

## Public-Private Partnerships (PPPs) and Sustainable Natural Resources Exploitation in Africa:

### Lessons from Diamond Mining in Chiadzwa, Zimbabwe

Trynos Gumbo<sup>1</sup>

African countries are endowed with vast natural resources in general and mineral wealth in particular. Regrettably, most of the resource-rich countries in Africa face chronic shortages of financial capital, appropriate and advanced technologies and the skills acumen to extract and beneficiate their resources. This policy brief discusses the benefits of African countries' embracing Public-Private Partnerships (PPPs) in the exploration for and extraction of natural resources, and their subsequent processing and refining along production and supply chains to add value before they are marketed elsewhere. This brief uses, as a case study, diamond mining in Chiadzwa, an extensive field of alluvial diamonds in the Marange district in the Manicaland province of Zimbabwe. Against the backdrop of capacity and resource constraints experienced by most African countries, the policy brief argues that African governments need to realise the benefits of partnering with the private sector in the exploitation and processing of natural resources. Consequently, they should formulate, facilitate and implement appropriate policies that promote joint ventures with the private sector. The private sector is technically equipped and financially resourced; it can stimulate innovation and improve productivity, wealth creation and distribution – critical achievements towards the realisation of the Millennium Development Goals (MDGs) of poverty alleviation and eradication of hunger in poor communities, which are the main developmental issues in Africa.

#### Introduction

The Zimbabwean nation state is endowed with huge reserves of natural resources: for instance, mineral wealth that includes gold, platinum and diamonds. Paradoxically, the majority of the

country's population continue to face chronic poverty and unemployment, as the government lacks capacity to effectively engage in mining operations. Consequently, depressed mining activities and the export of low-priced, unprocessed commodities, coupled with the import

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of expensive finished products, perpetuates the country's underdevelopment. This policy brief investigates the benefits associated with the implementation of Public-Private Partnerships (PPPs) to explore and extract natural resources in African countries. As a case study it uses diamond mining in Chiadzwa, an extensive field of alluvial diamonds in the Marange district in Manicaland province of Zimbabwe. This work contends countries that boast huge reserves of natural resources but have no capacity in terms of financial resources, technical skills and know-how, nor appropriate technologies, could adopt and apply PPPs as a workable option for the realisation of far-reaching and sustainable benefits. This also helps to eliminate widespread conflicts<sup>1</sup> that are closely related to growing interests in the continent's natural resources, as alluded to by the African Union (AU) Commissioner for Peace and Security, Ramtane Lamamra, during the recent Committee of Intelligence and Security Services (CISSA) that was held in Zimbabwe.

### Background to Chiadzwa diamond mining in Zimbabwe

Located in the Marange district of Manicaland province in Zimbabwe (Fig. 1), Chiadzwa is the third and by far the largest-diamond mining operation in the country, after the River Ranch diamond mine in Beitbridge and the Murowa diamond mine located in Zvishavane, which

have been in existence for a very long time under private ownership and management.<sup>2</sup>

The alluvial diamonds in Chiadzwa were first discovered in 2006 by local villagers.<sup>4</sup> In fact, the Zimbabwean government had initially wanted Chiadzwa diamonds to be exploited by private companies, so Kimberlitic Searches, a De Beers subsidiary, and later the Africa Consolidated Resources (ACR), a United Kingdom (UK) registered company, were given prospecting licences from 2002 to 2006.<sup>5</sup> Perhaps the 'failure' by these private companies to make sufficient progress in the area was attributable to their scepticism about the risky political and economic environment for serious business investments in the country.<sup>6</sup>

The large stretch of diamond fields covers an area of 66 640 hectares.<sup>7</sup> The value of the diamond deposits has been estimated to be around US\$800 billion and the mine could last up to 30 years.<sup>8</sup> It is believed that Zimbabwe currently occupies the seventh position in diamond production in the world, and has the potential to contribute 25 percent of the diamonds that are in demand globally.<sup>9</sup>

The original discovery of the diamonds gave rise to a diamond rush that attracted thousands of people who engaged in informal mining and trading in diamonds between 2006 and 2008 (Fig. 2). At the peak of informal diamond mining in 2008, an estimated 35 000 illegal artisanal miners from various districts and provinces of the country and about 5 000 illegal diamond traders



Figure 1 Location of Chiadzwa in Marange district

Source: McDougall, 2013<sup>5</sup>



**Figure 2** Diamond rush in Chiadzwa between 2006 and 2008

Source: C. Hove, 2008<sup>11</sup>

from countries such as Botswana, Mozambique, South Africa, Nigeria, the United Arab Emirates and Belgium operated within the area.<sup>10</sup> The value of the diamonds that were produced and sold by small-scale miners could not be known and accounted for, owing to the disorderly manner in which the operations were conducted.

The nature of the illegal operations and the subsequent forceful removal of illegal miners and traders by the government to deal with the chaos attracted international attention and condemnation, accusations and counter-accusations of human rights abuses and dealing in blood diamonds. After the successful clearance and cordoning of the diamond fields, the government, through the Ministry of Mines and Mining Development (MMMD) responsible for ensuring a sustainable mining sector in the country, maintained order and subsequently tasked the Minerals Marketing Corporation of Zimbabwe (MMCZ), a parastatal organisation that falls under the MMMD, to oversee the marketing of the diamonds produced by small-scale artisanal miners. However, due to lack of financial resources, the MMCZ was offering low buying prices to locals engaged in mining. These miners ended up diverting their diamonds to a black market that was mostly dominated by foreign buyers offering better prices, thus leading to the proliferation of illegal diamond trading and smuggling, as well as huge losses to the government. It is estimated that the government lost diamond revenue of more than US\$300 million, due to illegal dealings in the precious mineral.<sup>12</sup>

### **A synopsis of public-private partnerships**

PPPs can be loosely defined as contractual arrangements between the public and private sectors to achieve agreed, common and shared goals.<sup>13</sup> However, it is worth mentioning that there is no universal and precise definition of PPPs. The concept has been in existence for over three decades and has been going through a metamorphosis, at first receiving wide contestation but gaining recognition now.<sup>14</sup> In countries like the UK where PPPs were started, they mainly took the form of concessions where the private sector would invest their financial, material, technological and skills resources in the provision of public goods and infrastructure; among others roads and water resources.<sup>15</sup> Through concessions, investment and operating risk is transferred to the private sector by the public sector on specific national projects for a fixed period of time. Along the continuum of PPPs are also joint ventures, by which the private sector pools its assets, which may include machinery and equipment, finance and expertise, to collaborate with the public sector. On the other hand, the public sector brings in good governance, credibility and community engagement and awareness, as well as the interpreting of institutional and regulatory frameworks.<sup>16</sup> The concept of shared ownership, risk, responsibilities and reward under a 50-50 joint management between the public and private sectors is, however, a novel concept, particularly in natural resources extraction and management such as mining.

## **Making a case for PPPs in the African continent**

The African continent boasts large reserves of untapped natural resources, which include minerals such as gold, chrome, tin, coltan and diamonds, as well as energy sources such as uranium, oil, coal and gas.<sup>17</sup> Regrettably, most of the resource-rich governments in Africa face chronic shortages of financial capital and appropriate and advanced technologies, as well as the skills acumen to extract and add value to their resources. On the other hand, the private sector boasts advanced technological equipment and machinery, personnel with technical skills and know-how, as well as financial capital that could be tapped into by the public sector.

African governments therefore need to realise, acknowledge and tap into the benefits of partnering with the private sector in the extraction of natural resources. Partnerships between the two sectors have been around for a while, but mostly limited to construction and provision of the various forms of infrastructure.<sup>18</sup> Historically, projects within the mining sector were left to wholly-owned public-sector initiatives, which more often than not gave disappointing results due to resource limitations and poor implementation and management. Similarly, wholly-owned private sector mining projects received their fair share of allegations, including lack of transparency, over-exploitation of resources and disregard of the natural environment.

There has generally been an acknowledgement by African governments of PPPs as conduits for leveraging financial capital and technological and skills resources in mining businesses, although they are still not well entrenched. In Botswana diamond mining, for example, the Debswana Diamond Company is a 50/50 joint venture between the Botswana Government and De Beers, and as a result the country has been recording a very high gross domestic product (GDP) growth, averaging 7 percent annually, which has also been contributing to human and infrastructure development. This clearly demonstrates that the private sector has a critical role to play in achieving and ensuring sustainable development, and particularly poverty alleviation, in African countries.<sup>19</sup>

This also signifies that PPPs provide a flexible framework within which the skills and resources of the private sector can be mobilised to provide better-quality, sustainable, and more cost-effective public services. If the practice could be

adopted across the continent in countries such as the Democratic Republic of Congo (DRC), which also boasts massive reserves of natural resources, Africa governments would improve the monitoring of their resources and the benefits they accrue from them.

## **PPPs: The case of Chiadzwa diamond mining in Zimbabwe**

In an attempt to plug the siphoning of diamonds, eliminate informal mining activities and restore order, the MMMD licensed the Zimbabwe Mining Development Corporation (ZMDC), another parastatal, with the mandate to engage in mining investments on behalf of the government. The ZMDC, however, lacked the financial, technical and skills capacity to undertake the mining activities on its own without private assistance. The government could not access capital investment and its lines of credit had dried up owing to the economic crisis and the restrictive measures that had been imposed by Western powers, such as the United States (US) Zimbabwe Democracy Recovery Act (ZIDERA), which had been passed in 2001 to limit Washington's economic cooperation with Harare until certain conditions were met.

Since large-scale mining relies heavily on access to large capital outlay, sophisticated and very expensive technologies and highly skilled personnel, the government was left with no option but to open the doors to private players to partner with the ZMDC in the mining of diamonds in the rich Chiadzwa field of alluvial diamonds. As a result, the Zimbabwean Government, through the MMMD, formed partnerships between the ZMDC, its representatives and various local and international private companies. Initially, the ZMDC formed a subsidiary company known as Marange Resources in 2009 to enter into 50/50 joint venture partnerships with two private companies, Canadile Miners (before it was left out) and Grandwell Holdings (to create Mbada Diamonds Joint Venture) in the mining of diamonds in Chiadzwa. Later, two more 50/50 joint ventures were formed. Anjin was formed between the ZMDC and Anhui Foreign Economic Construction Group (AFECG), a Chinese company, and the Diamond Mining Corporation (DMC) was formed between the ZMDC and Pure Diam, a Dubai company.<sup>20</sup> Currently, the three mining companies: Mbada, Anjin and DMC, operate as joint ventures and their production and contribution to the country's development have been on an upward trend.<sup>21</sup>



## Benefits and prospects of PPPs in Chiadzwa diamond mining

The partnerships greatly helped to improve mining operations, at the same time promoting order and harmony in the exploitation of the alluvial diamonds. The formation of the joint-venture partnerships restored order in Chiadzwa, leading to the Kimberley Process Certification Scheme (KPCS) granting permission and approval to Marange Resources and Mbada Diamonds to commence legal trading of diamonds. The KP review team had earlier visited Zimbabwe to investigate the extent of the government's compliance with the certification scheme with regard to looting and smuggling of diamonds, violence and human rights abuses, and had been satisfied with the situation. In 2011, KPCS approved the two other companies, Anjin and DMC, to trade in diamonds. The policy brief argues, moreover, that it was partnering with the private sector that helped to improve legitimacy in the operations of the government.

Besides productivity<sup>22</sup> and wealth creation for government, the lives of citizens also improved. The participation of private companies led to the realisation of US\$684,5 million from diamonds exports. Mbada Diamonds contributed US\$308,3 million, while Anjin realised US\$209,9 million, the DMC contributed US\$100,8 million, and lastly Marange Resources realised US\$236 317.<sup>23</sup> The contribution of the three main minerals in the country (diamonds, gold and platinum) to the GDP of the country increased from 13 percent in 2011 to 16 percent in 2012.

Equally, participation of the public sector in natural resource extraction brought order and harmony, thereby helping to foster transparency<sup>24</sup> that helped to address resource leakages and

conflicts over the diamonds. Between 2006 and 2008, when diamond mining in Chiadzwa was being carried out by informal small-scale and artisanal miners, the government and citizens lost out on revenue and there was drastic haemorrhaging of the precious resource by foreign dealers. However, the advent of PPPs in mining the diamonds resulted in the government's receiving royalties and dividends from the four joint ventures. In 2012 alone, the mining companies in Chiadzwa contributed US\$102,7 million to the fiscus.<sup>25</sup>

PPPs also helped to stimulate innovation. Anjin, one of the joint ventures, invested about US\$8 million in the latest mining equipment and technologies in 2011 (Fig. 3). The latest module plants have resulted in high production levels of diamonds. The machines, which were sourced from Italy, have a combined capacity to process 400 tonnes of ore per hour, an upward development from their earlier production capacity of 200 tonnes of ore per hour.

Mbada diamond company also uses high-technology X-ray transmography machinery to produce on average 150 000 carats of diamonds per month. (The plant and equipment are shown in Figure 3.) According to the KPCS monitor, Mr Abbay Chikane, diamond mining in Zimbabwe has improved and reached the standards of international operations and the positive developments took place after the adoption of PPPs concept. It has developed into a model operation that can be replicated in other African countries.

Due to the active participation of the private sector in diamond mining, other players in private businesses have jumped on the bandwagon to support the industry. For instance, diamond cutting and polishing companies and colleges have opened shop in the country.<sup>27</sup> Locally, the



**Figure 3** Recovery and DMS plants in Chiadzwa (after the formation of joint venture partnerships)

Source: Mbada Diamonds Corporate CSR Report <sup>26</sup>

joint ventures realised US\$10,2 million by selling their output to diamond and polishing companies in the country. The DMC earned US\$5,5m, while Mbada Diamonds realised US\$2,8 million. Anjin sold diamonds worth US\$1,6 million and Marange Resources realised US\$236 317.<sup>28</sup> A college offering courses in diamond cutting, polishing and valuation, by the name of Braitwood Institute of Gemology, was established in Harare. The college is supporting the diamond industry by improving the level of technical skills in diamond refining and processing.

Partnerships between public and private companies in the mining sector also helped in promoting corporate social responsibility, thus contributing to the attainment of the MDGs of alleviating socio-economic and human development challenges such as poverty and hunger in poor communities, and environmental degradation, which are the main developmental issues in Africa. For instance, Mbada Diamonds has been participating in the development of soccer through the richest football tournament in the country, the Mbada Diamond Cup. Each year the company invests more than US\$1 million in the competition.<sup>29</sup> It has also been partnering with the Zimbabwe Farmers' Union (ZFU) in training resettled families at Arda Transau on sustainable farming methods and supporting them with farming inputs to the tune of US\$100 000 every year, to empower them and make them self-sufficient.<sup>30</sup>

Regarding prospects, PPPs paint a brighter future in Zimbabwean diamond mining. The joint ventures have the capacity to produce 500 000 carats per month, from the current 100 000 carats per month if economic restrictions are eased in the country. Only this year, the country hopes to increase exports to 16,7 million carats from the 8 million carats that were sold in 2012.<sup>31,32,33</sup> The government is promising to give diamond cutting and polishing licences to more local companies, in line with the requirement that 10 percent of precious mineral products be channelled to locals for value addition, to guard against the export of raw materials and to create more jobs locally.<sup>34</sup> It has also been courting international diamond-cutting and polishing companies, as well as merchants in Western countries, particularly the US, which buys 37 percent of the world's diamonds, to market the country's product.<sup>35</sup> The government is also in the process of enacting the Diamond Act to replace the 1903 Precious Stones Trade Act, to improve its diamond mining and marketing activities and restore sanity and

accountability in the sector as a way of meeting all KPCS standards.

## Conclusion and policy recommendations

The Zimbabwean Government has done a lot to meet international standards and improve diamond mining in Chiadzwa, but much still needs to be done to realise value addition, beneficiation and sustainable exploration, extraction and marketing of its natural resources. It is the contention of this policy brief that the concept of sustainable development is very complex, such that achieving its goals, particularly in the exploitation and management of natural resources, demands continuous innovation and engagement with other like-minded stakeholders.

Of particular note is the diamond value chain, which consists of numerous stages: from exploration, mining and sorting to cutting and polishing and manufacturing of end products. This demands huge investments in the latest technologies and human skills and needs working capital. This alone proves that mining businesses are capital-intensive undertakings that make collaboration of African governments with the private sector imperative. The old adage, 'The whole is greater than the sum of its parts' applies here. African governments should refrain from selling rough diamonds, a practice that exports millions of jobs, in the process breeding unemployment, poverty and underdevelopment. They should rather partner with the private sector and participate throughout the diamond supply chain.

Indisputably, the majority of conflicts in Africa are associated with interests in accessing, extracting and controlling the vast natural resources of the continent. In response, African governments should consciously formulate policies that promote peace and orderly extraction of natural resources, at the same time eliminating internal disorders within their borders. Unnecessary squabbles and civil wars are normally capitalised on by outsiders that harbour hidden interest in Africa's resources, leading to massive destabilisation of intended sustainable resource exploitation and further impoverishment of local communities. Conducive and enabling political, economic and business environments promote certainty and predictability, which are key ingredients in attracting private investment. Similarly, there is a need for strong and dependable regional integration and the subsequent formation

of blocs that safeguard the continent's natural resources. Bargaining and negotiating power increases as regional blocs collaborate when dealing with foreign interests in the continent's resources.<sup>36,37</sup>

Pursuant to that, issues of the environmental, socio-economic and cultural rights of local communities should be highly regarded when extracting wealth and profits from natural resources. This also relates to expansion of employment opportunities for the locals and skills and technology transfer, as well as improvements in working conditions and remuneration of employees by the various companies involved. The promotion of good governance and observance of principles of corporate social responsibility by companies engaged in the extraction of natural resources in Africa, particularly mineral-rich countries such as Mozambique, the DRC, Angola and Zimbabwe, will thus have downstream impacts that contribute to the achievement of MDGs of poverty alleviation, social, economic and environmental sustainability. The adoption of PPPs as the rule rather than the exception in natural resources extraction and management in the continent will also help to promote order, transparency and oversight throughout the supply chain, thus helping to eliminate resource leakages, smuggling and dealing in illegal minerals, which fuel conflicts. African governments can also facilitate transparency by forming and involving parliamentary committees to actively monitor mineral contracts, production and marketing, and other local institutions, civil society and international organisations such as the KPCS to ensure that operations observe local and international legislative instruments and standards.

Lastly, to leverage the efficacy of natural resources towards poverty reduction and fostering sustainable development, African governments need to review colonial minerals and mining legislative frameworks that are still in use, contributing to the exploitation and remitting of the continent's vast wealth by foreign interests, without benefiting and empowering locals. This is evidenced by statistics of high economic growth levels some other African countries have shown since 2001. These include Ethiopia, Sierra Leone, Nigeria and Angola, but the high growth has not transformed the lives of ordinary people, but instead benefited multinational companies involved in natural resources exploration and extraction. With its millions of hectares of land, Africa is not only the second-largest continent but

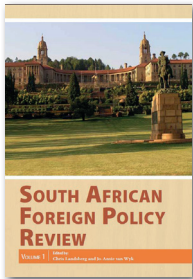
also the second-fastest growing economy after Asia, but it has little to show convincingly, as millions of its people sink under endemic poverty.

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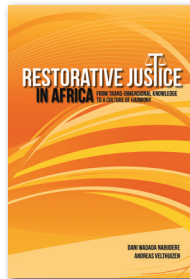




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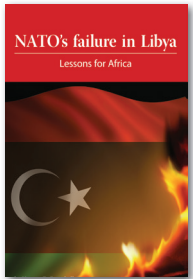
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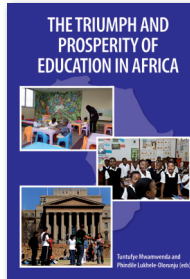
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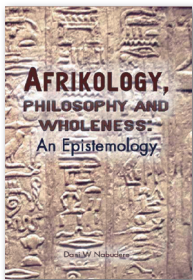
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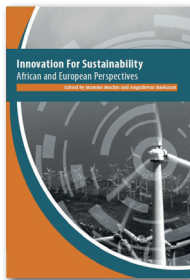
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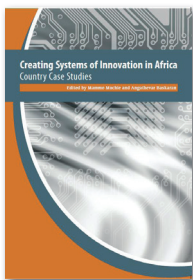
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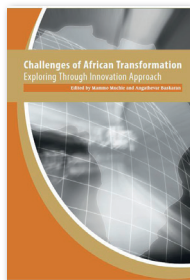
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