



From Natural Resource Dependence to Diversified Economies: An Agenda for Future Research

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EXECUTIVE SUMMARY

This policy note aims to outline potential future directions for research on natural resource governance in Africa, with specific focus on the extraction of minerals and hydrocarbons. These are non-renewable resources, which tend to provide windfall revenues to governments for as long as they are economically viable to extract. Serious questions arise about how governments absorb the windfall in the short term, and what they do in the longer term to diversify their economies to ensure sustainable benefit from the resources beyond their depletion. It concludes by suggesting an agenda for future research, particularly focused on policies that are likely to help nudge countries towards more inclusive and sustainable growth paths.

sustainability questions, which this paper aims to address with a view to crafting a future research agenda. First, these questions are placed within a broader debate over the quality of Africa's recent growth uptick. Second, it draws attention to the paradoxical relationships that tend to accompany resource booms, such as adverse governance outcomes. Third, the opportunity costs of resource-led development are explored. Fourth, these costs, and the importance of strong institutions, point to the continued importance of good governance if resources are to contribute to sustainable development. Fifth, resource extraction, especially of finite minerals and hydrocarbons, requires extensive foreign investment. How foreign companies operate in Africa should therefore be better understood. The note concludes by offering specific questions that future research should seek to answer.

INTRODUCTION

African countries remain heavily dependent on natural resources – both renewable and non-renewable – for economic growth. This raises both governance and

AFRICA IN THE GLOBAL CONTEXT

A debate is currently under way that attempts to assess the quality of sub-Saharan Africa's (SSA) recent growth episode. International Monetary Fund (IMF)

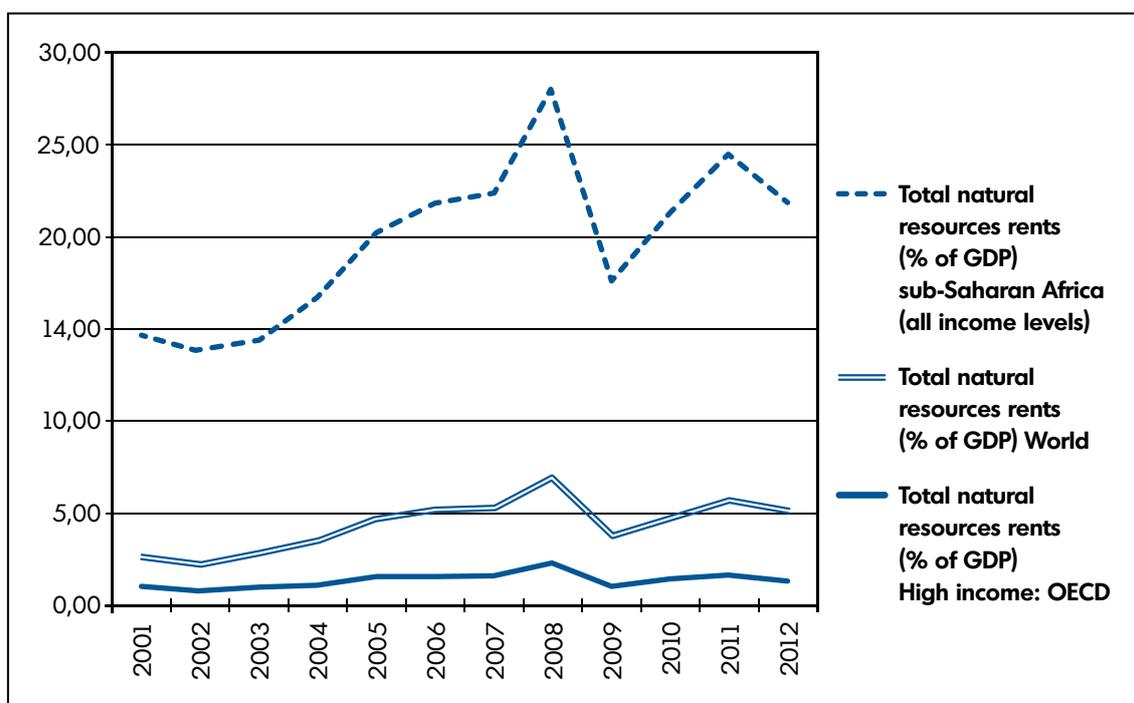
authors Martinez and Mlachila argue that growth quality has unambiguously improved.² Others are more sceptical.³ Both sides agree that better data are required and that *high* growth rates do not say enough about the *quality* of that growth, which has much to do with how inclusive and sustainable it is. Inclusivity is important because broad-based political institutions are a prerequisite for building the kind of economic institutions from which growth can translate into sustainable development.⁴ The sustainability question is informed by concerns that Africa's recent growth episode occurred off a low base, and is still highly resource-dependent.

The graph (Figure 1) indicates the extent to which growth in SSA is still concentrated in natural resource rents. This does not necessarily proxy for dependence. A better measure of dependence might be the ratio of natural resource exports to total imports, as that would reflect the purchasing power generated by

commodity exports. Nonetheless, the volatility of commodity prices and potential distortion of political incentives from windfall resource wealth renders resource-concentrated growth problematic. Governments, for instance, are susceptible to undertaking large capital projects on the assumption of continued commodity price booms, which leads to indebtedness if the assumption fails.

Global economic recovery remains fragile, and with it the demand for commodities. In the long run, demand is likely to increase again, though a shift in composition is likely. The shale gas revolution in the United States and consequent energy independence in the world's largest economy means, for instance, that demand for Africa's oil will shift eastwards. Hydrocarbon demand is likely to remain strong, especially for as long as fossil fuel subsidies remain a large part of how each major country addresses its energy supply requirements. This challenges efforts

Figure 1: Total natural resource rents (% of GDP) in comparative context, 2001–2012



Note: GDP = gross domestic product

OECD = Organisation for Economic Co-operation and Development

Source: World Bank Databank: World Development Indicators, June 2014, <http://databank.worldbank.org/data/views/variableSelection/selectvariables.aspx?source=world-development-indicators>, accessed June 2014.

to address climate change but, simultaneously, explains why achieving binding global agreement on how to mitigate and adapt to climate change remains elusive.

Martinez and Mlachila insist that SSA has experienced quality growth, defined as ‘strong, stable, sustainable increases in productivity [that] lead to socially desirable outcomes like improved standards of living, especially in the reduction of poverty’.⁵ However, they admit that improvement in social indicators, such as under-5 mortality rates, has been uneven. The improvements could also be attributable to exogenous improvements in, and availability of, global health technology, and not necessarily to growth. This again illustrates the point that growth without concomitant improvements in governance is unlikely to yield sustainable improvements in social welfare, especially in resource-wealthy countries.

PARADOXES OF NATURAL RESOURCE DEPENDENCE

World Bank analysts Arbache and Page show that⁶

governance indicators have declined since 1996 for the region as a whole and for the resource-rich economies compared with non-resource-rich economies during growth accelerations . . . suggesting the possibility that in mineral-rich economies booms are accompanied by adverse governance outcomes that may eventually reduce further growth.

The primary problem with commodity-concentrated growth is not only the volatility inherent therein, but that in the context of weak political and economic institutions, natural resource endowments may generate incentives for unproductive rent-seeking, with a resultant negative effect on political institutions. One proxy for the strength of political and economic institutions is the freedom of the press, as the fourth estate is a relatively independent guardian of transparency and accountability. Figure 2 (overleaf) demonstrates the relationship between institutional quality (proxied by press freedom) and natural resource dependence (measured as a

ratio of natural resource exports to total imports), averaged across 2000 to 2010.

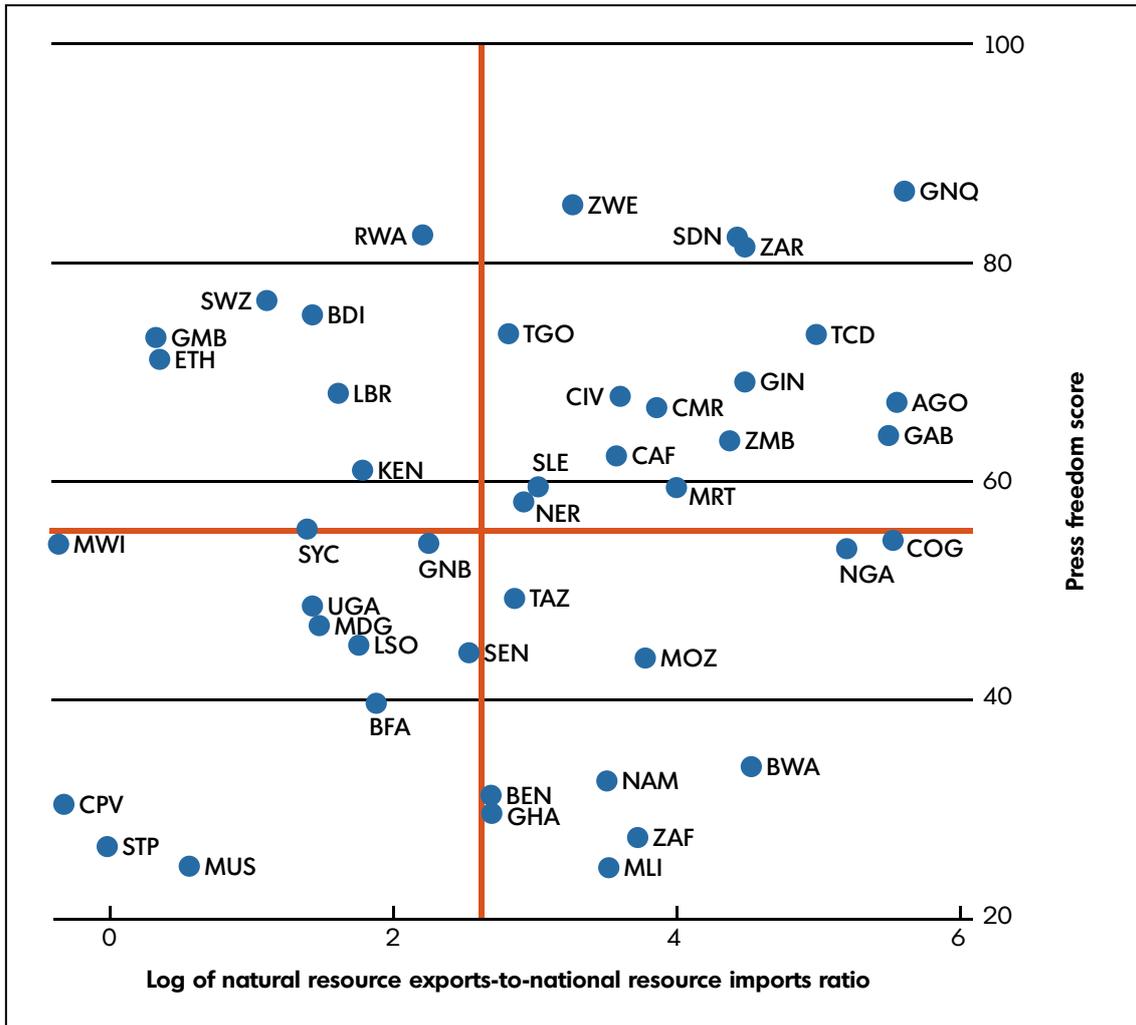
The graph reveals that most countries with a high degree of natural resource dependence exhibit low press freedom scores (the higher the number on the vertical axis, the lower the score). There are only a few exceptions to the rule (in the bottom right quadrant), namely Benin (BEN), Ghana (GHA), Namibia (NAM), Botswana (BWA), South Africa (ZAF) and Malawi (MLI). A caveat is, however, in order. Nigeria is Africa’s largest oil exporter and exhibits a ‘partly free’ press score of 50. Similarly, Rwanda’s press is ‘not free’, scoring 82, though it is comparatively non-reliant on resource exports to fund its imports. The graph is thus useful to develop a general picture, but should not be understood as determinative.

THE OPPORTUNITY COSTS OF RESOURCE EXTRACTION

In addition to the potential negative effect on institutions, the extractive process itself typically produces negative externalities or spillover costs. Externalities refer to the social costs of production that are not formally captured within conventional pricing methods and, by definition, not internalised by the offending firm.⁷ They constitute the divergence between private returns and social costs, creating social inefficiencies; for instance, a mining company might pollute a river, destroying downstream livelihoods and biodiversity in the process. Less powerful communities often disproportionately bear the impact of these externalities, while political and corporate elites reap the benefits of offloading them. How to measure the relevant value of both positive and negative externalities is a continued source of contention.

Establishing universal consensus on these measurement issues is critical, given the propensity to misallocate capital as a result of incorrect evaluation. Negative externalities ultimately pose a constraint to growth, and should therefore be reliably captured in accounting for the productive process. Until there is agreement over identification and measurement, the global

Figure 2: Press freedom versus natural resource dependence in SSA, 2000–2010



Source: United Nations Council for Trade and Development (UNCTAD), <http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx>; Freedom House Interactive Data Tool, <http://cf.datawrapper.de/s4MnR/6/>; Author's calculations.

system of national accounts (SNA) is unlikely to change. SNA change to reflect natural capital costs would be the ultimate tool for reducing externalities. At present, without such changes, if one company were to internalise these costs and pass them on to the consumer through higher product prices, it would risk pricing itself out of the market. If there is no foreseeable advantage to being the first mover, companies are unlikely to incur the risk of doing so. Governance efforts to harmonise ecological integrity losses with extractive industry development benefits will also remain difficult until both are more accurately evaluated and accounted for.

The sheer level of public attention paid to climate change, however, creates opportunities for price discrimination and the production of ‘green products’, which wealthier consumers are able and willing to consume. Fossil fuel extraction and electricity generation, as damaging as they are to the global commons, may reduce indoor air pollution (a major health hazard and atmospheric pollutant)⁸ and generate capital for investment in these new industries. By and large, however, developing countries do not possess the levels of per capita wealth necessary to spend scarce disposable income on consuming these products. Neither do they have the levels

of human capital or technology necessary to produce them. Many African countries are projected to become remarkably oil-wealthy (and dependent) over the next two decades. This raises a tension that is often overlooked in climate change debates: developing countries tend to demand compensation from wealthy countries for mitigation and adaptation measures. However, little attention is paid to likely future emissions from extractive industry-led growth. With the 21st session of the Conference of the Parties (COP 21) climate negotiation coming up in 2015, an important research question to broach is whether the climate change impact of fossil fuel could be partly offset by concomitant reductions in indoor air pollution. Piping the gas released from oil extraction (instead of flaring it) may be a useful policy intervention in this respect.

The costs and benefits of natural resource extraction, and the associated costs and benefits of the purposes for which resources are extracted, need to be studied far more extensively if development approaches are to be optimised.

RESOURCE GOVERNANCE REMAINS A CENTRAL ISSUE

While natural resource endowments are intuitively expected to bring development benefits, Africa's historical experience has suggested the opposite may be true. Africa's recent growth episode is, on average, strongly associated with a growth in resource rents, even though other sectors are growing faster (albeit off a low base). The correlation between resource abundance and poor social indicators, despite economic growth, remains a development puzzle. Part of the explanation lies in the relationship between resource dependence and weak institutional quality. Moreover, finite resources are being depleted and renewable resources are being extracted beyond their maximum sustainable yield. Climate change mitigation policies, along with social pressure to reduce environmental degradation, means that *profits* from extractive industry activities are likely to grow at a decreasing rate (unless new technologies reduce marginal extraction costs substantially). However,

demand for mineral and hydrocarbon resources is likely to remain strong, and profits generated from extractive activities could still contribute significantly to inclusive and sustainable development. The big question is: how?

A large part of the answer lies in better understanding exactly how resources are extracted, processed and sold. This raises questions about who owns the resources; who extracts them; who processes them; who sells them; and who buys them. Furthermore, 'deeper analysis is needed to dig into the interrelations between various aspects of growth and inter-linkages with socially desirable outcomes'.⁹

WHY UNDERSTANDING THE NATURE OF NEW PLAYERS IS IMPORTANT

At a basic level, for minerals and hydrocarbons to be useful for development, they must be extracted and sold. In African economies, this invariably requires foreign investment, as domestically available capital is insufficient for executing capital-intensive mining projects with long lead times preceding production and profit-making. The constraints within which these foreign players operate and interact with domestic elites is therefore important for understanding the likely impact of resource extraction on host country institutions in Africa. To this end, a key concept for examining institutions is that of an elite bargain – a deal between political and business elites by which economic arrangements are manipulated through the political system to generate rents to be distributed between powerful players and their beneficiaries.¹⁰ The elite bargain is animated by a double balance between rent generation, on the one hand, and institutional arrangements, on the other. How resource wealth affects this double balance is at present little understood. This is largely because the nature of the interaction between the extractors and host country elites has not been studied in systematic detail. Researchers and policymakers aiming to craft more effective development policies in Africa should study 'the ways in which globalised engagement – with foreign investors

and with donors, as well as via global and regional geopolitics – influences interactions among elites and between elites and non-elites’.¹¹

Political institutions are a key channel through which natural resource wealth affects development outcomes in Africa. Too many policy prescriptions hitherto have underplayed the importance of political dynamics and the incentives embedded in the ‘double balance’ between rent generation and institutional arrangements. Transparency and accountability are crucial for ensuring better development outcomes. Binding constraints on political and business elites will improve institutional quality. How to credibly forge these constraints, however, in contexts where resource rents tend to entrench incumbents, is poorly understood. One recent book demonstrates, for instance, how divestment campaigns that targeted Western oil companies in Sudan paved the way for Asian oil giants to dominate the sector, bringing with them policies of non-interference in the country’s domestic affairs.¹² Divestment and transparency campaigns can produce unintended negative consequences. Players committed to transparency and accountability therefore need to find incremental, incentive-compatible ways of initiating reform that will nudge countries towards growth paths that exhibit greater inclusivity and accountability.¹³ The research agenda outlined below should make a helpful contribution in this direction.

CONCLUSION

This paper has argued that Africa’s recent growth episode is encouraging on some levels, but substantial questions remain over governance quality, uneven improvement in social indicators and the volatility of resource-concentrated growth. Improved governance of natural resources, especially finite extractives, is therefore a critical research and policy goal. Resource extraction necessarily entails difficult trade-offs, particularly pertaining to climate change and preserving ecological integrity. It also requires large sums of foreign investment, which raises governance questions about the

constraints within which those investors operate. A future research agenda should therefore aim to comprehend these dynamics. Policy recommendations derived from this research should be credible and implementable.

AN AGENDA FOR FUTURE RESEARCH

Future research should, in the light of the preceding analysis, consider the following:

- How to either reduce commodity concentration in SSA economies, or – where diversification does not necessarily make sense at present – devise better policies to harness natural resource wealth for inclusive and sustainable development. In particular, how can resource wealth be more efficiently allocated towards investments in human capital and the adoption of new technologies?
- How the constraints within which foreign players operate (the laws and regulations to which they are subject) affect the nature of the elite bargain in host countries.
- How to minimise the opportunity costs (social and environmental) of natural resource extraction, especially in the light of climate change debates: For instance, is fossil fuel extraction and burning justified for the sake of electricity generation, which may offset other environmentally damaging activities such as burning wood for warmth and cooking?
- How to improve the institutions responsible for governing natural resources. This requires a better understanding of the political dynamics that invariably influence the efficacy of governance initiatives.

ENDNOTES

- 1 Ross Harvey is a senior researcher with the Governance of Africa’s Resources Programme (GARP). His field of interest is the political economy of mining and development.
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