

Best Practice? Managing Natural Resources (Diamonds) In Botswana: Some Notes

Boitumelo Moffat

University of Botswana, Botswana

Email: boitumelo.moffat@mopipi.ub.bw

ABSTRACT

This paper looks into the Botswana diamond framework to promoting diamond production and revenues for inclusive development. In particular, the article investigates whether governance factors affect growth and natural resources. It is established, in this paper, that Botswana has had a good governance system that enabled her to achieve marked economic growth out of her diamonds. Botswana has already established the prudent fiscal framework governing how to use mining revenue. However, the country could take further steps to implement more precautionary saving policies for ensuring sustainable and stable growth over the long run.

Keywords: Diamonds, Botswana, Economic Growth

INTRODUCTION

Botswana was one of the poorest countries at independence, relying heavily on British grants and agriculture as the mainstay of the economy before the exploration of diamonds in the early 1970s. The country experienced rapid economic transformation as a result of the discovery of minerals. However, economic growth has not been high in some resource rich countries and at the same time some resource scarce nations have at times attained relatively high economic growth. Mostly good governance has been labelled as one of the factors that lead countries to prosper. In Botswana, political stability, government effectiveness and low corruption contributed to the prosperity of Botswana out of its diamonds. This article looks at how Botswana has managed its natural resources in particular diamonds. This overview is intended to evaluate whether Botswana can be labelled a best practice in managing its diamonds.

Pre and Post Diamonds History

Despite more than eighty years of British rule, Botswana inherited very little at independence in 1966. There was very little infrastructure and few educated people. Apart from abattoir, which started operations only ten years before independence, the only other infrastructure was the railway line, built in the 1890s. The railway line ran up the eastern side of the country, from Mafikeng to Bulawayo (then Southern Rhodesia). Before independence,

Botswana was heavily dependent on agriculture. The agricultural sector had low productivity of resources and this was reflected in the extremely low levels of per capita income in Botswana as indicated in Table 1.

Fifty years later (after independence), Botswana is regarded as a growth miracle, a sign of hope for sub-Saharan Africa and an archetype of prosperity and success. The country experienced a long run growth over the last five decades that even outshined the performance of the Pacific Asian tigers. The government has managed to establish one of the longest running multiparty democracies on the continent. Many researchers such as Acemoglu, Johnson and Robinson (2002) attributed the outstanding growth of Botswana to among others limited colonial influence, good political institutions, wise leaders and prudent economic policy.

Over the past five decades, Botswana's economy recorded impressive growth rates. Table 1 shows that Gross Domestic Product (GDP) growth is experienced over most of the post-independence period. However, much of this growth has been due to the sustained and rapid expansion of the mining sector and the government revenues, which has largely been financed by the proceeds of mineral revenues. The mining sector and other government revenues together account for almost half of the GDP.

Table 1: Botswana's GDP from 1966 (Percentages), Sector by Sector

Sector	1966	1975/76	1985/86	1990/91	1995/96	2000/01	2005/06	2010/11	2011/12	2012/13	2013/14	2014/15
Agriculture	42.7	20.7	5.6	4.8	4.1	2.7	1.8	2.5	2.5	2.6	2.3	2.1
Mining	-	17.5	48.9	39.5	33.9	36.5	31.7	19.2	25.0	19.5	21.9	22.9
manufacturing	5.7	7.6	3.9	4.7	4.8	4.1	4.9	6.4	5.7	5.8	5.8	5.5
Water & electricity	0.6	2.3	2.0	1.7	2.1	2.4	1.4	0.5	-0.1	-0.6	-0.3	-0.1
Construction	7.8	12.8	4.6	7.6	6.2	5.8	4.8	5.8	5.8	6.6	6.4	6.1
Trade, hotels etc	9.0	8.6	6.3	5.9	9.9	10.3	10.8	15.1	14.5	15.0	14.7	14.8
transport	4.3	1.1	2.5	3.2	3.6	3.8	3.6	5.1	4.8	5.6	5.5	5.5
Bank, insurance, business ser.	20.1	4.7	6.4	8.8	11.2	10.8	11.7	13.4	13.0	14.8	2.1	14.0
General government	9.8	14.6	12.8	13.5	15.4	16.0	14.2	15.4	13.8	15.0	14.1	14.1
Social and personal services	-	2.8	2.5	4.2	6.6	6.0	5.0	6.0	5.5	6.0	5.8	5.7
GDP excl Mining	-	82.5	51.1	60.9	66.1	63.5	68.3	80.8	75.0	80.5	78.1	77.1

Source: Bank of Botswana, Annual Report, Various Issues

Botswana's real GDP in 1966 amounted to P908.6 million. Agriculture was the highest contributor at 43 percent. Bank, insurance and other business services was the second largest sector contributing about 20 percent of GDP. None of the other major sectors contributed as much as 10 percent of GDP in 1966. This shows that, on the attainment of independence in 1966, the country's economy was primarily agriculture, in particular, cattle rearing and beef production.

The contribution of all sectors of the economy grew rapidly in the post-independence period. Siphambe, Narayana, Akinkugbe and Sentsho (2005) established that the rapid growth of the economy was accomplished by important structural changes, the most significant of which being dramatic decline in the relative size and contribution of the agricultural sector. As

seen in the table, its contribution to GDP was only 5.6 percent in 1985/86 declining further to 4.1 percent in 1995/96 and lately (2014/15) is standing at 2.1 percent. It is without doubt that the major factor in this structural shift was the discovery of minerals in the early 1970s. The first diamond mine was opened in 1971. More diamond mines have since become operational in the country, transforming Botswana into the world's largest exporter of diamonds (see Table 2). Also, as highlighted in Table 1, by 1985/86, real GDP has increased by over 600 percent of the 1966 level. This impressive growth was maintained for most parts of 1980s and 1990s.

Apart from the increases in mineral production and the contribution of such to the development of the other sectors of the economy, growth in the government sector has also played a very key role in the transformation of Botswana's economy. Even though the government sectors may be seen to have grown as a result of resources derived from the mining sector, it has most significantly acted as a channel through which the wealth created by diamond mining has been reinvested in the economy. Over the period 1966 to date, the government has in effect acted as the main link between the booming mining sector and the rest of the economy. This has prompted the rapid rate of overall development recorded during the period (Siphambe *et al*, 2005).

In addition to successful economic growth, Botswana has also experienced political progress. Independence was peaceful, and compared with other African leaders, the Botswana political elite has shown an ability to govern both peacefully and prudently. The country has high regulatory quality, and is considered by many to be the least corrupt country in Africa.

Diamond Trading Company Botswana (DTCB)

DTCB is a 50/50 joint venture partnership between the government of Botswana and De Beers. It is the world's largest and most sophisticated rough diamond sorting and valuation operation. DTCB sorts and values Debswana diamond company's rough diamond production. The main purpose of the company is to mine and recover diamonds optimally and responsibly (Brook, 2012). The first diamondiferous Kimberlite (the host volcanic rock which brings diamonds to the earth's surface), known as B/K1 pipe, was discovered in Botswana 15km north of Letlhakane in 1967, a year after Botswana gained independence from colonial rule. In the same year, all the tribal chiefs of Botswana signed an agreement with President Seretse Khama, surrendering all mineral rights in the tribal areas to the Botswana Government so that the prospective wealth of minerals could be shared among all districts in Botswana.

Debswana operates Orapa, Letlhakane, Jwaneng and Damtshaa mines in Botswana. The four mines have contributed enormously to the economic growth of Botswana, not only in terms of direct foreign exchange and government revenue generated diamond sales, but also through the multiplier effect on taxes, employment and infrastructure in remote areas. In addition, Lerala mine was opened in 2008 and B/K11, Karowe Mines in 2011 and the Ghaghoo Mine in 2013 (see figures 1 and 2 on production and value of Botswana diamonds). Most of other diamond production comes from mines elsewhere on the African continent and from Russia, Australia and Canada (see Table 2).

Table 2: 2014 Global Diamond Productions for Top 10 Countries by Value

Country	Production	
	Value (US\$)	Volume (Carats)
Russia	3,733,262,920.00	38,303,500.00
Botswana	3,646,952,179.00	24,668,090.77
Canada	2,003,267,161.44	13,011,619.00
Angola	1,317,456,071.65	8,791,340.01
South Africa	1,224,311,494.27	7,430,955.94
Namibia	1,155,536,792.33	1,917,689.70
Lesotho	342,617,761.30	346,017.12
Australia	304,319,165.00	9,288,231.89
Zimbabwe	238,581,841.00	4,771,636.82
DRC	136,505,486.14	15,652,014.63

Source: Kimberley Process Certification Scheme, 2014

In addition to sorting and valuing, DTC Botswana has a sales and marketing function which is responsible for local sales of aggregated diamonds. Aggregation refers to a process of blending together and preparation for sale of diamonds from various producer countries. This process guarantees clients of a consistent supply of their desired diamonds as well as generate more value and benefits to the country. Currently, DTCSB sells and markets rough diamonds to 21 cutting and polishing companies that have been licensed by the government of Botswana to carry out cutting and polishing activities. DTCSB aims to facilitate, drive and support the creation of a vibrant, sustainable and profitable downstream diamond industry in Botswana that will deliver additional value for Botswana's diamonds (Brook, 2012).

The establishment of DTCSB also acts as a potential catalyst for the development of new additional business sectors such as banking, security, information technology and tourism and for other international business to invest in Botswana. The subsidiary activities are also expected to stimulate the economic activities with further creation of jobs, increased consumer spending power, additional revenues for the country and the transfer of technology and skills.

WHY BOTSWANA PROSPERED?

Acemoglu, Johnson and Robinson (2002) attribute Botswana's marked growth to sound institutions and good governance. This also stems from precolonial political institutions; limited British colonialism and strong political leadership.

Botswana has enjoyed fairly good governance by global and regional standards according to The Governance Research indicator Country Snapshot (GRICS) database. Limi (2006) establishes four facets of governance that seem to be particularly central for natural resource management. First, voice and accountability, measured by the political process, civil liberties, and political rights, indicates the ability to discipline those in authority for resource extraction. Without monitoring by the citizens and a process by which those in power are selected and replaced, resource rents tend to be dissipated. Botswana has done particularly well

on this aspect of governance. International observers praised as free and fair the 2004, 2009 and 2014 national elections, ever since they were conducted under the Southern African Development Community (SADC) guidelines for democratic elections.

Secondly, government effectiveness, measured by the quality of public services and the competence of civil servants, also needs to be high. If the government cannot produce and implement good resource management policies, resource wealth will be overexploited and rapidly exhausted. In Botswana, use of mineral revenues has followed an implicit self-disciplinary rule, the Sustainable Budget Index (SBI), under which any mineral revenue is supposed to finance 'investment expenditure' defined by development expenditure and recurrent spending on education and health (see Table 3). In addition, there is a government asset fund, (i.e the Pula fund) where financial assets are invested only on a long-term basis in a transparent and accountable manner. Also, to avoid a pitfall of the country being resource cursed, Botswana's economic planning is based on two scenarios about diamond prices. First is an optimist scenario of expected increase in real diamond prices. Under this, government assumes more revenues from the sale of diamonds so that expenditure may be increased without running down the country's reserves. It suggests no need to restrain government expenditure.

Table 3: Budgetary Allocations Towards Social Development

Ministry	2014/15 Recurrent Budget Allocation	2015/16 Recurrent Budget Allocation
Ministry of Education and Skills Development (MoESD)	27.8%	28.1% mainly for human capital development, bursaries for post secondary education
Ministry of Health (MoH)	15.7%	16% mainly for HIV/AIDS Scourge
Ministry of Local Government and Rural Development (MoLGRD)	14.7%	14% (social protection programmes- old age pension destitute allowances, allowance for disabilities, world war veterans, food supplies for primary schools and clinics, orphan care programs)
Ministry of Defence, Justice and Security (MoDJS)	12.5%	14%
Ministry of Transport and communications (MoTC)	5.9%	6%
Other Ministries		
Agriculture (MoA)	2.9%	2.9%
State President (MoSP)	2.8%	
Trade and Industry	2.6%	
Youth, Sports and Culture	2.3%	
Lands and Housing	2.2%	

Source: Republic of Botswana, Budget Speeches, 2014/15 and 2015/16

Third, because natural resource development must involve a long term relationship with private parties, market-unfriendly policies like price controls and excessive regulatory burdens are undesirable. Contracts related to natural resources commonly extend for more than 10 years. The term for diamond-mining leases in Botswana is 25 years. The quality of Botswana's regulation is generally acceptable. For instance, the Botswana Telecommunication Authority (BTA) of 1996 has been praised as one of the first independent regulatory authorities in Africa (ITU, 2001). However, there may remain some regulations that restrict labor mobility and business opportunities. In the mining sector, the government of Botswana retains 50 percent of the shares in Debswana, the largest diamond firm in the country and the Ministry of Mineral Resources, Green Technology and Energy Security has direct responsibility for natural resource regulation and management.

Finally, anticorruption policies are essential for fair and transparent distribution of resource benefits. Corruption in the public sector is has not been serious problem. The budgetary and procurement process is relatively transparent. By comparison with other African states, Botswana's leaders have mostly been honest, and elite corruption was rare. The Directorate of Corruption and Economic Crime, an independent anticorruption authority established in 1994, has authority to report corruption cases directly to the president. The constitution also makes the attorney general independent of the government and politicians. This sound anticorruption framework is considered to be conducive to proper resource management in Botswana. The empirical evidence from most resource abundant countries has for the last 30-40 years included corrupt leaders selling off natural assets and pocketing profits, individual and international companies becoming wealthy while the government stayed poor and financial policies unable to control exchange rates and inflation.

DO GOVERNANCE FACTORS REALLY AFFECT GROWTH?

Economic growth has not been high in some resource-abundant countries such as Indonesia, Venezuela and Nigeria, partly because of inadequate governance. On the other hand, resource scarce countries with good governance like the Maldives have sometimes attained relatively high economic growth. Other explanations given for the failure of many resource abundant countries include higher prevalence of indolence, rent seeking, conflict between stakeholders, corruption and predation (Limi, 2006).

Disclosure of the terms of contracts and profit-sharing arrangements with natural resource developers and publication of independent external audits have the same effects for increasing transparency in natural resource management. For instance, if resource developing enterprises are privatized, resource extraction must be strictly regulated. Ahmad and Mottu (2002) emphasize the necessity of centralizing resource revenue control and supplementing it with predicable and transparent transfers from the center. Decentralized resource management reduces the capacity of the central government to run countercyclical fiscal policies and to arrange equalization transfers among regions. Also, International Monetary Fund (2005) points out that it is important to introduce explicit fiscal rules for the treatment of mineral revenues. Any windfall should be deposited in a special account and used for designated economic and social development. Chad has actually passed a law to earmark oil revenue for debt service and spending in priority sectors.

For increasing transparency, accountability and predictability in natural resource management, it is in general useful to establish an independent mineral regulatory agency and to disclose and monitor the terms of reference for mining extraction and revenue sharing (Katz *et al*, 2004). Although Botswana government's institutional system appears robust, a more transparent and neutral regulatory agency could advance efficient governance further, with current virtues of good governance maintained.

The Botswana government has shown prudence in the management of diamond incomes, keeping expenses consistent in boom years and building up foreign exchange reserves. This, combined with proper management of the exchange rate, has also meant that real exchange rate appreciation has been under control, which has been positive for the export sector. Through the fiscal policy the government has avoided external debt problems and has maintained a stable growth rate over time.

Botswana has already established the prudent fiscal framework governing how to use mining revenue, (but could take further steps to implement more precautionary saving policies for ensuring sustainable and stable growth over the long run). It cannot be overestimated that large market downturns and a depletion of the assets of stabilization funds are always possible (Katz *et al*, 2004). This is of particular importance for Botswana because of high prevalence of HIV/AIDS and the related health expenditures which will increase over the medium term, and hence the fiscal position is expected to tighten increasingly.

The Botswana government may strengthen the governance and resource effects on growth by more explicit insulation of fiscal expenditure from the volatility and uncertainty of mining revenues. One possible option may be to adopt a non-diamond deficit target rule to accelerate the revenue base diversification.

Challenges

In the midst of this peaceful growth miracle, there still exist some deficiencies. These include high unemployment rates, HIV/AIDS and undiversified economy. The country is landlocked, resulting in high transport costs; it has no internationally competitive wage advantage, the climate is unfriendly to agricultural expansion and there are no other comparatively valuable natural resources.

Economic growth needs to be complemented with technological innovations, significant productivity increase, change in economic and political structures, a significant rise in living standards of the poor and a more equal distribution of resources, incomes and opportunities for there to be a long run sustainable opulence with substance. If the above do not take place, then this becomes growth without development.

CONCLUSIONS

This article looked into the contribution of the Botswana's mineral sector, in particular, the diamonds, to its economic growth and development. The paper assessed why Botswana experienced higher economic growth than its counterparts with abundant resources. It is established, in this article, that Botswana has had a good governance system that enabled her to achieve marked economic growth out of her diamonds. Botswana has already established

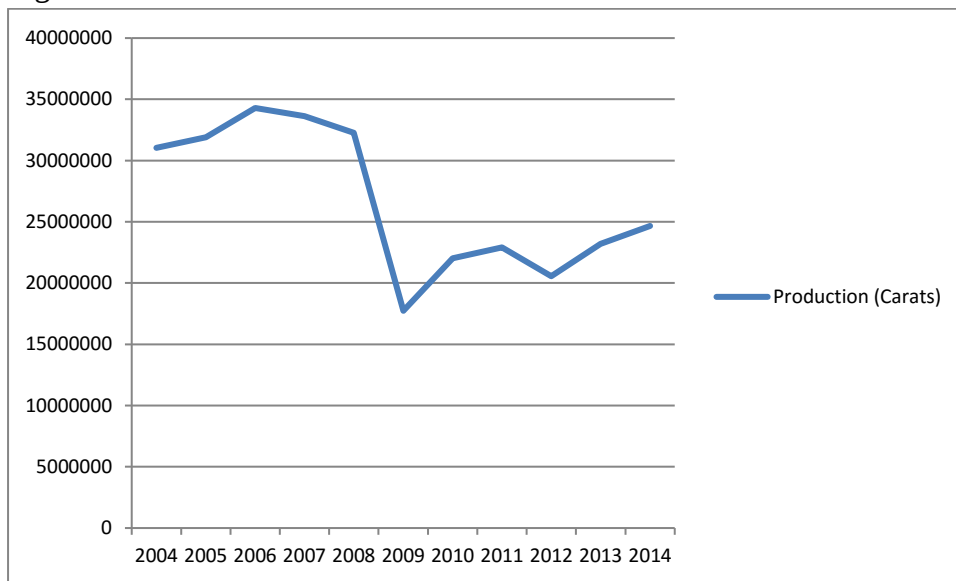
the prudent fiscal framework governing how to use mining revenue. On the other hand, there are some challenges which are a major setback for a country's development and hence a bad reflection on Botswana as a mineral led economy. However, the country could take further steps to implement more precautionary policies for ensuring sustainable and stable growth over the long run.

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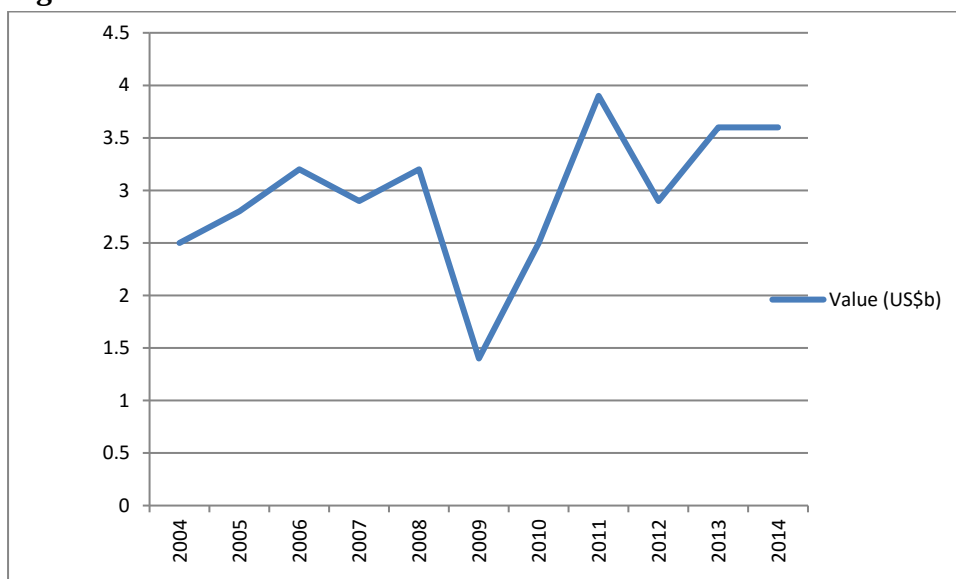
Appendix

Figure 1: Botswana Production of Diamonds 2004-2014



Source: Kimberley Process Certification Scheme

Figure 2: Value of Diamonds 2004-2014



Source: Kimberley Process Certification Scheme