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The Great Dyke is a seam of ore-bearing rock that goes from the north to the south of Zimbabwe. The Dyke spans a total length of 550kms and has a maximum width of 11kms. This geological feature represents an important resource for Zimbabwe’s national economy and the local communities’ livelihoods. This is because the Great Dyke contains vast mineral resources including the Platinum Group of Metals (PGMs), gold, nickel, copper and chrome among others. Some of the biggest mining companies with operations in other African states operate within the Dyke. These companies include Unki Platinum Mine, Zimplats, Mimosa Mine, Zimbabwe Mining and Steel Company (ZIMASCO) and Falcon Gold among others. In addition to these large scale mining companies, the Great Dyke minerals are also mined by thousands of small scale miners and illegal artisanal miners.

This research has three aims. The first one is to establish the mineral resources within the Great Dyke. Zimbabwe and South Africa have 80% of the world’s chrome reserves. Most of these chrome reserves in Zimbabwe are found within the Great Dyke Mineral belt. In addition to significant chrome reserves, the country also have a large resource base of PGMs. Zimbabwe has the second largest reserves of platinum in the world. In addition to platinum and chrome, the country also has significant deposits of nickel, gold and other minerals. The second aim is to establish the extent of mining within the Great Dyke. Mining companies such as Zimasco contribute about 1.2% of global ferrochrome production while Mimosa and Zimplats contribute about half of Implats’ production. This points to the significant production within the Great Dyke mining activities and further amplifies the importance of this resource base. Establishing the extent of mining within the Great Dyke also requires an exposé of the ownership structures of the mining companies operating within the belt. The research established that most of the mining companies are foreign owned with shareholders in South Africa, China, Britain, Australia and Canada among others. This shareholding structure is, however, forecasted to change as a result of the implementation of the Indigenisation and Economic Empowerment Act in Zimbabwe. This Act compels companies to transfer 51% of their shares or interest to indigenous Zimbabweans. The third aim is to assess the opportunities that the implementation of the Indigenisation and Economic Act (IEEA) avails to communities living along the Great Dyke in through Community Share Ownership Schemes or Trusts. The research established that while in principle the IEEA has the potential to benefit, the way in which it is currently being implemented has the potential to weaken and further marginalise communities from mineral resource governance in the Great Dyke.

Despite increasing investment in the Great Dyke mineral belt, mining also has negative and positive impacts on the local communities and the nation at large. Mining contributes taxes, exports, jobs and corporate social responsibility projects among other contributions. However, mining companies operating in the Great Dyke also leave a negative footprint through community rights violations and environmental degradation.

Despite the centrality of mining within the Great Dyke to the national economy and the livelihoods of local mining communities, mining communities and other stakeholders within the belt have often been left out of the national discourse on mining. The research, therefore, provides recommendations on how mining communities can better organise themselves to engage mining companies and the government. The recommendations also point to the actions that mining companies and government can take to ensure that mining does not violate community rights and significantly benefits the local economy.
The Great Dyke is a linear geological feature stretching from the north-south through the centre of Zimbabwe. The Dyke spans 550kms with a width varying from 2kms to a maximum of 11kms. This geological feature represents a strategic economic belt in the country. It has large commercial deposits of nickel, copper, cobalt, gold, and platinum group metals (PGM). The PGMs primarily include platinum, palladium, rhodium and associated base metals (nickel, copper and cobalt). Zimbabwe has the second-largest platinum reserves in the world after South Africa and these platinum reserves are largely found within the Great Dyke. Within the Great Dyke four geological complexes are known to contain PGM and base metal deposits. These are the Wedza Complex, Selukwe Complex, the Hartley Geological Complex and the Musengezi Complex. The Hartley Geological complex is the largest of the PGM bearing complexes containing 85% of the known PGM resources in Zimbabwe. Zimbabwe also has approximately 15% of the global chromite reserves and these are also mainly found within the Great Dyke. Chromite is mined throughout the Dyke as the chromite seam deposits span the entire dyke. Some of the chromite mining operations occur especially in the Darwendale, Lalapanzi and Mutorashanga areas. The three largest chrome mining companies are Maranatha Ferrochrome, Zimalloys and Zimasco, although most mines are worked by the tributary system.

Image Source: Implats

The Great Dyke is therefore the mineral ‘hub’ of the country. Some of the largest operations of mining activity are carried out within the Great Dyke. The biggest miners in Zimbabwe by volume and scale of production are located within this rich mineral vein and include, Zimplats, Mimosa Unki, Falcon Gold, Zimalloys, Zimasco and Maranatha among many others. It is also important to note that while most of the biggest players in the mining sector have some scale of operations within the Great Dyke, there is also significant activity from small-scale miners and illegal or artisanal miners. A clear example is within the chrome mining sector. According to the Chamber of Mines of Zimbabwe, there are over 4,000 registered chromite mining claims that are current and of these, 46% are held by indigenous Zimbabweans with the balance held by five large scale mining companies. The case of chromite mining is very instructive as a significant number of those claims held by large scale mining companies are mined by indigenous small scale mining companies through the tributary system. The tributary system is when small scale miners mine the ore on claims owned by large scale mining companies or on behalf of the large companies. This example clearly shows that while the mining activity within the Great Dyke is largely by large scale mining companies, the activity by small scale indigenous Zimbabweans and their impacts cannot be discounted.

An understanding of the resources within the Great Dyke is not complete without a clear picture of production volumes of the various mines operating within the belt. Mining operations along the Great Dyke are either underground or surface mining operations depending on the type of mineral. Most of the chrome mining operations are surface mining while platinum and gold mining operations are sub-surface or underground. Zimasco has an installed capacity capable of producing 180,000 tonnes of high carbon ferrochrome annually and accounts for around 1.2% of global ferrochrome production. This is, therefore, a very large scale mining operation within the Great Dyke. Zimplats’ current annual production is around 180,000 ounces of platinum although this will be ramped up to 270,000 ounces of platinum by 2014 at the completion of current expansion plans. Mimosa currently produces approximately 100,000 ounces of platinum. The platinum mined at Mimosa and Zimplats is transported to South Africa for refining at Impala Refining Services. It is important to note that Zimplats and Mimosa’s platinum reserves constitute about 46% of the total resources and reserves of Implats. This clearly shows that the platinum operations of Mimosa and Zimplats are critical, not just to Implats production but to global platinum production. Amplats’ Unki Mine currently produces 70,000 platinum ounces with an envisaged potential production of 280,000 platinum ounces per annum.

Falcon Gold’s Golden Quarry Mine is located within the Gweru-Shurugwi Greenstone Belt. This belt had produced 6.5% of Zimbabwe’s total gold production through 1984. According to New Dawn, this property remains vastly under-explored. Falcon Gold’s second mine, the Dalny Mine is located 175km southeast of Harare, the capital of Zimbabwe. The mine consists of more than 3,500 claims and boasts a strike length of over 15km long. Historical production up to 2006 was 2.44M ounces of gold from 10.2M tonnes of ore treated at a grade of 7.42 grams/tonne. The company’s last operation is Venice Mine in Kadoma. The mine is comprised of over 2,500 claims with numerous exploration targets. Historical production up to 2002 was 318,000 ounces of gold from 2.5M tonnes of ore treated at a grade of 3.77 grams/tonne. However, the mine is currently on term care and maintenance; however, a significant exploration opportunity exists on a number of high priority targets. The potential combined output of all of Falcon Gold’s mines is by no means insignificant.

The strategic importance of minerals mined within the Great Dyke emanates from the value and use of the minerals globally. Over 80% of the world’s chrome is utilised in the production of stainless steel. Stainless steel depends on chromium for its appearance and its resistance to corrosion and is used in the construction and manufacturing industries. Demand for chrome ore, iron ore and ferrochrome is expected to remain strong in 2012 mainly due to the continued growth of steel industry. Most of the demand for chrome will come from the growth of the steel industries in China and India. Gold, a key mineral found in significant quantities along the Great Dyke, is also in demand globally as an alternative store of value. Over the last two years, the value of gold in the open market has hovered above USD 1600/ounce with the ‘yellow metal’ climbing to a record high of USD 1900/ounce in 2011. Demand for the mineral is expected to remain high on the back of lingering concerns with regards to the slowing global economy and the after shocks of the debt crises. In addition to being used as a hedge and as a store of value, gold is also used in the making of jewellery. Another key mineral found within the Great Dyke is platinum or the PGM and it is mainly used in jewellery and in manufacturing of various electronics and components such as vehicle emission controls. PGMs are also used as a catalyst in the production of fertilisers and explosives.
Mining is one of the major cogs of economic growth in Zimbabwe. It has always played a major part in Zimbabwe's economy from pre-colonial times and even after the attainment of independence. Over the past decade some of the major driving economic sectors such as agricultural and tourism have relatively declined leaving the mining sector as one of the top contributors to the country's gross domestic product. Due to the country's economic collapse, mineral exploitation has been carried out extensively more so in the resource rich Great Dyke. The sector contributes to growth in the local economy through providing jobs, foreign currency earnings (exports), corporate social responsibility or investment projects and downstream or multiplier effects in the form of supply of goods and services to the sector.

The table below (figure 1) gives the projected volumes of production for gold, nickel, coal, chrome, black granite, asbestos, diamonds, platinum and palladium for the period 2011 to 2015. Most of these minerals are found within the Great Dyke. What is clear from the table is that there is likely to be increased production for all the minerals. Increasing production, therefore, clearly signals significant growth of the mining sector and mining activity within the Great Dyke.

**Figure 1. Projected Growth Rates of Mineral Production from 2011-2015 (Fig 1)**

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold /kg</td>
<td>13,000</td>
<td>15,000</td>
<td>18,000</td>
<td>21,000</td>
<td>25,000</td>
</tr>
<tr>
<td>Nickel /t</td>
<td>7,675</td>
<td>8,842</td>
<td>10,611</td>
<td>12,733</td>
<td>15,279</td>
</tr>
<tr>
<td>Coal /t</td>
<td>3,000,000</td>
<td>6,360,000</td>
<td>7,146,000</td>
<td>7,146,000</td>
<td>7,146,000</td>
</tr>
<tr>
<td>Asbestos /t</td>
<td>2,100</td>
<td>2,100</td>
<td>2,100</td>
<td>2,100</td>
<td>2,100</td>
</tr>
<tr>
<td>Chrome /t</td>
<td>610,000</td>
<td>700,000</td>
<td>700,000</td>
<td>700,000</td>
<td>700,000</td>
</tr>
<tr>
<td>Platinum /kg</td>
<td>12,000</td>
<td>13,287</td>
<td>15,751</td>
<td>19,721</td>
<td>19,666</td>
</tr>
<tr>
<td>Palladium /kg</td>
<td>9,600</td>
<td>10,630</td>
<td>12,601</td>
<td>15,776</td>
<td>15,732</td>
</tr>
<tr>
<td>Black Granite /t</td>
<td>168,000</td>
<td>170,811</td>
<td>173,748</td>
<td>176,602</td>
<td>179,511</td>
</tr>
<tr>
<td>Diamonds /carat</td>
<td>8,065,651</td>
<td>12,111,867</td>
<td>14,837,707</td>
<td>18,443,797</td>
<td>21,463,054</td>
</tr>
<tr>
<td>Growth Rate</td>
<td>44%</td>
<td>20.0%</td>
<td>18.3%</td>
<td>19.4%</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

*Source: Ministry of Economic Planning and Investment Promotion, Reserve Bank of Zimbabwe and Ministry of Finance*

15. 2012 National Budget Statement pg 112
In terms of exports, the mining sector exports grew by 138.1% in 2010, 38.7% in 2011 and are expected to grow by 13.3% in 2012. To put this into perspective the export sector growth for 2011 means the mining sector collectively represents half of the total export estimates of US$4.4 billion. In figure 2 below, the combination of PGMs and Gold exports alone surpasses the individual contributions of the manufacturing and tobacco exports.

What is important to note is that most of this mining activity occurs within the Great Dyke belt. Figure 3 clearly shows that the largest export earnings in the past and those forecasted include gold, PGMs and Nickel. These minerals are mainly found and mined along Zimbabwe’s Great Dyke.

Mining’s contribution to the national economy should also be looked at in terms of direct contributions to the national fiscus through payment of taxes and royalties. The main taxes paid by mining companies are; Pay As You Earn (PAYE), VAT, Customs Duty and Excise Duty. Zimplats is one of the top five largest tax paying companies in terms of PAYE and Corporate Tax. The Chamber of Mines of Zimbabwe estimates that the contribution of mining to Zimbabwe’s real Gross Domestic Product is above 11%. The Chamber also estimates that mining is responsible for a third of the nation’s imports.

Main Exports: 2010-2012 *(Figure 2)*

![Major Exports](image)

Source: Ministry of Finance, 2012 Budget Statement

Mineral Exports: 2008-2013 (Figure 3)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>93.8</td>
<td>155.2</td>
<td>334.2</td>
<td>626.9</td>
<td>874.5</td>
<td>823.0</td>
</tr>
<tr>
<td>Asbestos</td>
<td>6.0</td>
<td>2.7</td>
<td>0.5</td>
<td>0.8</td>
<td>1.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Nickel</td>
<td>77.2</td>
<td>31.1</td>
<td>59.0</td>
<td>101.3</td>
<td>115.0</td>
<td>120.0</td>
</tr>
<tr>
<td>PGMs</td>
<td>475.0</td>
<td>354.9</td>
<td>700.6</td>
<td>765</td>
<td>832.0</td>
<td>889.0</td>
</tr>
<tr>
<td>Black Granite</td>
<td>18.3</td>
<td>16.1</td>
<td>12.9</td>
<td>20.7</td>
<td>22.5</td>
<td>25.2</td>
</tr>
<tr>
<td>Coke</td>
<td>22.6</td>
<td>34.5</td>
<td>38.3</td>
<td>38.8</td>
<td>44.2</td>
<td>45.4</td>
</tr>
<tr>
<td>Coppet</td>
<td>8.5</td>
<td>8.4</td>
<td>14.5</td>
<td>23.3</td>
<td>36.5</td>
<td>38.7</td>
</tr>
</tbody>
</table>

Source: Ministry of Finance, 2012 Budget Statement

The tables above (figure 2 & 3) clearly show that mining contributes significantly to the foreign currency earnings of the nation. However, the contribution of mining is not confined to exports and export earnings. Mining also makes a significant contribution to job creation in Zimbabwe. In a country where formal unemployment figures are still stated to be around 80%, this contribution is not to be taken lightly. The large scale mining companies operating within the Great Dyke are illustrative of this point. Zimasco, one of the largest chrome mining companies in Zimbabwe, directly employs 3070 people and about 5500 indirectly through tributor and cooperative miners. Mimosa’s employees and contractors number 1802 while Zimplats employees and contractors total 3680. Falcon Gold employs over 200 people while Unki Mine engages 650 employees and contractors. The contribution to jobs cannot, therefore, be discounted. However, there have been outcries from various quarters indicating that some of the jobs that should be filled by locals are outsourced to foreign nationals who come into the country as expatriates. In addition, there have been concerns that the communities surrounding the mines are often over-looked for employment even in cases where the vacant jobs are for low-skilled workers. A clear example of these concerns flaring up is when villagers from the communities surrounding Unki Mine in Shurugwi demonstrated against the employment policies and practices of the company.

In addition to jobs and foreign currency earnings, mining also makes significant contributions to the local community and national economies through corporate social responsibility or investment projects. The towns of Shurugwi and Zvishavane are clearly an offshoot of the mining activity in those areas. Mining activity within the Great Dyke has resulted in the construction of schools, housing, clinics, roads and other infrastructure. In addition, mining along the Great Dyke has also resulted in the supporting of local entrepreneurship or income generating projects in the agricultural sector.

17. 2012 National Budget Statement pg 112
A clear example, in terms of contribution to local and national economies through CSR is in the platinum mining sector. Mimosa mining company has commissioned 11 boreholes in Zvishavane, a mortuary at the town’s district hospital and classrooms and toilets at Dadaya Primary School. Mimosa has built houses for almost all of its more than 2 000 employees under the housing development and home ownership scheme for general workers, supervisors and managers. Under this scheme, employees get to own their houses after 10 years of service with the mining company. The mine has also constructed and tarred a 12km stretch of road connecting the Zvishavance-Bulawayo road and the road to the mine, which is also used by surrounding communities. It has also built a clinic for its workers and their dependants. Unki Mine has refurbished and or constructed schools, invested in local community irrigation, made contributions to the local hospital, provided bursaries for promising students to study at the country’s School of Mines, invested in power generation and built a tarred road linking the mine to the main road among other CSR initiatives. Zimplats’s CSR projects include supporting local procurement, building Ngezi Selous Highway, which has benefited the general public, chrome miners, farmers and schools in the area. Improving telecommunications infrastructure in Ngezi to the tune of USD 1 million; constructing the ‘Turf Village’ to house mine workers; supporting water provision and supporting ZESA with power infrastructure worth over USD 40million.

The contributions by mining companies to CSR projects are commendable. This is especially so in Zimbabwe where the state and the local government structures had lost their capacity to deliver vital social services and built critical infrastructure in what has come to be known as ‘the lost decade’. This was the period from the year 2000 to 2010 when the country experienced a political and socio-economic crisis of huge proportions. Mining companies came in to fill in the capacity constraints and gaps of the state and local authorities. However, as with CSR projects all over Africa, there have been concerns regarding the sustainability of these projects and the main motives behind some of these projects. The type of CSR projects initiated by mining companies often lead to the conclusion that the CSR by mining companies is mainly aimed at benefitting the mine-workers and not the wider community within the ‘catchment’ of the mine. In essence, the building of clinics and housing for employees, while commendable, is not enough in terms of CSR. It merely represents an effort by mining companies to improve worker morale, lessen absenteeism and increase or maintain production at the mines.

A research paper by the Southern Africa Resource Watch (SARW) and Zimbabwean civil society organizations on CSR with a focus on Zimplats and Mimosa showed that the mining companies have no clear strategy in terms of engaging local communities. The CSR projects from mining companies are often sporadic and do not take into account the needs of the local community members.

The research also showed that mining companies attach varying levels of importance to CSR depending on the jurisdiction of their operations. Thus Implats CSR projects in South Africa are markedly different from the CSR projects by its subsidiaries or operations in Zimbabwe. Mining companies, therefore, seem to take advantage of differing laws or policies on CSR, civil society advocacy on CSR and government attitude towards CSR. In addition, CSR by mining companies has often consisted of support to sporting activities, which have limited sustainability once the mining company closes. CSR has also often seen mining companies giving local communities handouts in the form of food and other resources instead of enabling communities' socio-economic development through social investments. It is also important to note that CSR can often be used by mining companies as a public relations exercise with mining companies often ignoring to make mention of the rebates they get as a result of the CSR projects they implement.

Despite growth within the mining sector and the contribution to the local communities' and national economy through taxes, royalties, levies and CSR, concern remains over whether this contribution is commensurate with the profits generated by these mining companies and the impact of the same on local communities' environmental, economic, social and cultural rights. The Minister of Finance in his 2012 National Budget Statement stated;

This statement clearly exposes the fact that while the mining sector, led by companies operating within the Great Dyke, has experienced phenomenal growth; this growth has not been translated into national economic contribution. The Minister of Finance also stated that the bulk of export earnings for mining houses are being retained outside Zimbabwe. This has negative implications on liquidity and money supply within the country. There are, therefore, legitimate concerns regarding tax compliance and transparency and accountability with regards to revenue generation.

*Currently, whilst mining exports for 2011 are in excess of US$2 billion, the contribution to the fiscus of the mining sector excluding diamonds will only be US$150 million. The dividend that will be paid to the State by two alluvial diamond miners by 31 December 2011 will be US$130 million. Hence, while we have raised issues of opaqueness and late remittal of diamond revenues as Treasury authorities it is self-evident that opaqueness and noncompliance is not the preserve of the diamond sector alone. Quite clearly, the disproportionate contribution of the rest of the mining sector is unacceptable, moreso given that the effective mining tax rate in Zimbabwe is a mere 8%.'*

The extent of mining within the Great Dyke can also be measured through the mining operations within the belt. It is important for all stakeholders to have a clear understanding of the ownership structures of the different mining companies operating within the Great Dyke. Mimosa mining company is the oldest platinum mining company in Zimbabwe. The mine, which is located on the Great Dyke, is in a 50-50 joint venture between two South African companies, Impala and Aquarius Platinum Ltd. Aquarius Platinum is quoted on the London Stock Exchange (LSE), the Australian Stock Exchange and the Johannesburg Stock Exchange (JSE) and is a constituent of the FTSE 250. Impala, which is also the majority shareholder in Zimplats, has a primary listing on the JSE Limited and a secondary listing on the LSE. The Impala geographical distribution of shareholders as at 30 June 2011 is as follows; South Africa 59%, USA 20%, United Kingdom 7%, Singapore 2% and Other countries 8%.

Zimplats is 87% owned by Impala with the rest of the shareholding being independent. The ownership of Zimplats is captured in the organogram below;

**Zimplats Ownership (Figure 4)**

A significant player in the mining of gold within the Great Dyke is Falcon Gold Zimbabwe, Ltd. The company owns and operates Dalny mine located in Chakari; Venice Mine in Kadoma; and Golden Quarry mine located in Shurugwi. Central African Gold (CAG) is the majority shareholder in Falcon Gold with a controlling stake of 84.7%. CAG is in turn owned by 100% owned by New Dawn. New Dawn is listed on the Toronto (Canada) Stock Exchange. In addition, Falcon Gold has 15% of its shares listed on the Zimbabwe Stock Exchange (ZSE).

**Source: Zimplats**

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30. C. Kabemba and M. Madzamuse 'Pressuring the platinum producers: Making South African mining companies take social responsibility seriously', pg 27, Accessed on 12 February 2012 and Available here [http://www.osisa.org/sites/default/files/sup_files/Pressuring%20the%20platinum%20producers.pdf](http://www.osisa.org/sites/default/files/sup_files/Pressuring%20the%20platinum%20producers.pdf)
32. 2012 National Budget Statement pg 117
33. IMPLATS FactSheet 2011, Accessed on 26 February 2012 and Available
One of the largest players in the mining of chrome and the production of ferrochrome in Zimbabwe is Zimasco. Zimasco is 86.3% owned by the Sinosteel Corporation and 13.7% owned by the China-Africa Development Fund. Sinosteel Corporation is a state owned company. It is a central enterprise under the administration of the Chinese State-Owned Assets Supervision and Administration Commission. There are over 86 subsidiaries under the administration of Sinosteel Corporation Limited. Sinosteel has global operations spanning countries that include the Philippines, Indonesia, India, Australia, South Africa and Germany among others. The multi-national is mainly engaged in the development of metallurgical raw materials and products, related engineering technical services as well as equipment manufacture.

The ownership of most of the large scale mining operations is complex. What is apparent is that most of the big mining firms have shareholders across the whole world with some of the biggest stock exchanges involved. At play are the JSE, LSE and the CSE among others. Thus while most of the companies are domiciled in Zimbabwe, the real owners of the companies are in foreign lands such as China and Australia. This is by no means unique to Zimbabwe as it represents the operations and structures of oil, gas and mining companies operating all over Africa. In Zimbabwe's case it is important to note that there are significant changes to the shareholding of most of these large scale mining companies due to the advent and implementation of the Indigenisation and Economic Empowerment Act(Chapter 14:33). Indeed, there may continue to be more wide ranging changes to the ownership of these companies in future. The law compels companies operating in Zimbabwe to transfer 51 percent of their shares or interests to indigenous Zimbabweans. Already, Unki Platinum Mine, Zimplats and Mimosa have transferred 10% of their shareholding to local communities through the Community Share Ownership Trusts. In addition to the 10 percent given to local communities, Zimplats through its parent company Implats agreed to give 10 percent to workers and a further 31 percent to the National Indigenisation and Economic Empowerment Fund. However, the transfer of this shareholding is far from being consummated or completed. The Government of Zimbabwe (GoZ) may have to pay for its stake in the mining giant, with indications pointing to the fact that the GoZ may not have the money readily available.

Mining in the Great Dyke occurs within a number of local communities. The mining of chrome, nickel, platinum, gold, copper and asbestos among others is carried out within communities that live along the Great Dyke. These communities include; Mutorashanga, Chegutu, Mhondoro-Ngezi, Bindura, Kwekwe, Kadoma, Gweru, Shurugwi, Lalapanzi, Zvishavane, Guinea Fowl and Guruve among many others. Most of the communities along the Great Dyke are largely dependent on the operations of the mining companies. This dependency relates to local incomes, jobs and a ready market (mine-workers) for trade in various goods including selling of agricultural products and second-hand clothes among other wares. The dependency of mining communities on the mines operating within their areas is very high to such an extent that mining communities’ lives are built around and shaped by the mine operations. It is important to note that most mining communities’ livelihoods are income-based and not agricultural or productivity based. It is no small wonder then that mining communities represented some of the hardest hit communities during Zimbabwe’s socio-economic crisis that stretched from the year 2000 to 2009. This is largely a result of the fact that most mines reduced their production levels or actually closed down and therefore retrenched their workers. This in turn resulted in a massive loss of disposable income and earning capacity by the mineworkers.

This is clearly apparent in the Zimbabwean mining situation where mining towns initially experience a ‘boom’ only to go ‘bust’ and turn into ghost towns once a mine stops production or exits a community. The case of Zvishavane is instructive. While Shabani Mashaba Mine was fully operational, the town experienced growth in terms of incomes and infrastructure. The placing of the mine under administration and its failure to re-open since 2005 has seen the mine-workers and the communities within the immediate catchment area of the mine living desolate lives. The plight of the communities in Zvishavane was compounded by the fact that Gaths Mine had also been closed in the year 2000.

The situation is the same for communities in Mhangura and Shurugwi. These communities have remained vulnerable following the closure of mines such as Alaska and Mhangura, which had been in operation for more than four decades. In Shurugwi, Zimasco suspended its operations at Peak mine due to diminishing deposits of chrome. The closure of Peak mine comes just a few years after the company closed Railway Block, another mine in Shurugwi.

Mine operations are also structured as ‘enclaves’. Mining companies often build houses for their mine employees within a mine complex. In addition, hospitals, schools, canteens and social clubs are also often built in or around the mine complex to benefit the employees. The inevitable result is that the mine complex often comes to represent a concentration of wealth and plenty while the surrounding communities are characterized by poverty and lack. Mining communities also suffer from high infection rates of HIV and AIDS. The National Aids Council states that mining towns have the highest HIV prevalence rates in Zimbabwe. This is mainly a result of the fact that most mineworkers are male and they are provided dormitory or single room accommodation. This often means they are separated from their families. The sudden increase in disposable incomes of the mineworkers often leads to an increase in prostitution.

The abundance of minerals along the Great Dyke has led to many mining operations taking place in the areas ranging from small, medium and large scale in a bid to boost the economic growth of the country. There is no doubt that the mining sector has the potential to uplift the economic turnaround of a state and the livelihoods of its citizens through foreign currency earnings and employment creation. However, mining also has the potential to undermine communities’ rights. Over the years the Great Dyke communities have been negatively impacted by the operations of mining companies. The baseline that was conducted was aimed at assessing how the Great Dyke communities’ environmental, economic, social and cultural rights have been impacted by the mining operations taking place in their areas.

While the elites and mining companies have been feasting on the huge profits attained from minerals extraction, communities in the Great Dyke have had to endure the negative impacts of mining operations in their areas which are characterized by a lot of displacements without fair and adequate compensation, deforestation, environmental and land degradation, water and air pollution, destruction of cultural sites and limited economic benefits. This is worsened by the actions of government, which fail to adequately protect communities’ rights from mining operations, while at the same time the communities themselves lack the capacity to challenge the negative impacts of mining operations.

The discourse of realising communities’ environmental, economic, social and cultural rights over natural resources such as mining are founded at international, regional and national levels. Economic, Social and Cultural rights are provided for under the International Covenant on Economic, Social and Cultural Rights (ICESCR) of 1966. ESCR promote social, economic and cultural development, self esteem and identity which are some of the benefits expected when mining companies come in an area. Some of the examples of ESCR include the right to an adequate standard of living which includes adequate food, clothing and shelter, right of everyone to the enjoyment of the highest attainable standard of physical and mental health, right to take part in cultural life, right to work, right to education and that all people may freely dispose of their natural wealth and resources subject to international and economic cooperation and International law. At regional level Economic, Social and Cultural Rights are also provided for in the African Charter on Human and People’s Rights of 1981. The Stockholm Declaration of the United Nations Conference on Human Environment of 1972 gave rise to the recognition of environmental rights and their link to human rights. It stated that “Man has a fundamental right to freedom, equality, adequate conditions of life and well being and he bears a solemn responsibility to protect and improve the environment for present and future generations”. The importance and recognition of environmental rights by the international community led to another meeting in 1992 popularly known as the Rio Declaration which focused on Environment and Development. Principle 10 of the Rio Declaration interprets environmental rights as the right to a clean and healthy environment, access to environmental information, the right to participate in the policy and decision making process and access to justice in those situations where environmental rights are violated.

47. Article 22
Zimbabwe being a signatory to all the above International and regional Conventions and Declarations creates an obligation to the government to ratify these Conventions and declarations into national law. At national level, the Constitution which is the supreme law of the country does not guarantee environmental, social and cultural rights in the Bill of Rights. Limited recognition is only given to economic rights where the compulsory acquisition of property without compensation is prohibited. The Constitution also provides for the right to life which is inextricably linked to environmental, social and cultural rights as these have a bearing on one to attain the right to life. An example is how a person can lose their life if they live in an environment which is dirty and polluted due to diseases associated with bad environments. The main piece of legislation regulating mining activities in Zimbabwe is the Mines and Minerals Act regulating the issuance of mining rights. Over the past years the Mines and Minerals Act has been criticised for failing to address environmental protection and community beneficiation which is one of the reasons why the Environmental Management Act was promulgated as well as the Amendment to the Mines and Minerals Act.

Section 4 of the Environmental Management Act provides that every person has a right to a clean environment, that is not harmful to health, access to environmental information, right to protect the environment for the benefit of present and future generations and the right to participate in the implementation of legislation and policies that prevent pollution, environmental degradation and sustainable management of natural resources, while promoting justifiable economic and social development. Mining though it has the ability to transform a nation economically and socially through infrastructure development, by its nature it is generally destructive of the environment. This why mining at all levels whether small or large scale is supposed to practise sound environmental management to mitigate some of the negative impacts it places upon the environment. Mining can usually lead to the pollution of freshwater systems through effluent discharge, air pollution from dust chemicals, land degradation from surface mining approaches and underground water pollution from slime dams and leachet. The Environmental Management Act imposes a fine or imprisonment to any person who knowingly pollutes water, air and the environment.
Environmental Impacts

One of the main concerns raised by the Environmental Officers of the Environmental Management Agency within the target areas and the communities especially those in the Mapanzure area of Zvishavane is the issue of environmental degradation. Villagers expressed their anger towards the way the small and medium scale chrome miners in the area have been digging a lot of deep open pits in the area, which are almost 30 metres deep and the cutting down of a lot of indigenous trees. The open pits phenomenon has hit the Mapanzure community since 1991. This is because the main type of mining used by the chrome miners in the area is open cast mining. This has led to a lot cases being reported in the area of villagers' livestock falling into the deep open pits and getting permanently injured leaving villagers with no option but to slaughter them. Livestock are a major source of livelihood for rural communities in Zimbabwe as it used to prepare the agricultural lands, food and cultural purposes. Livestock is also a store of wealth with some families selling their cattle to raise funds to send children to school or engage in barter trade.

Community members from the Mapanzure area expressed their dismay over how they have suffered loss and continue to do so from the accidents that have befallen their livestock. During an outreach visit that was conducted by the Parliamentary Portfolio Committee on Mines and Energy in Mapanzure, community members highlighted how the deep open pits from the chrome mining in the area have also resulted in accidents. Community members explained how some community members have actually been left disabled after falling into the pits which are unfenced leaving villagers and their livestock prone to a lot of accidents. Incidences were also reported by the community members of deaths of individuals who had drowned in the open pits, which are flooded during the rainy season. The researchers actually had an opportunity to meet a victim of the open pits who has been left disabled by falling into one of the pits in Mapanzure, Zvishavane. Community members indicated how the mining companies mostly come into the area without consulting with the traditional leaders and the community leaders paying no regard to social and cultural rights. Miners are also alleged to unceremoniously cease their operations. This is why the deep open pits by the mining companies have been left unrehabilitated leaving a lot of stress amongst the community leadership and the local authority the Runde Rural District Council with regards to how to rehabilitate their environment as they lack the resources to address this challenge.

One of the key provisions under the Environmental Management Act is the requirement for mining projects to first conduct an Environmental Impact Assessment (EIA) and to be awarded an EIA Certificate by the Environmental Management Agency. The Environmental Management Agency offices of Guruve and Zvishavane indicated how most of the small and medium mining companies are not complying with this environmental requirement. The purpose of an EIA is to provide information on the decision making process regarding the environmental consequences of a proposed project. An EIA is also done to promote environmentally sound and sustainable development through the identification of appropriate enhancement and mitigation measures. Eggert (1994) asserted that mining and mineral processing produces waste products and ecological disruption, which has potential environmental hazards at each stage. This, therefore, means that no stage of mining can be overlooked when addressing environmental issues, particularly when undertaking an EIA.
The Guruve Environmental Management Agency gave specific references of how San He Mining Pvt Ltd Zimbabwe, a Chinese mining company was mining in the area without conducting an Environmental Impact Assessment Report. The Agency alleged how it was difficult for them to use their law enforcement powers especially against foreign mining companies as they usually have the orders to start mining from high ranking politicians despite the legal provisions on EIA reports for mining projects. Such actions by mining companies compromise the rights of communities who live within the vicinity of their operations as they will bear the brunt of the mining companies operations since the companies will not have committed themselves to mitigate some of the negative impacts that emanate from mining. San He Mining Company started mining Chrome in Guruve situated in Northern part of the country since 2004 and had not conducted an EIA by 2010.

The mining operations by San He Mining company have resulted in the pollution of many rivers in the area as their chrome processing is done close to a river. The failure by the company to conduct and develop an EIA Report and Environmental Plan resulted in the company setting up their plant and slime dam very close to a nearby dam which is a source of water for the community. This is despite the fact that environmental laws require activities to be done at least 30m away from a water body. This has then negatively affected the local communities with regards to access to clean water sources are now polluted from the mining operations. San He Mine is situated close to the Mavuradonha Wilderness Conservancy, which is a vast area of land surrounded by mineral rich mountains and wild animals such as elephants, lions, cheetahs, buffalos and kudus. There is concern by the community members that the mining operations by the Chinese company could destroy some of these wild animals and the biodiversity within the conservancy.

In Shurugwi, there is rampant illegal gold panning which has resulted in the Shurugwi communities of Boterekwa, Bethel, Dan Raven, Lancashire farm and the Environmental Agency to experience a lot of environmental challenges. Illegal gold panning in the area has resulted in rivers, which include Mutevekwi, Mutevekwana and Manzimudhaka to be heavily polluted from the use of mercury by the illegal panners. The pollution of these water sources by the Illegal gold panners in the area has also resulted in the violation of local communities to have access to clean water, which is good for their health and livestock welfare. The Shurugwi communities indicated how their areas are now characterized by a lot of gulleys and tunnels dug by the illegal panners. This has led to community members and their livestock to be prone to a lot of accidents. A few accidental spillages were reported by EMA Shurugwi by the big companies like Unki Mine, Zimasco and Falcon Gold into water sources and this was attributed to their efforts in trying to comply with the environmental laws. Improved implementation of environmental management tools can consequently foster sustainable developments. This is evidenced by how some big companies like Zimplats operating in Chegutu, Zimasco and Unki Mine in Shurugwi and Mimosa Mine and Murowa Diamonds in Zvishavane, have built roads, schools and infrastructure to develop the areas of operations.
An issue that was echoed by all the Great Dyke communities is how the mining companies operating in the area are doing very little in terms of developing the areas within their operations. The areas where mining activities are taking place are characterized by abject poverty, unemployment and underdevelopment in the form of damaged roads, few schools and clinics. Community members from the areas of Guruve, Shurugwi, Wedza, Mutorashanga, and Zvishavane stated how their areas have remained small towns and how the big and small companies extracting high value minerals from their areas have done little to develop these areas. The communities expressed their desire to have government and the mining companies invest in more sustainable infrastructural development in their areas so as to attract investors in order to spur job creation and uplift livelihoods. Damaged roads were also a common issue whereby the rural communities along the Great Dyke stressed how mining companies especially the big companies only fix the roads which are only used by them yet the other main roads used by the communities are gravel roads which are inaccessible during the rainy season. Small and medium scale miners were alleged by the community members of generally not taking up any community concerns and doing close to no development in these areas.

Another issue that was raised by the community members in the areas covered by the Great Dyke was how most of them are being displaced involuntarily to pave way for mining operations without being given compensation. It was pointed out how some mining companies start their mining operations close to family homesteads without consulting the local people. This then leaves those families who are in the vicinity of the mining operations with no option other than to involuntarily vacate their ancestral homes since mining involves releasing a lot of dust from the ground excavations. Community members are then forced to relocate and are not given any compensation by the mining companies in order to build themselves new homes thus impinging on the right to shelter. The fact that the mining companies do not consult and engage the locals compromises the community, as they are not actively involved in decisions that affect their environments and livelihoods. The result is that mining companies are not accountable to the communities for any economic, social and cultural violations, which emanate from their mining activities. In turn, the local communities are not aware of the potential negative impacts that a mining project will have on their community as well as the environmental, economic and social obligations that a company would have agreed to do in the EIA Report.

The traditional leadership from the target areas expressed their disappointment in the actions of the foreign owned companies operating in the Great Dyke in particular the Chinese owned mining companies. The traditional leaders complained of how the Chinese mining companies do not respect the cultural values of the indigenous Zimbabweans where the traditional leaders are deemed as the owners of the rural land. Cases were highlighted of how some of the mining companies start their mining operations in an area without consulting the traditional leadership and getting their approval with regards to proposed mining sites. Some of the mines were alleged to be situated on sacred land and graves thereby violating the cultural and heritage rights of the local people. The cultural violations by some mining companies were perceived by the locals to be causing some bad omens in these areas including change in rainfall patterns and droughts, which have been attributed to the anger of the ancestral spirits over the actions of the mining companies.
Mining companies, small, medium and large are alleged not to be employing locals as unskilled labourers in the mines. The community members from the target areas averred how mining is expected to create jobs yet despite the abundance of many mining companies operating in the Great Dyke, very few locals are being employed by the mining companies to do the unskilled jobs, which require no qualifications. The communities complained of how unskilled jobs are being offered to Zimbabweans from other areas yet the local communities are being sidelined despite the fact that they can carry out these unskilled jobs. This has in turn caused the high spread of HIV/AIDS in mining communities along the Great Dyke as the unskilled labourers from elsewhere storm the areas without their families since the mining companies do not provide their workers with decent family houses. Local women also stated how they are being discriminated by the mining companies, as they are not being offered employment opportunities, which do not require skill thus not helping to uplifting livelihoods. For those locals that are employed by the mining companies as unskilled workers, issues of some mining companies paying low wages, which are below the labour laws of the country, were also raised. Small and medium scale miners were pointed out as the major culprits with regards to failure to providing unskilled workers with protective clothing making them prone to a lot of accidents and threatening their lives. Local communities are adversely affected by mining activities in a number of ways that is socially, culturally and economically leading to an upheaval and wars between the local communities and the mining companies. Diseases have also emanated from the trenches and holes dug by the illegal panners and formal mining companies whereby these have become breading places of mosquitoes especially in the rainy seasons leading to outbreaks of malaria in these areas.
Mineral resources are non-renewable resources hence the concept of sustainable development needs to be the underlying influence in mining environmental management. In order for mining to be regarded as sustainable it has to adhere to the principles of ecological sustainability, economic utility and social equity. Mining companies are supposed to leave a lasting legacy to the communities. Below are some of the recommendations that can be implemented to ensure that the local communities within mining communities benefit from the resources that are being extracted from their areas.

The Environmental Management Agency needs to effectively monitor the activities of the mining companies operating in the country so that all mining companies are compliant. This will ensure that mining companies mitigate the environmental impacts of their operations in order not to adversely affect the local communities living within the mining areas. Communities should also meaningfully be consulted by the mining companies when doing an EIA so that they too can have a say in decision making processes that affect their environment and socio-economic status.

- **The Environmental Management Agency** needs to also ensure that mining companies operating in the country pay a specified fee to the Local Authorities in their areas of operation, which will be used to rehabilitate the environment, when the mine closes.

- **The new Constitution of Zimbabwe** should provide communal landowners with some form of secure tenure so as to protect community rights in the event of relocation to pave way for mining operations. The state currently holds legal ownership over land in rural areas while the rural communities and individuals only have usufruct rights. The result is that communities in mining areas are vulnerable to displacements without compensation.

- **Communities need to directly** derive benefits from the proceeds of the sales of the minerals, which will be extracted from their areas by the mining companies. Though the government has tried to ensure that communities affected by mining companies benefit from mining operations through Community Share Ownership Schemes provided for under the Indigenisation and Economic Empowerment Act. There remains a need to ensure that the implementation of these Community Share Ownership Schemes benefits the affected communities so that they can use the proceeds of the royalties given to them by the mining companies to develop their areas and rehabilitate the environment. This implementation process should be closely monitored to avoid a situation where only the politically connected and elite benefit at the expense of the poor affected communities.

- **Corporate Social Responsibility (CSR)** should be legislated in Zimbabwe. The tradition has been it being regarded as a moral obligation by the business sector. If legalised CSR could result in local mining communities and the nation at large transformed through companies carrying out tangible sustainable development projects.
It is clear from the research that Zimbabwe’s Great Dyke is the major contributor to the country’s mining sector, which in turn, is a significant contributor to the country’s Gross Domestic Product as averred by the Minister of Finance in the 2012 Budget. Mining along the Great Dyke has created enormous opportunities for revenue generation through royalties and taxes to the Treasury for the provision of public services such as health, education, water and sanitation and transport. Jobs have been created by small, medium and large scale mining companies operating in this region thus a means of improving local Zimbabweans’ livelihoods. Some of the big companies operating in the Great Dyke have managed to develop the areas within their operations by constructing roads, schools and clinics. However, there have also been negative impacts associated with mining activities along the Great Dyke more so for the local mining communities within the vicinity of mining operations. Local communities have lost their lands, water sources polluted, noise, dust and land disturbances, health and livelihoods affected as a result of mining activities in their areas. It is, therefore, important to strengthen the legal and policy regime governing mining, particularly the implementation of the regime so as to ensure that mining is done in a sustainable manner. The government needs to collect data and information on the poverty related impacts of the mining sector. This information will ensure that government comes up with clear laws and policies that will regulate the sector. Value addition should be mandated so as to fully harness the sector’s upstream and downstream beneficiation potential. The sector should also be opened up to public scrutiny through improving transparency and accountability so as to ensure that mining revenues benefit the whole nation. There is a clear need to ensure that communities bearing the brunt of mining impacts also get some benefits from mining.