NATURAL RESOURCE GOVERNANCE AND DEVELOPMENT OUTCOMES IN THE CONTEXT OF STRUCTURAL TRANSFORMATION – THE FRAMEWORK[1].

Charles Abugre, Nov 2018

Africa is by and large a natural resource intensive continent, whether measured in terms of the contribution to total wealth, to revenues or to livelihoods. In terms of assets, it is estimated that the continent possesses 65 per cent of the world's remaining arable land; the second largest tropical forest in the world; 10 per cent of the world's renewable freshwater resources; at least 30 per cent of the world's known mineral reserves; 8 per cent of the world's known natural gas reserves and 12 per cent of oil reserves, among others. The World Bank estimates that natural resources constitute at least 30% of Africa's estimated total wealth (World Bank, 2006). In terms of contribution to foreign exchange and government revenues, in some countries, natural resource exports generate more than 80% of both. Moreover millions of Africans depend directly on these resources for their livelihoods, including food, energy, shelter and incomes, among others. This scale of resource intensity and dependence highlight how important it is for Africa's development that these resources are properly governed.

Not only are natural resources abundant, they form the bedrock for the continent's development. Millions of people depend on them directly or indirectly for their livelihoods, including through employment, the services, infrastructure and human capital that revenues derived from their extraction and sale finance, as well as the opportunities to invest in the strengthening of the institutions of governance. Natural resources, therefore can generate positive externalities in the local economy and society, and when properly harnessed can drive the transformation of economies by making diversification more feasible.

The Adam Smith quotation above however points to the barriers faced by natural resource exporting countries arising from unequal sharing of revenues and other benefits. Indeed, as is further explored in this chapter and the subsequent ones, the dominant literature suggests that a country with greater endowment of natural resources relative to the rest of the world is less, rather than more, likely to succeed in transforming its economy. It will most likely be subjected to a "winner's curse" or a "paradox of plenty" whereby its economic performance in the long-run will be worse than that of a country that is less endowed. More likely than not, it's (the natural resource rich country) long term economic growth will fail, sometimes catastrophically; per capita incomes will stagnate; its people will be poorer; it's revenue and other macroeconomic aggregates will be unstable; it will fail to diversify its economy; it will be ruled by a despotic or autocratic government and violent civil war may erupt. In short, it will be a development failure, compared to its resource poor counterpart.

This grim prognosis is based largely on cross-country econometric analysis which focus predominantly on the effects of, and on, revenues arising from market volatility and incentives impacting on both the economy and the nature of politics. Booms and busts, according to this view, undermines stability and of revenues and negatively impacts on the quality of governance which in turn undermine the development impacts of natural resource wealth.

[1] This paper was drafted as a technical chapter for the UNECA's African Governance Report, 2018. Not for Citation.

However, as is demonstrated in subsequent chapters, there are exceptions to the rule. A few countries in Africa have demonstrated the ability to overcome the destabilizing effects of natural resources dependence on the macroeconomy and democratic governance. Botswana comes up regularly for mention in relation to the ability to maintain long-term growth, to obtain a fair share of revenues from largely diamond exports and investing these revenues in improving infrastructure and the quality of life of the people whilst maintaining stable macroeconomic conditions and transparent democratic governance. Botswana, according to a study by Gylfason (2001) is one of 4 out of 65 natural resource rich countries who attained between 1970-1998, (a) above 4% GDP growth on average (b) long-term investments exceeding 25% of GDP, equaling successful industrialised countries. The others were Malaysia, Thailand and Indonesia. Unlike the Asian counterparts however, Botswana's economy remains primary commodity dependent. Mauritius, on the other hand has significantly diversified its economy, not from minerals but agricultural commodities (largely sugar) in comparison with Botswana.

The Scandinavian Kingdom state of Norway is also often cited as the example of successful transformation based on extractive commodities. One of the largest oil exporters in the world, a product that constitutes about 50% of its total exports, Norway offers yet another comparative set of lessons. It does not only rank at the very top of the rich-list and the United Nation's Human Development Index, year after year, it is an example of a diversified economy that has succeeded in developing in developing a technological niche and industrial capacity upstream of the petroleum sector. Despite large reserves of oil revenues, Norway also has one of the highest personal and corporate tax regimes in the world which provide the revenues for building the social-democratic state. The combination of effective domestic taxation, judicious use of oil revenues and reserves, investment in skills, human capital, engineering and science combine to provide the basis for long-term fiscal flexibility and revenue stability.

The examples above, some dependent on so-called "point-resources" or extractive resources (diamond for Botswana and Oil and gas in the case of Norway, Malaysia and Indonesia) and Mauritius, initially dependent on so-called "diffuse" resources, offer interesting comparative lessons on natural resource governance, relevant to the African aspiration that the desired outcome of good natural resource governance should be structural economic transformation. Economic transformation connotes economic diversification, dynamic competitive advantage in the world market and technological progress, among others. The Michael Ross quote above suggests that the determining factor as to whether natural resources become assets for transformation or liabilities lies solely on the role of the state, especially the quality of governance and institutions in mitigating risks and "*change resource abundance from a liability to assets"; from "curse to blessings".*

This chapter explores the concepts underpinning natural resource governance and highlight the channels by which natural resource dependence harm or foster development (including domestic resource mobilization) in the long-term and where governance fits in. For the governance of natural resources to lead not only to enhanced domestic revenues but also structural transformation, we highlight the importance of other factors, notably, the mutually re-enforcing relationship between the size of the manufacturing sector and good governance of natural resources; the importance of transformational planning; the need to focus on the building state capability not just willingness, in the context of the African Union's desire to advance the developmental state in Africa.

1.2. Clarifying Concepts: What does natural resource intensity mean?

The natural resource literature tends to use several terms interchangeably e.g "*resource rich", "resource intensive", "resource dependent", "resource abundant"*, sometimes clouding understanding.

The classification of natural resource endowments also tends to vary. Natural resource endowments broadly include both sub-soil resources such as energy resources (oil, gas, uranium and coal) and mineral resources (mainly metallic minerals, precious stones and rarely non-metallic and industrial minerals) as well as surface resources such as croplands, pasture lands and water resources. Most of the studies tend to focus on sub-soil resources, contrasting occasionally with agriculture. Even with sub-soil resources, the attention is in the "exportable" resources, mainly energy resources and metallic mineral and hardly non-metallic minerals such as clay, limestone, building stones and day or industrial minerals such as silica, salt, potash, industrial carbonates. Whereas the World Bank provides estimates for energy, metallic and precious resource endowments, cross-country data for other minerals are scarce. Whilst the nature of the resource endowments affects the structure of the economies differently (e.g. how much of them is consumed domestically), empirical studies tend to generalize.

The focus on natural resources as tradeable goods (commodities) lead to the concept of "*resource dependency*". This concept refers largely to the size of *resource rents"* in the economy. Resource rents refer to the excess of revenue after deducting the cost of extraction. The magnitude of dependency may be measured in proportion to national income or GDP, exports, or government revenues. Most studies (Sachs and Warner, 1995, 1999a, b; 2001; Clarida and Findlay (1992), Gylfason (2001), Mushed 2001) use the share of natural resources in total exports to proxy resource wealth. Notionally, most studies will consider an economy as resource dependent if the share of resource rents in the total value of exports exceeds 25%. Natural resource dependence may also be measured by the share of the primary sector in the labor-force (Gylfason, 2001)

Resource dependence may also be measured by the estimated known value of the endowments itself. The World Bank's Wealth of Nations data measure per capita minerals (sub-soil assets) as well as total natural resource wealth. Drawing on this data Collier (2010a) found that per sq km resource endowments in the OECD are worth US$114,000 compared to US$23,000 for Africa. The World Bank's "Wealth of Nations" Database also showed that the bulk of the resource rents are generated in richer countries (34% in OECD and non-OECD high income countries, 36% in upper-middle income countries) than in poorer ones (about 30% accruing to low income and lower middle-income countries). Global rents have been steadily increasing. Africa's natural resource rents, according to this database increased six-fold between 2000 and 2008, with oil rents representing two thirds.

Natural resource endowments are also sometimes categorized, in terms of their effects on the economy and society, into whether they are "point-source" or "diffuse" based on the manner of extraction. Point-source resources are characterized by localized, capital intensive production/extraction methods such as oil, gas, minerals and plantation agriculture or agro-forestry. "Diffuse" resources are characterized by more extensive, or labor-intensive production methods – small scale agriculture, fishing, small scale mining especially of industrial minerals etc. Economies dependent on "Point-source" resources are more associated with poor economic and institutional performance than economies dependent on "diffuse"

resources (Isham, Pritchett, Woodcock and Busby, 2005). As will be demonstrated, there is no consensus in the literature as the significance of these classifications in explaining the effects of natural resource riches on development outcomes.

"Point-source" resources (referred elsewhere as "point depletable resources") also tend to be more easily "lootable" compared to "diffuse" source resources. The former are more easily marketable across borders due to cheaper transport costs relative to and in the case of precious stones and high value minerals, easier to conceal . These resources, because of the accrual of significant amounts of revenue directly to governments are also more likely to exacerbate incidence of rent-seeking behavior in contrast with economic growth driven by more labor-intensive natural resources like food and agricultural products or by the acquisition of human capital or innovation (Kahn, 1984, Leite and Weidmann, 1999)).

As the empirical studies will demonstrate, the conclusions as to the impact of resource intensity measured by any of these categories on economic and social development as well as governance are varied and remain contested.

1.3 What is the nature of resource dependency problem in the African context?

Africa's destiny historically, and in the contemporary political economy, has been tied up with its blessings of abundance of natural resources for generations. The draining of these resources has been the raison etre for its occupation since the 19th century or before and continues to shape Africa's place in global politics and the global economy. Economic structure have been substantially tuned to the export of raw commodities which have increased exponentially over time. The table below relating to exports from the DRC gives a picture of what others have described as the "draining of a continent".

	Commodity	1990*	1940*	1960*
1	Coffee (tonnes)	35	23,242	60,568
2	Rubber(Tonnes)	123 (1890)	8,271	35, 557
3	Coffee (Tonnes)	19,000 (1920)	185, 200 (1946)	623, 400 (1960)
4	Uranium (tonnes)	0.215 (1920)	253,51 (1935)	6, 88 (1940)
5	Electricity (m/n kwh)	217 (1939)	2, 519 (1950)	4, 265 (1979)

*Approximate year

( ) Actual recorded year

Source: R Custer & K Matthysen: Africa's Natural Resources in a Global Context, IPIS (2009)

Africa's natural resource-based economy has been heavily studied. The African Sustainable Development report IV (2013) was devoted to how Africa might manage its resources for sustainable development. Several Issues papers (e.g. UNECA 2014, on resource mobilization for development; UNECA 2012 addressed the subject of natural resources and conflict management; ADF VIII addressed forestry and fisheries issues, whilst the International Study Group report in 2011 also addressed Minerals and Africa's Development.

In this section, we particularly draw attention to the following characteristics of Africa's natural resources issue that are germane to the question how can African governments best govern its resources to maximise domestic revenues and transform their economies?

i. Except for a few minerals e.g coltan (over 60%) cobalt 57%, diamond (53%) and Manganese (39%) in 2005 figures, the continent of Africa does not have a controlling share of world output in minerals and oils. However, the share of minerals and oil exceeds 90% in at least 10 countries. As price takers, this creates sever vulnerabilities.

ii. ceProduction is predominantly by foreign companies and a few of these global companies control the production of strategic minerals including oil.e.g. 3 companies control 78% of the production of Palladium; a3 companies control the production of bout 70% of Platinum and about 60% of titanium is also controlled by 3 companies. The nature of this concentration generate risks associated with the interest of supermarket.

iii. There is a strong regional concentration of certain precious, industrial and metallic minerals. South Africa controls nearly 80% of platinum production, 38% of the production of Palladium and 39% of chrome whilst Cobalt production is concentrated in two countries, the DRC and Zambia.

iv. A few African countries have significant deposits of minerals that are scarce and strategic for new technologies and manufacturing interests outside of Africa e.g. pallodium and berylluim for cellphones, titanium for use in new airline jets. The demand for minerals produced in Africa is rising with technology not declining.

v. Africa consumes the least share of any region in the consumption of its minerals domestically. It consumes on average 25% of the crude oil it produces, 50% of gas and hardly any of the strategic minerals such as cobalt, pallodium or uranium.

vi. Data on Africa's non-metallic minerals which have a greater potential for domestic consumption and industrialization such as clay, crushed rock, building stones, potash, industrial carbonates etc. is scarce and receive limited attention.

vii. The natural resources that have the most direct impact livelihoods such as water, land and forest resources confront problems of depletion and scarcity rather than abundance. The focus on the impacts of abundance in many ways diverts attention to the compelling problems of the continent that have the most direct impact on communities.

What stands out is not the concentration of extractive resources per se but the disconnect between extraction and local consumption of these products. But the fact that the continent hardly consumes the resources extracted from it, the extraction process is dominated by foreign companies, all which results in low levels of industrialization and in-turn re-enforces primary commodity exports. This provides the context in which natural resource extraction and exports impact on development outcomes.

1.4 How does natural resource wealth differ from other sources of wealth?

Natural resource wealth is said to be unlike other sources of wealth in two important respects. First, unlike other sources of wealth, natural resource wealth is strictly speaking not produced, but extracted.

This has at least two implications. (1) The generation of natural resource wealth through extraction occurs largely independently of other economic processes. If left to themselves, there are limited opportunities for backward and forward linkages that foster innovation, learning by doing and the strengthening of economic institutions. It is an "enclave" sector. (2) natural resource extraction can occur independently of domestic democratic political processes. They can occur regardless of citizen support partly because

they tend to be externally financed and not requiring local taxation, local capital or publicly financed debt. All it requires is the consent of the ruling elite, unless constrained by localized protests and conflicts. This removes the process of extraction from democratic processes. In the susceptibility to elite capture and elite contest over these resources lies the risks of violent conflicts.

The enclave nature of the sector generates significant political and economic risks and opportunities that need to be managed. One such risk/opportunity is "rent seeking behavior" – the use of political mechanisms by individuals, private companies and politicians to capture economic rents. It is this behavior that lead to the weakening of institutions and the misallocation of resources.

The second characteristic of natural resource wealth is that, it is finite – non-renewable – except the so-called "disperse" resources – forest resources, water resources, land resources and non-precious industrial minerals. From an economic standpoint, natural resources as more like assets than a source of income. This makes it more of an asset than a source of income.

These two factors influence a country's development through several channels including through positive or adverse incentives impacting on economic and social development, political institutions, and environmental protection. The channels through which these impacts occur are explored below in a greater detail.

1.5 How does natural resource wealth affect Economic and Social Development? – Concepts and Drivers

Various versions of this question have dominated the development literature since the post-war period, and goes back even longer, spanning concepts of dependency theory, economic dualism (ala Arthur Lewis), the Prebisch-Singer thesis and underlies the New International Economic Order (the Brandt Report), the debates over the East Asian "miracles" vs African economic "collapse" and more recently pioneered by the so called "Dutch disease" hypothesis on the economic side and the resources and conflicts thesis on the political side.

1.5.1 Terms of trade and dependency theory. The core proposition of the Prebisch- Singer thesis is that countries are better advised to not rely on primary commodities (agricultural, energy and metallic minerals) for exports but should rather industrialise because these commodities (1) face a circular decline in their prices in the international market relative to manufactures and (2) the international price for commodities are more volatile than manufactures. These two factors according to Raul Prebisch (1950), Hans Singer (1950) will result in the gains from trade likely to be distributed unfavorably towards primary products (Toye and Toye, 2003) and low levels of economic growth and government revenues. Primary commodity dependence was therefore associated with low incomes and volatility, a concern that motivated the creation of UNCTAD in 194. This could be, and has been, taken as an indicator of the need for both industrialization and tariff protection.

Prebisch and Singer identified two types of negative effects on primary producers' terms of trade. One effect occurs because of systematically different institutional features of product and factor markets. Whereas manufactures face cost-plus pricing and the unionization of labor that keeps real wages up, the commodity markets are subject to price taking and non-unionized labour, forcing down real wages.

Another negative influence is that of technical progress, both from the asymmetric distribution of its fruits, but also from its asymmetric impact on future demand, favorable to that of industry while unfavorable to that of agriculture (Toye and Toye, 2003).

Countries producing and exporting predominantly primary commodities could also face the "price scissors'" problem – a widening gap between industrial and agricultural prices, in the case of agricultural commodities[2].

With the improvement of data since 1988 and the use of more sophisticated methods of identifying long-term trends, recent studies (Misanke and Hewitt, ed, 1993; Bleaney and Greanaway, 1993; Sapsford and Balasubramanyam, 1994) agree that the aggregate terms of trade for primary commodities have declined since at least the twentieth century. Estimates of the rate of decline cary from 0.1 percent to 0.3% per annum (Micheal Ross, 1999).

1.5.2 Economic dualism: The dualism debate[3] has a much longer pedigree, dating back pre-Smithian times. Similar to their 20th century counterparts (Arthur Lewis et al) Giovanni Botero (1588), Antonio Serra (1613), (quoted in Reinert, Kattel and Kregel, 2009) made a forceful case for manufacturing, arguing that development as a goal is created by increasing returns and innovation in manufacturing whereas agriculture (or minerals extraction), are subject to stagnant productivity, diminishing returns to scale, monoculture and the absence of synergies that reduce growth prospects.

When protected, manufacturing is better able to create wealth, employment, solve balance of payment problems and increase the velocity of circulation of money – a "virtuous cycle of growth" as Myrdal (1957) terms it compared to natural resource wealth, which is derived from extraction rather than production. In *Straatraison* (reason of state), Botero (1588) also argues that an economy driven by "increasing returns activities" are much better able to foster stable and sustainable states with liberal values. A competitive and industrial economy by nature requires complex institutions and professions to drive and sustain it compares to "primitive" economic activities. The process in turn gives birth to even more complex set of institutions, including norms that govern society. In a similar vein, Freidrich List (1904) wrote that "industry is the mother and father of science, literature, the arts, enlightenment, useful institutions and national power. The greater the advance in scientific knowledge, the more numerous will be the new institutions which save labour and raw materials and lead to new products and process" (Cited, in Reinert, E,S, 2004). The dependence on primary commodities therefore affects, in a negative way, not only the pace of economic development but also social and political development.

A contrasting view among nineteenth-century classical, including, neo-Malthusian, political economists favored agricultural commodities over industrial manufactures based on the fear that the terms of trade of industrial manufactures relative to agricultural produce would tend to decline and that rapid population

[2] This refers to an economic phenomenon when for a certain group or sector of productive population the overall valuation from their production for sale outside this group drops below the valuation of the demand of this group for goods produced outside the group after a period of reasonable equilibrium. This was observed in the period of the Great Depression when prices of agricultural commodities in Eastern Europe fell sharply whilst those manufacturing goods remained relatively stable.

[3] The literature covers various forms: formal vs informal, primary vs secondary, capitalist vs subsidence, manufacturing vs agriculture/primary commodities; capital intensive vs labour intensive sectors etc. What cuts across is a divide based on relative dynamism, modernisation, returns to scale, the role of technology

growth was therefore unsustainable (Toye and Toye, 2003). This is because classical economists typically assumed that agricultural production and mining activities are characterised by diminishing returns, whereas constant or increasing returns are features of manufacturing. The consequence of this hypothesis (diminishing returns) if combined with Malthus' population principle, is that population growth increases employment in the industrial sector more than it does in the agricultural sector and raises the supply of manufactured goods more than it does the supply of agricultural products. Therefore, population pressure, which increases both the supply and the demand for goods, induces prices of agriculture to move up relative to those of manufacturing, impoverishing factory workers and at the same time moving the terms of trade against manufacturing.

1.5.3 Resource curse: The petro-dollar-induced developing country debt crisis and economic slow-down of the 1970s and 1980s brought renewed interest in the commodity dependence issue, with the focus shifting heavily towards sub-soil resources (minerals, oil and gas). The period also coincided with growing violent conflicts and growing levels of poverty in natural resource rich countries and continents such as Africa in contrast with more dynamic growth and relative stability in resource poor countries. Various cross-country studies sort to establish this "paradox of plenty" and to explain why.

The main proposition is that a country with greater endowments of natural resources relative to the rest of the world, will be subjected to a "winner's curse" as in game theory. In the long run, its economy will perform worse than countries with lower resource endowments (Auty 1993, Auty and Galb 2001, Ishan

Nankani (1980) observed that in the period 1960 and 1976, leading hard-rock minerals exporting developing countries achieved a per capita growth rate averaging half of a control group of non-mineral states. A study by the World Bank in the economic boom years (1971-1983) also found that oil and major hard rock minerals exporters performed less well than their non-resource rich counterparts. Similarly, a study of 30 African countries by Wheeler (1984) also found a negative correlation between economic performance and the share of hard-rock minerals in total exports. Even where growth occurs, this will be ineffective and ephemeral because of the circular decline of TOT hypothesis – i.e. a deep tendency of the prices of primary commodities relative to manufactures, to show a circular decline.

In a 1995 study, Sachs and Warner examined 97 countries over a 90-year period and also found that countries with a high natural resource exports to GDP in 1971 had abnormally slow growth rates between 1971-89 even when controlled for such factors as initial per capita income, trade policy, investment rates, geography, bureaucratic efficiency, terms of trade volatility and income distributions. Sachs and Warner's studies indicated that on average a one standard deviation increase in the ratio of natural resource exports to GDP is associated with a decrease of just over 1% in the growth rate. Several other studies reached similar results although the explanatory factors differ. Other empirical work as we will demonstrate further below arrive at similar findings, and others contradict them.

Confirming this study, Gylfason (2001) found that "an increase of about 10 percentage points in the natural capital from one country to another is associated with a decrease in per capita growth by 1 percentage point per year on average". Using labour share as proxy for resource intensity, he found that an increase in 11 0r 12 percentage points in the primary labour share form one country to the next is

associated with a decrease in per capita growth by 1 percentage point per year on average for any given initial income.

Even when resource rich economies have done fairly well in terms of economic growth such as Venezuela, Argentina or Mexico they have either been plagued with rising inequalities or failed to industrialise or diversify their economies, such as Botswana.

1.6 What explains the curse?

Cause and/or effect of the relationship between natural resource intensity and development outcomes are both economic and non-economic in nature.

As a rule, natural resource abundance is accompanied by booms and bursts based on price fluctuation in the international market. Consequently, revenues are highly volatile due to (1) volatility over time in rates of extraction. Typically, production volumes peak in the earlier years of production then gradually declines (ii) volatility in the timing of payments (iii) fluctuation in the value of the resource. Another source of revenue volatility comes from the revenue sharing formula between governments and companies. Companies tend to benefit from significant incentives such as tax exemptions in the early stages. The eventual introduction boosts revenues. The impact on the economy and society partly arises from the effects of, and responses to, these fluctuations.

"Resource curse" manifests in the following in the following ways:

1.6.1 The Dutch Disease effect: The macroeconomic effects of resource booms and bursts are often captured under the so-called "Dutch Disease" arising from the observed effects on the trade performance of the Netherlands after the discovery of natural gas off its coast in the North Sea in the 1950s and 60s.

This discovery was accompanied by fluctuations in prices and export earnings also led to another observable macroeconomic phenomenon i.e. rising real exchange rates and wages that undermine the exports of non-natural resource commodities (mainly manufactures) and risk shifting the incentive framework permanently in favour of the natural resource sector and the non-traded goods sector to the detriment of manufacturing in the case of matured economies and productive agriculture in the case of developing countries. This malaise is what has come to called the "Dutch Disease".

This "disease" arises from several effects: The first is the "*spending or expenditure effect*" which occurs when increased revenues from a price boom motivates a "feeding frenzy" which leads to increased purchase of traded goods from abroad or domestic non-traded goods at the expense of domestic manufactured goods. In a "feeding frenzy" government expenditure from revenues captured from the boom may trigger unsustainable expenditures putting stress on the fiscal balance and overall macroeconomic stability in the long. If directed into current consumption rather than invested in projects that are economically justifiable, long-term growth may be imperiled in the likely event of a downturn in commodity prices. It is also argued that resource booms may trigger expenditures that fail to develop social capital, e.g. education and skills training due to the "easy riches to sloth" phenomenon.

1.6.2 Capital depletion effect: this is an added dimension of the expenditure effect. This applies particularly to minerals and petroleum resources. As these are non-renewable, consumption of revenues derived from their sale should be viewed as consumption of capital, rather than consumption of income. If all revenues are consumed in each period, then the value of capital declines. If future revenues are mortgaged for current consumption through debt, capital depletes even faster unless replenished in other forms, e.g. human capital accumulation. Pressure by populations on governments to spend on welfare makes it difficult for governments to convert natural resource wealth into other assets of the future e.g. financial assets.

Capital may also be depleted through illicit outflows. This occurs when extractive companies and wealthy elites seek to conceal their wealth for legitimate of illegitimate or even illegal reasons. Companies and individuals may wish to conceal their wealth in jurisdictions that offer secrecy services either in order to minimize tax obligations, to facilitate their legitimate transactions or to conceal illegality such as proceeds from corruption or the sale of banned substances. The Economic Commission for Africa estimates the annual flows of these concealed resources outside of Africa to exceed $50 billion annually. The mechanisms may include illegal transfer pricing, transfer mispricing such as under invoicing of exports and over-invoicing of imports and the outside smuggling of precious minerals and stones.

The second, the *"resource pull effect*" occurs when as a result of the boom, domestic resources are enticed to shift into the natural resource sector, raising the prices of these resources, e.g. labour, and the construction sector, thereby increasing their cost to producers in other sectors e.g. manufacturing or commercial agriculture. Temporary increase in prices of rich natural resource exports can distort relative prices and exchange rates such that there is a greater emphasis on non-traded goods (Sachs and Warner, 1999, 1999a, 1999b, 2000). This happens when as a result of the boom, the natural resource sector is able to pay higher wages and higher interest rates than the non-resource sectors. This can be compounded under conditions of central wage bargaining if the resource sector wages set the standard for economy-wide wages.

The result of this is either a reduction in the overall level of exports or a change in the composition of exports in a manner biased against manufacturing and service exports. The decline in manufacturing exports could damage economic growth over the long term (Gylfason, 2001). Natural resource dependence may therefore hurt growth either through harming trade or undermining manufacturing and service exports.

These two effects combined, create a dynamic whereby preference is given to the natural resource sector and the non-traded goods sectors at the expense of traditional export sectors (agriculture in the case of developing countries and manufacturing in the case of more developed economies). These shifts can have long lasting and even irreversible effects on competitiveness, and thus long-term growth especially if the negatively affected sectors are also the sources of innovation and "learning by doing" opportunities. Should the natural resource sector slowdown in time, other sectors may also find it difficult to recover, thereby compounding the impact on growth. Thus, temporary booms tend to cause *hysteresis*, a

permanent loss of competitiveness. For developing countries this can stunt their potential for exporting manufacturing goods and diversifying their economies (S. M. Murshed, 2004).

1.6.3 Savings and investment effect: The proposition is that natural resource booms may negatively affect the public incentives to save and invest which subsequently affects growth. This occurs through the demand for capital: when the share of output accruing to owners of natural resources rise, the demand for capital falls, leading to lower real interest rates and slower growth. It is not merely the volume of investments but how productive they are. In Gylfason's work, an increase in the share of natural capital by 25 percentage points goes along with a decrease in economic growth by 1 percentage point, leading to a conclusion that natural resource abundance may erode or reduce the quality of foreign, social, human and physical capital and therefore significantly impede rapid economic growth. Natural resource abundance may also retard financial institutions and hence savings, investment and economic growth through their impact on incentives to save.

1.6.4 *The human capital effect:* Also, if the manufacturing sector is the source of human capital accumulation, loss of competitiveness in this sector, means that the growth path of the economy under free trade will be lower than those of resource-poor countries. Sachs and Warner (1999a) model treats human capital accumulation as an externality which takes place through the production and export of traded/manufacturing goods. Resource booms, according to this model retard the growth of the economy via the crowding out of the traded goods sector. The stock of human capital is diminished as employment in tradeable decline; this in turn hampers future production of all goods, and the hence the growth of the economy.

The decline in the stock of human capital may also arise from the "easy riches lead to sloth" phenomenon in which booms tend to imbue people with a false sense of security and lead governments to lose sight of the need to invest in education and a diversified and skilled work force to support other economic sectors and put in place growth friendly policies and to build efficient bureaucracies and good quality institutions (Sachs and Warner, 1999). The share of national income spent on education in natural resource rich countries have tended to decline alongside secondary school enrolment rates. This affects long term growth. The impact on growth is more on the demand side rather than supply side (Birdsall, 1996), as government expenditure on education tends to be supply led often producing mediocre quality and may thus fail to foster efficiency, equality and growth. Enrolment rates and years of schooling, rather than expenditure on education is therefore a better indicator.

Some cross-country studies back this argument, finding that, school enrolment at all levels is inversely related to natural resource abundance or intensity, as measured by the share of the labor force engaged in primary production (Gylfason, Herbertsson, and Zoega, 1999).

In this context Gylason's (2001) empirical work suggests that "an increase in "10% points in natural capital share from one country to the next is associated with a decrease in secondary school enrolment by 18% points. Secondary school enrolment he found, was inversely related to natural resource abundance, and positively associated with economic growth. "An increase in the natural capital share of 25 percentage

points goes with a decrease in secondary school enrolment by 45 percentage points which in turn goes along with a decrease in economic growth by almost 2 percentage points".

In the work of Ross(2001b), it is claimed that" for each increase in minerals dependence of five points, the mortality rate for children under the age of 5 rose by 12.7% per 1000; for each 5 point increase in oil dependence (ratio of exports to GDP), the under 5 mortality rate rose 3.8 per 1000".

1.6.5 Social Development Effects: Natural resources have both direct and indirect impacts on social development. First communities that rely directly on natural resources for their livelihoods – food from fertile farm lands, fisheries, forests and wildlife; medicines form rich biological diversity; incomes from labour and services rendered to extractive industries and monies earned from participation in production and the export market (e.g. by artisanal miners) directly improve livelihoods of communities in which these resources are located. Indirectly, social benefits can be derived from abundant government revenues invested in health, education, sanitation, social protection and rural development or invested in physical capital that spurs long-term growth and generates employment or saved for use to stabilize the macroeconomy. Examples of countries who have used revenues from natural resource wealth positively and companies that have invested in community development abound.

Yet the literature on the impact of natural resource wealth on social development is predominantly negative. The core proposition is that "abundant natural capital crowd out social capital", by which is meant the infrastructure and institutions of a society in a broad sense: its culture, cohesion, laws, systems of rights and justice, rules and customs and so on, including trust (Woolcock, 1998; Paldam and Svendsen, 2000). This is explained through the prism of the impact of "rent-seeking" and the "rentier state" on public behavior. Rent seeking, it is argued adversely affects economic growth by shifting incentives in favour of non-productive sectors at the cost of non- resource base sectors; by distorting markets or by affecting development priorities. An example is, abundant natural revenues may imbue people with a false sense of security and lead governments to lose sight of the need for good and growth-friendly economic management, including free trade, bureaucratic efficiency, and institutional quality (Sachs and Warner, 1999) or by fostering "cronyism and corruption".

Rent-seeking behavior of the elite can also weaken state-society relations, opening the doors for the weakening of democracy and the widening of the inequality gap. Tensions may arise between the ruling elite, extractive companies and communities when there is contested rights especially to common-property lands on which the resource is to be extracted of if the resource extraction undermine the livelihoods of the local communities. The conflict in the oil-rich Niger delta of Nigeria is always pointed to as an example of outcome of collusive tendency between corporate and elite interests.

In extreme cases, when as a result of rent seeking, institutions malfunction, powerful elites rule and democracies are eroded, corruption reigns and grievances in producing regions build up and violent conflicts erupt (Collier & Hoeffler, 2005; Fearon and Laitin 2003). In many instances, politically exposed persons (PEPs) invest significant personal capital to build criminal gangs and militia to enhance natural resource loot. The persistent violence in Eastern DRC is generally associated with this tendency to weaken state authority and entrench 'warlordism'. Global Witness (2017) reports how PEPs (Box 4.3) and corruption is undermining democracy and the natural resources sector in Uganda with effects well beyond

its borders. The study notes that miners work in dangerous, largely unregulated conditions – with children exposed to toxic chemicals on a daily basis; the world's remaining mountain gorillas are at risk as mining threatens Bwindi and Rwenzori national parks, part of the famous Virunga ecosystem, and also risks the economically critical tourism industry which depends on the country's natural beauty and wildlife; Uganda is being deprived of tax revenues that could be spent on schools, hospitals and roads; and minerals from the Democratic Republic of Congo and South Sudan - that might be funding conflict and human rights abuses – pass through Uganda on their way to international markets

Box xxx African Gold Refinery, big men and trouble in the mining sector in Uganda

African Gold Refinery is run by a small group of Belgian and Ugandan businessmen, including former government minister Richard Kaijuka, who are managing to ship hundreds of millions of dollars' worth of gold out of Uganda without disclosing its origin and paying very little tax in the process. They are the owners and managers of a newly built gold refinery on the shores of Lake Victoria near Entebbe airport. Remarkably, Barnabas Taremwa: brother-in-law to Salim Saleh, Museveni's most famous brother and Uganda's de facto number two, reportedly told Global Witness that he had helped negotiate the company's huge tax breaks with the government (corroborated by documents seen by Global Witness) and set up supply routes for the refinery.

Taremwa, who previously worked for AGR, also told Global Witness that some of the gold processed in the refinery comes from the neighbouring Democratic Republic of the Congo and South Sudan where there is a real risk that it could be funding conflict and human rights violations.

Taremwa and Salim have both previously been named by the UN in connection with the illicit trade of commodities from the Congo: a 2002 UN Group of Experts report names Saleh for playing a key role in an "elite network" of Ugandan's who were systematically looting Congolese resources from the area under Ugandan control; a 2015 UN Group of Experts report names Taremwa for trading in gold illegally exported from DRC and imported into Uganda. The owner of AGR, Alain Goetz, along with his late father Tony, also have a history of trading in Congolese gold. See annexes for further information.

Saleh is reported to denied the allegations levelled against him in the 2002 report and pointed out that he was exonerated by the 'Porter Commission' and the Ugandan police.

Source: Global Witness (2017). Available at: https://www.globalwitness.org/en-gb/campaigns/oil-gas-and-mining/uganda-undermined/

The above dire view of the social impact of natural resource intensity is not universal. Cross country studies in different contexts show positive correlation between natural resource wealth and education and health outcomes, for examples, in Botswana and Norway. Initial conditions, especially the level of literacy and per capita incomes prior to the discovery of the natural wealth may also matter as the level of available human capital may facilitate efficiency in natural resource usage. Britain and Norway are countries that may be looked at as case examples in this regard. Both countries discovered oil at stage when they high levels of human capital.

Moreover, solutions to the problem affecting social development due to perverse incentives associated with natural resource extraction can be addressed on the expenditure front by: broadening the set of actors who play a role in expenditure decisions; by giving these actors a way to make commitments to particular expenditure paths; and by making it costly for them to deviate later from earlier decisions

(Humphreys 2005, Sandbu, 2003). In relation to the distributional issues, measures options include decentralization of revenues through local government structures; effective taxation and royalty regimes that better compensate communities. Planning also needs to be spatial in nature to address local and spatial inequality issues (Harrison, F, 2008).

The issue of spatial and local inequality is particularly important when we reflect on the relatively informal nature of the natural resources sector in Africa. As noted in Chapter 3, workers in the informal natural resources sector typically earn less income, have unstable income, and do not have access to basic protections and services (UNRISD, 2010; Beneria and Floro, 2006). The working condition associated with informality has significant social consequences especially for those who are already relatively poor. Poverty becomes entrenched because informal businesses tend to lack the potential for growth, trapping employees in menial jobs and inhumane working condition indefinitely. Of course, there must be a recognition that the informal natural resources sector give a large proportion of the population to escape extreme poverty and earn an income beyond that for survival (Garcia-Bolivar, 2006). Indeed, some people who are formally employed may choose to perform part of their work outside of the formal economy, exactly because it delivers them more advantages and flexibility. The practice of 'moonlighting' is well documented in Africa (see for example, Rispel and Blaauw, 2015). Employees derive social protection, pension and child benefits and the like, from their formal employment, and at the same time have tax and other advantages from working on the side in family farms and businesses.

Development in the natural resources sector is also known to have significant gender-differentiated social impacts. Women tend to make up the greatest portion of the informal natural resources sector such as artisan and small scale miners, land-less farmers and those engaged in illegal resource trading, often ending up in the most erratic and corrupt segments of the sector (UNRISD, 2010). The majority of these women include home-based workers (such as dependent subcontract workers, independent own account producers, and unpaid workers in family businesses) and street vendors of different items such as fish and charcoal (Chen, 2001). The dominance of women in the informal sector is attributed to a variety of factors including ease of entry, negative cultural norms, religious seclusion, and illiteracy among women in many African countries, as well as a greater commitment to family responsibilities, prevent women from entering the formal labour sector (Elson, 1992).

It is widely acknowledged that the connection between employment in the informal economy and being poor is stronger for women than men thus the need for immediate global action (Carr and Chen, 2001). Men tend to be overrepresented in the top segment of any informal sector, women overpopulate the bottom segment (Carr and Chen. 2001; UNRISD, 2010). This is also the case with the natural resources sector whereby men tend to have larger scale operations and deal in non-perishable items while few women are employers who hire others. Women are largely in the lower income statuses activities. Amongst other factors, labor markets, household decisions, and gender-biases all propagate gender inequality in the natural resource sector in Africa.

The other aspect of the social impact of natural resources sector related to the children and child labour in Africa. It goes without saying that children work in many parts of the world but the problem is arguably more acute in many African countries. They often work as day laborers, cleaners, construction workers, vendors, in seasonal activities, domestic workers, and in small workshops; and often work under hazardous and exploitative conditions (UNRISD, 2010). It is common for children to work as artisan and illegal miners; farm labourers and charcoal burners across Africa. Such children are very vulnerable to

exploitation: often they are not allowed to take breaks or are required to work long hours; many suffer from a lack of access to education, which can contribute to social isolation and a lack of future opportunity. UNICEF points out that such 'domestic work' are among the lowest status, and reports that most child domestic workers are live-in workers and are under the round-the-clock control of their employers (UNICEF, 1999)

1.6.6. Income Distribution Effect: If prior to the boom, the returns to agriculture and manufacturing were more evenly distributed compared to the natural resources and non-traded goods sector, the sectoral shifts as described above can lead to increased inequality in the economy generally. The level of inequality can be exacerbated if those who capture the rent channel the resources largely into luxury consumption at the expense of productive investments. Easterly (2001) argues that natural resources of the point-source variety (where the small wealth and politically influential elite are most likely to be found) tend to depress the middle class share of income in favour of the elite. Unlike in middle-income dominated societies, in elite dominated ones, public investment in human capital formation and infrastructure development fall by the way side, thereby depressing growth prospects. It is the middle class share of income and their agenda that determines whether their policies whether policies are development oriented, e.g. invests in education and infrastructure (Bourguignon and Verdier, 2000; Easter 2001; Murshed, 2002, 2004).

Another distributive impulse is unequal rent-sharing nationally (i.e. that the proclivity by a small elite and interest groups who capture rents to impede growth inducing and distributive policies) and internationally between national governments and foreign extractive companies which results from (1) unequal knowledge of the value of the resource extracted and the cost associated with the extraction (2) manipulation by corporations through manipulation of trade pricing (3) corruption.

1.6.7 Linkages effect: Extracted commodities tend to have limited forward and backward linages (Hirschman, 1958, Seers, 1964, Baldwin, 1966). Compared to natural resource extraction, manufacturing leads to a more complex division of labour and hence greater innovation, increased productivity and higher standards of living. "Learning by doing which is more prevalent in manufacturing is the dynamic factor that sustains growth over time. "Forces that push the economy away from manufacturing lower the growth rate of the economy rather than natural resource (Sweder van Wijnbergen, 1984, K. Matsuyama (1992). In an economy with an appreciable manufacturing sector and yet land intensive, trade liberalization for example could lower long-term growth by inducing the economy to shift resources (labour, skills and capital) from manufacturing towards less dynamic sectors like agriculture.

1.6.8 The effect on Planning: Revenue volatility also makes long-term planning difficult by making financing uncertain. The volatility of receipts can also lead to the volatility of spending if steps are not adequately taking control expenditure in periods of boom. This can lead to pro-cyclical spending – high in boom years, low in lean years, making benefits in boom years transitory. This pro-cyclical spending can be exacerbated through international borrowing. Countries borrow more from abroad in good times and in lean times, lenders demand payments and sources of new borrowing dry out, forcing expenditure cuts.

Countries may even mortgage their future revenues to raise debt from abroad. If put into consumption expenditure and in the event of declining prices countries severe fiscal imbalances emerge.

1.6.9 Political and Institutional impacts: The central propositions are as follows (1) the decisive channel through which natural resource booms affect the economy and the society is the quality of institutions. Natural resource wealth undermines economic growth and development only when "institutions malfunction" as in Easterly and Levine (2003), Rodrik et al (2002), Acemolgu et al (2002).

The poor quality of institutions explains why governments fail to take remedial measures to avert negative impact on growth and development; (2) that resource booms ultimately weaken institutions – state and markets - especially through their effect on the rent-seeking impulses of the ruling political and economic elite and the dynamics that this creates to the efficiency of resource allocation, as well as the ability to enforce property rights. Malfunctioning government institutions severely harm economic performance through a reduction in both the incentives and opportunities to invest and innovate[i] (Easterly and Levine 2003); (3) that there is widespread consensus that developmental outcomes of resource extraction correlate with the quality of institutions.

The ''resource curse'' as a deterioration of governance and institutional quality has been identified particularly for African countries abundant in "point depletable" or "point source resources. As explained earlier "Point depletable resources" are typically associated with ownership that is highly concentrated. In this case the state becomes heavily dependent on a small number of owners (rentier capitalists) for generating its income. In return, rentier capitalists can enjoy tax breaks, subsidies and/or levels of import protection. In the presence of these relationships, rents can be easily appropriated by the ruling elite. This can reduce the incentives for governments to actively engage with its citizenry in the decision making process.

Point depletable resources also tend to be more capital intensive than labour intensive such as in the oil sector. Hence they tend to polarize the society between the haves and have nots. Revenues from diffuse resources (agricultural products, livestock and fisheries) tend to be directed primarily to the private sector while revenues from point resources tend to be concentrated in the hands of the state. Engerman and Sokoloff (1997) suggest that with defuse resources, in the absence of scale economies to exploit, the prevailing class is that of small holder or family farms. This development makes the population more socially and economically homogenous. This supports governance and institutional structures that make provisions for a voice for all. Brunnschweiler and Bulte (2008) similarly suggest that the ''diffuse'' nature of the resource makes it harder for agents to organize themselves into a lobby group and successfully appeal for special favors from political exposed persons or the state itself.

In several resource-rich African countries, weak governance and institutions may have been recorded prior to the discovery of significant depletable resources and may be linked to beleaguered process of state formation after independence, for examples, in the DRC and CAR. Besides the colonial-legacy argument for weak institutions, several authors argue that significant resource discoveries and resource dependence can in their turn undermine governance and institutional quality creating a vicious cycle (Ross, 2001; Jensen and Watchekon, 2004; Rosser, 2006). Lane and Tornell (1997) and Robinson and Torvik (2005) argue that windfall gains may cause a ''feeding frenzy'' in which competing groups fight for the rents derived from natural resources, hence exhausting the public good inefficiently. This is further exacerbated by the direct accrual to the government of a significant portion of the rents. This can possibly

delay the implementation of structural reforms and further distract public officials from investing in growth-supporting public goods (Isham et al, 2003; Collier and Hoeffler, 2005).

Under weak governance, large resource rents can encourage bribes, distort public policies and divert the public towards favour-seeking and corruption (Torvik, 2002; Papyrakis and Gerlagh, 2004; Vicente, 2010). For governments managing significant resource rents, rent appropriation may be preferable when compared to the promotion of wealth creation policies as this may be mistakenly perceived as low-hanging fruits. Rent appropriation may dominate over wealth generation as it offers immediate economic and political gains. In many cases, these gains appear quite appealing as they can be highly personal, favouring the specific members of the ruling elite. In this respect, the ''resource curse'' in countries endowed with point depletable resources can be related to the emergence of clientelist politics and authoritarian governments. Smith (2004) and Ross (2001, 2006, 2012) describe the evolution of dictatorial governments in the Middle East and North Africa due to the discovery of oil wealth.

If the above are true, is the decisive factor in terms of the long-term impact of commodity booms, the quality of the institutions at the initial stage or will resource booms necessarily deteriorate otherwise good institutions? In what way do institutions really matter and what do we really mean by institutions? These questions are at the heart of resource governance and are addressed in the section on "governance and natural resources" below.

*1.6.10 Rent-seeking and social capital effect: "*Rent seeking" stands for the behavior in which actors seek to make money from market distortions. This is in contrast with economic rents that arrive from innovation and technology where "monopoly profits" are derived temporarily from being "first off the block". It is in this context that others distinguish between "unproductive rent-seeking (referring to the former" and "productive rents" referring to the latter.

The negative impacts of rent-seeking (of the unproductive type) are transmitted via the strategic behavior of economic agents (Auty and Gelb, 2001). In the first instance, it is argued that resource rich economies are subject to more extreme rent-seeking behavior than their resource poor counterparts (Lane & Tornel, 1995). As national politics is oriented towards grabbing rents earned, growth may collapse due to resource dissipation arising from a wasteful rent-seeking game where the object is the capture of resource rents. In conjunction with ill-defined property rights, imperfect or missing markets, or lax legal structures (weak institutions) the rent-seeking behavior of the ruling elite divert resources away from socially fruitful economic activities into unfruitful ones such as increased military expenditure or luxury real estate. This combination of weak institutions and abundant resource rents can also destroy societal institutions, and the rule of law, leading to autocratic politics and in some cases even to civil war or tempt foreign powers to invade ((Moshed 2004).

Rent-seeking behavior can cause extractive and non-developmental institutions to become entrenched and prevent growth enhancing redistribution of income to the middle class (Acemolgu et al 2002, 2001; Sokoloff and Engerman, 2000, Easterly 2001). Capturing economic rents can also lead to civil war, reducing growth. There is a crucial link between institutions and economic outcomes.

Extensive rent-seeking can also breed corruption in business, governments and even communities and undermine democracy. In the first instance, the availability of large financial resources increases

opportunities for the theft of these resources. Those who control these resources can in turn use them to maintain themselves in power either through expenditure to buy favours and finance campaigns or even to finance militias. International companies, seeking to maximise profits may find it easier to seek to obtain rights over these resources through bribery than seeking efficiency through competitive processes. Government officials may also sell rights to resources below their market value in exchange for kick-backs. (Humphreys, Sachs and Stiglitz, 2007). Corruption in the form of cronyism may be exacerbated in the context of trade protection and together tend to impede economic efficiency and growth (Bardhan, 1997, Mauro, 1995).

Plotting corruption, as measured by the "Corruption Perception Index" of Transparency International, against natural resource abundance, Gylfason (2001) found that "when the share of natural capital in GDP goes up by 15 percentage points, the corruption increases by 2 percentage points". A similar result is obtained when resource intensity is measured by the share of the primary sector in the total workforce.

1.7.0 Governance and natural resources – exploring political economy and political regimes.

In the sections above, we have touched on various aspects of the governance issue, especially the role of institutions, rent-seeking and corruption. In this section, we situate these aspects more broadly within a political economy context including political theory.

Governance, it is argued has a decisive influence on economic and social development and the impact of a resource boom crucially depends on the quality of political institutions, and the degree of clientelism in the public sector (Robinson et al 2006). Countries with weak public institutions are more likely to suffer from the resource curse. Malfunctioning government institutions severely harm economic performance through a reduction in both the incentives and opportunities to invest and innovate[ii]. Resource rents make democracy malfunction and where democracy functions, economic growth will be retarded where there is presence of substantial natural resources. "Democracy enhances economic growth except in the presence of substantial natural resources where democracy retards growth". Natural resource wealth creates autocracy it is claimed (Collier and Hoeffler, 2003). Democratic political institutions are also associated with higher FDI – they attract as much as 70% more FDI than authoritarian states (Jensen, 2009).

Natural resource wealth also increases the risk of violent conflicts and civil wars both through its negative effect on growth and its effects on the quality of institutions. "Doubling per capita income roughly halves the risk of a civil war. Each additional percentage point of growth reduces the risk by about 1 percentage point. A country that is otherwise typical but has primary commodity exports around 25 percent of GDP has a 33 percent risk of conflict, but when such exports are only 10 percent of GDP, the risk drops to 11 percent. When the natural resource endowment is double the average there is a 3% risk of an ideological war and an 8% risk of a secessionist war. When the endowment is oil, the risk of a secessionist war is higher" (Collier and Hoeffler, 2003). By implication if an economy is growing through other means, e.g. manufactures, such an economy is more capable of managing risks associated with natural resource abundance.

Collier and Hoeflfer also observe that large rents from natural resources can weaken state structures and make governments less accountable, often leading to the emergence of secessionist rebellions and all-out civil war. Natural resources may not be sole or major driver of conflicts but the presence of abundant primary commodities, especially in low-income countries, it is argued exacerbates the risks of conflict and, if conflict does break out, tends to prolong it.

In summary, it is claimed that resource wealth is likely to affect governance through (a) long-term growth failures (b) consolidating authoritarianism, (c) higher risks of descending into violent conflicts, (d) weakening market and political institutions (e) higher risks in the breakdown in democracy; (e) increased corruption (f) and tendency towards increased income inequality Wantchekon (1999), Jensen and Wantchekon, 2009, Bratton, 1998.

What explains these outcomes? As noted earlier, there are three dimensions to this issue; how resource abundance affects political regimes; how political regimes/ governance institutions in turn influence the channels through which natural resource wealth impact on development outcomes. And; and how society fits in. The central proposition of the first dimension is that resource (a) are more likely to be authoritarian, (b) exhibit higher levels of government spending, (c) are associated with worse governance, and (d) more likely to lead to breakdown in democracy; increase income inequality and consolidate dictatorial regimes Wantchekon (1999), Jensen and Wantchekon, 2009, Bratton, 1998. “Oil hinders democracy”, according to, Michael Ross (2001).

Why is this so? The dominant political theory is derived from the rentier state concept which holds that mineral rents reduce the necessity of the government to levy domestic taxes, rendering leaders less accountable to citizens and more prone to rent-seeking, corruption and patronage politics (Mahdavy, 1970; Beblawi and Luciani, 1987; Clark, 2007; Yates, 1996; Karl, 1996). Presidential democracies are more likely to face a resource curse than parliamentarian democracies, according to Andersen and Aslaksen (2008). There is therefore an overall possibility that natural resource booms undermine democratic institutions as governments’ access to rents, in the form of windfall revenue, may free them from the need to tax their peoples, and that this in turn frees them from the need for democracy (see Mahdavy, 1970; Luciani, 1987; Vandewalle, 1998). The need for tax revenue is believed to require democracy under the theory “no taxation without representation” (see Huntington, 1991 for a generalization). A number of studies also find that economic dependence on oil or minerals is indeed correlated with authoritarian governments (Barro, 2000; Ross, 2001; Wantchekon, 2002; Jenson and Wantchekon, 2004; Ross, 2006; Ulfelder, 2007).

A rentier state is characterized by high dependence on external rents produced by a few actors. Rents are generated from extraction not production. This has impact on the complexity of institutions that can be developed in society. Extraction is often capital intensive not labour intensive. This also has impacts on income distribution and the motivation to invest in human capital. Rentier states tend to be “autonomous” not accountable, in that the political elite derive their revenues not from broad-based taxation which tends to the basis for bottom up pressure for democratic change but from “rent capture” which often requires collusion with a small elite and with largely foreign, extractive companies. Poor governance results from the ease with which the political and economic elite that capture rents can use the revenues for unpopular or illegal objectives. It is also argued that the executive discretion that natural

resource rents enable leads to less to less political liberalization (democratic transitions) and a greater likelihood of democratic breakdown (democratic consolidation).

It is also argued that an abundance of natural resources increases competition for control of the state, which is linked to high levels of political violence and the use of resource rents by ruling parties to maintain their hold on political power. Resource-poor countries have less competition for control of the state, which favors the building of democratic institutions. In authoritarian political systems, resource abundance allows incumbent politicians to maintain support and consolidate their hold on political power. Higher levels of resource rents translate directly to higher levels of support for incumbent politicians, making democratic transition more difficult.

What determines political regimes? The dominant political theory on the impact of natural resource wealth is derived from the rentier state concept which holds that mineral rents reduce the necessity of the government to levy domestic taxes, rendering leaders less accountable to citizens and more prone to rent-seeking, corruption and patronage politics (Mahdavy, 1970; Beblawi and Luciani, 1987; Clark, 2007; Yates, 1996; Karl, 1996).

Various studies find a robust and negative correlation between the presence of a sizable natural resource sector and the level of democracy in Africa. They argue that resource abundance not only is an important determinant of democratic transition but also partially determines the success of democratic consolidation in Africa. They point to the fact that post–Cold War democratic reforms have been successful only in resource-poor countries such as Benin, Mali, and Madagascar and lection rigging and boycotts by opposition have been rampant in resource rich countries such as Gabon, Cameroon, Togo, Zambia and others such as Algeria, DRC, Sierra Leone simply sank into civil war or stack in autocratic regimes for a long time such as Nigeria and Tunisia. They argue that resource-rich countries can become democratic only if they introduce strong mechanisms of vertical and horizontal accountability within the state (Bratton (1998), Wantchekon, Leonard and Nathan 2003, Wantchekon and Leonard (1999).

It is also argued that an abundance of natural resources increases competition for control of the state, which is linked to high levels of political violence and the use of resource rents by ruling parties to maintain their hold on political power. Resource-poor countries have less competition for control of the state, which favors the building of democratic institutions. In authoritarian political systems, resource abundance allows incumbent politicians to maintain support and consolidate their hold on political power. It is argued that in natural resource rich countries politics is dominated by issues of distribution of resource rents not ideology. In political systems with multiple parties, incumbents make offers on the use of natural resource rents based on the need to build minimum winning coalitions to maintain power. In authoritarian political systems politicians use resource rents directly to buy favours making it difficult for democratic transitions to occur. Example of this phenomenon is Nigeria. As the share of oil in GDP increased from 1% in 1960 to 90% in 1979 the government became increasingly oppressive and centralized. The same can be said of Gabon

Even in democratic systems with legitimate political competition, it is argued, natural resource dependence translates into authoritarian government by making democratic consolidation difficult. When state capacity is weak and a state cannot enforce the law, incumbent politicians have a large amount of discretion in the allocation of resource rents, which are allocated to voters in return for political support. If the opposition is unable to break this incumbency advantage, resource rents will translate into one-party dominance.

Wantchekon and Jensen (2009) assert that "the key mechanism linking authoritarian rule and resource dependence, both in democratic transition and in democratic consolidation, is an incumbent's discretion over the distribution of natural resource rents".

In terms of the mediating role of institutions, the theoretical and empirical literature is vast and is approached from varying angles. The core proposition is that as a driver of economic development, the quality of institutions is a far more important factor than geography or trade policy or even initial levels of income. It is the quality of institutions that largely determine how countries perform with discoveries of natural resource deposits and export booms. Institutional quality is said to correlate with wide range of factors; integration; growth in income per capita, foreign direct investment; real savings, aggregate investments and many more. Institutional quality measures range from the protection of property rights and the rule of law Douglas North, 1990), "social infrastructure (Hall and Jones, 1999), expropriation risks faced by investors (Acemoglu, Johnson & Robinson, 2001), bureaucratic effectiveness and the degree of clientelism in the public sector (Robinson et al 2006).

Regressing the level of income on various measures of policies, endowments and institutions, Easterly and Levine (2003) find that institutions exert a significant effect on development whilst endowments do not other than through their effect on institutions and policies do not exert an independent effect all.
Ross (2001) finds that the negative resource effects of mineral abundance on institutions decline with increasing income levels and with greater past mineral exports. In the study of Nigeria, Sala-i-Martin and Subramanian (2003, p 10) describe how "oil corrupts and excess oil corrupts excessively". They stress that the natural resource curse only holds for minerals – particularly oil – abundance, and not agricultural products and food.
Atkinson and Hamilton (2003) on the other hand show that natural resource abundance may have negative effects on development when weak institutions allow resource profits to be spent in government consumption rather than investment especially in countries with low levels of

Acemoglu et al (2001) test the effects on current income levels of their instrumented indicator for institutions against those of natural resource abundance, measured by the country shares of world non-fuel mineral reserves and per capita oil resources. They find no significant influence of natural resource abundance at all, confirming their view that institutional quality alone can explain the cross-country differences in economic development, implicitly questioning the resource course hypothesis.

The literature suggests that the growth and development effects of natural resource abundance are ambiguous when institutional quality is excluded: that the so-called curse may only occur when natural

resource wealth occurs together with poor quality institutions especially, weak application of the rule of law, high incidence of corruption, and weak bureaucratic competence

Natural Resource Wealth Models also suggest that point-type resource endowments retard institutional development far more than "disperse" resources, which in turn hampers growth. Point source resources such as minerals/cocoa-coffee are the worst in terms of impact of endowments on institutions and democracy. Diffuse economies (agricultural exporters) although better are not greatly superior.

However, it is important to distinguish between policies and institutions and how these reinforce each other. The distinction between policies and institutions is also imperative because, the way each evolves or emerges may be different, with differentiated demands to "succeed." Brunnschweiler and Bulte (2009) outline two approaches to assessing institutions: one that conceptualizes institutions as "deep and durable" features of societies, traditionally used in resource curse studies, and another that looks at institutions as reflecting a flux of policy-implementation outcomes (see Torres et al., 2013 for further discussions). Humphreys et al. (2007) discuss how policies may constrain the choices of public and private actors bent on otherwise undermining social-welfare goals in oil-producing states, especially where institutions are not strong. For example, strong institutions would limit the activities and influence of politically exposed persons.

In a slightly different vein, Papyrakis and Gerlagh (2007) provide evidence of a resource curse within regions of the United States. They show that, even in a developed economy, resource abundance (as measured by the primary 114 sector share in gross state product) fosters corruption (correlated to poor institutions), reduces investment, schooling, and R&D. The role of the state in fostering good governance and effective planning become critical if positive development outcomes are to be achieved.

1.7.1 Corruption: Corruption is often highlighted by the "resource curse" literature as a key mechanism through which natural resource dependence leads to negative development outcomes. Corruption, it is argued, has an indirect impact on economic and social development. How does corruption affect development in general and how does natural resource dependence affect corruption?

The bulk of the theoretical work on corruption tends to back the notion that corruption impacts negatively on development although empirical support for this notion is surprisingly thin (Leite & Weidmann, 1999).

Leff (1964), and Huntington (1968) suggest that corruption may have a positive impact on development if bribery for example allows entrepreneurs to work around the deleterious effects of bureaucratic red tape. Corruption may also allow for queues to be re-arranged such that it brings about efficient allocation of time enabling those whose time is most valuable to move to the front of the queue (Lieu, 1985). Corruption may also serve to ensure that projects are awarded to the most efficient firms who stand to gain by paying bribes (Beck and Mayer, 1986).

These sentiments tend to be the exception. Echoing the general trend, a theoretical model by Leite and Weidmann established negative correlation between long-term growth and the level of corruption: the average annual GDP growth rate increase by about 1.4 percentage points with one standard deviation

improvement in the corruption ranking, "equivalent to Venezuela reducing its corruption to the level of Chile, Chile to the level of United States or Kenya to Taiwan". Three factors explain this: trade policy, quality of institutions and political stability. The theoretical arguments underpinning negative impact of corruption on development are wide-ranging. They include economic and non-economic effects. The economic effects include the ff:

Efficiency effects of corruption: If bribery is widespread, it leads to the internalization by the bribe taker of the distortionary effects of the bribery (in term of resource allocation) and if widespread it may become entrenched and difficult to limit to areas in which it might economically desirable.

Investment and growth effects of corruption: The prevalence of increasing returns to rent-seeking may crowd out productive investments. Also, if corruption leads to the by-passing of taxation of ex-post profits, this might lead to a reduction in the flow of new goods and services especially an initial fixed cost investment is required. The uncertainty may also lead to a reduction in investment inflows. Mauro (1995)[iii] emphasizes the negative link between corruption and levels of investments.

Direct cost effects of corruption on growth: The illegality associated with corruption necessitates steps to avoid detection and punishment leading to more distortionary effects. The distortion may include preference for projects where bribe-taking is easier leading to economically undesirable projects. Higher corruption is associated with lower quality public infrastructure.

These claims remain to be robustly confirmed by empirical studies (Leite and Weidmann, 1999). The non-economic explanation relates to impacts on the value-systems of society including morality, social equity and distortions in political systems (as is further explained).

1.7.2 How does natural resource dependence affect corruption? This has been discussed exhaustively above (see for example, sections 4.5.3.9, 4.5.4, 4.5.5). The key mechanism, as we have noted is the impact on rent-seeking and the rentier state. Natural resource abundance, it is argued, is more likely to foster greater corruption through an increase in rent seeking opportunities, given that the exploitation of natural resources is an extremely high rent activity compared to say agriculture. Ownership of the extractive companies also matter. The greater the degree of ownership of by state enterprises, the greater the ease of rent-capture, if the essential character of the state is "rentier" or "patrimonial" in nature.

1.7.3 The role of civil society in fostering accountability: Governance as protection of the rights of communities over resources and to participate in the benefits of these resources is a crucial issue in natural resource management. This is more so given competing uses, interests and contested claims that natural resources often attract; the tendency of political elite alliance with international corporations to capture and monopolise resource deposits and the remote nature locations where natural resource wealth is often found often making it easier for communities to be disposed on the blind side of justice. Good natural resource governance therefore also concerns protecting the livelihood rights of communities as well as holding corporations to account effectively. Citizens mobilization and participation

in the entire value chain operation of extractive resources are often necessary to protect rights, ensure fair distribution of rents and forestall or manage conflicts.

Because natural resource markets are transnational in nature and those involved in their extraction, transport and trade tend are global or international in origin, natural resource will inevitably encompass regional and global transparency and accountability systems. This global context influences economic development through natural resource extraction and trade in complex ways. This also explains why transnational civil society movements and inter-governmental agreements are necessary to hold international actors to account in order minimize for example illicit financial flows and tax dodging by extractive companies and high net-worth individuals.

1.7.4 *Flaws in the "good governance thesis":* The "good governance" thesis is controversial, at best. It is strongly criticized for confusing cause and effect (Goldsmith, 2012); for unclear definitions of good governance indicators used in empirical analysis; being ahistorical; not context specific (Sundaram and Choudhury, ed 2002,) and ignoring the role of initial economic and social conditions which determine the quality of institutions which in turn influence how natural resource intensity impact on development (Reinert et al 2004). In terms of the initial economic conditions it is argued for example that the higher the share of manufacturing in GDP and the larger the role of science, technology and innovation in an economy, the more sophisticated the institutions that will arise to manage the economy and politics. Manufacturing and manufactured goods exports promote better institutions and democracy. This helps to explain the superior growth performance of nations that export manufactured goods. The presence of manufactured exports is both an indication of the dynamism of the economy as well as better institutions and higher-level democracy. Weak institutions may therefore simply be the reflection of the weak manufacturing base.

1.7.5 The Resource curse in African context: What is the evidence for a resource curse in Africa and what has been the role of commodity prices? Recent analysis by Lundgren et al. (2013) provides a number of interesting pieces of evidence. First, the real GDP per capita of resource-rich economies like Gabon and Equatorial Guinea has grown more than that of other non-resource-rich African countries, although this growth has not translated into higher living standards. Second, and related to the first, is that oil exporters spend considerably less as a share of their GDP on public education and health than other African countries. This low social spending has been worsened by weaknesses in natural resources and macroeconomic management, all of which have created the conditions for a resource curse. Lastly, the authors note that the role of the natural resource sector in driving growth in most African countries is grossly understated "by looking only at production-side measures of sectoral contribution." This, they argue, leaves out other causes, including the effects of commodity prices on non-resource activities.
It is arguable that the natural resource governance landscape has seen some evolution as symbolized by the adoption of the AMV as a continental framework (see earlier discussions in Chapter 3). Countries have also signed up to a number of other global and regional resource governance frameworks such as EITI (Box 4.1), Kimberley Process, the Abuja Declaration of 2005 on fisheries and the International Conference on the Great Lakes Region's (ICGLR) Regional Initiative against the Illegal Exploitation of Natural Resources in the Great Lakes Region (RINR) (Box 4.2). Indeed, the African Governance Architecture and the African

Peer Review Mechanism could be adjusted further to accommodate the realities that emerge from the socio-political dynamics that may engulf the continent as a result of operations in the natural resources sector (see UNECA, 2012).

1.8 Contrary findings to the resource curse hypothesis

In the previous sections we presented extensively, the theoretical case for the resource curse hypothesis. In this section we draw on those whose findings contest the hypothesis.

1.8.1 Do resource booms always cause a problem?

It is important to note the lack of consensus in empirical studies on many of the assertions on the impact of natural resource wealth on development outcomes.

First the very notion of the existence of a resource curse based on many of the effects outlined above is challenged. In this section, we draw substantially from Brunnschweiler, C.N (2007) and others to present the contrary case.

Do natural resource booms necessarily lead to long term growth failures? The answer generally is "it depends". (1) if the natural resource is point-source or diffuse and how large the manufacturing sector is prior to the boom. Constricting an inter-sectoral model with links between the natural resource sector and manufacturing, Findlay and Lundahl demonstrate where a resource boom can lead to growth expansion. They distinguish between subsistence tropical economies mostly involved in the production of primary commodities including natural resource extraction and new settlement countries (Canada, Australia and USA) with a large manufacturing sector. Manufacturing employs labour and sector specific capital. Production in the resource sector also utilizes labour and sector specific land input. Their model finds that in the long run whereas the recent settlement countries achieve higher levels of per capita incomes due to backward and forward linkages (competitive industrialization), the tropical regions may never industrialise, stagnating instead into a stable trap (a fixed reliance on a few commodity exports).

This result is more likely in point-source economies than diffuse ones like North-East Asia where the prospects of industrialization are more promising. This is because, in diffuse economies, peasant entrepreneurs will generate demand for simple labour intensive manufactures which later become exportable. When point-source economies attempt industrialization, it is usually capital intensive and dependent on public subsidies. They are often non-traded goods for domestic consumption only and tend to be uncompetitive and unsustainable(Mushed 2001).

Considerations of transmission channels between natural resource abundance and growth have also led to different and ambiguous results. Gylfason (2001), Bravo-Ortega and De Gregorio (2005) and Stijns (2006) concentrate on different links with human capital. The first suggest that the negative growth effects stem from lower education spending and less schooling in resource-rich countries. The second finds that the negative resource effects can be offset by higher education levels, making natural resource abundance a boon for countries with higher human capital levels. Th 3rd concludes that per capita rents from natural resources are positively correlated with human capital accumulation.

Empirical results are also sensitive to measurement. Sachs and Warner estimate resource abundance based on the share of primary exports in GDP. This measures more the "curse of dependence on natural resource exports rather than abundance. In

Empirical studies show sharp variations in the set of the resource export variable. Ledemann and Maloney (2003) demonstrate positive effects of natural resource wealth on growth using the share of primary exports in total exports and primary exports over total labour force. Davis (1995) used the share of mineral exports in total merchandised exports as one of the natural resource proxies showing a positive relationship with economic development. Leite and Weidmann (1999) and Sala-i-Martin and Subramanian (2003) find ambiguous growth effects when disaggregating resource exports into agricultural and fuel and non-fuel mineral products.

Other empirical research does not rely on export data at all. Atkinson and Hamilton (2003) use the ratio of resource rents to GDP to show both positive and negative effects. Stijn (2006) also argues in favour of using resource rent data although he prefers per capita measures.

When classified by indices, economies dependent on "point-source" resource extraction – minerals and plantation crops characterized by localized intensive production – often show evidence of worse economic performance and institutional quality than economies dependent on "diffuse" resources that is characterized by more extensive production (Isham, Pritchett, Woodcock and Busby, 2005). However if measured against the share of mineral production in GDP, the results are less clear-cut results. Using this measure, Davis (1995) finds a positive relationship with economic growth whilst Papyrakis and Gerlagh (2004) find both positive and negative growth effects with the negative one slightly stronger. Ding and Field (2005) use world Bank data on natural resource wealth to re-estimate SW's basic regressions and find negative growth effects as a share of total produced capital and positive effects per capita

Brunnshweiler proposes 2 alternative measures: World Bank per capita minerals (sub-soil assets) as well as total natural resource wealth. Using these new measures, she finds no evidence of a negative growth effects of natural resource abundance but instead a positive direct association with economic growth from the period 1970-2000. The findings are consistently highly significant with mineral resources. The findings also do not confirm the negative effects of resource abundance through institutional quality contrary to others.

Using the World Bank's per capita natural resource data to test their effect on economic growth over the period 1970-2000 and then compare the results to those reached by SW.

The cross-country regressions, estimating natural capital in US$ per capita as well as institutional quality show as ff: Between 1970-2000 natural resources, particularly minerals, have a positive direct association with real GDP growth even when controlled for the quality of institutions. In addition, there is no evidence that resource abundance negatively affects institutional quality, contradicting the hypothesis of an indirect natural resource curse, for example through rent seeking. However, the beneficial growth effects seem to diminish as institutional quality improves although they remain strongly positive overall.

1.8.2 How about the Dutch disease? The Dutch disease hypothesis examined by Stijns (2003) confirmed the typical sectoral change pattern but finds little evidence of overall negative resource effects on growth. Matsen and Torvik (2005) propose that long-term growth can be positive provided the savings path is adjusted to take into account the relative importance of the traded and non-traded goods sectors. Hausmann and Rigobon (2002) consider the trade structure and show that diversified economies are less likely to suffer the negative effects of natural resource wealth.

Ross, M.L (1999) point to a study by Gelb (1988) of 7 oil exporting countries in the boom years of 1971-83 that showed that only in 4of those countries was there a shift of labour and capital away from the manufacturing and agricultural sectors towards the resource sectors. Other studies (Benjamin N, Devarajan, &Weiner 1989; Fardmanesh M 1991) have showed that the manufacturing sectors of most mineral economies are unharmed. According to Ross, the recent studies suggest that the Ducth Disease may be less common in developing countries and more easily counteracted by governments than initially thought.

He concludes that the economic effects of the resource curse can be counteracted or mitigated. "Governments can offset the steady decline in the Terms of Trade by investing the productivity of their resource sectors and by diversifying their exports; they can buffer their economies against external market volatilities by using commodity stabilization funds and careful fiscal policies; they can use the commodity windfalls to promote upstream and downstream linkages; they can counteract the Dutch Disease by maintaining tight fiscal policies, temporarily subsidizing their agricultural and manufacturing sectors and placing their windfalls in foreign currency to keep their exchange rates from appreciating.

Regarding political dimensions of the resource curse thesis we draw upon Brooks and Kurtz (2012) to highlight divergence. Focusing on oil states, Brooks and Kurtz examine the political dimension in three ways: the effects of potential endogeneity of natural resource wealth to investment in human capital and industrial development; natural resources and human capital relationships; natural resources and political systems.

On the issue of endogeneity, they argue that if natural resources are treated not as a "gift of nature" (exogenous to the development effort), but is amenable to different patterns of exploitation and revenues, then rather than natural resources driving authoritarian politics, they and democracy may be by-products of a developmental state effort. Public investment in human technical education infrastructure with natural resource rents can subsequently enable large stocks of human capital and unleash technologies for the resource sector and the non-resource sectors. This is the foundation upon which Norway developed its capacity to manufacture and export high-tech capital goods that make possible oil production – from off-shore platforms to downstream transportation service.

Natural resources also need not undermine democracy as the emergence of an organized industrial working class provide the links between natural resources and democracy. Just as countries with higher sticks of human capital may be better able to adopt technologies to enhance growth so should they be able to use technology to discover and develop increasing quantities of natural resources. In this case natural resource booms need not lead to reduced long-term growth nor harm democracy. Besides, regime types are not determined solely by state actors. Instead, transitions to democracy may be prompted by organized pressure from below even where regimes have abundant fiscal resources.

They challenge the claim that resource exports cause authoritarianism arguing that there is abundant microeconomic literature which posits that scarcity, rather than abundance induce a higher rate of time preference due to the more immediate survival imperatives under scarcity. Individuals in situations of abundance by contrast tend to engage in more future oriented behavior such as savings and investments

that is associated with long term horizons afforded by financial slack. There is also evidence that the poor tend to degrade the environment at a faster rate than the rich due to their higher time preference.

Others have also questioned the very notion of resource curse on empirical grounds, arguing that the very these that oil (and minerals) fuels authoritarianism is instead an over time within country phenomenon and there may be numerous country-specific factors that can shape both the resource reliance and regime behavior. It is therefore inappropriate to test this thesis using cross-country statistical techniques.

"In so far as one general conclusion can be drawn (from the view of the empirical literature) , it is that a country's economic performance following a resource boom depends to a considerable extent on the policies followed by government… Even small economies have considerable influence over their own economic performance" Neary & Wijbergen (1986).

1.8.3 The presumption of the Rentier-state as dominant state-type in Africa

The impacts of natural resource wealth on economic and social development, as we have detailed above, is rooted entirely in the "rentier" state framework in which politics, and the actions of government, are driven predominantly by greed – the desire to capture rents for personal gain - and the relationship between state institutions and their citizens is patrimonial in nature. With institutions, too weak to enforce laws and bureaucracies too incompetent to provide services efficiently, the injection of a certain boom in natural resource wealth can only lead to wasteful and harmful expenditures or to anarchy in the political systems as a small elite jostle, sometimes violently, to capture rents and in the process suppress the growth of democracy or at worst unleash civil war.

This dominant narrative of the character of the state in developing countries and Africa in particular, fails to recognize complexities in political formations and social norms underlying political systems. Why, in spite of being natural resource dependent and ruled largely by one party for over half a century, Botswana did not descend into chaos and corruption is relatively low? Why is the democratic transition maturing in Nigeria, Zambia, Ghana and many others over the past two decades or so in spite of continued dominance of oil in exports? As Mushed S.M (2004) observes," each nation is a policy experiment" and historical context also matters.

What if a different role of the state is assumed e.g. from one characterized by greed, helplessness and inability to counteract the negative effects of natural resource wealth and better able to channel this wealth into positive developmental outcomes to a state that is developmental in outlook in spite of weak initial institutional conditions? What characterizes a developmental state that was predominant in the immediate post-colonial Africa and recently re-emerging at in least in stated aspiration as in countries like Ethiopia, Rwanda, Mauritius, Seychelles and South Africa and what motivates it?

The motivation underlying the developmental states in Africa is clearly the desire to balance liberal democratic norms – electoral politics and the rule of law – with economic transformation, after a couple of decades of liberal democracy and economic liberalisation. The literature is vast and contentious and cannot be suitably covered here. Developmental states are defined through several lenses : by their objectives (Pronk and Castelles 1997); by state structure nexus that enables one state to achieve

development objects whilst others fail and by ideological underpinnings (Mkandawire, 2001); by relative autonomy (Evans, Peter, 1995) among others.

We draw from UNDP (Ethiopia, 1/2012) to highlight a few elements.

(i) Articulate an ideologically cohesive developmental agenda and a theory of change.

(ii) That possesses, or at least strives to, develop sufficient organization and power to achieve its developmental goals through its ability to provide consistent economic guidance and rational and efficient organization, and the ability to stay focused on its long-range economic policies.

(iii) with instincts to resist external demands (e.g. Multinational corporations) and internal resistance (from groups bent on transient political gains or short–term profits, i.e., local political and business elites). This also requires the ability to control domestic infighting and build consensus among the populace on a national developmental agenda by drawing attention to long-term benefits to all. It must be "hegemonic" in terms of a shared 'developmental project". This means the state must possess capabilities to persuade and to mobilize people and resources behind the development agenda.

(iv) With the will and capabilities to suppress unproductive rent-seeking and re-direct natural resource rents into productive activities and tradeable goods sectors, especially manufacturing and highly productive commercial agriculture.

(v) "one that has the capacity to deploy its authority, credibility and legitimacy in a binding manner to design and implement development policies and programs for promoting transformation and growth, as well as for expanding human capabilities". It is a state with institutional design meant to advance transformative role of the state "rather than constraining the state". (Peter Evans)

(vi) To be democratic as well as developmental, the state must also embrace electoral politics, whilst delivering tangible benefits to people (Awa, Eme, 1991). It seeks ultimately, to bring about an inclusive and equitable society. Taxation and the efficient collection of taxes and strict enforcement of tax laws is central to the task of financing development of a developmental state.

(vii) an emphatic state, a 'hard state,' relatively autonomous/independent, with a decidedly interventionist bent on seeking not only to regulate, guide, and shape, but also to monitor and control, the economy. A developmental state (also referred to as 'state development capitalism') is a state that nurtures and thrives upon state-led macro-economic planning. In this sense, it can even be viewed as a model of capitalism that nonetheless differs from a minimalist state or other species of interventionist states such as the regulatory state and the welfare state. In the literature, it is also contrasted with weak states (that easily bow to the pressure mounted on them by the business or political elite) or predatory states (that tends to be extractive and exploitative of public resources for private purposes).

Of the African countries professed to aspiring to be developmental states or characterized as such, Rwanda (gold, monazite, cassiterite, diamond etc) , Botswana (diamond, copper) and South Africa (gold, diamond, platinum an dhost of others), are dependent on natural resources of the "point-source" variety. None is an oil exporter. The underlying economies also vary, with the share of manufacturing in GDP being substantial only in y South Africa. Whilst the experiences of managing natural resource wealth for development vary, none, except Rwanda to some extent, is affected by widespread violent conflicts over the past 2 decades. Without exception all states desire to grow their economies rapidly, diversify their exports, grow their manufacturing sector, build their infrastructure to more competitive, and expand public service to improve quality of life and provide employment. These tasks are urgent. The developmental role of the state is not so much a doubt as much as how to achieve it.

If not developmental, African states may also be classified as reformative, i.e. the impetus of change arise autonomously from the within the state structures themselves not simply as a response to demand by social classes. This is based on the understanding of the state as not being an internally cohesive and unitary actor but composed of several distinguishable dimensions of often contending structures, interests and capabilities (Moon & Prasad, 1998) is contrary to the assumptions underpinning the rentier state concept. In this context, reformative behavior of the state can emerge from several levels and locations including sections of the elite such as top government officials; ideological leaders in political parties; nosiness executives, military leaders who may be motivated to act for change not by interest which may not necessary personal or self-serving in nature. Revolutions, after all are replete with examples of the state acting as agents of change.

According to Trimberger (1978) "revolutions from above" are more feasible when the bureaucratic apparatus is relatively autonomous of the political elite and if the bureaucrats themselves are autonomous and dynamic in the sense that they recruited competitively and not selected from the commercial, industrial ruling class and do not form alliances with these classes for economic gain. Elites can be agents in the reform process and destined only to predatory (Trinidad, D. D,2012). The African political economy literature discusses these contentions in great detail (see for example Laakso and Olukoshie, 1996, Omano, Edigheji, 2004, Kidane M, 1995)

The scope for reforms, according rational choice theorists, also depend on the ability of the state to tax, coerce and shape the incentives affecting the private sector and to make effective bureaucratic decisions (Geddes 1994). The reform of the bureaucracy is a necessary step to build state capacity to manage change.

The essence of the brief exploration of state-types is to make the point that conceptually, one's analysis a of the impact of natural resource wealth on development outcomes, begin with an assumption of state-form, which in the case of the "Resource" Literature is based overwhelmingly on the rentier state concept, which as we have demonstrated cannot be the only prism from which to examine how natural resource wealth can be an asset to Africa.

"In so far as one general conclusion can be drawn, it is that a country's economic performance following a resource boom depends to a considerable extent on the policies followed by government… Even small economies have considerable influence over their own economic performance" Neary & Wijbergen (1986).

4.7 Conclusion

The literature reviewed in this paper has sought to establish the theoretical and empirical (largely econometric) links between natural resource dependency and intensity in an economy, and development outcomes – economic, social and political. The focus of much of the literature is the booms and burst nature of natural resource exports and prices and the risks they pose to economies, politics and society. These impacts, in the African context, are seen largely in a negative light.

However, the impacts can also be positive. The nature and extent of their impacts depend on several factors, not least the type of the natural resource in question (whether it is point-source or disperse); the quality of economic and political institutions prior to the boom and crucially the share of manufacturing

in GDP prior to the boom, which is also an important determinant of the quality of institutions and political regime type e,g whether the state is developmental, reformist and rentier in nature.

Governments hold important parts of the key that can unlock long-term prosperity. They can take remedial measures to mitigate negative impulses such as volatility and rent-seeking; they can invest in human capital to expand the opportunities to harness technologies for industrialization; they can aggressively take measure to diversify their economies and they can opt to support the deepening of democracy by fostering transparency, accountability, the rule of law and inclusive development. However, capabilities matter as much as willingness to act. Building state capability act is an important part of the solution. Capabilities include the wear withal to plan and implement plans, to capture, redirect and manage rents for developments to be pro-active in the desire to diversify economies.

In the final chapter, we explore in greater detail, policies and actions that may be necessary to convert resource opportunities in transformational development, noting various levels of intervention– international, macro/national, meso and micro - and differentiating among resource types and regimes types.

List of References

Acemoglu, D. and Robinson,J.A. (2006): 'Economic Origins of Dictatorship and Democracy: Economic and Political Origins' Cambridge University Press, Cambridge

Acemoglu, D., Robinson, J. A. et. al., (2001): 'The Colonial Origins of Comparative Development: An Empirical Investigation' American Economic Review Vol. 91(5), pp. 1369-1401

Atkinson,G., and Hamilton,K. (2003): 'Savings, Growth and the Resource Curse Hypothesis' World Development Vol. 31, Issue 11, pp 1793-1807

Auty, R.M. and A.H. Gelb (2001). Political Economy of Resource-Abundant States, in: Auty, R.M. (ed.), (2001), Resource Abundance and Economic Development, Oxford University Press, 126-144.

Baldwin, A. D. (1966): 'Economic Development and American Foreign Policy, 1943-62' The University of Chicago Press, Chicago

Bannon, I., and Collier, P., (2003): 'Natural Resources and Violent Conflict : Options and Actions' World Bank, Washington, DC

Bardhan, P. (1997) Corruption and Development: A Review of Issues. Journal of Economic Literature, 35, 1320-1346

Barma, N.H., Kaiser, K., and Vinuela, L., (2012): 'Rents to Riches? The Political Economy of Natural Resource-Led Development' World Bank, Washington DC,USA

Beblawi, H. and Luciani, G. (1987). The Rentier State, London: Croom Helm

Beblawi, H., and Giacomo L. (Eds) (1987): 'Nation, State and Integration in the Arab World', Vol, 2: The Rentier State, Croom Helm: London, UK

Benjamin, C.N., Devarajan, S. and Weiner, J.R. (1989): 'The Dutch disease in a developing country: Oil reserves in Cameroon' Journal of Development Economics Vol. 30 Issue 1 pp.71-92

Blatter,J. and Ingram,H., (2000): 'States, Markets and Beyond: Governance of Transboundary Water Resources' Natural Resources Journal 40(2) University of California, USA

Bleaney, F. M., and Greenaway, D. (1993): 'Long-Run Trends in the Relative Price of Primary Commodities and in the Terms of Trade of Developing Countries' Oxford Economic Papers Vol. 45, Issue 3, pp. 349-63

Bourguignon,F., and Verdier, T. (2000): 'Oligarchy, democracy, inequality and growth' Journal of Development Economics Vol. 62, issue 2, pp. 285-313

Bratton, Michael and van de Walle, Nicolas, 1997. Democratic Experiments in Africa: Regime Transitions in Comparative Perspective (Cambridge: Cambridge University Press)

Bravo-Ortega, C., and de Gregorio, J. (2005): 'The relative richness of the poor? natural resources, human capital, and economic growth' Policy, Research working papers No. WPS 3484 World Bank, Washington DC

Brooks, S., & Kurtz, M. (2016). Oil and Democracy: Endogenous Natural Resources and the Political "Resource Curse". *International Organization, 70*(2), 279-311

Brunnschweiler, N. C.(2008): 'Cursing the Blessings: Natural Resource Abundance, Institutions and Economic Growth' World Development Vol. 36, No. 3, pp 399-419 Elsevier Ltd.

Carbonnier, G., Wagner, N., and Brugger, F., (2011): 'Oil Gas and Minerals: The Impact of Resource-Dependence and Governance on Sustainable Development' CCDP Working Paper, The Centre on Conflict, Development and Peacebuilding, Geneva

Clarida, Richard H. and Ronald Findlay (1992): 'Government, Trade, And Comparative Advantage' American Economic Review Vol. 82(2), 122-127

Collier, P., Elliott, V. L., Hegre, H., Hoeffler, A., Reynal-Querol, M., and Sambanis, N. (2003): 'Breaking the Conflict Trap : Civil War and Development Policy' A World Bank Policy Research Report, World Bank and Oxford University Press, Washington, DC

Cuvelier, J., Vlassenroot, K., and Olin, N., (2013): 'Resources, Conflict and Governance: A Critical Review of the Evidence' JSRP Paper 9, Justice and Security Research Programme, London

Easterly, W. (2001): 'The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics' The MIT Press Cambridge, Massachusetts London, England

Easterly, W., and R. Levine (2003): 'Tropics, Germs and Crops: How Endowments Influence Economic Development' Journalof Monetary Economics Vol. 50, 3-40

Fardmanesh, M. (1991): 'Dutch disease economics and oil syndrome: An empirical study' World Development Vol. 19, Issue 6, pp. 711-717

Findlay, R. and M. Lundahl (2001). Natural Resources and Economic Development: the 1870-1914 Experience, in: Auty, R.M. (ed.), Resource Abundance and Economic Development, Oxford University Press, 95-112

Giovanni,B. (1956): 'The Reason of State' New Haven, Yale University Press

Gylfason, T., Herbertsson, T., and Zoega, G. (1999): 'A Mixed Blessing: Natural Resources and Economic Growth' Macro Economic Dynamics Vol. 3 pp. 204-225

Gylfason, Thorvaldur (2001): 'Natural Resources and Economic Growth: What is the Connection?' CESifo Working Paper No. 530 Center for Economic Studies and Ifo Institute for Economic Research, Munich, Germany

Hall, E.R., and Jones, I.C. (1999): 'Why Do Some Countries Produce So Much More Output per Worker than Others?' NBER Working Paper No. 6564 (Also Reprint No. r2231)

Harrison, F., (2008): 'The Silver Bullet' International Union for LandValue Taxation, London

Hausmann, R., and Rigobon, R. (2002): 'An Alternative Interpretation of the 'Resource Curse': Theory and Policy Implications' NBER Working Paper No. 9424. Cambridge, MA, National Bureau of Economic Research.

Hirschman, A. O. 1958. The Strategy of Economic Development. New Haven: Yale University Press.

Humphreys, M. 2005. “Natural Resources, Conflict and Conflict Resolution.” Journal of Conflict Resolution 49: 508–37

Humphreys, M., Sachs, D. J. and Stiglitz, E. J. (“*What Is the Problem with Natural Resource Wealth?*” in Escaping the Resource Curse, Humphreys, M., Sachs, J.D., Stiglitz, J.E., eds. (New York, Columbia University Press, 2007)

Huntington, P.S. (1965): ‘Political Development and Political Decay’ World Politics, Vol. 17 No. 3 pp. 386-430

Jensen, M.N (2003): ‘Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment’ International Organization, Vol. 57, No.3 (Summer 2003), pp 587-616

Jensen,N. and Wantchekon,L. (2004): ‘Resource Wealth and Political Regimes in Africa’ Comparative Political Studies , Vol. 37 No. 7 September 2004 Sage Publications New York USA

K.C. Roy, C.A. Tisdell, (1998) "Good governance in sustainable development: the impact of institutions", International Journal of Social Economics, Vol. 25 Issue: 6/7/8, pp.1310-1325 MCB UP Limited

Kattel,R., Kregel, A.J and Reinert, S. E. (eds) 2009: ‘Ragnar Nurkse(1907-2007): Classical Development Economics and its Relevance for Today’ Anthem Press, London

Lederman, D., and Maloney, F. W., (2003): ‘Trade Structure and Growth’ The World Bank Washington, DC

Leff, N.H. (1964) Economic Development through Bureaucratic Corruption. American Behavioral Scientist, 8, 8-14

Leite, C. and J. Weidmann. 1999. “Does Mother Nature Corrupt?” Working Paper, IMF

Leite, C. and Weidmann, J.(1999):’ Does Mother Nature Corrupt: Natural Resources, Corruption and Economic Growth’ IMF Working Paper IMF Washington DC. USA

Levy, B., and Fukuyama, F., (2010): ‘Development Strategies : Integrating Governance and Growth’ Policy Research Working Paper No. 5196. World Bank, Washington, DC

Mahdavy, H. (1990). “The Patterns and Problems of Economic Development in Rentier States: The Case of Iran”. In M.A Cook (ed.) Studies in Economic History of Middle East, London: Oxford University Press

Matsen, E. og Torvik, R. (2005): ‘Optimal Dutch disease’, Journal of Development Economics 78, 494-515

Matsuyama, K. (1992). Agricultural productivity, comparative advantage, and economic growth, Journal of Economic Theory 58, 317-334

Mauro,P. (1995): ‘Corruption and Growth’ The Quarterly Journal of Economics Vol. 110, No. 3 pp.681-712 The MIT Press

Mkandawire, T. (2001): ‘Thinking About the Developmental States in Africa’ Cambridge Journal of Economics Vol. 25 (3), pp. 289-314

Moore, M. (2007): 'How Does Taxation Affect the Quality of Governance?' IDS Working Paper 280 Institute of Development Studies, Brighton UK

Murshed,M. S. (2004): 'When Does Natural Resource Abundance Lead to a Resource Curse?' EEP Discussion Paper 04-01 International Institute for Environment and Development, London

Myrdal, G. (1957): 'Economic theory and under-developed regions' G. Duckworth

Neary, P.J. and van Wijnbergen, S. (1986): 'Natural Resources and the Macroeconomy: A Theoretical Framework' UCD Centre for Economic Research Working Paper Series; No. 36 University College Dublin School of Economics

Olukoshi, O.A., and Laakso, L. (eds) (1996): 'Challenges to the Nation-State in Africa' Nordiska Afrikainstitutet Uppsala, Sweden

Paldam, M., and Svendsen,G. (2000): 'An essay on social capital: looking for the fire behind the smoke' European Journal of Political Economy Vol. 16, Issue 2 pp 339-366

Prebisch Raul (1950): 'The Economic Development of Latin America and it Principal Problems' United Nations Department for Economic Affairs, New York

Pronk ,J.P (1997): 'Changing Relationships between State and Society and their implications for Development Policy' Public Lecture, Centre for Development Studies, University of Groningen Netherlands

Robinson, J.A., R. Torvik, and T. Verdier (2006). Political foundations of the resource curse, Journal of Development Economics 79, 447-468.

Rodrik, D., Subramanian, A., and Trebbi,F., (2004): 'Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development' Journal of Economic Growth Vol. 9, No. 2 (Jun., 2004), pp. 131-165 Springer.

Ross, L.M (1999): 'The Political Economy of the Resource Curse' World Politics Vol. 51, No. 2, pp 297-322 John Hopkins University Press

Sachs, D.,J. and Warner, M.A. (2001): 'The Curse of Natural Resources' European Economic Review 45 (2001) pp 827-838 Center for International Development, Harvard University, Cambridge MA, USA

Sachs, J. and A. M. Warner. 1995. "Natural Resource Abundance and Economic Growth." NBER Working Paper No. 5398. Sachs, J. and A. M. Warner. 2001. "The Curse of Natural Resources." European Economic Review 45(4–6): 827–38.

Seers, D. (1964): 'The mechanism of an open petroleum economy' Social and Economic Studies Vol. 13, pp. 233-242.

Serra,A. (1613): 'A Short Treatise on the Wealth and Poverty of Nations (1613)'

Singer, H. (1950): 'The Distribution of Gains Between Investing and Borrowing Countries' American Economic Review, Papers and Proceedings Vol. 40.2 pp 473–485

Stijns, J.P.(2006): 'Natural resource abundance and human capital accumulation' World Development, Vol. 34(6), pp. 1060-1083

Sundaram, K.J. and Chowdhury, A. (eds) 2012: 'Is Good Governance Good for Development?' United Nations and Bloomsbury, New York

Sweder van Wijnbergen (1984): 'The 'Dutch Disease':A Disease After All?' The Economic Journal Vol. 94 Issue 373 pp.41-55

Toye, J. and Toye, R. (2003): 'The Origins and Interpretation of the Prebisch-Singer Thesis' History of Political Economy Vol. 35, 3 pp. 437-467

Trinidad D. Dennis, (2008): 'Understanding the Rise of the Reformative State and its Choice of Policy: An Agent-Structure Approach' South -South Collaborative Programme Occasional Paper Series

UNECA (2015): 'Illicit Financial Flows: Report of the High Level Panel on Illicit Financial Flows from Africa' United Nations Economic Commission for Africa, Addis Ababa, Ethiopia

Wantchekon, L. (1999): 'Why Do Resource Abundant Countries Have Authoritarian Governments?' Yale University Leitner Center Working Paper 99-12.

Wantchekon, L., and Jensen,N., (2004): 'Resource Wealth and Political Regimes in Africa' Comparative Political Studies Vol. 37 No. 7 pp 816-841 Sage Publications

Wantchekon,L. (1999): 'Why do resource abundant countrieshave authoritarian governments', Yale University Leitner Center Working Paper 99-12, New Haven, Yale University

[i] North, D.C. 1990, *Institutions, Institutional Change and Economic Performance,* New York, Cambridge University Press and Schleifer A and R. Vishny, 1993, "Corrutpion". Quarterly Journal of Economics (59). 599-17

[ii] North, D.C. 1990, *Institutions, Institutional Change and Economic Performance,* New York, Cambridge University Press and Schleifer A and R. Vishny, 1993, "Corrutpion". Quarterly Journal of Economics (59). 599-17

[iii] Mauro P, 1995 "Corruption and Growth". *The Quarterly Journal of Economics (90) 681-712*