



INTERGOVERNMENTAL FORUM
on Mining, Minerals, Metals and
Sustainable Development

IGF Guidance For Governments:
Leveraging Local Content Decisions
for Sustainable Development

CASE STUDY

BOTSWANA: DOWNSTREAM LINKAGES

LEVERAGING THE NEGOTIATING POSITION

OVERVIEW

LEVEL OF OPERATION:

Industry

GOVERNMENT ROLE:

Regulator

LINK TO POLICY ADOPTED:

See [Debswana; Diamond Trading Company Botswana](#)

KEY COMMODITIES:

Diamonds, copper, nickel¹

TOTAL NATURAL RESOURCE RENTS (AS % OF GDP) (2015):

2.7 per cent²

NATIONAL EXTRACTIVES COMPANY:

Botswana Oil Limited and Debswana (in a joint venture with the South African diamond company De Beers)

UNDP HUMAN DEVELOPMENT INDEX VALUE (2016):

0.698 (Global Rank 108)³

The Government of Botswana managed to successfully negotiate a sophisticated downstream beneficiation agreement with its main partner, De Beers. The most important success factor was its exceptional bargaining power at the time of negotiation, which arose from a combination of three factors: 1) the loss in market power of De Beers, 2) the high reliance of De Beers on Botswana for its revenues and rough diamond supply, and 3) the need to negotiate the renewal of the licence.

¹ Central Intelligence Agency (CIA). (2017). *The world factbook*. Washington, DC: CIA. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/fields/2111.html>

² World Bank Group. (2017). *Total natural resource rents (% of GDP)*. Washington, DC. Retrieved from <https://data.worldbank.org/indicator/NY.GDP.TOTL.RT.ZS>

³ United Nations Development Programme. (2016). *Human Development Reports: Botswana*. Geneva, Switzerland. Retrieved from <http://hdr.undp.org/en/countries/profiles/BWA>



BACKGROUND ON BOTSWANA'S DIAMOND SECTOR

The large Orapa kimberlite deposit was discovered shortly after independence in 1966. In 1982, the second mine that opened at Jwaneng was even richer and larger. According to the European Centre for Development Policy Management, “Jwaneng is commonly reputed to be ‘the richest piece of real estate on earth’ where the operating costs to extract a dollar of diamonds over the first 25 years of its life has been USD \$0.10.”⁴

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Indeed, the country is endowed with “with easily accessible surface deposits of high quality stones.”⁵ To operate these mines, De Beers and the government established Debswana (previously called the De Beers Botswana Mining Company) as a joint venture in 1969, with the government holding a 15 per cent stake in the company. This share increased to 50 per cent in 1975.⁶ Today Debswana operates four diamond mines, including the world-class deposits of Orapa and Jwaneng. New producers such as Lucara have started lucrative mining operations without a government equity share.⁷ As of 2011, Debswana produces 22 per cent of the world’s diamond output and has a major impact on Botswana’s economy. It makes up around 70 per cent of the country’s export

earnings, 30 per cent of GDP and 50 per cent of government revenues.⁸

Thanks to the bonanza of diamond revenues, sound macroeconomic management and a fiscally responsible expenditure strategy, Botswana evolved from being one of the poorest countries at independence to middle-income status by the mid-1990s. During this period, the economy grew at an average rate of 8 per cent per annum, and to a large extent, Botswana has been able to avoid the so-called “resource curse” that is prevalent in other resource-rich countries.

However, since 2000 there have been no significant new discoveries of diamonds and economic growth has fallen to 4 per cent (below the sub-Saharan African average), with high unemployment rates.⁹

To cope with this downturn, the government launched a diversification policy

largely anchored on diamond

beneficiation. This industry is now the largest manufacturing subsector in the country and employs 3,000 people.

CONTEXT FOR NEGOTIATING THE DOWNSTREAM PACKAGE WITH DE BEERS

The cooperation between De Beers and the government on its downstream beneficiation policy changed due to the market position of De Beers. For a long time, De Beers dominated sales and marketing of diamonds both in Botswana and around the world: “Historically, De Beers was able to

⁴ Grynberg, R. (2013). *Some like them rough: The future of diamond beneficiation in Botswana* (ECDPM Discussion Paper 142). Retrieved from <http://ecdpm.org/publications/future-of-diamond-beneficiation-in-botswana/>

⁵ Morris, M., Kaplinsky, R. & Kaplan, D. (2011). *Commodities and linkages: Industrialisation in Sub Saharan Africa* (MMCP Discussion Paper). Milton Keynes and Cape Town, The Open University and University of Cape Town. Retrieved from <http://oro.open.ac.uk/30048/>

⁶ De Beers website. Retrieved from www.debeers.com

⁷ Jwaneng and Orapa represent 92 per cent of the country’s diamond output measured by value- See Zimnisky, P. (2017). 2017 global natural diamond production forecasted at 142M carats worth \$15.6B. *Mining.com*. Retrieved from <http://www.mining.com/web/2017-global-natural-diamond-production-forecasted-142m-carats-worth-15-6b>

⁸ Mbayi, L. (2011). *Linkages in Botswana’s diamond cutting and polishing industry* (MMCP Discussion Paper No. 6). Cape Town, South Africa, and Milton Keynes, UK: University of Cape Town and Open University. Retrieved from http://www.prism.uct.ac.za/Papers/MMCP%20Paper%206_0.pdf

⁹ Grynberg (2013), Id. note 4.

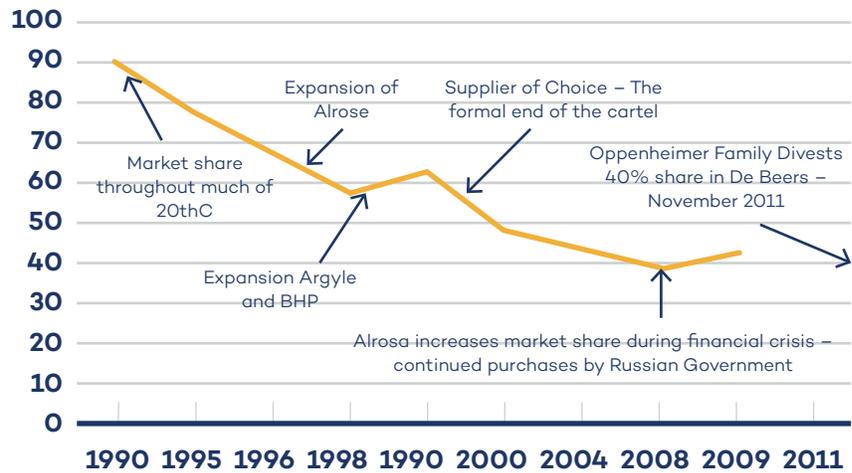


control the entire industry from mine to consumer through its dominant position in the upstream industry which, at its peak, saw De Beers control over 80 per cent of the world's rough diamond supply.¹⁰ Global diamond supply mostly originated from Southern Africa where De Beers owned a near monopoly of production. Through a single marketing channel, De Beers controlled prices of the entire industry.

When the Government of Botswana approached De Beers to develop in-country beneficiation in the 1980s the company claimed that cutting and polishing activities were not commercially viable in the country. Following government pressure, De Beers established three cutting and polishing factories, but none of them became viable. Some observers claim that De Beers purposefully made them unprofitable to avoid further pressure.¹¹

However, another window of opportunity opened in the 2000s when De Beers's mining licences were set to expire. At the time, De Beers's monopoly power and share of global diamond trade had plummeted because of competition from new producers in other regions of the world (see Figure 1). In order to stay competitive, the company had to renew its Botswana licences. The government's bargaining position was strong, considering that 70 per cent of De Beers's profits and 60 per cent of De Beers's supply of rough diamonds came from Botswana, based on the two exceptional deposits in Orapa and Jwaneng. Against this backdrop, the good relationship with the Government of Botswana became critical to the existence of De Beers, and the company's imperative was to keep control of the mines.¹²

Figure 1. Decline of De Beers market share from the 1990s to 2011



Source: European Commission (De Beers – LVMH Decision 2001 Official Journal of the European Commission), De Beers Annual Reports, RBC, Author's estimates.

Source: As cited in Grynberg, 2015.

Thus in 2005, the Government of Botswana succeeded in negotiating with De Beers that a set amount of rough diamonds from Debswana be allocated to Botswana-based cutting and polishing companies. After the agreement was reached, the government invited cutting and polishing companies from all over the world to set up factories in the country on the condition that they would transfer cutting and polishing skills to locals. In total, 16 international companies, called the "sightholders" were selected and licensed in Botswana. Their guaranteed allocation of supply of rough diamonds depended on the following criteria: "global competitiveness criteria, which assesses technical; marketing and distribution efficiency; as well as local criteria, which sought to promote skills development; job creation; and local manufacturing."¹³ The 16 sightholders (which are now 21¹⁴) received aggregated parcels of rough diamonds from all over the world through De Beers's aggregation business.

¹⁰ Mbayi (2011), Id. note 8.

¹¹ Morris, Kaplinsky, & Kaplan (2011), Id. note

¹² Grynberg (2013), Id. note 4.

¹³ Mbayi (2011), Id. note 8.

¹⁴ Moffat, B. (2017). Best practice? Managing natural resources (diamonds) in Botswana: Some notes. *Botswana Journal of Business* 10(1), Special Issue: 50th Anniversary Special Issue. Retrieved from <http://journals.ub.bw/index.php/bjb/article/view/958>



IMPLEMENTATION OF THE DOWNSTREAM POLICY

De Beers and the government established a 50/50 joint venture called the Diamond Trading Company (DTC) Botswana in 2008 with the tasks of 1) sorting and valuing Debswana's rough diamonds, 2) selling and marketing diamonds to the 16 local cutting and polishing companies, and 3) supporting and developing the cutting and polishing industry. DTC Botswana's sales to the local cutting and polishing industry were determined to be USD 500 million worth of diamonds a year, with sales growing over time. Target employment creation of sightholders was set at 3,000. The timeline for these targets was not stipulated in the contract, but a penalty clause for non-performance was included. The government established a Diamond Office to support the downstream policy objectives. It was responsible for building strategic alliances, developing infrastructure and enabling a favourable fiscal regime. The office was located at Diamond Technology Park, which hosted ancillary businesses including banking, logistics, gemmology, security and brokering companies.¹⁵

In the 2005 negotiation for the renewal of the licence, De Beers also agreed to progressively move its aggregation business—selecting and mixing the diamonds from De Beers mines for its customers—from London to Gaborone. This move was completed in 2013. The hope was to create horizontal spillovers to service industries such as hospitality, finance and transportation, given that diamond buyers would now have to go to Gaborone to buy De Beers's diamonds.¹⁶

Why did the 16 internationally renowned sightholders accept the move to Botswana even though polishing and cutting there was more expensive? The industry rule of thumb is that the cost of cutting and polishing should not exceed 10 per cent of the value of the rough.¹⁷ The blue line in Figure 2 adds 10 per cent to the cost of imported rough diamonds by Botswana (prior to the sorting and aggregation business being moved to Gaborone, the country would export “unsorted” diamonds and re-import select rough diamonds from London) to estimate the maximum processing cost that is still viewed to be competitive under the industry rule of thumb. The red line shows the actual cutting and polishing cost in Botswana. Hence there was an implicit beneficiation tax in place of around USD 31/carats or 4.5 per cent of the value of the rough diamond imports in 2009.¹⁸

This cost, however, has been outweighed by the benefit of gaining long-term access to a relatively cheap rough diamond supply. The wholesale price of rough diamonds paid by sightholders to De

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Beers is 20 to 30 per cent below market price. In addition, they are allowed to process some of the allocation of rough diamonds in their factories outside of Botswana (in 2008, only 35 per cent of the allocated diamonds were processed in the country).¹⁹ Thus, some sightholders mentioned that

¹⁵ Mbayi (2011), Id. note 8.

¹⁶ Morris, Kaplinsky, & Kaplan (2011), Id. note 5.

¹⁷ Grynberg (2013), Id. note 4.

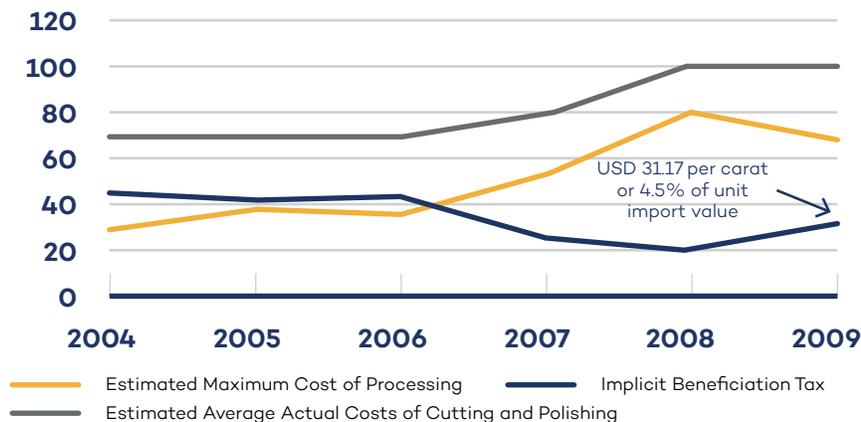
¹⁸ Ibid.

¹⁹ Ibid.



even with the high cost of processing in Botswana, they continue producing profitably because of the existence of cross-subsidization from their operations in competitive countries such as India and China. The business model relies on the continued allocation of rough from De Beers to all factories in order to accept the higher processing cost in Botswana.²⁰

Figure 2. Estimated unit cost of cutting and polishing and the implicit beneficiation tax (USD)



Source: Data on actual costs of cutting come from various Diamond Hub presentations 2008–2009. The estimated maximum is based on the standard rule of thumb in the industry that diamond cutting cost should be no more than 10% of the value of the rough. Rough values are based on Botswana import data, Kimberly Process website. http://mmsd.mms.nrcan.gc.ca/kimberleystats/public_tables/Annual%20Summary%20Table%202008.pdf

Source: As cited in Grynberg 2015²¹

SUSTAINABILITY OF THE DOWNSTREAM POLICY

The downstream policy in Botswana has shown clear signs of success. In 2014, the cutting and polishing industry in Botswana employed about 3,750 people with salaries above the manufacturing industry's minimum wage. In addition, employment has been created in second-tier supplier industries.

The downstream policy has also shown signs of success in moving further downstream in the value

chain. The vision for diamond beneficiation has always gone further than cutting and polishing; it has included creating competencies in diamond trading, jewellery manufacturing and ancillary businesses.²² In 2005, the government secured the right to buy a portion of Debswana production (10 per cent in 2005 and 15 per cent today) that it sells on the open market. Domestic trading is further incentivized by requiring all new operations to sell diamonds in Botswana.²³ Furthermore, several companies have started manufacturing jewellery.

While the downstream policy has shown signs of success, it is challenged by competition from Asia. In 2015, the country's oldest diamond cutting and polishing company shut down following the fall in diamond prices, which led to the redundancy of 350 workers. Botswana is experiencing difficulty in competing with the low-cost producers in Asia, especially India:²⁴ Cutting and polishing costs in Botswana are three to five times higher than in India (see Table 1).

²⁰ Ibid.

²¹ Ibid.

²² Morris, Kaplinsky, & Kaplan (2011), Id. note 5.

²³ UNCTAD. (2014). *Challenges and opportunities facing land-locked countries* (Presentation). Retrieved from http://unctad.org/meetings/en/Presentation/aldc2014_10_pptBotswana.pdf.

²⁴ Grynberg (2013), Id. note 4.



Table 1. Global cutting and polishing costs

Cutting Centre	Approximate Cutting and Polishing Cost USD/Carat	
	2008	2013
Canada	125	140-180
Botswana	45-125	60-120
Namibia	45-125	60-140
South Africa	60-100	130-150
US	110	300
Belgium	120	150+
Israel	47-55	140-300
Far East	15-35	20-50
India	6-50	10-50

Source. Frost & Sullivan, 2014.²⁵

Israel and Belgium have managed to maintain their market presence by developing niche expertise in cutting and polishing larger and more valuable stones, leaving the low-wage/low-cost economies such as India and China to produce cheaper stones for which the polishing cost makes up a larger margin of the final sales price. Botswana is positioned on the mid-level quality market, and as such has good prospects to remain competitive for a while.²⁶ The government is also investing heavily in training, which will increase the productivity of the polishing factories. That said, the introduction of computer numerically controlled cutting and polishing technologies will disrupt the global markets and potentially defeat the competitive advantage of having a skilled workforce for this type of activity.

Unfortunately, De Beers's decision to cooperate with Botswana regarding diamond processing was very late in the economic life of the country's known diamond deposits. If De Beers had embarked on this strategy in the 1980s the country would have had 20 more years to develop and benefit from the cutting and polishing skills.

Instead, Botswana is pursuing downstream beneficiation at a time when its reserves are in decline.²⁷ It remains to be seen how the implicit beneficiation tax will be compensated once diamond deposits are depleted, which is expected to occur in 30 to 40 years. Given the competition with Asia and the introduction of new technologies, without an effective plan to lower processing costs, the cutting and polish industry is likely to leave the country once it loses

access to the guaranteed and inexpensive supply of rough diamonds.

De Beer's aggregation business is however now in Botswana, and Botswana's downstream vision includes the development of retail capabilities. If this vision is realized, the degree of domestic value-added will continue to rise as retail makes up the largest proportion of the final market product value (see Table 2).

Table 2. Value addition across the diamond value chain

Stage of Global Value Chain	% of original value
Producer Selling Value	100
Sorting and Valuing	115
Cutting and Polishing	127
Polished Dealing	133
Jewellery Manufacturing	166
Retail	320

Source. Mbayi, 2011.

²⁵ Frost and Sullivan Consulting. (2014). *Grown diamonds: Unlocking future of diamond industry by 2050*. Retrieved from http://www.scarabaeus.li/wp-content/uploads/2015/11/Frost_Sullivan_Grown_Diamond_Impact_2050.pdf.

²⁶ Grynberg (2013), Id. note 4.

²⁷ Ibid.



KEY LESSONS

- Botswana articulated a vision to move beyond diamond extraction and then crafted a strategy to implement this vision.
- At the core of this strategy, the government established dedicated institutions (DTC Botswana and the Diamond Office), an industrial park (the Diamond Technology Park) to provide the necessary infrastructure for moving downstream and a specific commercial framework to make the polishing industry viable (access to guaranteed and cheap long-term rough supply).
- The success of downstream beneficiation in one sector can come at the expense of the diversification of the economy. In Botswana, the downstream policy has captured a lot of public policy efforts, leaving behind other sectors of the economy and the development of an inclusive private sector-led growth.²⁸

²⁸ International Monetary Fund (IMF). (2017). *Botswana - 2017 Article IV consultation* (Press release). Retrieved from <https://www.imf.org/en/Publications/CR/Issues/2017/08/08/Botswana-2017-Article-IV-Consultation-Press-Release-Staff-Report-45172>.



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