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Fiscal opportunities and challenges derived from the management of extractive resources revenues

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Key messages

Extractive business has to be mainstreamed into local economy.	Transparency is crucial in revenue management.	Local capacity needs to be built for institutions and state officials.	Severe punitive sanctions should go hand in hand with incentives…

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Acronyms

EIR	Extractive Industries Review
EITI	Extractive Industries Transparency Initiative
FGN	Federal Government of Nigeria
GDP	Gross Domestic Product
GPF-G	Government Pension Fund Global
IMF	International Monetary Fund
IRS	Internal Revenue Service
JV	Joint Venture
MMCs	Multinational Mining Companies
MNCs	Multinational Companies
NEITI	Nigerian Extractive Industries Transparency Initiative
NNPC	Nigerian National Petroleum Corporation
PHF	Petroleum Holding Fund
PIB	Petroleum Industry Bill
PRMA	Petroleum Revenue Management Act
PWYP	Publish What You Pay
SWF	Sovereign Wealth Fund
TPR	Transfer Pricing Regulations
USA	United States of America

Abstract

Fiscal opportunities and challenges derived from the management of extractive resources revenues

The economies of resource-rich developed countries are highly dependent on well-functioning management of extractive resources in turning opportunities into advantages to benefit the population as a whole and aim at achieving sustainable development. For resource-rich developing economies however, various challenges impose obstacles, which hinder realisation and, indeed, optimisation of revenues, as reflected in experiences from Nigeria and Ghana. Extractive resource revenue management requires transparency and accountability in the entire process if benefits are to be unleashed for sustainable development. Although there are countries doing extremely well in the business of extraction of natural resources, many African resource-rich countries have shown a lack of commitment to learn from such countries, especially the United States of America, Norway and Botswana. The latter have been able to mainstream their natural resource extractive operations into beneficial strategies which significantly impact the effective harnessing of the socio-economic potential of those countries, including poverty reduction. This paper aims at outlining challenges and opportunities in the management of natural resources by exploring fiscal opportunities within the larger context of strategic influence of taxation and its usage on development. Although transparency might be one of the most important factors for sustainable development, the critical role of focused long-term strategy that thrives on effective utilization of natural resource revenues cannot be over-emphasised. Additionally, holding the government accountable for actions in respect of tax management and revenue usage is equally important in the march toward the attainment of sustainable growth and development.

Executive Summary

Fiscal opportunities and challenges derived from the management of extractive resources revenues

Natural resource-rich developing countries, notably most African countries, have been contending with the challenge of socio-economic deprivation in the midst of plenty. Poor planning and the willingness with which state officials sign away minerals and other property rights account, in a significant measure, for the continued state of poverty in resource-rich but poor developing countries. The five-nation literature research into the management of natural resources for sustainable development provided significant findings on how resources could be best harnessed for sustainable development. Experiences from America, Norway and Botswana, countries that have been able to reap significant benefits from natural resources for the good of their citizens, reflect the importance of strategic thinking in the scheme of resource management. The fact that Norway in particular has been able to secure the interest of present and future generations with revenues from oil and gas resources attests to the efficacy of home-brewed solutions to local challenges. Mainstreaming of extractive resource exploitation activities into dominant local economy businesses reflects a sustainable economic development model for resource-rich but poor developing countries.

Institutional and human resource capacity building efforts are key to ensure sustainable transformation of economies in ways that ensure transparency in crafting new laws and updating old ones that regulate investment flows into mining operations. In this regard, the role of international financial institutions such as the World Bank and the International Monetary Fund (IMF) is critical to exact accountability from both foreign Multinational Mining Companies (MMCs) and national governments. Failure to adhere to pro-poor and development-oriented policies for the extractive sector will continue to wreak havoc on mining communities through environmental degradation and concomitant civil strife that threaten peaceful co-existence of MMCs and local mining communities. Tax laws will have to be strengthened to curb fiscal challenges such as illicit transfer pricing and capital flight that often characterise mining operations in Africa. Incentive packages as well as severe punitive sanctions should go hand in hand to inject ethical sanity into fiscal regimes in natural resource-rich but poor African countries.

Success stories and experiences highlighted from America, Norway and Botswana extractive industry development models are meant to offer guidance with regard to commendable actions and insights into the potential benefits that await resource-rich countries that invest resources in attracting critical minds into the management of extractive resources. In opening their mining shafts to Multinational Companies (MNCs), Resource-rich countries need to strategically position themselves to gradually acquire the competence and skill-set which may not be available at the onset to gradually take ownership of their God-given resources. In the same token, rather than cede off entire mines for insignificant carried interest, resource-rich African states should negotiate for significant equity stake in mining concessions to afford them the opportunity to influence critical decisions at the top echelons of mining firms.

Introduction

As in all areas of human endeavour, opportunities as well as challenges, abound in the exploitation and management of extractive resources. However the ability to overcome the challenges, so as to maximise advantages from the opportunities created, remains the yardstick used in measuring the commitment and efficiency of state leadership in this economic sector which is crucial to so many countries especially developing countries whose hope for a better future for their citizens is based on an efficient harnessing of their natural resources. Contractual flaws, corruption and unskilled local labour have been identified as some of the challenges which have contributed to the persistence of poverty in natural resource-rich countries that underlies the mystery of want in the midst of plenty.

The disconnect between anticipated benefits contained in revised mineral laws and the reality of poverty in the midst of plenty, has called into question the efficacy of revised mineral laws executed in the last three decades. The World Bank and the International Monetary Fund, institutions that engineered the reforms, have come under a barrage of criticisms for allegedly working more in the interest of rich Multinational Mining Companies (MMCs) than in the interest of resource-rich countries. The criticisms have been informed by the advice offered to natural resource-rich developing countries to incentivise foreign investors with tax and related concessions to revitalise their then non-performing mines. Over-generous tax concessions and stability agreements that restricted periodic reviews of contracts, a common trait which characterised contracts in Africa, have not served the best interest of host countries, hence the call for more reviews[1]. The perception has been that the international financial institutions did the bidding of MMCs with the reform advice, which compromised their own mandate of reducing poverty through sustainable development strategies.

Developing natural resource-rich African countries such as Ghana, Uganda, Tanzania, and Mozambique have, in the last decade, discovered crude oil in commercial quantities and have, through generous contracts, attracted significant foreign direct investments. The euphoria that characterised the findings was however, short-lived because it was soon realised that expected benefits contained in the reforms were yet to be actualised. Concerns have, therefore, been expressed on the need for efficient harnessing of proceeds from new findings to avoid the resource curse, which has been the bane of most natural resource-rich African countries.

Lessons from America and Norway, countries with better management strategies, offer interesting insights into approaches that could inform the strategic thinking of natural resource-rich African countries as they commit to using natural resource revenues for national development. Admittedly, experiences from these countries may derive from peculiarities akin to their respective socio-cultural milieu, which may therefore render ineffective the replication of such development models in Africa. These lessons are however being discussed with a view to enable natural resource-rich African countries to innovatively adapt lessons learnt to their specific national development goals. Additionally, experiences from Botswana, a country that has changed its fortunes as a result of better negotiated contractual agreements and efficient management of its natural resources, reflect a good example of a country that can rise above its challenges to do the right thing in efficiently harnessing its natural resources in the national interest.

The positive experiences outlined in this paper from the three countries aforementioned may inform public policy toward the development of home-brewed solutions to help protect national interest which has been compromised by existing mining laws that so far appear to serve mostly the interest of MNCs.

[1] Akabzaa (2009).

The present paper provides findings on insights gained from literature research on challenges and opportunities in the management of natural resources from the United States of America (USA), Norway, and Botswana. Studies from these countries shall be contrasted with unfortunate experiences from Nigeria and Ghana, where natural resource exploitation has, for many years, failed to achieve expected major structural transformation in those two countries. Ineffective management of natural resource revenues in these countries, apart from reflecting poorly on the overall exploitation strategy, also reflects the lack of significant equity participation, beyond non-contributory carried interest, which rarely afford host countries the necessary voice to safeguard national interest.

This paper explores fiscal opportunities within the larger context of strategic influence of taxation and its application to development. It is divided into five sections. Sections 2 and 3 highlight relevant experiences from best performing natural resource-rich countries and from poor performing natural resource-rich countries respectively. Section 4 makes recommendations based on lessons to facilitate effective management of natural resources for the benefit of economies of natural resource-rich developing countries and Section 5 draws some tentative conclusions.

1. Experiences from better performing countries

1.1. The United States of America (America)

Research into the beginnings of mining operations in America highlighted the central role of strategic planning and implementation in the broader scheme of sustainable national development. America's engagement in natural resource extraction dates from 1889 to 1920, a decisive period, during which America became the leading producer of extractive resources such as coal, iron ore, copper, lead, zinc, silver, petroleum, arsenic, mercury, salt, gold and bauxite[2]. America's success was primarily based on a deliberate strategy to forge a dynamic link between natural resource exploitation and manufacturing, a critical economic activity. The American model drew on integrated economic development model that stipulate holistic development with positive impact on effective functioning of key sectors within an economy[3]. Resource exploitation and strategic value addition (manufacturing) serve as tools for national development with consequent positive impact on job creation opportunities. The integrated economic development model works around identification of a key economic variable with significant potential for propelling sustainable economic development. The United States, as a result of its holistic economic development model, developed one of the most diversified and technologically advanced economies in the world. Although mining, manufacturing, and construction constituted 17% of total output in 2012, the stimulating influence of these key sectors positively impacted services sectors such as finance, insurance, real estate, rental, leasing, health care, social assistance, professional, business and educational services which collectively contributed more than 40% of GDP[4]. A mark of the success of America's natural resource extraction model was the attainment of the highest GDP growth rate of 17.20% at the height of the mining boom in 1950[5]. The American model confirmed the veracity of the integrated economic development model as developments within the extractive industries propelled effective performance of other industries that eventually transformed the American economy as a whole. Extractive industry

[2] United States GDP Annual Growth Rate (2013).
[3] David and Wright (1997).
[4] United States GDP Annual Growth Rate (2013).
[5] United States GDP Annual Growth Rate (2013).

activities in the American case study provided a fulcrum around which significant spin-offs were attained in the economy that provided the basis for widespread development using natural resources.

The success of the American model revealed the importance of the role of leadership in the equation of natural resource extraction and sustainable development. American leadership deliberately crafted policies, such as the promotion of scientific research into new technologies and legal and institutional capacity building, to attain speedy transformation of the American economy[6]. Federal Mining Laws of 1866, 1870 and 1872, granted open access for exploration as well as exclusive rights to mine specific locations upon proof of discovery. Limits imposed on the size of individual claims and the requirement that a concession is worked on at a certain frequency or risk forfeiture accelerated the pace of exploitation of discovered mines[7]. Effective linkages engendered ensured that increased exploitation of extractive resources pulled along other sectors such as education, manufacturing, employment, and related services industries that provided needed collaborative support to the extractive industries. Both public and private sectors of the American economy were energised to take advantage of the increased level of activities in the extractive and related sectors to improve on their fortunes. Demand for the services of geologists and surveyors increased as they led the way in mapping out, as well as locating sources of natural resources for exploitation. Realizing the important role of higher education needed to provide the high quality of expertise needed for resource exploitation, leadership encouraged the establishment of academic institutions to provide training in mining engineering and metallurgy. The American Institute of Mining Engineers was established in 1871 in response to increased demand for graduate level personnel in the mining sector. The resultant mutually reinforcing linkages between technical education and industrial production propelled efficient harnessing of minerals for development.

Equally important in the scheme of promoting efficient natural resource extraction were incentive packages deployed to attract and retain private interest and participation. The American law on mining sets out incentives and property rights that guaranteed rewards for effort or investment in natural resource exploitation. The novelty of the American government, not claiming ultimate legal title to the nation's minerals, meant a lease of life and incentive to private actors who invested to take advantage of increased returns and wealth formation. In contrast with other major mining regimes, in particular in Africa, America innovatively maintained the principle of open access for prospecting dating as far back as the 1850s. In return for unfettered exploitation by citizens, the Land Ordinance of 1785 provided for the payment of 30 percent of minerals exploited to the State[8]. The combination of relevant education linked to extractive industry activities and effective coordination and collaboration with industry, coupled with property rights to qualified citizens, have resulted in a widespread economic impact throughout all sectors of the economy and across all 50 states[9]. It is therefore indisputable that the mainstreaming of mining activities into key sectors engendered accelerated development of the American economy through increased extractive resource exploitation and processing.

With regard to fiscal regulations, America has an effective mechanism that tracks revenue generation and fiscal benefits. Provisions contained in section 482 of the Internal Revenue Service (IRS) Transfer Pricing Regulations (TPR) of 1917, which was reviewed twice in 1994 and 1995 in recognition of the increase in cross-border activities of MNCs, imposes stiffer sanctions for abuse of inter-firm pricing[10]. In addition to severe sanctions, national tax authorities are trained in the complex and sophisticated application of cross-border transfer prices and the allocation of profits which are required by law to be conducted on objective,

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[6] David and Wright(1997).
[7] David and Wright (1997).
[8] David and Wright (1997).
[9] American Petroleum Institute (2009).
[10] Miesel, Higinbotham and Yi (2002).

transparent and on arms-length basis[11]. Natural resource-rich developing countries can take a cue from the American experience by training as well as enacting stricter laws modeled along the lines of America's TPRs to enhance revenues from extractive resources.

1.2. Norway

Norway's natural resource management model hinges on the State taking ownership of, and playing the lead role in extractive activities[12]. The Norwegian government demonstrated strategic focus when, right from the onset of its oil discovery, it took charge of and determined the scope and timing of resource development. Government's involvement provided a strong sense of direction and nationalism that favoured the use of Norwegian indigenous companies in the exploitation of oil and gas fields. Norway's petroleum sector contributes a minimum of 50% of its exports as well as 30% to national revenue[13]. The significant reliance on the oil and gas sector which propel increased performance of the industry and services sectors positively impact contribution of these sectors to GDP - industry 45.1%, services 52.7%, and agriculture 2.2%[14]. Norway was typically a fishing and lumbering country until the discovery and exploitation of oil reserves in the North Sea in the 1970s. Oil exploitation and processing resulted in a shift in the structure of the Norwegian economy with transportation and manufacturing activities complementing oil exploitation activities to spur socio-economic development of the welfare State. Export revenue dominated by petroleum and natural gas currently constitutes an average of 40% of GDP[15].

Statoil, the national oil management company, was established in 1972 to oversee oil production and related management strategies. Norway's exploration policy was based on a well-thought-out organic growth strategy that placed significant emphasis on gradual development linked to accumulation of local expertise and capacity needed for effective exploration and related activities. Norway was thus less concerned about implementing a fiscal regime to attract foreign investment, unlike the UK, that relied significantly on technical expertise from America to exploit its North Sea oil reserves[16].

It is instructive to note the importance of fiscal incentives in attracting and retaining investments in jurisdictions that do not have local expertise. Norway's strategy therefore, in seeking to develop local capacity before launching into exploration, fended off potential challenges that came with the engagement of foreign experts. Incentive packages that include tax concessions and stability agreements historically have proven to be the bane of most natural resource-rich developing countries that rely heavily on foreign expertise. But in contrast, Norway, right from the very beginning of discussions on how best to manage its newfound oil resources, opted for self-dependence. The choice of the self-dependence model was made, at a time when the country did not have expertise in oil and gas exploration, thus strategically delaying the timing of commencement of exploitation. Oil exploration was deliberately delayed through a national consensus that had the objective of developing a world-class oil service industry with capability to optimise benefits from exploration. Norwegians had to bide time to build capacity in oil exploration, akin to their world acclaimed expertise in shipbuilding. The strategy to delay oil exploration was based on the realization that time was needed to hone in as well as adjust shipbuilding technology to oil and gas exploration infrastructure and expertise. Such an organic development and production strategy proved successful because it afforded development of a dynamic oil and gas service industry with relevant synergies that propelled Norway's sustainable development. Norway could have opted for an alternative immediate

[11] Miesel, Higinbotham and Yi (2002).
[12] Economy Watch (2010).
[13] Economy Watch (2010).
[14] Economy Watch (2010).
[15] Worldmark Encyclopedia of Nations (2007).
[16] American Petroleum Institute (2009).

development strategy that would have meant importation of expertise, manpower, and technology, etc., as is the case with most developing countries. Norway's internationally touted success in effective harnessing of natural resources reflects the efficacy of its self-reliance model. Norway today boasts of a world-class petro-chemical service industry sustainably harnessing oil and gas reserves from the North Sea to the long-term benefit of citizens.

In terms of fiscal administration, Norway's transfer pricing laws are stringent requiring intercompany transactions to be undertaken on strictly arm's length basis with documentary proof of all transactions[17]. The over-riding consideration for transfer pricing is for such transactions to benefit the Norwegian economy by way of price - quality relationship of goods and services. Tax authorities have to be convinced and indeed be satisfied that inter-firm price quotes match goods and services delivered failing which stricter sanctions are imposed. Transactions involving the payment of interest and management fees which are potential areas of abuse are critically examined by the Norwegian tax authorities who intervene in many instances of capitalization of Norwegian subsidiaries. Tax authorities are mandated by law to adjust reported incomes upwards on suspicion of under-reporting and this ensures objective reporting by taxpayers involved in transactions with foreign affiliates. Punitive sanctions are significant and this wards off malpractices common in most natural resource-rich developing countries. Transparency is at the core of Norway's transfer-pricing documentation rules which stipulates the maintenance of a separate tax return form to report counter-party transactions. Counter-party transactions relate to Norwegian entities with minimum controlling interest of 50% in other entities or vice versa. Entities with worldwide consolidated employee size below 250 persons are exempted from following the strict transfer pricing documentation rules. Norway's Taxation and Investment regulation of 2011 mandates entities to file their transfer pricing documentation upon demand within a maximum period of 45 days or risk monetary sanctions[18].

The novelty in Norway's exploration strategy was also reflected in its revenue regime that differed from fiscal regimes in most natural resource-rich countries. The revenue management strategy adopted was to align oil revenues to the rest of the economy in ways that will not compromise spending. Revenues in excess of current developmental needs are saved for future generations' development. In this regard, the government in 1990 set up a Petroleum management fund to absorb revenue surpluses from natural resources. The first batch of revenue surpluses was paid into the fund in 1996. In line with the strong savings culture that undergirds Norwegian oil resource management, the Petroleum management fund was transformed into the Government Pension Fund Global (GPF-G) in 2005[19]. The GPF-G is fed continually with central government's net cash flow from petroleum through the national budget. "The Norwegian Government Pension Fund–Global ("Fund") is a sovereign wealth fund that invests surplus wealth produced by Norway's petroleum sector, principally, revenue from taxes and licensing agreements. Known until January 2006 as the Petroleum Fund of Norway, it is the second largest pension fund in the world with assets in excess of $300 billion. The Fund was created in 1990 by an act of the Norwegian Parliament. Because the Fund was intended to receive money when there was a budget surplus, the government of Norway made the first transfer only in 1996 for fiscal year 1995. Subsequent years were more bountiful, however, and the Fund has now grown well beyond Norway's annual gross domestic product (GDP), which reached $278.1 billion in 2012. The Fund is projected to reach a level of around 250% of GDP by 2030[20].

Insights from the Norwegian oil and gas exploration/revenue management model provide helpful lessons for new natural resource-rich developing countries. Initial strategies being key to successful harnessing of natural resources, contract execution should have the long-term in view to avoid resource curse and

[17] Deloitte (2011).
[18] Deloitte (2011).
[19] American Petroleum Institute (2009).
[20] Chesterman (2008), pg.582.

related challenges. Natural resource policies have to be mainstreamed into overall national development agenda to optimise benefits. Norway may not be a developing country but lessons drawn from its transfer pricing regulations and the foresight to provide for the needs of future generations are strategies worth emulating by natural resource-rich developing countries. Of particular interest is the strict enforcement of provisions of the Taxation and Investment regulation of 2011 on transfer pricing, which require arms-length transparent inter-firm pricing for goods and services by MNCs involved in oil and gas exploration. The onus of compliance lies with Norwegian companies which have entered into joint venture arrangements with foreign partners to exploit the country's natural resources to comply with fiscal rules or risk punitive sanctions. African countries in particular could learn from Norway's strict sanctions regime for non-compliance which has resulted in natural resources contributing significantly to GDP. Ghana's example in setting up the heritage fund is a step in the right direction but success will require efficient investment of funds to avoid loss in value of funds placed for the benefit of future generations. The challenge for the developing world being predominantly poverty with roots in low literacy, the Norwegian sovereign wealth model may not necessarily be the way forward. Sovereign funds could be invested in revolutionizing education by investing to make it more attractive for both learners and teachers. Scholarships could be made mandatory for all children right from pre-school to tertiary institutions to reverse the current poor state of literacy which in part has been blamed for institutional weaknesses in the governance structures and the resultant poor management of natural resources in the developing world.

1.3. Botswana

Botswana's economy is socially oriented toward harnessing its mining wealth which, on average, accounts for more than 30% of its GDP, 80% of gross export earnings, and 50% of overall government revenue[21]. The significant contribution of diamond proceeds reflects the favourable win-win nature of the partnership renegotiated between the government and key foreign partners engaged in the extractive industry. The government for example retains equal equity stake in Debswana, a Joint Venture (JV) partnership with global diamond giant De Beers of South Africa. The JV with De Beers takes absolute control of all activities in the diamond export trade and focuses on two main areas. The first deals with mining through the JV partnership called Debswana while the second phase covers sorting, cutting, polishing, aggregating, and the marketing of the diamonds[22]. The clearly defined structure of the diamond business in Botswana engenders greater transparency and adds significant value to the industry through provision of needed jobs for citizens. Diamond production from the JV with De Beers in 2011 amounted to US$4.5 billion which was approximately a third of Botswana's GDP in 2011. The 10-year Debswana JV contract is critical to the continual generation and maximization of the value that the country can gain from its diamond reserves[23]. The transfer of technology enshrined in the Sales Agreement with De Beers, by which ongoing relocation of the London-based sales operations to Gaborone will be completed by the end of 2013, will provide further significant multiplier benefits for Botswana's economy by way of employment and tax revenues in particular.

Being the leading producer of diamonds in the world in value and volume terms, Botswana's benefits have reflected in significant improvement in GDP per capita from US$70 at independence in 1966 to US$16, 800 in 2012[24]. Beyond taking significant equity stake in the entire value chain of prospecting, exploration, and processing, Botswana has been wary of the harmful effects of corruption that has been the bane of most natural resource-rich African countries. The Mines and Minerals Law of 1999 was, as a result, crafted to

[21] Miesel, Higinbotham and Yi (2002).
[22] American Petroleum Institute (2009).
[23] De Beers Group (2011).
[24] Economy Watch (2010).

engender transparency in negotiations with native land-owners, who are adequately compensated for ceding off land in the interest of the State. The Mines and Minerals Law of 1999 contains clear regulations for every stage of the mining process. The permit allocation process, for example, has been simplified and affords partnerships with companies with proven track records of success in the business of diamond exploitation.

Royalties and taxes constitute the main sources of profit from mining for Botswana. Corporate tax is pegged at 15% with an additional extra tax of 10% applied when windfall profits are made when favourable international prices prevail for diamonds. Additionally, De Beers and other large corporate mining firms are allowed by the Mining Act of 1999 to negotiate with the government for alterative taxation schemes that suit the peculiar operations of mining firms[25]. The relatively favourable tax regime enhances business operations that impact Botswana's economy. De Beers' operations in particular reflected in its corporate social responsibility, set strict standards for the protection of the rights of workers as well as citizens in operating localities. The peace and quiet that De Beers enjoys in Botswana only reflect its exemplary corporate social responsibility standards that work in the mutual interest of the investor and local communities affected by mining operations.

Rough diamonds are processed locally rather than the practice in most natural resource-rich developing countries which export natural resources in raw form[26]. Botswana's insistence on beneficiation led to the eventual relocation in 2009 of De Beers diamond sorting Centre from London to Gaborone. De Beers action, with the support of the government, gave Botswana a new lease of life because of the more than 3,000 jobs created in diamond processing as well as training opportunities afforded the youth to acquire relevant skills in diamond processing. Increased value addition and trading in diamonds as a result further stimulated the pace of economic growth with consequent positive impact on Botswana's economy[27].

The cordial business relationship engendered between the government and native landowners obviates the challenge of conflict usually commonplace in most natural resource-rich African countries. Concessioners drawing ownership rights from the government in JV deals work in the mutual interest of corporate entities and citizens engaged directly in the process of exploitation or related spin-off local economy enterprises. Indigenous landowners' rights, though subsumed under those of mining companies, are not peeved because of plough back of benefits in the form of royalties, and taxes to support provision of key infrastructure and overall local economy development through beneficiation. The Pula Fund established in 1994 as a long-term investment portfolio to preserve the value of income from diamond exports will secure the well-being of future generations. In this regard, Botswana, like Norway is seeking to sustainably harness its natural resources for the benefit of current and future generations[28]. The Pula Fund is fed with surplus foreign exchange reserves beyond amounts required for the medium term and invested with the long-term in mind. The Pula Fund which is a sovereign wealth fund has increased significantly in real terms and that is good for the intended purpose. The Central Bank, as managers of the Pula fund, strategically invests in instruments that afford, at the minimum, retention of value of the investments in both domestic and foreign currency terms. The Pula Fund is exposed to price movements on the international market for diamonds and thus high yielding investment instruments are needed to obviate potential losses that may arise through unfavourable market trends as was the situation in late 2008 when the turbulence from the global financial crisis resulted in some level of erosion of the Pula Fund through adverse market conditions[29]. Rather than keep funds in a sovereign wealth fund, Botswana, with high levels of

[25] Worldmark Encyclopedia of Nations (2007).
[26] Grynberg(2013).
[27] Ibeawuchi, Nwachukwu and Nworuh(2010).
[28] Bank of Botswana (2013).
[29] Bank of Botswana (2013).

unemployment and unskilled labour, needs to channel those funds into building the capacity of citizens through education to meet the primary objective of the fund of replacing diamond revenues when the mines are depleted in the future. A well-educated citizenry apart from contributing meaningfully to socio-economic development through active participation in the higher echelons of natural resource extraction will also contribute in accelerated development of all sectors of an economy. That said, it may be a good idea to set aside surplus funds for the benefit of future generations but stricter accountability has to be ensured to avoid the negative effect of corruption and poor management that could erode anticipated benefits.

The dynamism and foresight of the political leadership in setting up the Pula Fund is commendable because of the commitment shown to sustainable development. The same level of commitment and foresight needed to be employed in tackling the high incidence of unemployment that characterises the Botswana economy because of low levels of education of the youth. A strategy of attracting and retaining children in school will go a long way in securing the welfare of citizens as well as that of the economy.

2. Poor performing natural resource-rich developing countries

2.1. Nigeria

A review of the literature on natural resource revenue management in Nigeria confirmed the heavy dependence of the country's economy on oil and gas revenues. On average, oil revenues account for 40% of GDP and 80% of foreign exchange earnings[30]. Thus for such significant natural resource revenues to benefit citizens, institutions of state in charge of managing the process and output of resources have to operate efficiently and in the best interest of the country. Revelations by audit reports in compliance with transparency requirements of EITI Nigeria provide evidence of the harm that corrupt practices in the management of oil revenues is inflicting on national development. The disturbing reality of failure of the Nigerian National Petroleum Corporation (NNPC) to account for revenue receipts from mining companies as required by the NEITI is disconcerting. Revenue figures provided by mining companies reveal significant gaps in amounts declared by institutions of State. In the 2006-2008 accounting period for example, an amount of US$3.789 million, which represented dividend paid to the NNPC by Nigeria LNG, a liquefied natural gas venture was not recorded in the books of the recipient[31].

Institutional strengthening in the area of training and capacity building and alignment of extractive industry operations to key socio-economic activities could help to avert underhand dealings which entrench the resource curse. Strategic focus and the genuine commitment to harness natural resources in the best interest of the nation could forestall challenges such as violent activities of militias in the Niger Delta region where the bulk of oil is drilled in Nigeria[32]. In this regard, governance challenges reflected in political economy challenges such as strong control exhibited by the political class over weak institutions of State that compromise effective checks and balances, conflict of interest situations created through murky regulatory requirements, and stage-managed manipulation of violent situations in communities affected by mining activities, pose serious threat to peace and security[33]. The socio-economic dislocations created by

30 All Africa (2010).
31 All Africa (2010).
32 Index Mundi (2012).
33 World Bank (2011).

these political economy factors breed dissatisfaction among citizens who, in their state of anger, fight for their right to share in the gift of nature[34].

Nigeria's oil revenue management activities are regulated by the Petroleum Act of 1969, which vests all transactions relating to natural resource exploitation in the Federal Government (FGN). Government interest, influenced by its reliance on international financial institutions for budgetary support, is allegedly skewed in favour of foreign MMC because of the nature of contracts executed that appear to work against the interest of nationals. Proposed reforms in the Petroleum Industry Bill (PIB) have come under severe public criticism for falling short of transparency requirements. Provisions that would have aligned the PIB to the NEITI to compel the government to publish how much oil it pumps and oil revenue receipts have been eliminated from the proposed bill with the potential to further entrench corruption in an industry characterised by secrecy in contract details with foreign investors[35]. Opaque operations of the FGN and its foreign collaborators (MMCs), thus accounts for the never-ending saga of violence in the natural resource-rich Delta region of Nigeria. The NEITI law which provides a standard for promoting transparency in assuaging suspicions in the oil and gas and mining sectors through the publishing of payments by companies and revenues received by governments have not achieved desired objectives because of controversies generated by past published results, which have been criticised by both State officials and MNCs[36]. The fallout of such criticisms has persisted and thus affected the selection of auditors for subsequent EITI audits[37]. The watchdog role assigned to civil society organisations in the EITI, if activated, will put pressure on stakeholders to play by the rules to ensure increased revenues and their corresponding effective utilisation for the benefit of citizens notably communities affected by mining operations.

Dissatisfaction in mining communities and eventual civil strife have also resulted from lack of transparency in the governance system as well as the questionable nature of complex JV partnership agreements entered into by the FGN and MMCs that do not serve the national interest. The situation is made worse by the fact that taxes and royalties accruing to the FGN on behalf of the people are not invested in economically sustaining projects to wean communities affected by mining off the poverty tag. Revenues from oil and gas have until August 2012 when Nigeria set up its SWF been expended on government wages and other recurrent expenditure[38]. The government expects the SWF to provide the needed legal support to safeguard the country's interest by taking advantage of oil price increases to save for the future[39].

The structure of oil mining operations in Nigeria is woven around the FGN, which provides regulatory supervision through the Nigerian National Petroleum Corporation (NNPC), established in 1977. The role of the NNPC as regulator and player in the business of exploration, marketing and management of revenues compromises its neutrality. Unlike the situation in Botswana, where the government ensures transparency in operations through clarity in administrative processes and procedures, lack of clarity characterises official operations in the extractive industries operations in Nigeria. The process of permit acquisition and perfection of ownership rights is fraught with administrative challenges that result in long delays and in turn encourage corruption.

[34] Deloitte (2011).
[35] Reuters (2013).
[36] Niger Delta Standard (2013).
[37] Niger Delta Standard (2013).
[38] Reuters (2012).
[39] Reuters (2012).

FGN's lack of capacity to independently verify crude oil production volumes reflects its weak governance and institutional framework that work against the national interest. The FGN's reliance on MMCs for production volume figures, for assessment of royalties and export revenue taxes further reflects institutional weaknesses that work against maximization of natural resources revenue for sustainable development. Added to these challenges is the lack of professional capacity of civil society organizations to hold both the government and MMCs accountable for revenues received and used in the interest of citizens in accordance with Nigeria's Extractive Industries Transparency Initiative (EITI). It cannot be gainsaid the potential benefits that could accrue to citizens and the government if transparency tenets in the EITI law are upheld, but this can only be achieved if MNCs publish what they pay to government and civil society organisations hold government accountable to declare receipts and what these have been applied for. Civil society groups in Nigeria will have to step up their watchdog role to ensure transparency and accountability of key stakeholders in the NEITI scheme to ensure collection and effective utilization of natural resource revenues in Nigeria. The Nigerian case study demonstrates the dangers associated with opaque contracts and operating processes and procedures that do not lend themselves to public scrutiny and accountability.

2.2. Ghana

Ghana joined the league of oil and gas producing African countries on December 15, 2010, when it started commercial production of crude oil. Expectations were and continue to be high, with pressure on government to ensure equitable investment of proceeds to benefit Ghanaians. The high expectations and anxiety reflect past missed opportunities to harness natural resources for sustainable development and the harm that mining activities have wrecked on the environment of poor rural communities. Though a significant producer of hard rock minerals such as gold, diamond, bauxite, and other natural resources from pre-colonial days in the 17th Century, expectation of stakeholders have been misplaced through mining contracts skewed in favour of MMCs[40]. Ghana, like many other natural resource-rich African countries, continues to contend with the challenge of growing poverty and its debilitating impact on rural communities in particular. With poverty estimated in 2006 at 28.5%[41], citizens can only hope that the newfound oil and gas heritage will be harnessed through efficient long-term development strategies. Table 1 reflects the unfavourable terms of export revenues accruing to the government in the five-year period 2006 to 2010. The trend in 2011 was no different as shown in Box 1:

Box 1: Ghana at a glance 2011

The case study on fiscal opportunities and challenges in Ghana's management of revenues from extractive resources focuses on assessment of strategies contained in the revised Minerals and Mining Act 703,

[40] Akabzaa (2009).
[41] Robb(2011).

2006[42]. Contrary to expectations, the revised law still contains significant tax and other incentives targeted at attracting and retaining foreign investments [43] (see Table 2 for list of incentives). Challenges such as how best to optimise revenues through development of local capacity to determine production volumes and value, as well as institutionalisation of effective local value addition to natural resources, remain daunting, even in the wake of the revised Mineral and Mining Act. The challenge then, as Ghana seeks to increase its revenues and related benefits from the newly discovered oil and gas business as well as from other natural resources, is how best the interest of local citizens could be secured through good governance practices and efficient resource management. This challenge draws from the key tenet of good governance that forms the foundation around the World Bank sponsored Extractive Industries Review (EIR) report of 2003[44]. The advice by the review committee headed by Dr. Emil Salim, former Indonesian environment minister, was for the World Bank to link good governance to continued provision of financial support for extractive industry exploitation activities in natural resource-rich developing countries. The thinking that informed the good governance model was the need to cure the malaise of institutional failure that have characterised mining activities in the developing world resulting in entrenched poverty[45].

The key recommendation of good governance, as being critical for effective natural resource exploitation, was used as benchmark for assessing the impact of Ghana's revised Minerals and Mining Act 703 on the country's development agenda specifically relating to harnessing benefits of natural resource revenues for the common good. Against the backdrop of the EIR, Ghana's revised mining law revealed disturbing realities inimical to long-term sustainable development. The over generous fiscal and other significant incentives afforded MMC in the old law (PNDCL, 153 of 1986) was still present in the revised Minerals and Mining Act 703 of 2006, much to the chagrin of civil society organizations seeking better livelihoods for communities affected by mining (see Table 2). Ghana's revised Minerals and Mining Act 703, 2006 thus appears to have missed the benchmark of the EIR of focusing on exigencies of local economies to craft out contracts with long-term local development orientation in mind. The generous fiscal concessions and incentives, such as stability clauses that propose freezing of action on reviewing contracts within the statutory 15-year time lines enshrined in the 2006 revised law, reflect reluctance by the government to break free from the past.

Accounting engineering practices, such as transfer pricing and capital flight fleece developing countries of needed fiscal resources that consequently adversely impact capital formation for sustainable local development. Ghana loses annual revenue at an average of US$36 million to transfer pricing abuses in the mining sector[46]. The lack of expertise on the part of revenue authorities in monitoring sophisticated and complex inter-company activities among MNCs account for the challenge of transfer pricing abuses in developing countries. Heavy reliance on foreign equity participation in extractive industry operations is a vote for transferring opportunities for job creation to home countries of MMC that add value to raw minerals and re-export back to poor but resource-rich developing countries.

Favourable provisions in Ghana's Minerals and Mining Act 703, of 2006 though has attracted significant inflows of MNCs into the country with consequent increases in FDIs, the lack of strategic focus on the part of government in mainstreaming activities of mining into core socio-economic activities of the country has limited gains to foreigners at the expense of local economy development[47]. The significant inflow of export revenues from extractive activities which in the main, remain an enclave enterprise, has not positively

[42] Chesterman(2008).
[43] Akabzaa(2009).
[44] Botswana: A mining nation transforms (2012).
[45] De Beers Group (2011).
[46] MOFEP (2012).
[47] Akabzaa(2009);Diamonds: De Beers breaks with tradition (2008).

impacted the Ghanaian economy, as was the case in America where mining operations transformed that country's economy significantly[48]. The pervasive nature of poverty and income inequality, particularly in rural communities affected by mining, attests to the fact that the so-called significant export earnings have not positively impacted the Ghanaian economy. Ghana's position on the UN Human Development Index of 135 out of 187 countries in 2012 confirms the yawning gap between the reality of poverty and claimed significant increase in GDP engendered through increased mining revenues[49].

Government effort at establishing the Petroleum Revenue Management Act (PRMA) 815, of 2011 was aimed at offering solace to long-term development strategists because of the transparency that the provisions provide for potential effective revenue management[50]. Provisions made in the PRMA for the establishment of a Petroleum Holding Fund (PHF) to receive revenues from exports and the earmarking of 30% of such receipts into a Stabilization fund (21%) and Heritage Fund (9%), reflect the commitment of the government to safeguard the interest of current and future generations[51]. Ghana's Heritage Fund is modelled along the lines of Norway's Government Pension Fund Global (GPFG), otherwise known as the sovereign fund, which was set up to hedge against rapid increases in pension expenditures and to support long-term management of oil revenues (see Section 2.2)[52]. The critical success factor of Norway's GPFG is the Fund's responsible investing policies and governance practices guided by established ethical protocols that elicit the confidence of the people[53]. Ghana, in taking a cue from the success of Norway, has to be guided by the need to ensure transparency and professionalism in managing natural resource revenues to maximise returns and benefits for the good of citizens.

3. Recommendations for effective management of natural resource revenues

The major challenge of transfer pricing could be mitigated by stringent legislation that compels publication of inter-firm transactions across borders in which MNCs operate. This will require collaboration and support by international financial institutions such as the World Bank and the International Monetary Fund (IMF). Punitive sanctions must aim at making the cost of transfer pricing abuse and capital flight dealing so high as to make the practice unattractive to MNCs who are wont to shore up their revenues through this negative practice. Education of tax officials in the complex discipline of taxation and financial regulations must be given top priority to equip State officials with the expertise and capacity to execute their functions to the best of their abilities. Such training should be complemented with significant financial rewards and exciting remuneration packages to forestall corruption. Recalcitrant corrupt officials, who still engage in corrupt practices even in the wake of exciting remuneration packages, should be dealt with swiftly through the imposition of severe punitive sanctions in order to serve as a deterrent to others.

A predetermined proportion of natural resources revenues should be set aside for long-term investment depending on the needs of a country. Blind copying of models implemented by countries such as Norway and Botswana, countries with significant investment in SWF set aside for the future should be avoided as local situations may pose significantly different challenges requiring innovative investment products for success. Long-term relevant investments could come in the form of free compulsory education offered to

[48] Alao(2007); Bank of Botswana (2013).
[49] All Africa (2010).
[50] Idemudia (2009).
[51] Idemudia(2009).
[52] World Bank (2011).
[53] World Bank (2011).

citizens to adequately prepare them to be economically independent through acquisition of literacy and the freedom that it (literacy) affords. This way, a significant number of citizens will be weaned off the poverty tag to serve as pillars of hope who will in turn offer better livelihoods to their own children and families.

International initiatives such as the EITI and the EIR by the World Bank are strategies in the right direction but should be re-tooled to ensure achievement of desired transparency objectives. The IMF in particular has come under criticism for failing to ensure global financial stability by holding MNCs and governments of developing countries accountable for natural resource revenue breaches, such as capital flight and transfer pricing[54].

Success in any human endeavour requires significant sacrifice, reflected in delayed gratification, in preference for long-term sustainable gains. Challenges derived from the management of natural resources in the developing world mainly relate to the haste with which leaders engage partners to exploit natural resources without focusing on strategies that will work for both short and long-term interests of their countries. Rushed contracts are entered into without thorough and independent due diligence on the content and value of reserves available to nations thus resulting in insertion of stability agreements that later prove inimical to the interest and well-being of national governments. Stability agreements, in large part, have so far, accounted, to a large extent, for the long-standing practice in many resource-rich African countries, whereby natural resource revenues accruing to governments have lagged behind significant resource exploitation and accompanying export earnings that, in turn, accrued mostly to MMCs.

Natural resource-rich countries therefore need to take ownership of their resources and engage experts to conduct proper due diligence on reserves, and only when armed with these results, enter into contracts based on mutual respect and equity. The strategy being proposed here will place natural resource-rich nations in a superior bargaining position to get better deals for their countries.

Mainstreaming of extractive business into main economic policies and strategies also hold significant prospects for enhancing fiscal opportunities for accelerated economic development. Experiences from best performing natural resource-rich countries, as discussed in Section 2, confirm the relevance of mainstreaming natural resource exploitation into national economic development programmes. Relative synergies that result will spur sustainable socio-economic development. Natural resource extraction, in this regard, should be linked to the creation of employment opportunities, through local value addition and local enterprise development. Local value addition has significant multiplier effect on economic expansion through better export prices and taxes, as well as price stability, relative to the widely fluctuating nature of raw commodities on the international market. Job creation opportunities that have implications for increased taxation and social well-being of citizens will continue to elude natural resource-rich developing countries which mainly export raw produce.

Education is pivotal to the development of relevant skills for the extractive industry. It should therefore be stepped up through dynamic strategies that will encourage enrolment, attendance and retention of pupils and students in school. A well functioning educational system, tailored to produce required personnel for the extractive and related sectors such as industry and agriculture, will provide the needed pool of local talent to spearhead Ghana's economic transformation. This will in the long run facilitate self-reliance by developing countries in the harnessing of natural resources. The fixation on foreign expertise for resource extraction should be steadily but aggressively tackled in reform programmes through laws that promote technology transfer to local entrepreneurs. The requirements for foreign MMCs to present training programmes as condition for the granting of mining permits, as enshrined in Ghana's Minerals and Mining

[54] Eurodad (2008).

Act 703 of 2006, must be rigorously enforced to build a core of local technical expertise to step in when existing unfavourable mining contracts come up for review. Significant financial support, provided by the World Bank and other international financial institutions to governments and MMCs, should be used as condition for local capacity building. MMCs that fail to execute effective technology transfer strategies or to follow agreed terms in mining contracts should lose the opportunity to access international financial support for their operations.

Negative practices associated with natural resource exploitation, such as transfer pricing and capital flight, can be effectively checked through significant equity holdings by national governments that will allow their inclusion of technically competent nationals at the highest echelons of decision-making in mining firms. The role of civil society as a corollary to involvement of locals in management is critical to hold managers accountable to the people. Provisions of 'Publish What You Pay (PWYP)', espoused in the EITI, will sufficiently arm civil society organizations with the right information to demand accountability from managers of natural resource revenues. Sustainable development envisioned by the international community when the EITI was introducedin 2003 could be achieved only when civil society organizations effectively play their watchdog role.

Failure to monitor and hold stakeholders involved in natural resource exploration businesses accountable will continue to marginalise the poor with consequent entrenchment of violence in mining communities with serious consequences for sustainable development. The role of the international community in enforcing transparency tools, such as the EITI and the EIR will go a long way to hold governments accountable to citizens on efficient management and utilization of extractive industry revenues. Although transparency appears to be at the core of sustainable development, it cannot compensate for the critical role of focused long-term strategy that thrives on effective utilization of natural resource revenues.

4. Conclusions

Case studies from the United States of America, Norway, and Botswana reflect the good that efficient strategy formulation and implementation could engender in optimizing benefits from extractive industry revenues. Closer examination of the strategic development models applied by successful natural resource-rich countries, as aforementioned, reflects the efficacy of mainstreaming of mining activities into key local economy operations. Leadership, reflected in professional management, is critical in the equation of natural resource availability and efficiency in harnessing benefits for the common good of citizens. Challenges facing most African natural resource-rich countries can be traced to contractual arrangements that undergird the business of natural resources extraction. Failure to align mining operations to local economies is reflecting negatively on job creation opportunities that hold the key to sustainable development. Challenged realization and maximization of mineral rights, fiscal revenues, and vices related to transfer pricing and capital flight are ingrained in the disconnect between mining activities and local economy development opportunities.

Unrealised hopes and aspirations of communities affected by mining have, for example, become a major concern because of the disturbing reality of revised natural resource mining laws not living up to delivering promised enhanced benefits. Additionally, reviewed laws continue to focus on, as well as serve the interest of MMCs at the expense of host nations. The obsession to always be dependent on foreign investment and the dearth of local expertise account for the minimal return that accrues to natural resource-rich developing countries despite significant transformation in mining industries across the continent of Africa engendered

through increasing volume and value of new finds. Although Botswana is still contending with challenges of effectively harnessing of its diamond extractive business to improve on the fortunes of its citizens, its strategy of negotiating with De Beers to relocate its processing facility from London to Gaborone is commendable. The strategy will go a long way toward building local capacity, which in the long run is expected to produce technically savvy personnel to revolutionise the diamond industry in Botswana.

Annex I: Table 1 Ghana: Contribution to the Mining sector to gross exports and Government Revenue (2006 - 2012)

EXPORT REVENUE (US Millions)	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Gold	1,367.00	1,733.78	2,246.00	2,551.37	3,803.52	4,912.85	5,643.27
Diamonds	31.28	28.97	25.00	7.34	11.31	18.86	10.38
Bauxite	22.60	18.88	22.00	11.08	15.15	7.09	24.62
Manganese	40.65	32.84	52.97	49.11	58.21	97.74	92.37
Total Mineral Exports	**1,461.53**	**1,814.47**	**2,345.97**	**2,618.90**	**3,888.19**	**5,036.54**	**5,770.64**
Oil Exports						2,780.66	2,976.06
Contribution to Govt. Revenue (Taxes)	93.71	123.02	179.98	319.02	519.68		
Contribution to Govt. Revenue (Dividend)	6.60	66.80	1.42	2.48	15.08		
Contribution to Government Revenue	100.31	189.82	181.40	321.50	534.76		
Percentage contribution to Govt. Revenue	6.9%	10.5%	7.7%	12.3%	13.8%		

Source: GRA: 2013

Annex II: Table 2. Ghana: Comparison of the fiscal and related provisions of the Minerals and Mining Legislations of 1986 and 2006

Item	PNDCL 153 1986	Amendments To Law 153	ACT 703 2006
Incentives			
Initial capital allowance	75%		75%
Subsequent capital allowance	50%		50%
Investment allowance	5%		5%
Carried forward losses for Purposes of taxation	Up to five years		Up to five years
Offshore retention of sales	25% to 80%		25% to 80%
R&D allowance	Exempt		Exempt
Mineral duty	Exempt		Exempt
Import duty	Exempt		
Foreign exchange tax	Exempt	Exempt	Exempt
Import license tax or import levy	Exempt	Exempt	Exempt
Gold export levy	Exempt		Exempt
Taxes			Exempt
Corporate income tax	45%	35%	25%
Royalty	3% to 12%		3% to 6%
Withholding tax	10%		10%
Capital gain tax	10%		10%
Additional profit Tax	25%		0%
National Reconstruction Levy		2% before tax profit (2001)	0%
Others			
Govt. equity participation in mining lease	10% free carried interest with option to increase to 30% provided additional shares purchased at market price		10% free carried interest, no option for acquisition of further shares.

Source: Government of Ghana, Ministry of Lands Forestry and Mines (Mines Section) (2006, 1986), IRS (2000).

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