in both Mozambique and South Africa.

I.2.1 Natural gas and oil

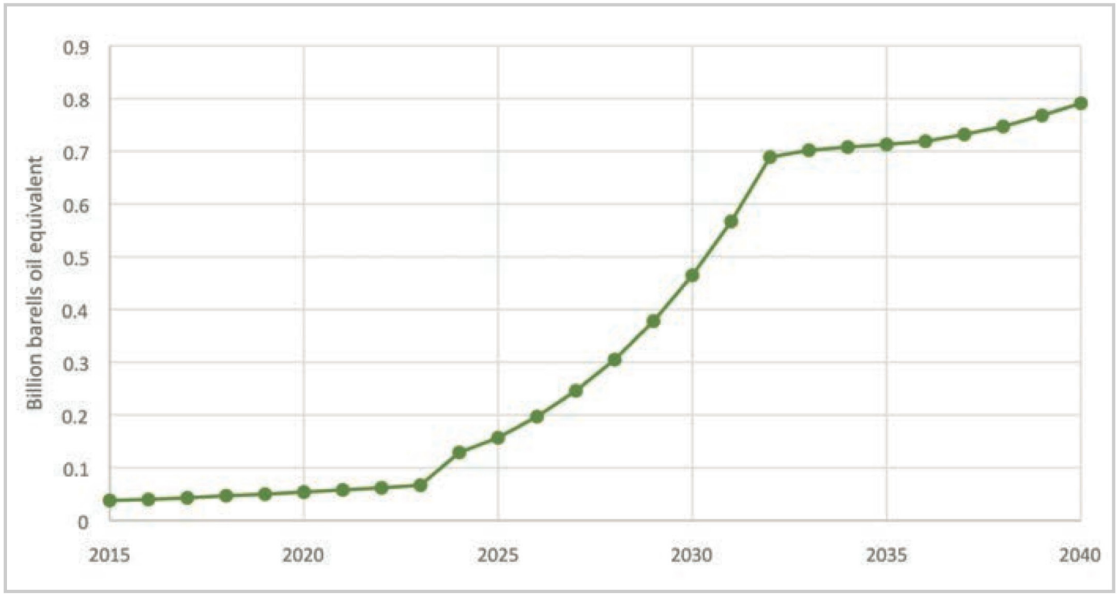
Over the past five years, Mozambique has discovered large quantities of natural gas in the Rovuma Basin. The existence of other mineral resources has been known for decades (e.g. coal, titanium, gold, rare earth minerals, various types of non-metallic resources). Mozambique has the potential to shift positions from that of a poor country to one in which sustainable development is possible. Rogger and Fattouch, in the preface to Frühau's "Mozambique's LNG revolution: Political risk outlook for the Rovuma LNG [liquid natural gas] ventures" (2014, p. iii), stated that the proven existence of natural gas offshore in the Rovuma Basin represents one of the most exciting upstream exploration successes of recent decades. According to Walker, CEO of Anadarko- one of the companies operating in the natural gas sector in Mozambique, the country will emerge in the next decades as the third-largest exporter of LNG in the world (as cited in Frühau, 2014, p. 1).

The critical point related to Mozambique's natural gas, according to Rogger and Fattouch (2014), is not only knowing how much natural gas Mozambique possesses, but also how the Mozambican Government, national and multinational companies will overcome several challenges to the industry's success, such as the practically non-existent local qualified labour force, gas feedstock power generation and industrial processes.

To ensure an equitable share of future natural gas profits, the Goverment must improve institutional capacity to work collaboratively to develop a framework that ensures accountability and transparency in mineral exploration, plus the ability to develop and implement a framework that will attract investors to build technical infrastruture and enhance the development of human capital through professional skills training. For instance the International Enery Association (IEA) in 2015 estimated that Mozambique's gas reserve is approximately 2.8 trillion cubic meters.

However, the quantity of natural gas in Mozambique is the third-largest confirmed natural gas reserve in Africa, after those in Nigeria and Algeria. Interest from international oil and gas companies in Mozambique's natural gas has markedly increased. Anadarko from the USA and ENI from Italy are active international explorer in the Ruvuma Basin on the Cabo Delgado coast. To illustrate, Anadarko plans to invest 1.8 billion USD as pre-investment until 2018, when it then expects to start extracting liquid gas. It is estimated that the total amount invested in building the gas liquefaction plant will be roughly 90 billion USD (Frühau 2014). The following graphic presents the Natural gas energy production forecast for Mozambique over a period of twety five years.

Figure 1.2 Natural gas energy production, Mozambique, forecast.

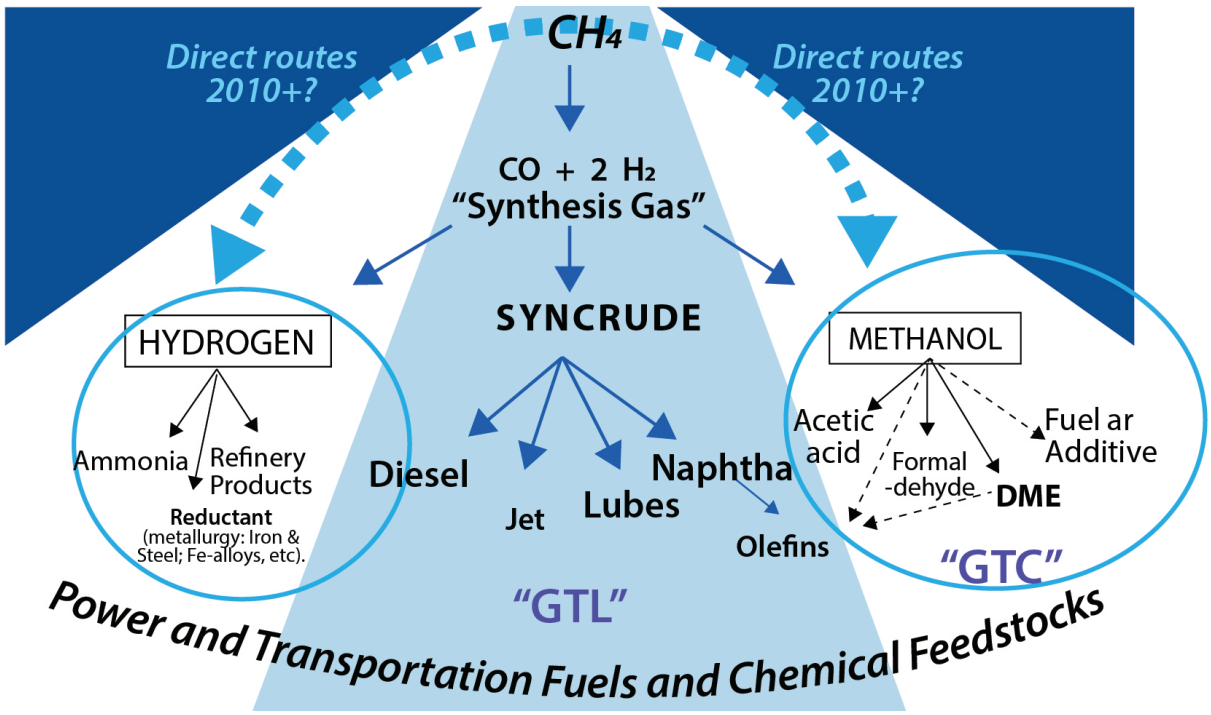


Source: IFs version 7.28; historical data from the International Energy Agency (IEA) and the U.S. Energy Information Association, (2015).

In 2012, the Minister of Natural Resources, Mrs. Esperança Bias, said that she believed that in the next six years the contribution of gas to the national GDP would increase from 1.7% to 13%, since the country (by then) will be able to export 95% and domestic consumption

will increase to 45%. The total annual amount the Government expects to receive from the gas sector is estimated at 7 billion USD. As of 2013, the gas sector's contribution to Mozambique's GDP was about 4.2% (Selemane, 2017; Hofmann and de Souza Martins, 2012). Natural gas (e.g. methane, CH_4) usage in the local and regional economy include CCGT, petrochems, GTL, and metallurgy.

Figure 1.3 Natural gas into the local and regional economy.



Source: Redesigned from Jourdan (2012).

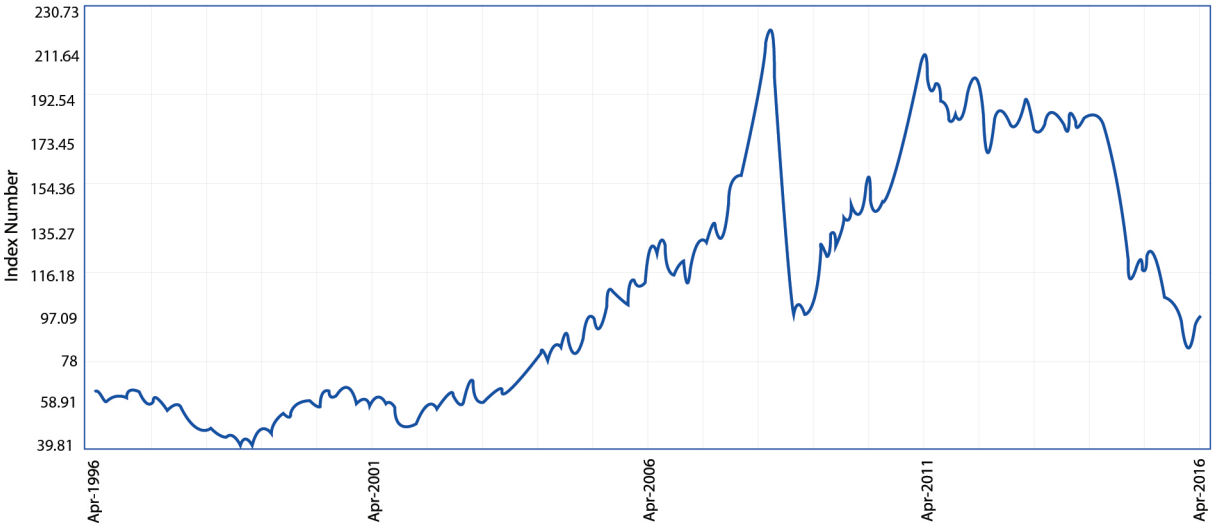
I.2.2 Coking coal

Mozambique possesses the largest deposit of coking coal in southern Africa. The known quantity of Mozambican coal reserves is ranked among the world's 10 largest deposits (Selemane, 2014; Resenfeld, 2012). According to Hoffmann and Martins (2012, pp. 1-2), the Brazilian company Vale won the 2003 auction to exploit Mozambican coal. Vale has already started producing coal from the deposits in Moatize and the expection is roughly five million tons produced per year. The Benga deposit was acquired for nothing, under the new 1990s World Bank sponsored 'first-in-first-assessed' (FIFA) mining law by Riversdale of Australia, who sold it to Rio Tinto for 4 billion USD in 2011. Notably in 2014, Rio Tinto sold these coal assets to Indian International Coal Venture Private Ltd (ICVL).

Production expectations in 2013 were increases up to ten times more than the past. Coal production in Mozambique, by both Rio Tinto and Vale, was expected to reach 41.8 million tons per year. To facilitate business, particularly transportation of the exploited coal to India, China and Brazil as part of the coal extraction project, several infrastructure projects have been planned and some are already in the construction phase, including two railways to the Nacala and Beira ports. Yet, the delay in the rail and terminal construction process is one of the main reasons for not meeting the expected production levels. This could explain why Rio Tinto decided to sell and leave the exploitation of the Benga coal basin to ICVL: the development of the infrastructure in Mozambique to support the coal assets was more challenging than it had anticipated. Due to the under-developed national transport infrastructure, Rio Tinto considered the possibility of transporting the coal via barges along the Zambezi River in its strategic plan (Rio Tinto Energy and Resources Report. 2013,p.8)[2]. Unfortunately, this project never took place because it was not approved by the Mozambican Government.

The Rio Tinto Energy and Resources Report further goes on to say that infrastructure challenges, associated with a downward revision of estimates of recoverable coking coal volumes on the RTCCM tenements, were the main reason for discontinuing operations in Mozambique. Before the 2015 international commodities market decline, the Mozambican Government's prevailing expectation was that after completing all necessary coal mining infrastruture, and once the exploitation process became fully operational for both the Benga and Moatize coal reserves, Mozambique would produce about 100 million tons of steam coal per year (KPMG, 2013, African Economic Outlook, 2014).

Figure 1.4 Commodity price index, monthly price (2005=100).



Source: International Monatery Fund (2016)[3].

2 http://www.tabj.co.za/brochures/2013/Apr/Rio_Tinto/file.pdf (accessed: on 19-11-2015)

3 Graph available at: http://www.indexmundi.com/commodities/?commodity=commodity-price-index&months=240

I.3 Research objective and justification

The prevailing dissertation argues that African countries that are rich in natural resources, like Mozambique, need to enhance economic growth and development for the masses, while protecting vulnerable populations. All of this must be carried out in an environment of fairness, equal justice and political plurality (AfBD, 2012 cited on UNECA 2015). These African countries should exercise ownership of their mineral resources, implementing commodity policies and strategies (price development strategies are critical) to help address structural challenges:

- Deployment-oriented minerals policy and regulatory frameworks should include the following strategies:
  - link minerals development to national and regional development strategies (holistic approach);
  - specifically promote transparency in revenue collection and management, optimise fiscal frameworks and competitive tendering vs. FIFA
- Mining taxation frameworks that allow for optimal revenue collection, especially to capture optimal revenue during a commodities boom:
  - invest the rent in other forms of capital infrastructure and human resources development;
  - rate sovereign wealth funds (macroeconomic buffers as well as investments vehicles);
  - create sovereign wealth funds;
  - implement mechanisms against transfer pricing.
- Implement policies that focus on structural transformation and economic diversification reduce dependence through investment in other sectors (e.g. tourism and agriculture).
- Promote value addition/beneficiation and the development of regional mineral value chains:
  - development of forward and backward linkages in addition to fiscal and knowledge linkages (UNECA, 2015; Jourdan, 2012).

I.3.1 Research objective

The dissertation's core argument is that African countries, especially Mozambique, can achieve sustainable economic growth and development through the promotion of natural

resources and mineral development linkages: forward, backward, fiscal, knowledge and spatial (UNECA, 2015; Jourdan, 2013). This would allow the continent's countries to indigenously develop the industry's capacity through processessing local extractive industries, generate jobs and to finance both social and investment projects (Amsden, 2010, 2012; AMV, 2011). Local industrial policy is critical for sustainable and inclusive development[4] (Southern African Development Community [SADC], 2013).

Specifically, this dissertation investigates Mozambique's potential to maximize the opportunities presented by its mineral resources and to enhance sustainable economic development. Although, the work provides a basic overview of existing natural gas, oil and coking coal, it does not intend to focus its analyses on those resources per se but refelects on feasible ways forwad for Mozambique to foster economic growth and inclusive development. A gap analysis of the current Mozambican Legal Framework and the political enviroment for effective development and implementation of mineral resources linkages in Mozambique has been conducted.

I.3.2 Research justification

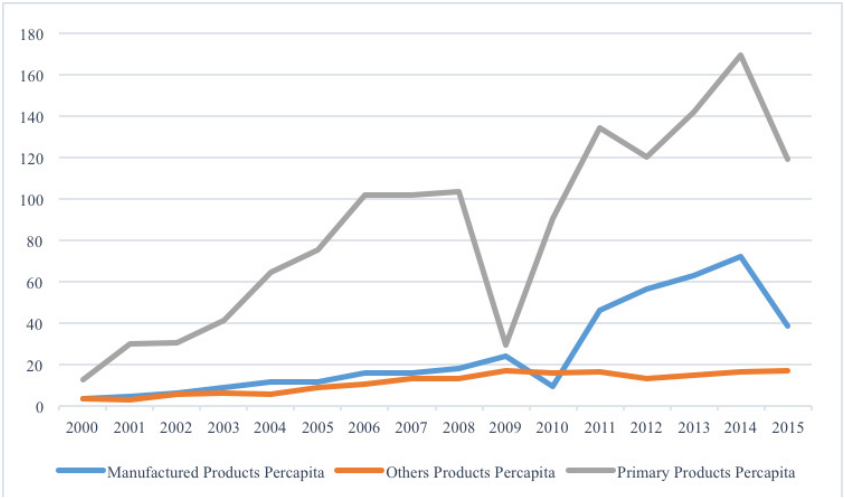
The question of mineral and resources beneficiation has consistently been at the crux of industrial policy objectives for African countries, especially those with abundant natural resources (Grynberg 2016). In fact, almost every regional and national policy document from the African Mining Vision to SADC Industrial Policy named beneficiation as one of the core activities of African states. While some international institutions have supported beneficiation, the majority of the international community have invested resources and endeavoured to convince African countries against beneficiation and to maintain their position within global value chains[5].

4 This work defines economic growth and development as growth based on a high employment economy in which all groups in society actively participate in its growth while also enjoying its benefits (Fischer, 2012).

5 The World Bank has long opposed mineral beneficiation in Africa and has devoted considerable resources into demonstrating, see World Bank (2011). *What is the Potential for More Copper Fabrication in Zambia?* World Bank. ©World Bank. https://openknowledge.worldbank.org/handle/10986/2812 License: Creative Commons Attribution CC BY 3.0. and also World Bank Zambia (2012) 'How can Zambia Increase the Fabrication of Copper products? Dispelling the Myth that domestic production of copper is an advantage'. Draft Report. The World Bank also sponsored visits of Professor Ricardo Hausmann to southern Africa who has long been an opponent of beneficiation. Hausmann claims that the argument that lies at the very core of African industrial policy i.e., beneficiation, is fundamentally flawed. (Hausmann R, B. Klinger & R. Lawrence, 2008. "Examining Beneficiation." Harvard University Center for International Development Working Paper #162.

Despite policy pronouncements that have continued for over half century, African countries continue to export minerals in their crudest form, with little or no value addition beyond that which is permitted by transport costs (Grynberg 2016, p.2). For example, in an analysis of Mozambican exports over a period of fifteen years, the level of locally manufactured products has been extremely insignificant in comparison to the exportation of primary commodities.

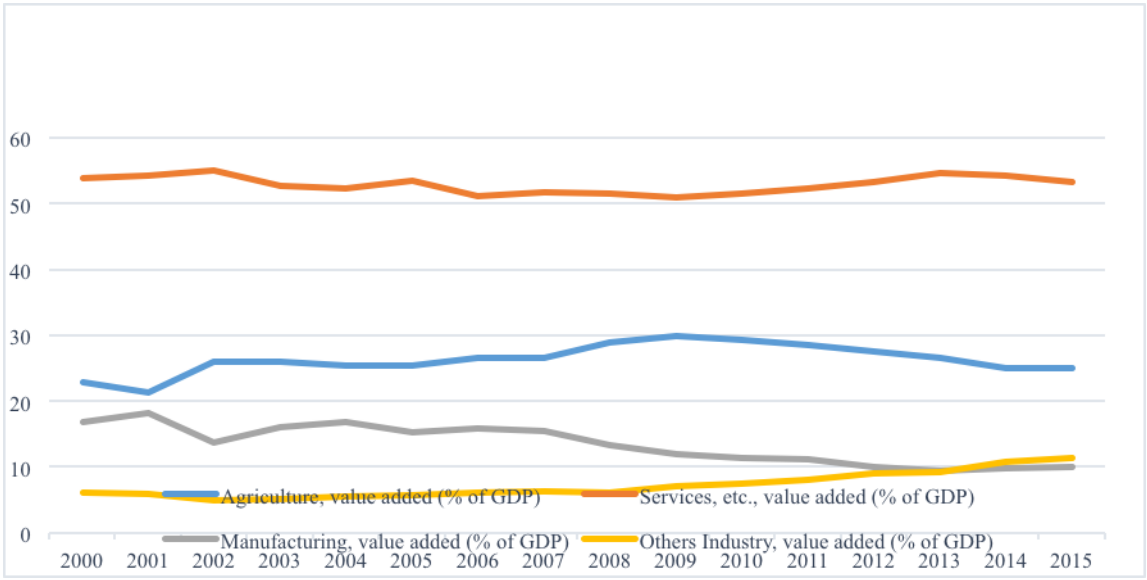
Figure 1.5 Exports of primary products, compared to production of other manufactured per capita in Mozambique, 2000-2015.



Source: Wits World Bank Data (2017). Graph construted by the author

The research topic and objectives are relevant and justifiable since the EIs contribution to address widespread poverty and the economic structural development challenges of most African countries from where the minerals are exploited is still questionable. One could ask if the minerals are there only to benefit multinationals companies and local political elities, "*the pequeno bourgeoisie*?" (UNECA,2011; 2015; Akyuz and Gore, 2001; Amsden, 2012; Chang, 2002; Di John, 2011; Khadiagala, 2015). Additionally, qualitative analysis of Mozambique's economic structural changes over the last fifteen years (Wits World Bank, 2017) demonstrates that the manufacturing sector minorly contributed to national GDP, indicating that even though Mozambique is rich in natural resources, those resources are not locally processed. Figure 1.5 shows that contributions from the service sector were significantly higher (approximately 55%) than the productive sector. The manufacturing sector contributed between 10% and 15% of GDP, while the agriculture sector contributed between 21% and 30%.

Figure 1.6 Mozambique the GDP performance by economic sector between 2000 – 2015, (%).



Source: Wits World Bank Data (2017). Graph construted by the author.

I.3.3 Justifying the theoretical contributions

The theoretical contributions of this research are justifiable. A number of studies have been conducted about the extractive sector in Mozambique and other southern African countries. Several provide valuable analyses of resources development challenges, and highlight political, historical and economic constraints for successful resources exploration in Africa (Grynberg, 2016; Mogotsi, 2016; Olang, 2016; Frühau, 2014; Intellica, 2015; Xiong, 2014).

Moreover, there is growing literature devoted to analysing the importance of economic linkages, locally and regionally, and to providing relevant policy orientation (UNECA, 2011, 2015; Jourdan, 2012; 2013). The presented scholars significantly shape the continent's extractive resources development polices and strategies, as can be seen their contribuition in the African Mining Vision, SADC Mining Strategies and the UNECA mineral development perspective.

However, a significant gap has been left by this group of scholars. African mineral resources development policy is still absent a consistent work that explicitly analyses the Mozambican

legal framework and political dynamic, along with its constraints for successfully implementing the resources developmental economic linkages. This reseach, theoretically, will bridge the existing gap. This has been done through a capacity assesment of the Assembly of the Republic of Mozambique to legislate and oversee EI activities to foster economic growth and inclusive development.

Likewise, the author has a personal interests as a Mozambican citizen. In particular, the author seeks to understand the potential impact that the recent discoveries of large oil and gas reserves may have on social transformation and how Mozambique could sustainably manage mineral resources extraction challenges.

I.3.4 Research problem

Poor economic performance, coupled with the socio-political and economic tragedies in many developing countries (e.g. Nigeria, the DRC, Sierra Leone, Angola, post-apartheid regime in South Africa), have played a crucial role in stimulating alternative theories and narratives that diverge from the classical view of development. The fundamental issue with these alternative narratives is that the existence of valuable mineral resources is likely to be more burdensome than beneficial. In the case of African countries, mineral resources are held accountable for political instability and creating socio-economic inequalities, poor economic performance, corruption and rent-seeking (di John, 2011; Sachs & Warner, 2001). This dissertation argues against the above mentioned pessimistic perspective about potential mineral resources contribuitions for economic growth and inclusive development. The assertion in this work claims that the existence of large reserves of mineral resources in a particulary country may be a positive asset, provided they are optimally used for development (Jourdan, 2012; 2013; UNECA,2008; Porter 1990).

To successfully contribute to the positive development of existing natural resources would require good governance and policies that promote the development of economic linkages in the country (e.g. fiscal, backward, forward, side-stream).

However, the demand for extracting Mozambican oil and gas, and mineral resources by multinational resource exploiters is increasing, notably from companies based in China, India, Brazil, Italy and the USA.

The discovery of large scale of natural resources reserves, especifically natural gas, oild and coal) in Mozambique and the increasing interest of foreign investors in exploiting those resources instigated the theoretical question: to what extent should those resources contribute to ensure optimal development, not simply leave Mozambique with a depleted scarred landscape? This question along with the current situation of Mozambican mineral resources underscores an urgency to develop policies to avoid political and economic risks of the "natural resources curse".

I.3.5 Hypothesis

Mozambique is still among the poorest countries in the world. In the Human Development Indices (HDI) in the last three decades, between 1980 and 2013, Mozambique remained ranked within the lowest ten countries in the human development index (HDI), only moving from 0.246 to 0.393 (Human Development Report, 2014). The country still relies upon international donors to finance about 40% of its national budget.

The contribution of FDI, principally in the EI sectors, remains insignificant, yielding only 13% of national GDP. The agriculture and service sectors collectively contribute 87% to the GDP, 35% and 52%, respectively. The infrastructure and public institutions of Mozambique are still undeveloped and do not meet international standards (UNECA, 2008; Hofmann and de Souza Martins, 2012).

The principal assumption of this research is that the political and legal environment in which Mozambican mineral resources resources are exploited negatively impacts the economic in enhacing extractive industries developmental linkagesSub-hypothesis:

- Mineral resources in Mozambique are likely to benefit the interests of the elite minority group and multinational companies that are in charge of the process of mineral extraction, rather than promote development for the whole country and its population.
- The mineral resources in Mozambique will likely fail to promote long-term investment in social change and economic diversification based on mineral resources (e.g. job creation, increasing local intellectual capital, physical infrastructure, local industrialisation), because the Government is unlikely

to establish a developmental mineral regime and the capacity to effectively implement it.

I.3.6 Research questions

The current socio-economic and political situation associated with the discovery of large reserves of coking coal, natural gas and oil generates several policy questions for this dissertation. The fundamental query is: will Mozambique be able to use those natural resources to overcome its poverty and enhance economic growth and inclusive development for all? Also, what are conceivable ways forward to foster the predicted economic growth and inclusive development?

To better analyse the key concerns presented above, the present dissertation essentially deals with two specific questions:

1. What developmental policy, management and regulations, local and international legal framework, and strategies of extractive industries should guide the Government of Mozambique to maximize the use of its mineral resources?
2. What challenges and opportunities are faced by Mozambique to establish a policy and legal framework geared towards developing the necessary mineral resource linkages to help the country achieve socio-economic development and diversification?

I.3.3 Research theoretical framework delimitation: Heterodox economic theory.

This dissertation adopts a heterodox view from the political economy perspective regarding how minerally-rich countries could optimise their resources to promote sustainable socio-economic development and growth without adverse side effects. Deriving benefits from extractive industries depends on factors like international interests and the quality of the country's political and public institutions where the resources are based. Alone, an abundance of mineral resources is not enough to ensure development without direct state intervention (Akyuz & Gore, 2001; Amsden, 2010, 2012; Chang, 2012; Dietsche, 2014; Di John, 2006; di John, 2011; Jourdan, 2008, 2012; Mkandawire, 2010; Wright and Czelusta, 2004).

The two predominant theories in the debate over the economic impact of natural resource extraction will be discussed which are the African Rising and Afro-Pessimism arguments. The dissertation theoretically argues thamineral resources represent potential for Mozambique's development. In order for this to happen, proper natural resources development strategies and policies must be firmly in place, including acknowledgement of international market constraints.

The dissertation introduce the extractive industries economic development linkages framework as a critical strategy to enhance inclusive and sustainable development and management. Primarily, the present dissertation deals with natural gas and coal; nonetheless, the policy thinking perspective which the research proposes could also considered other important minerals resources that Mozambique could use to create a competitive advantage for structural transformation, GDP growth and increased employment rates.

I.4 Key Concepts:

I.4.1 Dutch disease

The term "Dutch disease" refers to the Netherland's experience of unsuccessfully extracting gas resources. The boom of mineral resources, specifically natural gas, had a negative impact on manufacturing and other economic sectors. Dutch disease can be indicated by the disease's symptoms: a *contraction* of another tradeable sector, usually the manufacturing sector. This is accompanied by real appreciation of the exchange rate, which causes a decline in the tradeable sector's competitiveness. Thus, whenever an economy experiences a boom due to a natural resource discovery or price increases, if this leads to a real exchange rate appreciation, it indicates the presence of Dutch disease and is normally accompanied by de-industrialisation (Mogotsi, 2016; Dietsche, 2014).

I.4.2 Linkages

In a development economy, linkages are defined as an inter-firm transaction process that exceeds a one-off transition and is normally designed as a long-term economic partnership/collaboration between the parties involved (Hansen, 2012, p.122).

The definition given by UNECA (2011) addressed mineral developmental linkages as several economic branches, such as input-output, economic-cluster and supply-chain analysis. Input-output analysis aims to describe the relationship between different economic sectors in a national or regional economy. Generally, the term is applied to backward and forward linkages, implying that the respective sectors deliver to and take from a specific economic sector. It is used mainly to quantify the impact of changed output in one sector on the rest of the economy (UNECA 2011, p.110).

I.4.3 Cluster

An economic cluster is a concentration of various forms of expertise between closely linked/similar industries and companies in which extensive investment in specialised production factors help to catalyse the growth trajectory (The Porter 1990;UNECA2011). For best results, the linkage cluster requires strong collaboration and connections among individual industries and with associated institutions. This could be effectively achieved by facilitating the flow of information or products between the companies linked together in the cluster upstream, downstream and side-stream, as well as knowledge and infrastructure (UNECA 2011).

I.4.4 Economic development

This dissertation defines the economic growth based on the heterodox economic perspective that perceives economic development not only as economic growth (i.e. mainstream perspective), but also an amalgamation of: a) self-sustaining growth; b) structural change in production patterns; c) technological upgrading; d) social, political and institutional modernization; and e) widespread improvement in the human condition (Adelman, 2000).

I.5 Research methodology delimitation

The specific research objectives of this dissertation involve investigating and analysing the current status of Mozambique's natural resources to promote contributions for exploration, economic diversification and social development. The dissertation applies a qualitative descriptive approach. In practical terms it uses secondary information, like

a literature review delineating the predominant theories, concepts, policy documents, reports and debates related to mineral resources-based development and the Mozambican Government, including official documents from the Assembly of the Republic. Some of the resources included in the literature review are: the Mozambican EI Sector Legal Framework; African Mining Vision document; UNECA, African Developmemt Bank, official reports;Wits World Bank data; Center for Public Integrity in Mozambique – EI transparency analysis; the Ministry of Foreign Affairs of Finland and the Netherlands Institute for Multiparty Democracy report, "The Performance of National and Local Assemblies in Strengtherning Democratic Enviromental Governance in Mozambique".Primarily, the analysis determines the weak and strong points of those international regimes in relation to Mozambican mineral resources-based development, considering that the mineral resources sector is considered to be one of the most likely to promote corruption at both a local and international level (Kar & Spanjers, 2014).The second section of the literature review is building awareness reg arding the current socio-economic climate, politics, national policies and laws about mineral resources in Mozambique. To do so requires exploration of what African and Mozambican scholars have written on the theme and reviewing the national mineral and mining policy and laws. In order to make this methodology effective, several official documents, such as protocols, agreements and license concessions, will be consulted.

I.5.1 Chapter structure

The dissertation is divided into four principal chapters. The first provides the reader with an overview of key controversial development debates and outcomes involving economic policy in developing countries. Hence, the chapter presents general arguments and background information, which includes delimitations of objectives, justification, theoretical and methodology framework, as well as the key concepts and questions that this paper intends to address.

The second chapter discusses the primary debates about African development, in particular contrasting Afro-Pessimist developmental arguments and African positive development (e.g. African Rising) arguments. In the third chapter, the heterodox developmental arguments provides and arguing for industrial policy and developing natural resources linkages for developing countries, especially mineral resources in the African context. Chapter three also presents the resources development linkages to provide a conceptual understanding of the linkages framework, the challenges and the opportunities for African countries to locally develop the linkages.

The fourth chapter and fifth chapters discuss the critical relevance of having a strong and effectively enforced EI legal framework, especially at the national level, as it is an important step for advocating economic developmental linkages and for promoting inclusive, sustainable development and management of natural resources. These concluding chapters dissect the suitability of the existing Mozambican legal framework and political environment to successfully implement the economic linkages.

II.1 Why African continent continues so poor? Mainstream vs. Heterodox economic debates

In this chapter, the predominant intellectual arguments and narratives regarding African Economic development is critically analysed. In particular, the classic conundrum that Africa's abundance of natural resources inevitably results in adverse effects instead of economic growth and development is explored. Mainstream and heterodox economic policy arguments regarding how African countries could better maximize their natural resources for long-lasting development are contrasted.

The Developmental States Policy (DSP) originated from insights about the performance of newly industrialising economies (NIEs). As such, it has become closely associated with the history of East Asian development. The DSP incorporates a simultaneous and specific combination of economic, political and institutional structures, which have been used elucidate the phenomenal economic growth in NIEs (UNECA 2007, p. 59). DSP realised through a process of combining market led outward-oriented development strategies that ensure optimal allocation of resources (UNCTAD, 2007, p. 59).

Fine (2011, p. 17) identifies several critical aspects that the DSP are expected to address, like the notable economic constraints on industrialisation:

- Manage savings constraints by extensively taxing the agricultural sector and foreign exchange rates with regard to agricultural exports.
- Alleviate market surplus constraints by adopting policies to appropriate food from producers at low prices, including obliging producers to pay for land, inputs, and credit payments in food.
- Raise agricultural output and productivity levels through widespread efforts to invest in infrastructure (e.g. irrigation and provision of subsidised inputs) and protect the domestic agricultural sector from foreign competition.
- Limit industrial demand constraints by ensuring the protection of the domestic industrial sector from foreign competition; pursue agricultural investments to enhance agricultural output; and support a diversified economy to improve agricultural incomes.

» Mitigate labour constraints by allocating industrial activities to rural areas to enable pluriactivity, including investments in rural infrastructure and social services, particularly education; allow rural industrial activity while preparing the rural workforce for industrial employment; and drive investment toward land- and labour-saving technologies to diminish labour outflow from agriculture.

II.1.1 Afro-pessimist arguments and Africa Rising narratives

Over the last decades, several theories and arguments have attempted to explain the impediments and recent economic growth of most African countries. Among those explanations are the Afro-pessimist arguments and African Rising narratives (UNECA, 2011). The first argument, the Afro-pessimist perspective, presents a negative developmental view for Africa. This version emphasises that Africa will never show any successful economic development due to climate and geography, cultural and colonial history, and meta-structural factors (Akyuz & Gore, 2001; Chang, 2012). The second is the Africa Rising narrative. This discourse presents a positive and bright outlook for African economic growth. The hope and reasoning behind the African Rising position is essentially based upon the recent past growth-dynamics experienced by most African countries in terms of their GDP, exports, per capita income, significant increase in the number of mobile phones, FDI, potential in youth population and abundance of natural resources (UNECA, 2011).

II.1.2.1 Afro-pessimist arguments

Afro-pessimist scholars have dominated developmental thinking and policy for the African continent. Chiefly represented by scholars such as Easterly and Levine (1997), Bloom and Sachs (1998), Collier and Gunning (1999) and Warner (2001), the Afro-pessimist theory has generally argued and perpetuated the misconception that Africa has not developed and never will due to meta-structural problems, such as climate, geography, culture and colonial history. To establishing an different understanding about the really challenges for development in Africa, ach aspect claimed by the afro-pessimist scholars will be further explored in detail.

From this perspective, the climate argument is founded on the notion that since Africa is located close to equator, it causes African people to suffer from tropical diseases (e.g. malaria). Therefore, such diseases reduce workers' productivity and raise healthcare costs. Geographic determinism scholars (Collier, 2007; Bloom and Sachs, 1998; Sachs, 2012)

insist that since many African countries are landlocked, it renders them both difficult to reach and at a disadvantage to integrate into the global economy through international trade. Additionally, the geographic argument further states that African countries are mainly surrounded by poor countries, which make them 'bad neighbourhoods' to promote inter-regional investments. The markets, which are very small for trading opportunities and the continuous violent conflicts (that often affect neighbouring countries), negatively impact economic development.

Historically, African pro-determinism generally asserts ethnic diversity and its collective colonialist past to explain the continent's problems (Easterly and Levine, 1997; Acemoglu, 2001; Acemoglu and Rabinson, 2012). According to Chang (2012, p. 3), African nations are made up of diverse groups, hence, too much ethnic diversity contributes to people's distrust of one another and raising the economic transaction costs.

From Chang's perspective, this viewpoint is unrealistic because today's most developed countries were previously composed of diverse ethnic groups and this did not prohibit them from development and reaching where they are presently.

The argument that Africa is poor because poses worse institutions than elsewhere in the world, is too generalistic. It is argued that colonialism's historical impact has generated low-quality institutions in most African countries, including weak protection mechanisms for private property rights. Furthermore, colonialists did not want to settle in countries with too many tropical diseases. Therefore, a weak interaction between climate and institutions has been created which is claimed to impact in development process of Africa.

Chang's argument (2012, p.3) is that the basic institutions implemented by the colonialists were not oriented towards developing the local economy in African countries. Instead, the focus was geared towards creating the basic infrastructures for natural resources exploration to colonists' home countries. But the fact the there is no strong institution should not been as a critical reason undervelopment process of most of African countries. Chang, gives example of countries like Inglad, Germany and France that in their early take off phase they did not have strong instituitions but the development process had forced them to have strong institutions.

Several of Chang's works (2009a; 2008b; 2012) note that Afro-pessimist scholars, such as Huntington (2000) and Manguelle (2000), broadly appoint African cultures as an obstacle for Africa's economic growth and development. According to Chang (2012, p. 4), the cultural perspective on African development presented by these scholars is largely derived from racist perceptions that claim African cultures are inimical to economic development since they are not hard-working, are unable to plan for the future and cannot cooperate with each other.

II.1.2.1.1 Arguments against Afro-pessimist views

To counter the Afro-pessimist arguments, Chang (2012, p. 4) points out that arguments presented by the Afro-pessimist scholars about the bad economic performance of most of African countries, to some extent, presents a degree of truth to be considered as a challenge for the continent's continued underdevelopment. But, he also argues that there are several ways in which those challenges could be addressed to not necessirly seen as principal resoan for undervelopment cause. For instance, the structural factors, either proven by nature or history, do not necessarily mean an outcome is predetermined. In this regard, Chang argues that most of today's developed countries had experienced similar structural and cultural challenges in the past (2009a; 2008b; 2012 cited in Chang, 2012, p.4).

Basing Africa's poor performance on climate, geography, history and culture is an insubstansive explanation (Chang, 2012, pp. 4-5). In the 19th century, for instance, many developed countries defied these meta-structural factors and achieved economic development. Case in point, Singapore has greatly developed despite its tropical climate. Similarly Canada and the USA have developed despite their frigid, arctic climate zones, which can be as hostile to economic development as a tropical climate.

Firstly, the geography argument is countered by Chang's claims that African countries are not condemned to stagnated economic growth only because they are predominantely landlocked. He argues that Switzerland and Austria are also landlocked countries, yet this did not stop these two countries from becoming among the richest in the world.

Secondly, ethnic diversity cannot be attributed as a constraint for Africa's poor economic performance or development. Ethnic divisions exists in most of today developed countries such as Switzerland, Belgium, Spain, and various other European countries; however, it did not serve as an impediment for development processes.

Thirdly, Chang opposes the idea that culture is a challenge to African development. Most developed countries such as Germany, Japan and Korea, prior to their current development, had been considered places where its culture was a drawback to development. Nevertheless, those countries were able to defy the general perception that their cultures were too hostile for economic growth and development. Currently, all these countries have overcome these conditions and are amidst the wealthiest in the world.

Lastly, when considering undeveloped institutions as a development challenge, Chang argues that all of today's developed country institutions did not emerge perfectly into the world. All underwent a developmental phase. All had weak institutions but the development process assisted to improve their institutions. To illustrate, Chang notes that countries, such as China, used to have 'bad institutions', but managed to overcome the developmental challenges and improved their institutions.

Along the same line of thinking, Afro-pessimist scholars present a negative perspective concerning the potential for the extractive industries to contribute towards economic growth and inclusive development in Africa. Chang (2012, p. 6) identifies two controversial arguments in the Afro-pessimist scholars, which to some extent are linked to Mainstreaming School of Economics.

The first argument these scholars and Chang dispute against sustainability is that given the abundance of African mineral resources, it would not be worthwhile for African countries to use their natural resources to aid industrialisation by locally processing the natural/minerals resources.

By doing so, natural resources-rich African countries would be denied comparative advantages since the continent is still lacking qualified human resources and technologies to locally process those minerals.

The second line of Afro-pessimist arguments assert that Africa's abundance of resources is the source of the 'resource curse'. In other words, this perspective claims that the existence of large quantities of mineral resources in Africa is responsible for generating perverse politics (i.e. corruption and violent conflicts). Consequently, such a political economic environment is not considered conducive for industrial development. Even if it were successful somewhere else, it would not be applicable in Africa.

Chang (2012, p. 5) challenges these two streams of thought. Overall, he states that there is no correlation between political conflicts and violence, neither of which have a direct connection to an abundance of natural resources. Subsequently, the experiences of other countries and regions with abundant mineral resources (e.g. USA, Canada, Australia, Scandinavian countries) did not generate perverse political economies. Resultingly, the plethora of mineral resources greatly contributed to these countries' economic development.

The critical question is: if a bounty of mineral resources is perceived as responsible for provoking nefarious political and economic practices, how can these arguments explain positive contributions in other locations, and yet in the African context, be generalised as a negative contribution (Wright and Czelusta, 2004 & 2007).

This dissertation, similar to Chang (2012), also contests these two lines reasoning that stand against using the substantial existing mineral reserves in Africa as fuel for industrialization, economic growth and development in general for the continent, or at least for those countries with minerals resources. For most African countries rich in natural resources, the real socio-political and economic complexities do not stem from their natural resources, but in the paucity of strong industrial policy that would integrate specialisation and economic diversification into production structures.

The critical challenge for African countries and their governments is protecting and nurturing local highly-productive industries, using all necessary industrial policy protections, including subsidies to advancing developmen based on extractive industries or on otrher types of natural resources (Chang, 2012, pp. 6-7). Consequently, these arguments (i.e. meta-structural, historical, ethnic diversity and the natural resource 'curse') for poor African economic performance and development have no solid basis.

The stagnation of African development is related to the lack of clear industrial policy and the international market constraints that do not allow African countries to implant highly intensive industries to allow processing the existing natural and mineral resources in the continent. Conclusively, when examining African economic performance, without coherent resource development, management strategies and policies that focus on local, long-term perspectives on industrialisation, it is clear that achieving a sustainable resource development base will be complex and extremely challenging.

II.1.2.2 Africa Rising arguments

The Africa Rising arguments consider that after almost a decade (1980s to 1990s) the African continent has experienced economic stagnation. This period is traditionally known as the 'lost decade' of Africa, where GDP continually declined. However, the subsequent period, specifically between 2000 and 2014, showed African economic performance advancing in a more positive direction. African development has experienced unprecedented economic growth rates, characterised by internal consumption and the prolonged boom in primary commodity prices and demand, accompanied by responsible macro-economic policies and strategies (UNECA, 2016).

The economic growth experienced fostered optimism about African economic development and was responsible for generating the Africa Rising narrative (UNECA, 20016, p. 2). In fact, during this period, the African continent was home to six of the world's fastest growing economies, with positive economic projections for the following decades. However, in the same period, the continent was concurrently challenged; some of its countries ranked among the world's top ten most socio-political and economic inequitable societies.

The Africa Rising narrative is relevant to this research for its contribution to deciphering why most African countries are failing to establish sustainable, socially inclusive economic growth and development. Generally, the natural resource `boom´ cycles did not necessarily serve as an opportunity for African countries to transform into sustainable economies with diversified economic bases. Evidence of sustainable economies include generating sufficient productive employment and improving the living conditions for the majority of its citizens.

Additionally, this period was well publicised internationally: T*he* E*conomist* article "The sun shines bright" (2011) and T*ime* M*agazine* "Africa Rising" (2012). Despite all of the 'international glamour' regarding African economic growth possibilities, it did not necessarily translate into inclusive, sustainable economic growth and development for the continent, particulary in those minerally-rich African countries (UNECA, 2016).

As UNECA (2011) report carefully observed, several scholars and policy analysts gave consideration to the Africa Rising theory. Scholars such as McKinsey (2010), Radelet (2010), Robertson (2012) and Anderson and Jenson (2013) critically analyse the forces behind this economic growth and pespectives for its potential sustainability, offer explanations from various political perspectives, and introduce liberal economic policy

The first supporting argument for the Africa Rising narrative is based on the continent's political stability and public institution development (Radelet, 2010). Radelet emphasises the impact of the end of the Cold War and apartheid regime, which contributed to ending most of the predominant authoritarian and dictatorial regimes on the continent. For this reason, more democratic and accountable governments were created.

The second line of African Rising assertions focus on the liberal trade policy adopted by many African countries. Devarajan and Fengler (2012) contend that in the Africa Rising narrative, due to the harsh lessons from the policy mistakes of the 1960s and 70s, the continent was able to introduce more liberal trade policies. In turn, this helped to create a friendly business environment, attract more FDI and allow economic growth.

The third contention is based on the development and expansion of technology in Africa. Scholars such as Fengler and Rowden (2013) maintain that even though technological devices are not originally designed and manufactured in Africa, in fact, it is Africa that has vastly benefitted from global technology development. Today, access to cellular phones and other information and communication devices is considered to play an essential role in enhancing social, political and economic life.

The fourth argument to sustain this narrative emphasises the demographic mobility of Africa. Devarajan and Fengler (2012) see African youth as potential for economic growth because the majority of Africa's current population today are young. For example, Devarajan and Fengler claim that in 2010 Africans comprised about 1.1 billion people. By 2030, it is expected to increase by up to 50%. In their analysis, demographic mobility represents a competitive advantage for the majority of Africa. Considering the fact that the continent constitutes a considerable portion of the global population, it could serve as a labour source for internal development agendas, as well as meeting international market demands for labour, which weighs favourably for Africa.

Critical analysis of the Africa Rising argument reveals that there is no doubt that these development indicators are extremely valid, especially because Africa Rising narrative theorists have captured important indicators that have improved in Africa over the last decade. Included in the analysis are improvements in the health and education systems and a reduction of violent conflicts (UNECA, 2016). But they have failed the capture the critical causal factors of development of most countries in Africa, particulary those rich in mineral resources.

II.1.2.2.1 Arguments against Africa Rising narratives

For the most part, Africa Rising adherents are preoccupied with qualitative economic growth and omit many important aspects that Africa has yet to address in order to proclaim a rising economy. The recent economic growth in Africa, in terms of economic growth per capita, did not fulfill the expectations for fantastic growth that Africa Rising emphasises. The modest growth, which most countries in the continent experienced, was not sustainable.

To contrast the Africa Rising arguments, Arbache and Page (2009) argue that the economic performance Africa registered after 1995 is mainly associated with the reduction in occurences of negative growth and the rapid growth of international demand of natural resources. Along with the end of super-growth in China, the decline in demand and commodity prices impacted economic development and prospects of African countries.

The Africa Rising argument fails to dignify African people's lives. Most African countries are still indexed as some of the poorest in the world. Africa Rising narratives neglect the levels of unemployment and poverty. The 2014 International Labour Organization Report (ILO) report observed that most who entered the labour market in Africa were considered to have been employed through informal and undeclared professions. Approximately 77.4% of employees were considered to be working in vulnerable work conditions.

Based on current African socio-political and economic realities, the Africa Rising narrative is questionable. While it 'claimed' recent economic growth experiences in Africa, it did not contribute to building inclusive and sustainable socio-economic development (Szirmai and Verspagen, 2011; Noman and Stiglitz, 2011; UNECA, 2015).

Contextually, the present dissertation argues against the Africa Rising narrative because recent economic growth in Africa did not necessarily represent social change but was measured based on GDP. This fact confirms the basic thesis of this work: African countries exporting raw materials without local processing do not contribute to building a solid economic base. In this sense, the economic growth captured by the Africa Rising perspective was generally capturing growth driven by external factors, such as commodity booms, and not necessarily solid economic development policy. To summarise, in regards to the Africa Rising arguments, the UNECA (2015) report concluded that these assertions ignored the role of the industry and manufacturing sectors in helping Africa construct sustainable economic development that is not dependent on international commodities demand and price declines.

II.1.2.3 The heterodox economic development perspective vs. Afro-pessimistic and Africa Rising narratives

In this dissertation, the Afro-pessimistic and Africa Rising narratives are found deficient to capture the causal mechanisms of growth, failing to address the complex interplay between external and internal factors in African development experiences. Those narratives are considered to be unsuitable for explaining African economic failure or success since the relevance of industrial policy for African economic development is underestimated (Akyuz & Gore, 2001; UNECA, 2011). The fact that the continent lacks an industrialisation process places African countries in a vulnerable position, especially to expand savings and exports, cope with international economic shocks, and generate jobs. This dissertation opposes this mainstream economic perspective for African development and adopts an alternative economic thinking perspective, heterodox perspective. Amongst the reasons for applying the heterodox economic development perspective is its acknowledgement of the political economy behind Africa's current international mineral resources development discourse and policies, particularly those from international donors (e.g. World Bank, IMF, global development and cooperation agencies). Policy for international development is already set to 'kick away the ladder' for developing countries in favour of the developed world (Chang, 2003, p. 1)[6].

Stiglitz (2002) opposes the mainstream economic perspective arguments about developing countries. He maintains that the neo-liberal approach to economic development has been often touted as a way to 'fast track' economic development in many developing countries. The assumption has been that market-led approaches are the best alternatives to stimulating development, especially in sub-Saharan Africa, which faces complex under-development constraints that seem to be hindering its economic advancement (p. 460).

6 "Central to the neoliberal discourse on globalization is the conviction that free trade, more than free movements of capital or labour, is the key to global prosperity. Even many of those who are not enthusiastic about all aspects of globalization—ranging from the free-trade economist, Jagdish Bhagwati, advocating capital control to some non-governmental organizations (NGOs) accusing the developed countries for not opening up their agricultural markets—seem to agree that free trade is the most benign, or at least a less problematic, element in the progress of globalization. Part of the conviction in free trade that the proponents of globalization possess comes from the belief that economic theory has irrefutably established the superiority of free trade, even though there are some formal models which show free trade may not be the best. However, even the builders of those models, such as Paul Krugman, argue that free trade is still the best policy because interventionist trade policies are almost certain to be politically abused. Even more powerful for the proponents of free trade, is their belief that history is on their side. After all, the defenders of free trade ask, isn't free trade how all the world's developed countries have become rich? What are some developing countries thinking, they wonder, when they refuse to adopt such a tried and tested recipe for economic development? (Chang, 2003, p. 1)."

Furthermore, Stiglitz observes that information economics affects an essential change in neo-classic economics, resulting in alternative thinking about economic policy. There has been debate over the past few decades as to whether countries should adopt a state-led development approach or a market approach, as championed by the 'Washington Consensus'. Stiglitz asserts that many policy debates over the last two decades have centered on the efficiency of a market-led economy and the appropriate relationship with the government. It has been noted that even in a neo-liberal approach, although it might not be directly, governments remain a key factor in the economy.

For developing countries to 'catch-up' industrially and economically, the World Bank and the mainstream economic development approach emphasise that education, research and development, and infrastructure improvement must be the focus. The cases of East Asian countries has revealed that both industrial development and economic growth resulted from a massive state intervention policy (Chang, 2009, p. 14). For Africa, the development policies that will lead to faster growth must be implemented without any constraints from external forces.

Existing policies that limit the state and market participation in the economy need to be revised to allow a hybrid. Included should be industrialisation policy, education, and labour, taking into account specific local contexts. The underlying factors that allow for synergy between the state and markets should be explored to permit faster mobilisation for development (Chang, 2009).

Ben Fine is another scholar who critically argues against the mainstreaming developmental economic perspective (2011). In contrast to the neo-liberal, market-led approaches to development, he claims that the DSP approach is better since the government plays a key role in influencing policy. According to Fine (p. 10), DSP is expected to bring about industrialisation by dealing with constraints and managing savings. This can be achieved through tax laws and manipulation of foreign exchange regimes related to exports. The state can also help alleviate market surpluses, provide relevant infrastructure (including irrigation) and generally incentivise to increase productivity across all sectors of the economy. Moreover, it can assist in mitigating labour costs by positioning industrial activity in rural areas to enable productivity as well as invest in rural infrastructure and social welfare (i.e. education and health). Comprehensively, these are prerequisites for all-round development.

Adopting the heterodox economic perspective facilitates comprehension of the political economy of natural resources. For countries like Mozambique, from this standpoint, a unique solution is offered in response to how minerally-rich countries could optimise their natural resources to promote sustainable socio-economic development and growth, without suffering adverse side effects (Jourdan, 2009; Chang, 2009). Essentially, for African countries to ensure sustainable economic growth and development based on mineral resources, they should adopt policies and strategies based on direct state intervention that allows local implementation of industrial policy to enhance the manufacturing sector (Wright and Czelusta, 2004; Di John, 2006).

II.1.2 Conclusion

To recap, this chapter has presented the critical intellectual debates regarding challenges to African economic development. The dissertation has shown that the mainstream economic perspective is weak in providing solutions to African developmental problems. The chapter also argued that the failure of African economies is primarily due to the influence and interests of the external forces. To avoid this problem, the state needs direct intervention on its development agenda, since it should be viewed as an indispensable policy. Based upon the aforementioned literature, the heterodox economic perspective is considered an ideal theoretical and policy perspective to enhance economic growth and development for African countries; it permits critical analysis of the root-causes and solutions to current developmental challenges on the continent.

III.1 Industrial policy and resources development; Economic linkages theoretical framework

This chapter aims to discuss a theoretical framework that would encourage African countries to maximise the developmental impact of natural resources. It argues that the development of industrial policy through the promotion of resources linkages is the best theoretical framework for African countries. The theoretical framework presents the following critical arguments:

- pro-adoption of industrial policy in Africa;
- conceptualise the mineral linkages;
- categorise and present how effectively those linkages could be implemented in the African context.

III.1.1 Industrial policy

Industrial policy refers to a selective policy that deliberately favours a particular industry above others against market signals in order to ensure national economic growth (Chang, 2009). The concept of industrial policy is rooted in the experience of development in East Asian economies (e.g. Japan, South Korea, Taiwan and Singapore) in the period after World War II. The industrial policy development experience of those countries was more complex than "handing out subsidies and providing trade protectionism" (Chang, 2009, p.2).

According to Chang (2009, p.4), the East Asian industrial policy helped those countries to mobilise and coordinate complementary investments; apply strong entry regulation policies and cartels; negotiate capacity cuts, policies to safeguard the scale of economies; regulate technology imports and Foreign Direct Investment; and, mandate a compulsory workers' training policy. The state acted as an undertaking capitalist, incubated high-tech firms and promoted exports and government allocation of foreign exchange.

III.1.2 Theoretical arguments: pro-industrial policy for African countries' resource development base

Historically, mineral resources have contributed to the economic and industrial development of many currently industrialised nations. However, the on-the-ground reality, combined with most literature on mineral resource usage in developing countries, presents a different perspective on the contribution of mineral resources to developing countries with abundant resources, such as in Mozambique, the DRC and Angola. It argues that such resources are a 'curse' rather than a blessing (Akyuz & Gore, 2001; di John, 2011).

The present dissertation supports the theoretical argument that natural resources become a curse in African countries due to lack of industrial policy that allows those countries to develop effective mineral resources economic development linkages (UNECA, 2011, 2016; Jourdan, 2012, 2013). The central argument of the theoretical debate and framework adopted in this dissertation is based on Heeks' (1998) perspective. He contends that mineral resources, generally, should provide an economy with enormous benefits. The central argument of favoring industrial policy fueled by mineral resources is that mineral exports must help the country to generate foreign exchange. In turn, it will be used to finance trade imports, loan capital for infrastructure and private investment, and the accumulation of reserves and foreign investments (Jourdan, 2012, p.4).

In support of mineral resources' role in boosting local industrial development, Jourdan (2012) presents three critical opportunities in the African context to build economic diversification and avoid the Afro-Pessimist arguments against African countries locally processing mineral resources. First, the mineral resources development-based strategy should focus on downstream value-addition or beneficiation for export of resource-based objects.

Second, the focus should be on building upward and side-stream input provision opportunities that can also be exploited. This opportunity includes the provision of plants and machinery, equipment, consumables and services to the resources sector, including exports. Lastly, at the third level, the focus must be on existing geographical linkages where the resource sector operations require the provision of physical infrastructure (Jourdan, 2012, p.5).

Following Jourdan's mineral resources developmental policy and strategies orientation, existing mineral resources operations and profits could be taxed and generate revenue for fiscal gains that governments could use to finance development and social projects. Consequently, it would create positive financial resources to allow national and regional investiments in physical infrastruture (e.g. rail lines, roads, port facilities, power, water supplies) and sources to finance social infrastructure, like schools and hospitals (Jourdan, 2012,p.6). According to reports, UNECA considered the failure to integrate raw material exports into national industries and economies of African states as a negative impact for economic growth and inclusive development (2011, p.101). It limited the formation of backwards and forwards linkages, which would allow for economic growth and inclusive development as well as formation of regional mineral resources developmental clusters.

The UNECA report calls for policy decision makers to pay special attention to integrating mineral resource development policies, strategies and legal frameworks to national and regional developmental plans. The Jourdan mineral resources developmental policy and strategy is also supported by the African Union Commission through the African Mining Vision (AMV). The AMV operationalised the UNECA and Jourdan mineral resources developmental policy perspective for broad-based sustainable economic growth and inclusive development within the African context. The claims could only be achieved through building and implementing seminal mineral resources economic development linkage opportunities (AMV, 2009). The aforementioned argument coincides with scholars (Innis, 1930: Watkins, 1963) who defend the principle that an initial process of economic growth and inclusive development in most 'backward' economies generally emanate from the stimuli that commodity exports bring, attracting capital, labour and inducing a more diversified economic production base in the country.

Heeks (1998) present several policy aspects for mineral resources based industrialization applied in South Africa's context. He identifies, in theory, six critical economically adverse effects associated with a rapidly expanding mineral export sector:

» In the first point, adverse spending effects occur when part of the additional income generated from mineral booms is spent domestically on non-traded goods and services (e.g. education, health, welfare, construction, other public services). The central argument of this line of thought is that this leads to excessive demand for these goods and services since imports cannot flood in

to meet demand; this negatively impacts the domestic supply. Consequently, the result is price appreciation. The local production of traded goods becomes relatively less profitable, leading to its relative constriction;

- The second states that a resource-movement effect occurs when the boom in the minerals sector causes an increase in the marginal productivity of factors employed in that sector. In this sense, labour, capital and skills become mobile. The labour moves to serve the interest of the EI from other economic sectors, because it pays high wages, profits and interest. The core argument is that when the extractive sector is "booming", it depletes competing sectors of their input resources;
- The third, currency appreciation, has an adverse effect on the country's current account. Domestic exports suffer from reduced price competitiveness while imports are encouraged;
- The fourth refers to the technological substitution effect. The capital intensity occurs as wages are 'bid up' in a booming economy, thus causing a shift from labour-intensive to capital-intensive production technique;
- The fifth pertains to the resources enclave affect, which is the lack of significant linkages to local productive activity. Generally, this is because the local industry is incapable of providing inputs for capital goods and services to the resource sector;
- The sixth, and last, describes a dependency effect that arises since government revenues, equilibrium of payment stability, and employment are linked to the fortunes of the resource industry.

According to Jourdan (2002,p. 2), to avoid this adverse effect of natural resources, it is fundamental to generate fiscal, backward and forward, knowledge, and spatial linkages, in conjunction with the multiplier effect, to contribute to development in the industrial sector and create more employment opportunities for citizens. A the fundamental argument is that thedevelopmental policy and strategy should take into consideration a several and simultenously investments in infrastructure, human capital and energy. All of these factors are critical for augmenting the manufacturing sector.

In the African context, the manufacturing sector is essential for providing employment opportunities, and diversifying technological capabilities that promote and broaden

professional and technical skills, as well as develop individual countries' industrial structures (UNECA, 2015). Figure 3.1 below describes the foreign capital linkages trade-off.

Figure 3.1: Extractive Foreign Capital Linkages Trade-Off.



Source: adapted from Jourdan (2015).

Mkandawire (2010) posits that for African countries to transform their mineral resources into development, significant structure in rents capture systems, trade and mineral resources sector regulatory system reforms are required. For this to occur, it requires, in a broad sense, the improvement of political, trade and training institutions. Scholars argue that these natural resource-rich countries should focus their policies and strategies on economic base-diversification and industrialisation to allow local processing of mineral resources (Amsden 2010, 2012; Chang, 2012; di John, J., 2011; UNECA (2016). Like this African countries can avoid the adverse results of natural resources and be able to maximise the beneficial impact for economic growth and development.

The common ground between the above scholars, and with which this paper concurs, is based on the understanding that industrialisation is crucial for development. It is an important and dynamic ecoomic development policy because it helps to expand the local manufacturing sector, which is critical for the generating employment opportunities. It argues that "S*elective* I*ndustrial* P*olicy*" should been seen as a normal and important political and economic developmental decision.

The evidence displays that most of today's industrially developed countries reached their current levels of development through the adopting coherent development and industrial policies, "S*elective* I*ndustrial* P*olicy*", during their early developmental stage. As a result, these policies assisted in promoting and developing local manufacture bases (Chang 2012; Di John 2011; Amsden 2010 & 2012). Both Jourdan and Chang, writing in the same year (2012), underline the role of industrial policy as an important natural resources development policy for developing countries (Chang 2012; Jourdan, 2012).

The Development State Lead Industrial Policy is advocated by UNECA in its most recent work on extractive sector governance (2016). This report advocates the critical role industrial policy plays for natural resource-rich African countries to transform their resource wealth into sustainable socio-economic growth and development. Building a strong industrial sector will help African countries and the continent to establish massive investment in critical development sectors, infrastructure, human capital and energy sectors. The literature championed by scholars (Akyuz & Gore, 2001; Amsden, 2012; di John, 2011; Mkandawire 2010) overwhelmingly indicates that the continuous poverty in African countries is a result of failing to address the root of poverty, partially by implementing the wrong development policies. The current development policies that dominate the continent are normally devised somewhere else, by international development agencies and donors, especially IMF and World Bank, and implemented in Africa without critical analyses of the contextual needs. The reality is that these policies cannot deal with the structural causes of poverty.

The heart of Amsden's (2012) claim about how African countries might 'catch up' suggests that these nations will need to adopt an economic development policy that is oriented towards new technologies acquisition, innovation and learning processes, while promoting political stability, leadership and institutional improvements. This would advance the agriculture

sector, namely in terms of land reform, production, processing and commercialisation techniques. Consequently, this would accelerate economic contributions for economic-base diversification, reduce production costs and help create savings that could be used for investments in industrial capabilities to process raw material nationally.

Theoretically, Amsden's perspective on African development is contrary to the mainstream economic policy perspective. While this view continues to believe that increasing investment on the supply side will induce demand in the labour market and generate more jobs and development in general, she finds this perspective to be very simplistic and not useful for African countries. This mainstream economic development train of thought is based on Say's Law that claims that supply will create demand. Most of today's developed countries applied centralised policies and developmental agenda decision-making processes, with improved coordination and investment in modern sciences and technologies (Amsden, 2010, p. 144).

Chang (2012) also astutely argues against the mainstream economic perspective that perpetuates the illusion that state development policy is wrong to promote industrial development because the market forces would be able to regulate themselves. Hence, through these market forces, the economy would automatically flourish in all sectors, and therefore, develop. He finds this way of thinking questionable.

Moreover, he speculates that rescuing the idea of industrial policy was motivated by the sweeping failure of mainstream economic policies to address the biggest developmental challenges in economically-advancing countries and the constant economic and financial crises in over-developed countries (Chang,2012, pp. 1-2).

There are several substantive works building upon previous works of Chang (2002) and Stiglitz (2006).The scholar's consensus is that the revival of state-led industrial policy was primarily motivated by constant global economic instability, which was attributed to mainstream economic policy failure. As such, a need existed for creating new thinking spaces about plausible, alternative economic policies.

According to Chang (2012, p. 3), it cannot simply be attributed to a single successful experience of economic development, such as the East Asian miracle. His studies purport that developmental history includes modern rich countries. To arrive at their current

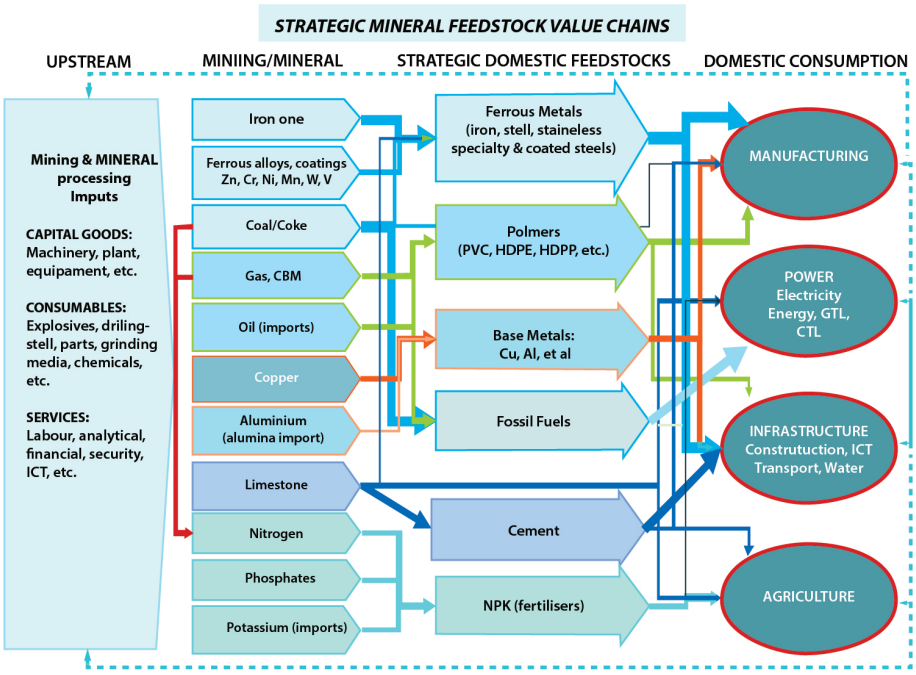
economic success during the time of their 'catch up', these governments applied a variety of industrial policies, including protectionism. Chang investigates the historical origins and first practical experiences of industrial policy and its positive effects for economic development. Furthermore, he provides the example of promoting nascent industries, especially through protectionism. Chang affirms that this was instrumental to and has significantly added to the entire developmental history capitalism.

The origins of industrial policy as theory was originally developed in the US, invented by Alexander Hamilton, the US Treasury Secretary, and presented to the American Congress in 1971. Robert Walpole, the British Prime Minister of 1721-1742, was the first experience to implement the infant-industry policy systematically (Chang, 2012, pp. 3-4).

According to Jourdan (2012), the industrialisation strategy of mineral resources goes beyond selling raw material to the global economy. Some developing countries, such as those in Africa, have competitive advantages in several natural resources: minerals, energy, agriculture, animal husbandry, forestry, biomass, water, fisheries, aquaculture and tourism. These resources encompass large reserves of oil and gas, coal, hydro-power potential, hydro-carbons, nuclear minerals, along with potential solar and geothermal energy. Those resources could be utilised and serve as a development opportunity for African states and their people, creating economic infrastructures across the region and building the necessary resource sector linkages to local, national and regional economies; unfortunately, this has yet to happen (Jourdan, 2012, p. 12).

To evolve a theoretical development policy for natural resources that respects each country's unique context, the Government should focus on promoting pivotal mineral feed stocks in the economy, domestically and regionally. Both coal/coke and gas are crucial feed stocks in order to achieve local development (Jourdan, 2012).

Figure 3.2 Strategic Mineral Feedstock Value Chains for the SADC.



Source: Redesigned from Jourdan (2012).

III.2 Conceptualisation and implementation of mineral development linkages

In economics, linkages are defined as an inter-firm transaction process that exceeds a once-off transaction and are normally designed as a long-term economic partnership and collaboration between the involved parties (Hansen, 2012, p.122). Classically, the origins of the linkages theory are credited to economic historians who studied Canada and the United States to analyse how these countries' initial commodity trade did, or did not, support the development of other domestic and export-oriented industries (Auty 2001; Findlay and Lundahl, 2001).

Dietsche (2014, p. 83) critiques the linkage theory as primarily addressing the concerns of the structural economists, who feared that primary commodity exporters would ultimately suffer from the decline in trade terms, especially during the first part of the 20th century. She observes that the structural economists have reached an understanding that countries rich in natural resources would possibly be exploiting their competitive advantage over time, and that by focusing on their economies in mineral exploration, it would negatively impact in their economic growth and social development. The concern of this analysis gave rise

to the peculiar enclave characteristic of capital-intensive extractive projects. Essentially, Dietsche argues that the linkages theory was developed to help scholars and policy-makers build awareness and explain the characteristic conditions of the EI sectors. Thus, it possible to prepare to handle potential problems and overcome them (p. 84).

According to UNECA (2011), the term 'linkages' is used in several areas of economics, such as input-output, economic-cluster and supply-chain analysis. UNECAs reference to input-output analysis is the established relationship between different economic sectors in the national or regional economy. In this context, the concepts of backward and forward linkages are sectors that reflectively deliver to and take deliveries from a particular economic sector. The economic concept of linkages is mostly used to quantify the impact of changed output in one sector on the rest of the economy (UNECA, 2011, p. 102).

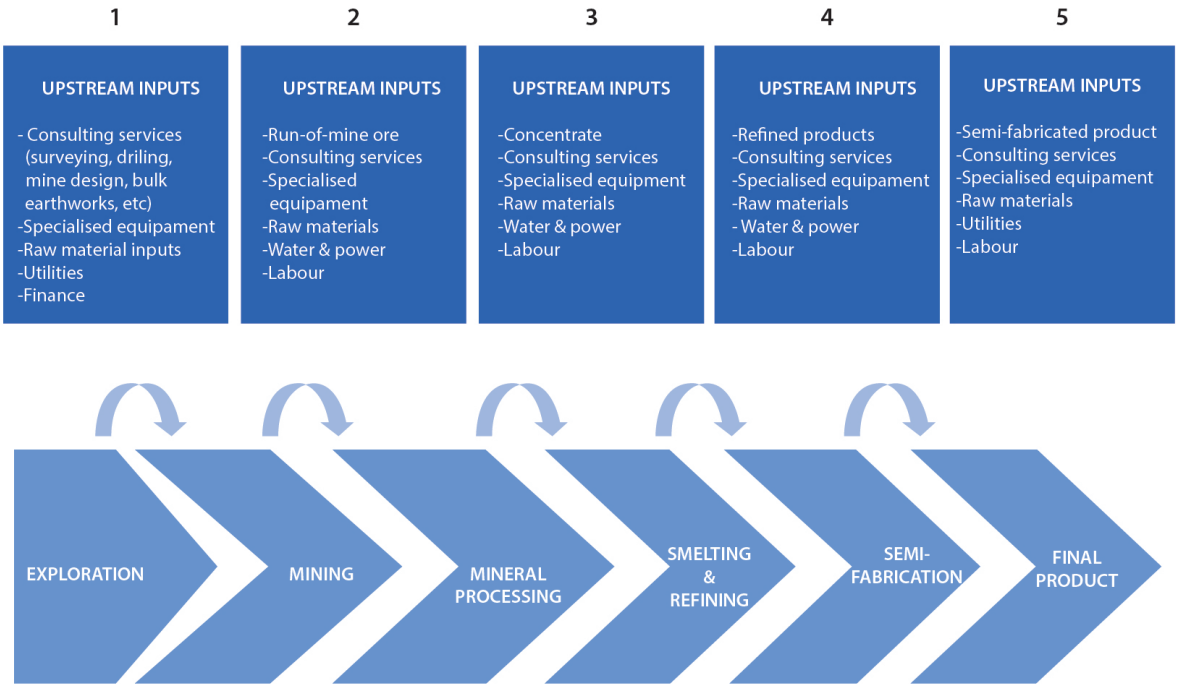
When evaluating the linkages from a business perspective, the term mostly refers to any commercial interactions between different profit-oriented enterprises that automatically build and develop a structure in the market economy. The objective of linkage development, in the business or enterprises mindset, is to economically strengthen the sourcing process when seeking the required skilled labour materials and services to deliver commercial output. In this sense, these linkages are fundamental in boosting production, product diversification and specialisation, while increasing national and regional productivity (UNECA, 2011, p. 102). According to Dietsche (2014, p. 82), linking the resources sector with other economic sectors is paramount since linkage building will support economic diversification and provide broader access to economic opportunities. In fact, this is essential when considering the fact that capital-intensive extraction projects and activities generate relatively few direct employment opportunities.

Business linkages are usually generated through a supply chain that includes efficient procurement, out-sourcing and sub-contracting of activities between larger and smaller firms. Noteworthily, business linkages form a critical aspect of any strong and efficient supply chain that allows a normal flow of procurement, out-sourcing and sub-contracting processes and activities between larger and smaller firms. The linkages could take various forms (i.e. informal and formal, indirect and direct). Scholars consider formal linkages: supply contracts; marketing and franchising for technology-licensing agreements; and, partnerships and joint ventures. Informal arrangements are events and activities, like collaboration in market information or technology-transfer network (Stanton and Polataijo, 2001, cited at UNECA, 2011, p. 102).

To demonstrate how resources economic linkages could be effectively applied, the UNECA (2011) report models how to build up developmental linkages based on exploration of gold, chrome, iron ore or diamond mines. Through two linkage groups, the EI could positively contribute to expanding economic growth and development. The first linkages that can be developed are backward and upstream linkages. This would reflect directly in the mine. The forward and downstream linkages reflect the beneficiators or processors of the mine ouput.

The second level of linkages that the exploration of those minerals would provide for the economy are side-stream linkages, referring to the industries providing technological/human resources and infrastructural inputs. Additionally, this includes lateral migration linkages, which are reflected by the development of alternative uses for the generic technologies applied in the industry (UNECA, 2011). Figure 3.3 details a range of linkages for each phase in the minerals value chain.

Figure 3.3 Linkages for extractive project development.



Source: Redesigned from UNECA (2012).

III.3 Categorisation of mineral development linkages

For successful maximisation of mineral resources development, theoretically, the policy should concentrate on the realisation of five extractive sector linkages (Fiscal linkages, Spatial Linkages, Backward Linkages, Downstream linkages and Knowledge linkages) to national and regional economies (AMV, 2009, Jourdan, 2012; 2013; UNECA, 2011).

III.3.1 Fiscal linkages

Generally, fiscal linkages refer to collecting and investing the rents from the extractive sector to finance economic growth and social development. Academics (Jourdan, 2012, 2013; Kirk and Hartwick, 2005; Olaya, 2012) claim that achieving optimal fiscal linkages is not an easy process. It depends on the state capacity to effectively capture and invest the rents from the extractive industrial sector. This starts from understanding the complexity of the mineral value chain. The typical mineral value chain comprises six stages, namely: exploration, mining, mineral processing, smelting and refining, semi-fabrication and final product manufacture (UNECA, 2011). The consensus of these scholars is that mineral developmental economic linkages require intelligent development and management of resources policy, with fiscal regimes that target national development interests.

Fiscal linkages should be strategically captured to finance basic public-physical and knowledge infrastructure. A similar argument is shared by scholars such as Hartwick, (1977) and Kirk and Hartwick (2005). According to this tenet, the effectiveness of fiscal linkages is determined by the level of investment in produced capital, which resulted from the extractive activities to improve the local infrastructures. The first stage is to build a local understanding and think on f long-term investment benefits, meaning that resource dividends should not be consumed at the first stage of the resource development chain but invested.

III.3.2 Spatial Linkages

The concept is that states should be committed to leading a developmental agenda, because only through state-led, intervention policies can high-rents resources and infrastructure be canalized to open other lower rents, such as agriculture, forestry and tourism.

The special development initiatives (SDI) methodology is used to access zones of economic potential with lower returns and develop long term knowledge and pysical infrastutures need to sustain national development.

In theory, all resource concessions should involve third party access to all resource infrastructures (e.g. transport, water, power, telecommunications) at non-discriminatory user tariffs. As a result, this would emerge into a higher-level and sustainable development resource infrastructure. For example, in contexts such as Mozambique, this could help to develop sectors like agriculture, tourism and fishing; sectors which provide Mozambique with major competitive advantages and are some of the economic sectors that represent higher socio-economic propulsive impact (Jourdan, 2012, 2013).Backward Linkages

Backward linkages refer to what mineral resources could contribute to the national economy:

- capital goods (e.g. vehicles, rolling stock, plants, machinery);
- services (e.g. technology, engineering, financial, labour, policy analysts);
- consumables (e.g. explosives, fuel, wear parts and spares, grinding media, reagents). The backward linkages for mineral resources are vital for inclusive and sustainable economic growth and development.

By virtue of its scale and scope of activities, mineral resources create the critical mass necessary to establish other developmental areas, specifically financial services, power, logistics, communication, skills and technological development. Jourdan (2013) underlines that the depth and extent of these linkages develop the regional economy. The determining influence of subsequent upstream and downstream linkages, especially further down the mineral value chain where inputs, such as R&D, skills, technology and infrastructure, increase in valuation (Jourdan, 2013, p. 62).

The successful development of backward linkages depends on several factors, especially the development of a mineral resources industrial development policy, because it generally necessitates developing a complex and intensive engineering park. This could only be possible through effective executiong of fiscal linkages (Jourdan, 2012, p. 62). To avoid natural resource dependence and sustaining the backward linkages, developing economic clusters is one of the key strategies. Through this would be possible to build, achieve industrialisation and generate more jobs for citizens (Jourdan, 2013; UNECA, 2011; UNECA, 2008). In this sense, the process of escalating local content (i.e. local added-value) is critical.

According to UNECA (2011), local content should be integrated into resources contracts or licenses. Further, it is asserted that fruitful co-operation between the stakeholders is critical for successful backward linkages, largely with foreign companies, to ensure that requirements are not commercially unsustainable. At the same time, they must ensure that they have a real skills transfer impact and are not just viewed as another tax payment by these companies (UNECA, 2011, p. 107).

III.3.3 Downstream linkages

Downstream (or forward) linkages refer to the interconnectedness of the EI to other economic sectors in the region that consume its output in production processes (UNECA, 2011). The UNECA central argument about forward linkages is positive. Findings demonstrate that improving mineral beneficiation is important for an economy because it enhances national incomes through building up competitive processing industries and accessing the entire mineral value chain, including access to marketing and distribution networks.

For mineral resources development, instituting a national extractive sector policy that would focus on developing resources and processing industries is one of the advantages of forward linkages. Overall, these could positively produce feedstock for manufacturing and for industrialisation. To effectively develop forward linkages, contracts or licenses should be issued based on the principle of incentives or disincentives. Again, He critically calls attention to the state's role in taking the lead in development. To capture its advantage, especially to advance the manufacturing industry, an industry with high entry barrier products, such as steal and polymers, the state must regulate monopoly pricing on beneficial minerals to avoid negatively impacting the country, (Jourdan, 2013).

UNECA (2011, p. 164) observes that run-on mining is the principal output of mining states and forms the primary input in the mineral processing stage. This policy document emphasises that the resultant concentrate constitutes the key input into the smelting and refining stage. The refined products are then transformed into semi-fabricated products, which are then sent to the end of the value chain. Outputs are consumed by the local manufacturing/ industrial sectors.

Both Jourdan and UNECAs research are essential when acknowledging that forward linkages are critical for mineral-based feed stocks. These linkages help a country rich in resources enter into the global economy by manufacturing steel and polymers from crude oil. In turn, those products could be used for agriculture in the form of nitrogen, phosphates and potassium and for infrastructure (e.g. cement, steel, copper). UNECA (2011, p. 164) proposes that to move critical elements of these resources forward: first, promote them internally at competitive prices, at large economies of scale; and second, develop common, regional markets by removing the barriers to inter–regional trade. All of this contributes to creating large markets that can easily absorb a significant part of the expanded output.

Conventionally, the development of forward linkages in Africa is considered to be weak because mineral products are not consumed at a national level. Most are exported to somewhere else in the world in the form of raw materials. In part this is because, locally, the manufacturing sector is inadequate, or in some cases, nonexistent (Walker and Jourdan, 2003; Baxter, 2009).

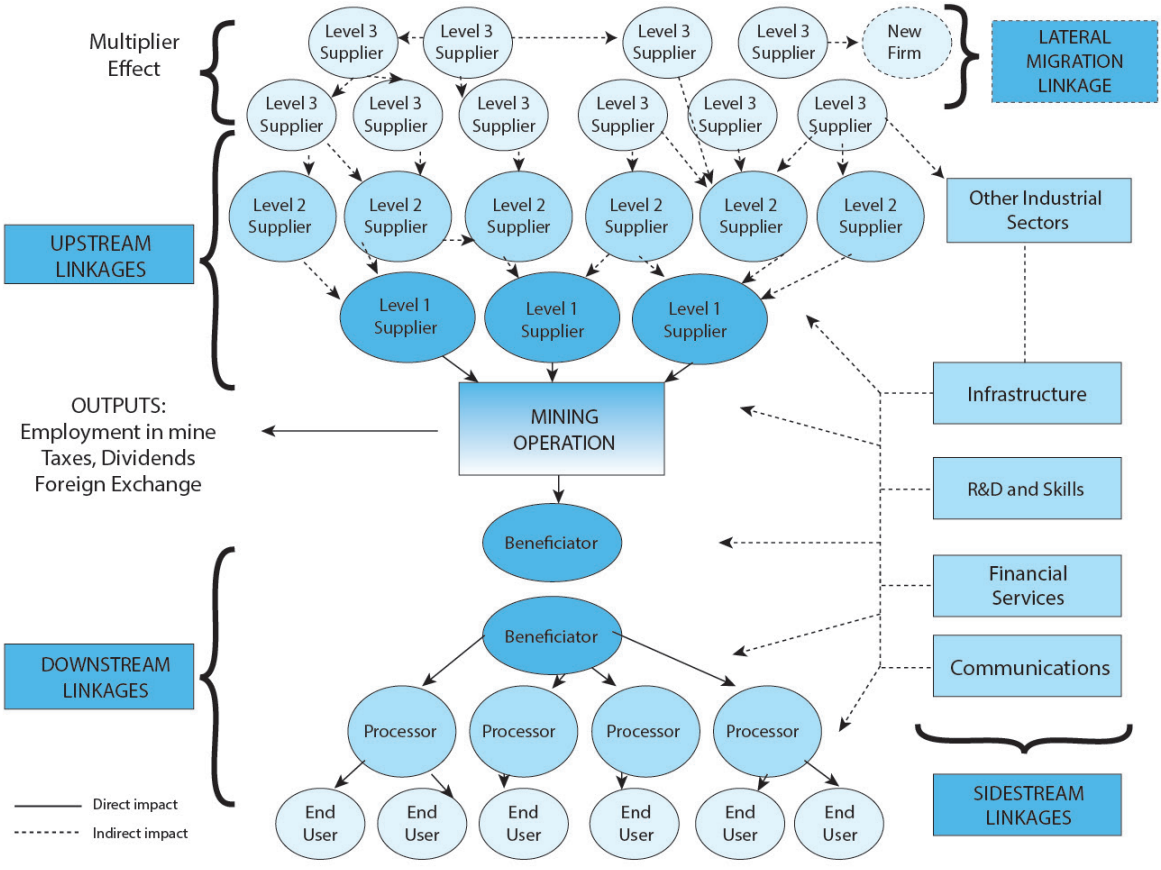
III.3.4 Knowledge linkages (human and technology/product development)

Generally, this sector tends to be knowledge intensive. Subsequently, it demands priming through investment in human resource development and R&D. According to Jourdan (2013, p. 62), several studies show that knowledge linkages have the capacity of reinventing themselves outside the resources sector to produce new products for other non-resources markets. The developing countries rich with mineral resources they should acquire tecnologies and adapt ti local context. (i.e. climate, mineralogy, terrain), organically fostering opportunities to develop niche technological competencies in resource input sectors.

To transform knowledge linkages sustainably, it is imperative that future EI contracts or licenses facilitate the establishment of domestic resources, R&D capacity, and develop the requisite human capital. Knowledge linkages are obligatory for the development of technology and product. For such innovations to emerge, it is necessary to develop the requisite human resources with technical skills, such as engineers, scientist, artisans and technicians. Investing in HRD capacity development could establish a new and improved quality standard of training institutions (i.e. universities, colleges and vocational training institutes).

Tertiary education institutions need to be fed from the education system with sufficient graduates with adequate comptency (e.g. A-level) Tecnology, Engineering and Mathematics (STEM).(Jourdan, 2013, p. 63). Subsequently, the resources for knowledge linkage investments need to be directed at upgrading mathematics and science capacities at primary and secondary school levels. The major proportion of the state education resources should be reserved to invest in dramatically boost graduates in technical cadres. No resource-dependent economy has ever industrialised without concerted investments into technical HRD and R&D (Jourdan, 2013: 63-64). Figure 3.4 summarises the interaction between the five natural resources development linkages.

Figure 3.4 Natural/Mineral Resources Linkages Economic development policy



Source: Redesigned from Lydall 2010, cited at UNECA (2012)

III.4 Implementation of mineral resources clustering and linkages

For a country rich in mineral resources to achieve economic stability, according to Porter, there are three mandatory phases that orient the national development strategy (Porter, 1990). In the first phase, the governmental economic growth policy should focus mainly on the development of industries associated with the potential endowment of existing crucial factors, such as capital, labour and natural resources (Porter, 1990, p. 162).

During the second phase, Porter (1990, p. 278) considers the Government's role to invest in and upgrade the initial competitive advantage industries. Increasing government investment in the first competitive advantage industry will foster the emergence of similar and associated industrial clusters. This will consequently assist the country in economic diversification, since each cluster will be foundational for supporting the individual base of the national economy. For example, countries such as South Korea, Japan, Singapore, Hong Kong, and recently Brazil, have reached their current stage of development through upgrading strategies;in contrast, some developing countries have failed to do so.

The third phase entails a healthy partnership between the Government and private firms and civil society organizations and country and regional commitment to make appropriate investments in Technological Innovations and Human Resources development. Crucially, this will ensure sustainable economic growth and maintain the first competitive advantage by establishing a strong national productive value chain to serve as support for the national mineral industry, based on the mineral sector, as part of the entire national economic system.

In terms of mineral resources-based industrial cluster operations systems, Jourdan (2012) identifies four crucial policy phases to be considered for a particular mineral-based economy to become sustainable:

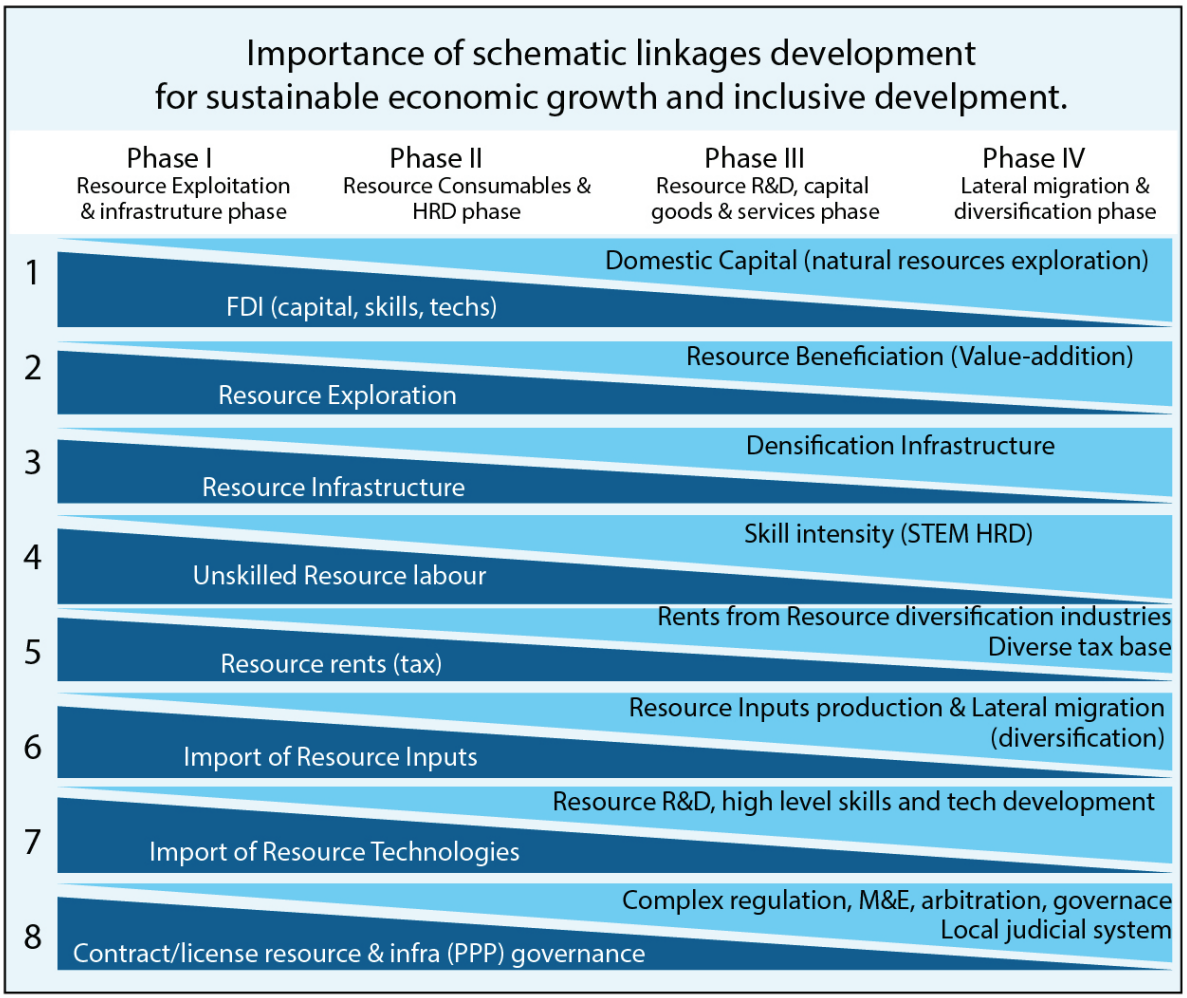
1. Resource extraction with minimum essential local processing (e.g. ore concentration, raw cacao beans, round-wood, cotton lint). During this phase, almost all inputs (i.e. capital goods, consumables and engineering services) are imported, except for production engineering services;
2. Resource processing and exportation (e.g. wood pulp, agro-processing, mineral smelting and refining). Likewise, substitute initial imports of lower-technology

inputs (usually under license for the local market) and increase production of engineering services;

3. Initial export of some goods and services established under import substitution in Phase II. Engineering services are increasingly based on local intellectual property and the resources are processed into higher value-added products (e.g. fine and special papers, metal alloys, semi-manufactured goods, packaged agricultural products, textiles);

4. Exports a wide range of resource goods and services, of increasing complexity and technology, including design engineering services, resource plants and machinery (predominantly based on local intellectual property). This will create a greater variety and complexity of resource-based export products and the migration of knowledge-intensive resource services industries into new, mineral resource to develop anextractive industries country economic sector-based.

Figure 3.5 Linkage development along the FDI/domestic capital continuum.



Source: Adapted from Jourdan (2012).

III.4.1 International lessons learnt for successful mineral resources clustering and linkages

The best lessons can be learnt from developed countries that are also rich in mineral resources, as sustainable structural social change and economic growth do not occur without efficient institutions and an effective industrialisation policy (di John, 2011). A 2008 UNECA study offers another perspective when examining examples of success in mineral rich countries. Many of these are developed countries, particularly the US, Sweden, Finland, Canada and Australia. In those countries, the mineral resource sector has moved from a position of low technology and low-cost labour to a situation of highly skilled, knowledge-intensive and export-oriented activities.

Most scholars studying mineral economy development (Porter, 1990); Vuori and Yla-Anttila, 1992, 1997; Pajarinen, 1998; Karppi, 2001; Wright, 2001, cited in UNECA, 2008, p. 13-14) argue that the success of the above countries in achieving sustainable development through their mineral resources was not solely based on continued exploitation of mineral resources, These nations adopted an appropriate mineral development policy, which allowed them to increase the domestic value added through promoting clustering/linking mineral activities, processing and extraction industries.

Clustering is inter-sectorial activities connects the industries supplying essential upstream inputs, such as capital equipment, consulting services and consumables, alongside downstream industries, which help to optimise processing activities. Through clustering, the more economically developed countires were able to improve workforce productivity levels, increase income distribution for their local population and boost national economic growth. This strategy allowed them to establish sustainable and positive long-term economic advancement.

Therefore, this debate leads to the logic presented by Wright and Czelusta (2004), Wright (2001) and Roamer (1979). Collectively, they assert that large mineral resources in a country are likely to be a curse rather than a blessing. However, based on successful paragons, they state that it is unfair to automatically conclude that mineral resources are negative for the development of a country and will inevitably yield poor results in terms of job creation and income distribution, any more than other development or industrialisation strategies.

For these scholars, the positive results of development and economic growth from mineral resources will depend on various factors, such as international trade regimes, national governance of mineral resources in each country, knowledge and technologies. Another contributing factor is the political elite's intention to use minerals for the development of their country.

Jourdan (2012) published a study titled, "Maximizing the developmental impact of the people's mineral assets: State intervention in the minerals sector (SIMS)", which advised the South African government on better uses of mineral resources for the benefit of the people and the country's development and economic growth. He concludes that the best international lessons learnt on mineral resources-based industrialisation and job creation depend on establishing five mineral economic linkages, namely: the fiscal linkages (resources capture and deployment/reinvestment), backward linkages (upstream mining supplier industries), forward linkages (downstream value addition into the domestic/regional economy and exports), knowledge linkages (side-stream-mineral linkages HRD2 and R&D3) and lastly spatial linkages (side-stream collateral use of mineral infrastructures and LED4).

In another study on a resource about which mineral fiscal regimes African countries should adopt to best capture the mineral resources rents. Jourdan (2008) argues the critical to challenge implement the principle of free mining or "free entry", FIFA. Figure 3.6 depicts FDI vs. domestic capital distortions – post-colonial exploitation by FDI (TNCs). Inevitably, FDI will not develop the linkages – facilitates illict financial flows (i.e. transfer pricing).

Figure 3.6 Three broad trajectories for resource-based industrialisation.



Source: Adapted from Jourdan (2015).

According to Jourdan (2012,p.5), three essential elements define a free mining regime are seems to be problematic for African countries economic growth and inclusive development based on mineral resources rents:

1. Right of free access to lands in which the minerals are publicly owned;
2. Right to take possession of land and acquire title by one's own act of staking a claim;

3. Right to proceed to develop and mine the discovered mineral. The crucial problem of the free-mining system is that it constrains the authority and discretionary power of African governments, essentially denying those governments the responsibility of appropriately managing their mineral resources for the benefit of their own people and their countries' economic improvement.

Jourdan (2012) claims that in the current African mineral resources legal framework, the reformulation of which has been supported financially and technically by the World Bank since the late 1980s, does not fit Africa's development aspirations. African countries mineral rich countries should to start thinking about conceptualising and implementing their own contexualized mineral regimes.

Unfortunatly, the free-mining mineral regimges which still governing the mineral exploration of minerals in Africa a re inherited from the colonials (the imperialists) and which where adopted and reaffimed/impossed the African countries mineral developer by the World Bank and /International Monetary Fund.

Broadly speaking, one could associates the free-mining regime, which was initiated by European colonisation, with "conquests". Essentially, his argument states that this regime was imposed on African states; however, it was oriented to benefit the values and interests of mining companies rather than the local people. Historically, it was primarily designed to attract European settlers to emigrate, occupy the land and extract minerals, displacing the indigenous populations in the Americas, Africa and Oceania.

Even today, African mining laws are still based on the principles of conquest, a free-mining regime and the FIFA principle. Unfortunately, those principles are fundamentally concerned with profit-making rather than maximising socio-economic development. As part of the solution for the African mineral free-mining regime, Jourdan recommends that the African industrialisation strategy should be based on a competitive and transparent concession regime of all known mineral assets for lease terms of 25-30 years. Potentially, this contribute to achieving optimal resource rents and linkages. He continues by discussing the price of mineral resources discovery, suggesting that it should include a bidding process, including fiscal criteria (i.e. resource rent taxes) and developmental criteria that incorporate the previously discussed industrial linkages and product pricing (Jourdan, 2012,p.5).

III.5 Conclusion

Conclusively, this chapter has critically analysed the relevance of industrial policy for African countries rich with natural resources to positively maximise the developmental impact of these resources. In this regard, it has disagreed with the mainstreaming economic growth and inclusive development fallacies and arguments that view Africa's mineral resources as a curse rather than a blessing. To avoid natural resources becoming a plague, the chapter discussed mineral resources development linkages as an key policy and strategy African countries mineral resources rich. The development of mineral economic linkages could assist those countries in improve the abilities in capturing and managing rents from the mineral resources; financing construtiion of economic and social infrastructure at national and regional levels, and improving the Human Capital and remove due to trade barriers and regional market constraints, and corporate best practice in procurement process, as well improve national legal frameworks.

IV.1 Legal environment for implementation of resources developmental linkages: Case of Mozambique

The objective of this chapter is to discuss the relevance of a robust EI Legal Framework as an important step to encourage mineral resources development linkages and ensure the inclusive and sustainable development and management of natural resources. This section will analyse the past and present Mozambican EI Legal Framework, and discuss the strengths and weaknesses of the country's newly adopted mining legislation. At the end the chapter, the level of civil society participation in legislating and overseeing the national extractive sector will be evaluated.

The EI in Mozambique is regulated by complex legal instruments and policy regulations, which is discussed in this chpater (see Appendix A: Extractive Legal Framework). Due to Mozambique's continuous significant growth in mining and hydrocarbon activities in the country, to respond effectively for the benefit of the country, the Government was forced to improve the national regulatory framework, policy and strategies for the management and development of petroleum and mining explorations.

Rogers and Fattouh, (2014) state that the proven existence of Natural Gas in the offshore Rovuma Basin represents one of the most exciting upstream exploration successes of recent decades in the world. The existing natural gas reserves could be enough to promote industrialisation, rural development and generate descent and enough jobs for Mozambican (Rogers & Fattouh, 2014). Still, Mozambique's track record in the extractive industries has always been negative, particularly when it comes to the Government maximising revenue from the sector. Examples could be traced to Alumin Mozal, Pande Gas and Tete coal, the evidences shows that all these extractive projects generated less money and created fewer jobs than promised.

This emphasis the understanding that contribution of extractive industries in a context of weak policies, strategies and legal framework no matter how bigh are the mineral reserves but it will impat less in national economic growth and inclusive development. In the case,

as Hanlon and Nuvunga (2015) claims, those projects to reducing poverty and promoting development has been insignificant. Hanlon and Nuvunga (2015) argues that the capacity to legislate and fiscalise, as well the correct political economy choices from the Mozambican Government are crucial to help the countryto reap the benefits of its mineral resources.

However, turning the abundant natural resources into development will depend on the interest and capacity of National Parliament and Government of Mozambique to legislate, implemention and oversee the sustainability of national extractive industries. For the success and maximization of mineral resources developmental impact, the government, mostly the country leadership should effectively take the ownership and leadership of mineral resources development and management. According to Sithanen (2016) existence of a robust Legal and Reegulatory Framework and Good Governance, overnance that includes strong, dynamic and independent institutions, with strong coordination between the governmentinstitutions and civil society is critical for sustainable resources exploration.

The existence of comprehensive Extractives Industries Legal Frameworkcould help a country to negotiate better the exploration with its mineral resources with those International companies intrested in exploring the existing mineral. The Government negotiations siprit should be based on national developmental interests (Mogotsai, 2016)[7]. Mozambique, and other African countries to maximize their abundant mineral resoruces they should strategically adopt and ensure the implementation of strong mineral legislations that allows their goverments to assess and maximise trade-offs anlong with the magnitude of the impact such trade-offs may cause.

7 Mogotsai (2016) on her work, "Inclusive Growth and Development after the Commodity Boom. Challenges and Strategies: Case of Botswana," presented for the Southern African Ruling Party Policy forum "Inclusive Growth and Development after the Commodity Boom: Challenges and Strategies of the Ruling Parties in Southern Africa. 31 May to 1 June 2016, Maputo". She emphasises that the Botswana authorities' policy on mineral resources development was based on the understanding that mineral resources were not a man-made creation/invention, but could be used for the benefit of the citizens. Enhancing sustainable and inclusive socio-political and economic development of the country and its citizens is a matter of human endeavour. This means that the state, government and citizens are the ones who should craft the best policy and strategies that will allow the country to negotiate the ownership of the natural resources fairly and to manage revenues. Due to the commitment of the Botswana authorities in taking the ownership on the extractive sectors policy and legal governance, according to Mogotsai (2016) the existent natural resources helped the country to improve the social indicators among citizens. This scholar underlines the fact that Botswana, at the time diamonds were discovered, just after the country gained independence (1966), was basically an agricultural country (this sector contributed 39% to local GDP). She also emphasised that at the time the country was globally ranked as one of the poorest in the world. It had a few kilometres of roads and very few schools and hospitals. From 1966 to 1980 (and even up to the present) the history of development and people´s living standards in Botswana positively changed. The Botswana authorities invested large amounts of mineral resources revenue in the development of the country, quality education and public health systems. Poverty reduction was successfully addressed as well. The country became a diamond leader and its revenue contributed 50% of the local GDP (2016, p. 2).

Failure to recognise trade-offs and harmonisation of policy objectives and mineral resources development, such as Taxation, State Participation, Local Content and extractive industries integration to local supply chains. This will poses the risk of the natural resource sector operating as an enclave (Olang, 2016)[8].

IV.2 Analysis of Mozambique's mineral resources legal framework

Several studies provide evidence for the argument that the Mozambique Mineral Exploration Legal Framework, in the post-Civil War period, intended to rescue the country's image in the global arena, and prove that Mozambique was a politically and economically stable place to invest (Intellica, 2015; Xiong, 2014).

Castelo-Branco (2008) discusses the contribution of extractive projects to national development and concludes that fiscal regimes and exploration contracts in the EI clearly benefited foreign companies, contributing very little to the national budget and economic and social development. Economic growth has remained steady now for almost a decade. Fiscal revenues were very weak between 2007 and 2011. Castelo-Branco's analysis was supported by evidence from the Agência de Informação de Moçambique [AIM] report (2012), which critically analysed the contributions of the extractives projects to inclusive and sustainable economic development. The conclusion revealed that EI revenues contributed to less than 0.1% to the national GDP.

8 Olang (2016) presents his paper, "Harnessing the Contribution of Natural Resource Wealth for national and regional development: Strategies for the management of natural resources in Tanzania", for the Southern African Ruling Party Policy forum "Inclusive Growth and Development after the Commodity Boom: Challenges and Strategies of the Ruling Parties in Southern Africa. 31 May to 1 June 2016, Maputo". Also, claims that for successful economic growth and development based on natural resources the existence of sound extractive legal framework at national are critical issues that countries rich with natural resources should be taken seriously. For example, when he discussed past and current strategies adopted by the government of Tanzania to ensure that depletion of the stock of non-renewable natural resource wealth translates to a long term sustainable development of Tanzania, he observed that because of the recent discover of natural gas in Tanzania, the country had to embark on mineral resources policy reform that helped the country to promote transparency and accountability in the development process and management of natural resources (Olang, 2016, p. 3).

IV.2.1 Situation on the ground: The Mozambican industrial extractive legal framework reform process

The ITIE (Iniciativa de Transparência na Indústria Extractiva/ Extractive Industries Transparency Initiative), indicates that despite increasing potential in mineral extraction, between 2013 and 2014, the sector contributed approximately 18% and 13% to the GDP, respectively (Intellica, 2015). These percentages are inadequate when examined considering the associated discovery of massive natural resources reserves in the center and northern regions of Mozambique, which have attracted the interest of various multinational exploration companies, especially coal projects in Tete which is alredy in the exploration phase. The general picture is that the EI has not yet contributed to sustainable economic growth and inclusive social development.

The so far less contribution of the extractive industries activities to national development, especially in areas of exploration, has resulted in increasing social contention in various segments of society. Therefore, the Government of Mozambique has had to publically acknowledge that the Mineral Legal Framework islimited in serving national developmental interests and was predominantly benefitting foreign resource-exploition companies.

In fact, it was only afterthat the Government realised that the contractual terms and conditions signed under Law 15/201,1 between exploration companies such as Sasol, Vale Mozambique, Rio Tinto, Midwest Africa, Revube, Minas de Moatize and Jindal, were undeniably poor to defend the interest of Mozambique and Mozambicans.

The expansion of the extractive industries exploration resulted in social pressure on the Government to review, refine and develop regulatory instruments (i.e. laws, regulation, resolutions and decrees) to address the current evolution of the EI sector. Meanwhile, it incorporated the 2009 African Mining Vision and the 1997 Southern African Development Community (SADC) Protocol on Mining in the Mozambican National Legal Framework of Extractive Activities.

An analysis of documents official documents which regulates the extractive industries, from both the National Assembly of the Republic of Mozambique and Government:

- the Proposal for Revision of Law No. 14/2002, submitted by the Government to the National Assembly of Republic of Mozambique;

» Assessment of that proposal by National Assembly of Republic of Proposal Revision of the Law 14/2002 of June, and the Mining Law, June 2014)[9]. Revealed in these, it is evident that in several laws and regulatory instruments that regulate the EI in Mozambique, the initiative for review did not originate from ththe Assembly of Republic but, all laws in the sector that were proposed by the Government were passed.

In the National Assembly of Republic the responsibility for legislation and oversight of extractive activities falls under the Agriculture, Economy and Environment Committee. Concurrently, the Committee analysed the Proposal of Government for Revision of Law No. 14/2002 and the Assessment of National Assembly of Republic of Proposal Revision of the Law 14/2002 of June. The analyses of the official documents revealed that the 24/2002 Law of Mines of 26 June subsumed some gaps that were critical for the transformation of mineral exploration for national, sustainable economic growth and inclusive development. Thus, the commission identified two critical gaps which justified the Reform of the EI Legal Framework, and recommended that the House of People approve the Government's proposal to promulgate new mining and petroleum legislation.

The first gap that the Committee confirmed was that at the time in the 24/2002 Law of Mines of 26 June, State participation in mining projects was extremely insignificant in terms of enhancing national development. This was fixed between 5% and 10%. The Committee considered this to be still below the parameter of 20%, the international and continental standard(Olang, 2016).

The second gap concerned Law 24/2002, proposed by the Government, which was the old legislation and gave less emphasis to Corporate Social Responsibility, especially in promoting and protecting participation rights of local communities where extractive projects and activities are taking place. The EI sector reform process was successfully approved by the National Assembly of the Republic, with several recommendations to the Government. The understanding of members of the parliament (MPs) was that mineral resources are finite and should, as a priority, provide direct benefit to the country's economic growth and social development; not turn the resources into a 'curse'[10].

9 Assessment on Proposal of Revision of the Law 14/2002 of June, Mining Law, June 2014. Official document submitted by the Parliamentary Committees on Agriculture, Economy and Environment to the Parliament. In the document, the Comimttee expresses its judgement on the Proposal to Revise the Law 14/2002 of 26 June, the Mining Law which was submitted by the Government to the Parliament for approval.

10 Assessment on Proposal of Revision of the Law 14/2002 of June, Mining Law, June 2014.

IV.2.2 The outcomes of Mozambican extractive industry legal framework reform

The new Mining Law (Mining Law 20/2014 of 18 August 2014) came into force in Mozambique on 22 August 2014, replacing the previous mining regime under the Mining Law 14/2002 of June 2002[11]. According to Mimbire (2016, p. 10), the enacted Law 20/2014 carried expectations that in the long run it would bring about sustainable and fair investments in the sector. The passed and enacted new legislation included the following reforms:

- A provision that new mining contracts must provide State participation in all mining operations. It is still unclear what the terms of percentages limits are;
- Introduction of local procurement requirements. The previous law did not allow foreign nationals to associate with Mozambican citizens to supply and provide goods and services in the mining value chain;
- Instituting domestic supply obligations that allows the Government to buy minerals to serve Mozambican commercial purposes at market price for use in the local industry;
- All transfers of mining rights, whether direct or indirect, are subject to approval by the Ministry of Mineral Resources (MIREM);
- Establishment of signing bonuses for mining concessions awarded through public tenders;
- Compulsory publication of all mining contract details through the "Boletim da República";
- Discontinuation of the tax stabilisation provision that legislated the 14/2002 Mining Law;
- Reduction of the maximum period for exploration licenses from ten years to eight years. Introduction of a requirement for concession holders to start production within 48 months of the mining concession emission date[12].

Despite this innovation, the current research uncovered that the current Mozambican Extractive Industries Legal Framework is still characterised by inconsistencies in terms of resources that benefit the country's development. In particular areas, while ensuring fair compensation of local community involvement the development of partnership between the national business sector and the foreign company, includes the involvement of

11 Parecer sobre a Proposta de Revisão da Lei no 14/2002, Lei de Minas, de 26 Junho 2014.

12 Republic of Mozambique/Parliament, Law 20/2014 of 18 August, Law on Mining Activities (Consulted in the Parliament Arquives).

national investors in delivering goods and services in the resources extraction value chain. In this Legislation, these aspects are considered to be too ill-defined, and do not clearly delineate the criteria relating to how those processes should happen.

For this situation, it is clear that new legislation is ignoring the synergies and dynamic between local and international supply companies. Local communities and national firms find themselves direct competition with multinationals firms to supply goods. Indigenous enterprises have no capacity to compete with the multinationals, rendering the Mozambican extractive content powerless. Local content should enhance domestic development. To some extent, it should favour/prioritize participation of national firms in the mineral value chain, rather than apply free market principles.

Regarding community compensation, current legislation declares that EI corporations must provide fair compensation to communities affected by extractive activities (Mining Law, June 2014). However, one critical aspect is lacking: the legislation does not clarify what should be considered 'fair compensation'. Without standardised remuneration allocated for affected communities opens up, conceivably, this process could be driven randomly. Assorted models vary from project to project. When considering local communities's power dynamic relative to these multinationals companies, the local populace will always be in a disadvantaged position.

Effective involvement of national businesses in the EI value-chain is extremely important for African economies. Regardless, it must be conducted fairly, which means creating a favourable, equitable and transparent environment for all parties. The current legislation, Paragraph 1, Article 34 of the Mining Law[13], shows defect. To remedy the ambiguity, it should clarify the terms of involvement in exploration projects with the national business sector. In addition, it is vital to establish mechanisms to avoid misappropriation by persons with access to privileged information or with the power to influence decision-making processes.

Thus, in regard to the national business sector's involvement, the legislation establishes that companies must give priority to national products when procuring goods and services. The new mining law also demands that foreign extractive industry (e.g. oil & gas and mining) service companies must partner with national businesses. However, the legislation does not clarify the mechanisms and strategies that will be implemented. The exact regulations are still to be defined, a critical aspect. Without clear terms, it may contribute to ineffective

13 Mining Law (Law 20/2014 of August 18).

partnerships, rife with conflicts of interest. Consequently, in the EI value chain, the new legislation is fragile in terms of ensuring effective participation of the local business sector.

IV.3 Civil society critiques about the Mozambican Extractive Industry Legal Framework

Research has shown that all laws that compose the Extractive Industry Legal Framework of Mozambique were initiated by the Government and submitted to the National Assembly of the Republic for approval. Important questions in relation to the resources development process is exposed: to what extent does the current Extractive Industry Legal Framework represent the interests of the Mozambican population; and, to what extent were CSOs engaged in developing these laws?

According to the Ministry for Foreign Affair of Filand and the Netherlands Institute for Multiparty Democracy (2017) report on Extractive Governance in Mozambique, approximately 50% of CSO members interviewed consider themselves as being partially involved in the natural resources legislation process. They understand that the Government recognises the importance of community involvment in the development and management of natural resources. CSOs claim that the Government only involves them in the response to international requirements of transparency in resources governance. The report observed that the Government of Mozambique is not necessarily open to effectively including society in the development and management national mineral resources (Ministry for Foreign Affairs of Filand and the Nethernds Institute for the Multiparty (2016, p. 32). To sustain the findings of this report, a Center of Public Integrity (CIP) Policy Analysis (2015) also considers the Mozambique Government as uninterested in democratically bringing CSOs into the discussion concerning the extraction process. Reports indicate that in the approval process for the decree-law (approved by the Government of Mozambique), the legal and contractual regime applies to liquefied natural gas (LNG) for the natural gas project in areas 1 and 4 of the Rovuma Basin (approved by the Parliament of Mozambique in November 2014). As a result, this decree-law gave the Government blanket approval to negotiate and regulate the Anadarko contract renegotiations behind closed doors, without automatically consulting Parliament and CSOs (Nuvunga, 2015).

Additional CIP policy analysis (2016) concludes that the involvement of CSOs and society, in general, is not just limited to the process of law-making, but it also reflects overall resource policy development. The Center maintains that the Government have remained unwilling to commence publishing contract details, as required by law. Existing dialogue and coordination mechanisms are ineffective. CIP contends that this reveals the existence of complicated relationships and the direct involvement of national political elites in extractive activities. Moreso, the Policy observes the elites lack of inclination to comply with international transparency requirements that govern the EI, such as the publication of national and international firms and people who are involved in extractive sector businesses (Mimbire, 2016).

Likewise, a study conducted by Hofmann and de Souza Martins (2012) concluded that the relationship between the Government and CSOs in Mozambique is flawed. The study concludes that CSOs perceive that limited access to relevant information on natural resource exploration contracts negotiated between the Government and exploration companies is problematic. In fact, the study concurred that information on EI projects is not easily accessible, which poses serious difficulties for civil society to monitor the sector, leading to nepotism. Additionally, Selemane (2016) notes that although there is sufficient information on the EI, it is complicated to access true, reliable and complete information on the sector.

Alternatively, several studies provide evidence that the Government constantly emphasises benefits from natural resources in a broad manner, aimed at impressing its citizens; yet in reality, the pledged job generation and development has not arrived. The country still does not have a coherent economic development plan for natural resources to ensure that a concrete policy and extractive sector developments benefit Mozambique (Hanlon & Nuvunga, 2015).

IV.4 Conclusion

In conclusion, this chapter finds that Mozambique presents a complex Legal Extractive Indusrty Sector Framework, but the National Assembly is incapable of legislating and overseeing the sector.. All existing laws and policies were proposed by the Government; none originally came from the National Assembly of Republic. The new law (20/2014) is innovative, since it guarantees that exploration projects will respond to national interests

of inclusive, sustainable social and economic development. Despite this, it has some gaps in content and operationalisation, which could be resolved with enriched engagement between MPs and CSOs.

Although the Government involved CSOs in several EI processes and projects, CSO involvement has yet to attain collective national inclusion on the sustainable development and management of natural resources policy and strategies. As it stands, these dilemmas make the evolution of mineral resources developmental linkages, establishment of inclusive and sustainable development, and management of natural resources impossible. To avoid the natural resources curse, the country must overcome these challenges.

V.1 Findings and conclusion

To investigate development and management policies and strategies that should orient the extractive governance for the African context, the present dissertation examined several prospects and challenges that should guide EI governance to ensure optimal use of mineral resources. The dissertation analysed the internal and external constraints for African countries, specifically Mozambique, to promote economic developmental linkages (e.g. fiscal, downstream, backward, spatial and knowledge) to enhance sustainable socio-political and economic growth and development. The core argument of this dissertation is that the biggest challenge facing African countries is to maximise the developmental impact of their natural resources to improve local industrial processing of commodities at the national level.

To do so, State Developmental Policy must promote industrial policy by promoting natural resources economic linkages. In accordance with the literature, this paper demonstrated that comprehensive national EI legal governance is imperative to nurture those linkages. To evade the adverse effect of natural resources, the legal extractive framework must consider the national political and economic context. In this particular work, Mozambique's current political environment and extractive sector legal framework were inspected to ascertain opportunities and challenges to the current country socially-responsible mineral resources regime and build the requisite development linkages to help the country achieve socio-economic diversification.

The key finding of this research is that African economic performance is feeble due to faulty developmental policies and strategies, whose interests reflect the influence of international forces towards African resources. To avoid the Dutch disease, African countries need to take ownership of their natural resources and directly serve the national and regional development agenda. This includes the existence of a sound minerals regulatory framework and good-governance form broad, strong, dynamic and independent institutions, as well strong coordination between the state and government institutions and civil society, all working for the development of common interests.

As well, another critical finding is that the mainstream economic perspective represents a challenge for African countries in assisting the African countries to promote sustainable economic growth and development. since it is against the state developmental policy and industrial policy that would permit African countries to promote industrial policy which would allow these African countries endowed with natural resources to locally process their resources and promote local development (jobs, social and developmental infrastructures).

In culmination, even though Mozambique has a complex legal system that regulates the extractive sector, this has been determined to be relatively ineffective in maximising the impact of its natural resources development. Specifically, the research has exposed the discrepancies in the current legal extractive framework and how it could be operationalised. Inconsistencies adversely contribute to effective development at a local level, preventing meaningful participation of all key stakeholders (e.g. CSOs and MPs) in the development process in the extractive sector. Generally, optimal development of Mozambican mineral resources is compromised due to the local political environment. The present institutional and legal frameworks favour international companies rather than local development interests. The analyses concluded that currently there is no space to endorse industrial policy to process minerals locally and bolster resources economic developmental linkages.

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APPENDIX A:
Legal Instruments Governing the EI in Mozambique

Type of legal instrument	Legal instrument and content description
Laws	Law 19/1997 of 1 October, Land Law on the operating terms for the constitution, exercise, change, transmission and extinction of rights for land use.
	Law 20/1997 of 1 October, Environment Law on fundamental environmental management concepts and principles.
	Law 11/2007, of 27 June, Law on Mining Taxes.
	Law 20/2014, of 18 August, Mining Law.
	Law 21/2014, of 18 August, Petroleum Law.
	Law 25/2014, of 23 September, law granting legislative authorisation referring to the LNG projects in Areas 1 and 4 of the Rovuma Basin.
	Law 27/2014, of 23 September, Law on Specific Taxation and Fiscal Benefits Regime for Petroleum Operations.
	Law 28/2014, of 23 September, Law on Specific Taxation and Fiscal Benefits Regime for Mining.
Resolutions	Resolution 5/1995, of 3 August, on National Environment Policy, which establishes the foundations for the sustainable development of Mozambique through an acceptable and realistic compromise between socio-economic development and environmental protection.
	Resolution 40/2008, of 15 October, an agreement between the Republic of Mozambique and the Republic of Angola in the area of petroleum and natural gas.
	Resolution 27/2009, of 8 June, on the Strategy for the Concession of Areas for Petroleum Operations.
	Resolution 64/2009, of 2 November, on the Strategy for the Development of the Natural Gas Market in Mozambique.
	Resolution 89/2013, of 31 December, on Policy and Strategy of Mineral Resources in Mozambique, which revokes the Geological and Mineral Policy approved by Resolution nº 4/98, 24 February.
	Resolution 21/2014 of 16 May, on Corporate Social Responsibility (CSR) Policy for EI in the mining sector.

Decrees	Decree 24/2004, of 20 August, on Petroleum Operations.
	Decree 26/2004, of 20 August, on environmental regulations for mining.
	Decree 44/2005, of 29 November, on distribution and sale of natural gas.
	Decree 61/2006, of 26 December, on technical safety and health regulations for mining and geological activities.
	Decree 4/2008, of 9 April, on Regulations on the Petroleum Production Tax, envisaged under Law 12/2007, of 27 June. It revokes Decree nº19/2004, of 2 June.
	Decree 5/2008, of 9 April, on Specific Mining Taxes.
	Decree 56/2010, of 22 November, approves the environmental regulations for petroleum operations.
	Decree 20/2011, of 1 June, on the Sale of Mineral Products.
	Decree 63/2011, of December, on contracts of foreign citizens in the petroleum and mining sectors.
	Decree 31/2012 of 8 August, on Resettlement Process Regulation: rules and basic principles for the resettlement process when it is a result of economic activities conducted either by Government or private operators, be they collective or singular, national or foreign entities.
	Decree 45/2012, of 28 December, on the legal regime for production, import/export, storage, transport and trade, distribution, handling, trade, export and re-export of petroleum products.
	Decree 7/2013, of 4 April, abolishes the Mining Promotion Fund (FFM) and creates the Mining and Geological Institute (IGM).
	Decree 13/2014, of 3 July, on rules of procedure for work, which governs relations between employers of subordinate workers in the mining and oil sector, including subcontractors, and their respective domestic and foreign employees.
	Decree 2/2014, of 2 December, on special legal and contractual rules applicable to the LNG Project in Areas 1 and 4 of the Rovuma Basin.
Diplomas	Ministerial Diploma 189/2006, of 14 December, on basic environmental management norms for mining.
	Ministerial Diploma 92/2007, 11 June, on rules and procedures for registration of eligible technical for the preparation of prospect and research reporting and work programs in mining projects.
	Ministerial Diploma 272/2009, of 30 December, on rules for licensing petroleum installations and activities.
	Ministerial Diploma 31/2014, of 19 March, on rules for oil operator technical licensing.

Source: compiled by the author (2017).