Gold and diamonds in the Central African Republic

The country’s mining sector, and related social, economic and environmental issues

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Editorial

Gold and diamonds in the Central African Republic. The country's mining sector, and related social, economic and environmental issues

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Front Cover image: artisanal diamond miners sifting gravel near Sam-Ouandja (IPIS 2008)

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Introduction

Gold and diamonds in Central Africa easily conjure up images of conflict, rebel funding, human rights violations, and smuggling. As a country landlocked within an unstable region, neighbouring the Democratic Republic of Congo (DRC), and recently the scene of another coup attempt, the Central African Republic (CAR) might be considered an appropriate candidate for analysis within the conflict-mineral perspective. Yet this framework would ignore the country’s mining sector’s very specific characteristics. The sector offers an essential livelihood to many households, represents the country’s second most important export product, and is organised in a particular way. Nonetheless, a wide range of issues regarding the country’s mining sector persist.

This report aims to analyse both the Central African Republic’s gold and diamond mining sector and related environmental and socio-economic issues. The results of the study will be used to organise a sensitisation workshop for Central African NGOs in which the threats to and opportunities of the mining sector on the country’s development can be explained and discussed.

The first chapter offers general background information on the CAR’s mining sector, including a short overview of the sector’s history in the country, and some general features and figures. There is also an analysis of the CAR’s national legislation, and some international initiatives relating to the country’s mining sector.

The artisanal mineral supply chain and the main actors involved are analysed in the second chapter. An important point of attention here is the level of informality in the artisanal mining sector; this has significant consequences on other issues related to mineral extraction in the country.

In Chapter Three, the industrial extraction of the country’s minerals will be discussed. This involves a general analysis of the prospects of the industrial mining sector and some related issues. The chapter then looks at the Passendro Gold Project of AXMIN, the most advanced mining project in the country.

The socio-economic and environmental consequences of the CAR’s mining sector, which mainly constitutes artisanal mining, will be considered in the fourth chapter. The chapter also includes an overview of the current initiatives, and lack thereof, to address these issues.

Chapter Five, the last in the report, includes some conclusions and recommendations on the country’s mining sector and related socio-economic and environmental issues.

Some maps, intended to be of interest to the reader, can be found in the annexes of the report. The first gives an overview of mineral deposits in the country; the second shows the exploration and exploitation permits that have already been granted by the CAR.
Chapter I: Gold and Diamond Mining in the Central African Republic: a general perspective

1. History of the CAR’s mining sector

Diamonds and gold were discovered for the first time in the Central African Republic in the early twentieth century, when the country was still under French colonial rule. The colonial administration exerted strong control over access to the natural resources and granted concessions to private companies to exploit rubber, coffee, cotton and mineral resources. Diamonds soon became the CAR’s second export product, after cotton.¹

International mining companies experienced their heyday in the CAR in the 1950s, with diamond production figures amounting to 147,104 carats in 1954. As these figures declined and exploration results flagged towards the end of the 1950s and early 1960s, mining companies confined their operations to the commercialisation of minerals extracted from their concessions by artisanal miners.²

During the colonial period, exploration exercises were carried out for gold and diamonds. After independence, however, international mining companies retreated from the country and investments in exploration disappeared.³ Diamond production, on the other hand, increased considerably after the end of colonial rule in 1960. The new Central African government liberalised the diamond sector, opening the mines to all citizens, which resulted in a rush to mining zones.⁴ Annual diamond exports consequently rose from 70,000 carats in 1960 to almost 537,000 in 1965.⁵

After CAR’s independence, successive rulers treated the country’s mining sector as an important cash cow to sustain their patron-client network. Rulers would demand a share of production and impose high taxes on mineral exports. The most striking example is president/emperor Jean-Bédel Bokassa, who came to power in 1966. After an initial period of high production figures, diamond exports soon fell back because of Bokassa’s greed, the exhaustion of the most easily exploitable deposits, and a lack of investment in new exploration.⁶ By the end of Bokassa’s rule in 1979, production fluctuated at around 290,000 carats per year.⁷

During the next decade, however, export statistics were revived once again with the introduction of a certification system developed by the World Bank, the creation of the Bureau d’évaluation et de contrôle de diamant et d’or (BECGOR),⁸ the lowering of export taxes,⁹ and the tapping of deposits that are less easily exploitable.¹⁰

Former president Ange-Félix Patassé also openly did business in the mining sector during his reign. His company Colombo Mines possessed several mining sites and he commissioned middlemen to collect diamonds for him. Furthermore, he awarded concessions to mining companies and exempted them from legal obligations.¹¹

⁶ Barthélémy F. et al (2008), op. cit., p. 33; ICG (December 2010), op. cit., p. 3.
⁸ This state service still exists today and will be discussed in more detail in section 2.1.2.
⁹ ICG (December 2010), op. cit., p. 3.
¹⁰ ICG (December 2010), op. cit., p. 3.
¹¹ ICG (December 2010), op. cit., p. 3.
2. General features of the CAR’s mining sector

Agriculture is the primary economic activity in the CAR; more than 70% of citizens are engaged in subsistence farming\(^{12}\) and agriculture represents 54% of the country’s Gross Domestic Product (GDP).\(^{13}\) With its vast forests, logging is the country’s second key economic activity. The export value of the forestry sector narrowly outruns that of the diamond sector, earning the country respectively $52.3 million and $49.3 million in 2009, or 42.2% and 39.8% of the country’s total export value.\(^ {14}\) The mining sector in total accounted for 7% of GDP in 2007,\(^ {15}\) and fiscal revenues from the sector came to 9% and 11% of the State’s total fiscal revenues in 2009 and 2010 respectively.\(^ {16}\)

Export values demonstrate that diamonds are by far the country’s principle mineral. In 2011, the CAR officially exported 323,575.30 carats, worth CFA\(^ {17}\) 29.7 billion, or $61.4 million.\(^ {18}\) Official gold exports were only 72.8 kg, which equated to an export value of CFA 1.25 billion.\(^ {19}\)

| Table 1: CAR’s official gold and diamond exports, 2010-2012. |
|---|---|---|
| 2010 | 2011 | 2012 (January –June) |
| Diamonds (Carats) | 301,557.62 | 323,575.30 | 210,684.78 |
| Gold (Grams) | 56,475.70 | 72,834.51 | 30,670.40 |
| Source: BECDOR |

However, the CAR’s diamond production volume is still far below that of the Central African region’s other top producers, the Democratic Republic of the Congo (DRC) and Angola. The DRC and Angola produced 27.7 and 13.8 million carats respectively in 2010, which clearly overshadows the CAR’s 310 thousand carats\(^ {20}\) (See table 2). The regions’ other diamond producers are Cameroon, the Republic of Congo and Gabon, however the precise production outputs for these countries are unknown.\(^ {21}\)

In terms of quantity, the CAR is therefore a relatively minor diamond producer compared to Angola and the DRC. The quality of diamonds is however quite a different matter (See table 2). While the DRC mainly produces industrial diamonds, 80% of the CAR’s diamonds are gem quality.\(^ {22}\) In order to have an idea of the difference in quality, Barthélémy compared the average prices per carat in 2008. The average price per carat was $30 in the DRC, $150 in Angola, and $180 in the CAR.\(^ {23}\) The quality of the CAR’s diamonds ranks fifth in the world.\(^ {24}\)

| Table 2: Central African countries’ 2010 diamond production, thousand carats. |
|---|---|---|---|
| Countries | Gemstones | Industrial diamonds | Total |
| Angola | 12,500 | 1,300 | 13,800 |
| CAR | 250 | 60 | 310 |
| DRC | 5,500 | 22,200 | 27,700 |

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\(^{13}\) This figure concerns the year 2009. (Source: Economist Intelligence Unit, *Country report: Central African Republic*, March 2012, p. 6.)

\(^{14}\) Economist Intelligence Unit (March 2012), op. cit., p. 6.


\(^{17}\) CFA is the symbol for Central African Franc. It is the abbreviation for *Communauté Financière Africaine*. US$1 currently equals CFA 505.75 and 1 euro equals CFA 655.96.

\(^{18}\) BECDOR diamond statistics 2011.

\(^{19}\) BECDOR gold statistics 2011.

\(^{20}\) BECDOR statistics report a slightly different production figure for 2010: 301,557.62 carats. See table 1.


\(^{24}\) Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. 15.
The CAR's actual diamond production figures are considerably higher than the official ones mentioned above. Several sources, such as the Kimberley Process secretariat, the CAR authorities and the World Bank, estimate that 30 per cent of the country's diamonds leaves its territory secretly. The value of these diamonds might even represent a higher percentage of the total value, as the biggest diamonds are more alluring to smuggling than the smaller ones.

Regarding the gold sector there's even more lack of knowledge. Roughly estimated illegal exports might even represent more than 95% of the country's actual gold exports. Gold production estimates exceed two tonnes per year. Explanations for these high levels of informality will be discussed in section 2.1.3.

In order to give a complete picture of the country's mining sector, it is important to note that official diamond production figures have decreased in recent years. The main reasons behind this seem to be the global economic crisis and the consequent diamond price collapse on the world market. The CAR's average annual diamond production in the pre-economic-crisis period 2004-2007 amounted to 404,550 carats. Average production in the 2008-2011 period came down to 328,530 carats - a 19% decrease. Diamond production figures in the 1990s were on average even 460 thousand carats. In contrast, official gold production figures have risen from an average 20 kg per year in the 2004-2007 period to an average 60 kg in 2008-2011. A similar move has been observed in the DRC's Province Orientale. Since the beginning of the global financial crisis, Congolese miners have abandoned diamond-mining sites and turned to the extraction of gold, of which the price is more stable.

Due to the abovementioned high level of non-registered exports, it is difficult to give a precise list of the destinations of the countries' mineral exports, especially for gold. However an overview of the probable final destinations of the countries' diamonds includes Dubai, Bombay, Beirut, Tel Aviv and Antwerp. Official statistics report that Belgium is the main destination of the CAR's overall exports; in 2010, Belgium accounted for 26.6% of the total exports.

Another burning issue is a lack of knowledge of the CAR's gold and diamond reserves. As the previous section illustrated, mining companies have long struggled to find ground in the CAR. Exploration exercises for gold and diamonds have considerably decreased since independence; even before, only the southwest and the northwest were subject to serious exploration. Consequently, it is reasonable to say that the CAR's subsoil is still largely unknown.

There remain numerous other issues pertaining to the mining sector, including a lack of transparency, an insufficient legal/institutional framework, and the poverty trap of local mining communities. Current president François Bozizé has harnessed a number of measures to address some of these issues and to improve the situation of the mining sector. Initiatives undertaken have included a revision of the Mining Code, participating in the Extractive Industries Transparency Initiative (EITI), the creation of an office for geological research, and the creation of a national union for artisanal mining cooperatives. However several issues still remain; most of these will be addressed in the following sections.

One issue that will not be discussed further on in this report, as it is not within the scope of this study, is whether revenues from the country's natural resources are still unfairly distributed. Divisive policies,

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25 However, these are no more than rough estimates, no one really knows what quantity actually leaves the country. (Source: World Bank, Central African Republic Country Environmental Analysis: Environmental Management for Sustainable Growth, November 2010, p. 21; ICG (December 2010), op. cit., pp. 7 and 13; Spittaels S. & Hilgert F., Mapping conflict motives: Central African Republic, IPIS, February 2009, p. 27; IPIS interview with a buying office representative, Bangui, July 2012.)
26 Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. 15.
27 The August 2008 price per carat of 47,643 CFA, or 95 dollars, was less than half of the average price during the year 2000 (Source: DeJong T. U. (March 2012), op. cit., p. 16.)
29 N’Zolamo-N’Zilavo (Civil servant at the Mining service), Note mines inachevée, unpublished document, 2012
30 Ibid.
32 ICG (December 2010), op. cit., p. 14.
33 Economist Intelligence Unit (March 2012), op. cit., p. 6.
influenced by ethnic allegiances, are an old sore in the CAR. The reign of the president’s predecessors André Kolingba and Ange-Félix Patassé, offer perfect examples for this.35

3. National, Regional and International Regulatory framework

The Central African Republic’s legal framework

After Bozizé seized power in March 2003, he soon suspended all mining exploration permits and set up a panel to check their legality in order to clean up the sector.36 Following this, in February 2004 the national assembly issued a new Mining Code that was in line with international standards. However, within five years World Bank consultants had revised the 2004 Mining Code and a new code was adopted in 2009. The government was eager to accept the revision; it was a precondition to qualify for a US$800 million debt relief.37 The government did however alter a few things in the final version of the law. It has been claimed that these changes had been made without consulting the World Bank and that they added some obligations that can potentially deter investors.38 Senior government officials however refute these claims, explaining these obligations had been the subject of thorough discussions with World Bank representatives. Furthermore, in the end, these representatives would have agreed with the alterations.39 These obligations include the payment of a front-end bonus, the grant of certain percentages of the operations’ capital to the government and private CAR investors,40 and the requirement to give the State a 15% share in any mining operation.41

The 2009 Mining Code, law 09.005 of 29 April 2009, stipulates that all mineral resources, in the ground or on the surface, are the property of the Central African State.42 The State can consequently grant any person access to these resources.43 Decree 09.126 stipulates the associated regulations.44

The government’s claim that the State owns the national territory and its resources is deemed much less legitimate in rural areas, far away from Bangui, the country’s capital. As State presence is thin in these isolated areas, customary law is much more prevalent.45 However the Mining Code does recognise customary property rights to a certain extent by ordering mining licence holders to compensate holders of customary rights for any loss of land due to the mining activities.46

Another regulation that is applicable to the mining sector is the 2007 Environmental Code, law number 07/018. The Code mandates the Ministry of Environment and Ecology to supervise environmental issues within the mining sector. The accompanying regulations to bring this mandate into force are yet to be published.47

Regarding the environmental and social consequences of industrial miners’ activities, there seems to be a tension between the ministry of environment and the ministry of mining over the question of who is eligible to asses the industrial miners’ policies in this field.48 To date, an inter-ministerial commission, including representatives of both the Ministries of Mines and Environment, has taken this responsibility.49

36 Africa Mining Intelligence, All Mining Licenses Suspended, No. 60, 23 April 2003.
37 ICG (December 2010), op. cit., pp. 4, 12.
38 Africa Mining Intelligence, Confusion over New Mining Fund, No. 203, 20 May 2009.
39 Personal communication IPIS with senior government official, 4 March 2013.
40 Africa Mining Intelligence, Confusion over New Mining Fund, No. 203, 20 May 2009.
41 USAID (October 2010), op. cit., p. 14.
42 Loi No. 09.005 portant code minier de la République Centrafricaine de 29 avril 2009, Article 6.
43 Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. 16.
44 Décret No. 09.126 fixant les conditions d’application de la loi No 09.005 du 29 avril 2009 portant code minier de la République Centrafricaine.
45 ICG (December 2010), op. cit., p. 10.
46 USAID (October 2010), op. cit., p. 13.
47 IPIS interview with civil society representative, Bangui, July 2012.
48 IPIS interview with senior official at the Ministry of Environment, Bangui, July 2012.
However the Environmental Code stipulates that it is the Ministry of Environment who should bear the authority for controlling environmental matters in all sectors, including mining. Nevertheless, as long as the accompanying regulations are not released, the mandate will not come into force. In order to decrease the tension between the two ministries, the regulations implementing the Environmental Code need to be released urgently. The regulations should clearly outline the roles and responsibilities for environmental and social issues for each ministry, with the primary responsibility allocated to the Ministry of Environment. However it will also be necessary to involve the Ministry of Mining because of its specific mining expertise.50

The Kimberley Process

The Kimberley Process Certification Scheme (KPCS) was created in 2003 as a tool to fight the problem of ‘conflict diamonds’. It demands its members to install sufficient controls on their diamond production and trade in order to certify them as ‘conflict-free’. Furthermore, Kimberley Process (KP) members are supposed to comply with the prohibition of trading diamonds with non-member countries.51 KP claims that its members currently represent about 99.8% of the global production of rough diamonds.52

The CAR has been a KPCS participant since the scheme’s foundation in 2003. BECDOR, the government body responsible for overseeing the country’s tracing system, checks whether diamond-buying offices hold the necessary paper trail for their diamond exports. In case BECDOR encounters no irregularities, the shipment is certified as KP compliant.53

In order to support Bangui to improve compliance with the Kimberley Process, USAID has established the Property Rights and Artisanal Diamond Development Project (PRADD). US diplomatic documents have, however, complained about the governments’ ‘obstructive’ behaviour towards the project in its initial phase.54 Next to the technical KP assistance, PRADD also aims to improve artisanal diamond miners’ livelihoods by achieving secure rights to land and resources.55 In chapter IV, the latter will be discussed in more detail.

This assistance should definitely be encouraged, as the implementation of such international regulatory frameworks often requires considerable means and technical capacity. It is therefore advisable that international donors consider establishing similar initiatives to assist the Central African government in implementing the range of other international initiatives that relate to the country’s mineral resource sector.

The Kimberley Process has undeniably accomplished some considerable achievements. A few serious shortcomings do persist however, demonstrated, amongst other things, by the fact that an estimated 30% of the CAR’s diamond production leaves the country in secret.

Over the years, KPCS implementation in several countries shows that certifying minerals as “conflict-free” does not automatically yield developmental benefits for local mining communities.56 The narrow purpose of the Kimberley Process, to halt the use of diamonds to finance rebellion activities, was at the root of the scheme’s original success and wide acceptance. Nowadays, it has become clear however that there is much more to conflict than diamonds, and vice versa.57

Another issue relates to the reliability of the tracing mechanism. The guarantee offered by the KP certificate is only as strong as internal controls of exporting countries.58 The huge number of scattered

50 World Bank (November 2010), op. cit., pp. 24, 28; Mazalto M., Réhabilitation écologique des sites miniers artisanaux de diamants en République Centrafricaine et leçons des experiences en Sierra Leone, USAID-PRADD, June 2009, p. 41.
53 The diamond paper trail and the role of buying offices and BECDOR will be discussed below, respectively in sections 2.1.1. and 2.1.2.
54 US Diplomatic Cable, Diamonds in the CAR: Deleterious to Development, Wikileaks, January 2010.
58 ICG (December 2010), op. cit., p. 13.
alluvial diamond deposits makes it nearly impossible for the relevant state authorities, which are often short of means and equipment, to adequately control all trade and production of diamonds.

**Extractive Industries Transparency Initiative**

The Extractive Industries Transparency Initiative (EITI) is a voluntary multi-stakeholder initiative which brings together business, governments and NGOs. In order to be compliant, member-countries need to publish their revenues from the extractive industries on a regular basis. Companies, on the other hand, should publish all the payments that they have made to governments.

In Central Africa, the CAR is currently the only EITI compliant country. It achieved this statute in March 2011. The DRC, Gabon, the Republic of Congo, Cameroon and Chad are all candidate countries, meaning they are implementing EITI, but do not yet meet all requirements.59

The country established its EITI structures with the issuance of Presidential Decree No 08.260 of 18 July 2008. In March 2009, the CAR-EITI structure published its first report, covering the year 2006. A second EITI report has been released in December 2010, which discusses the 2007-2009 period. The 2010 report will be published by the end of 2012.60

**ICGLR**

The International Conference on the Great Lakes Region (ICGLR) is an intergovernmental organisation that was established in 2004. It is based on the recognition that political instability and conflicts involving its eleven member states have a considerable regional dimension and thus require addressing through concerted efforts.61

In December 2006, the ICGLR adopted the Pact on Security, Stability and Development in the Great Lakes Region. The pact includes ten legally binding protocols covering a wide range of regional issues, from mutual defence and judicial cooperation, to the illegal exploitation of natural resources.62

The Protocol on the fight against the illegal exploitation of natural resources provides the legal basis for the Regional Initiative on Natural Resources (RINR). In December 2010, the Heads of State of the ICGLR member countries adopted the Six Tools that form the RINR, with a view to combat the illegal exploitation of selected natural resources, namely tin, tungsten, tantalum and gold. The Six Tools include: (1) Regional Certification Mechanism (RCM), (2) Harmonisation of National Legislation, (3) Regional Database on Mineral Flows, (4) Formalisation of the Artisanal Mining Sector, (5) Promotion of EITI and (6) the Whistle Blowing Mechanism.63

The RCM is due to become mandatory in all ICGLR countries, including the CAR, within the next three years. So far, only the DRC and Rwanda have enacted legislation that incorporates the RCM into their mining codes.64

The certification scheme includes four main pillars: mineral tracking from the mining site to the point of export, regional mineral tracking through an ICGLR database, independent third party audits, and independent mineral chain auditing.65

The thorough implementation of the procedures described above should improve the current status of collection and sharing of information relating to on-site security, revenues generated at export, and all payments made along the gold supply chain.66

At the moment, there is very little knowledge in the CAR about ICGLR and its certification mechanism. During the field research carried out in July 2012, the research team observed that this knowledge gap

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59 [http://eiti.org/countries](http://eiti.org/countries), last accessed on 28 October 2012.
64 [IPIS, Case analysis on the formalisation of artisanal mining in Rwanda and DRC, commissioned by CIFOR, to be published in November 2012, pp. 32-33.](http://ipisproject.org)
65 For more information on each of these pillars, see: Partnership Africa Canada, *Briefing note on the ICGLR Regional Certification Mechanism*, June 2012.
66 IPIS (November 2012), op. cit., pp. 32-33.
applied to almost all actors involved in the country’s mining sector, including state officials, business people and civil society representatives. There is clearly a need for sensitising and vulgarisation of the RINR initiative in the country.

**Due diligence**

Several initiatives have been established recently to increase private sector accountability in mineral supply chains.

The Organisation for Economic Co-operation and Development (OECD) adopted its Due Diligence Guidance on Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas in May 2011. In July 2012 the OECD Council revised the guidance to include the supplement on Gold.67

The OECD Guidance gives a five-step framework to exercise due diligence:68

1. Establish strong company management systems;
2. Identify and assess risks in the supply chain;
3. Design and implement a strategy to respond to identified risks;
4. Carry out independent third-party audits of refiner’s due diligence practices;
5. Report annually on supply chain due diligence.

The framework, despite not being legally binding, requires all actors in the ‘3Ts’69 and gold supply chains to put in place a chain of custody and/or a traceability system to trace the origin of their minerals. Companies are further required to design and implement robust and comprehensive risk assessment and risk mitigation measures to make sure that all potentially harmful situations are properly addressed. Lastly, companies are advised to publicly report on their supply chain due diligence policies and practices, which form the subject of independent third party audits.70

Next to the OECD guidelines, the American legislator has also created some due diligence requirements for companies trading on US exchanges. Section 1502 of the Dodd-Franck Act, which the US Senate passed in July 2010, obliges those companies to exercise due diligence on their supply chains of tin, tantalum, tungsten and gold if they originate in the DRC or one of its neighbouring countries.71 Consequently, this provision also applies to companies that use gold originating in the CAR.

In August 2012, the Securities and Exchange Commission (SEC) finally approved the final rules that implement the ‘conflict minerals’ provision of section 1502.72 Under the final rule, it is outlined that the due diligence exercise should be in line with a nationally or internationally recognized due diligence framework, such as the OECD guidance.73

The Act obliges companies to provide an annual ‘Conflict Minerals Report’, which describes the due diligence efforts undertaken, and an audit report to the SEC. The companies should publish both of these documents on their website. Subsequently, public scrutiny and resultant reputational risk should persuade companies to be diligent with their supply chain. Fines will only be considered for those companies that do not complete suitable reporting and auditing.74

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68 OECD, **OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas: Supplement on Gold**, July 2012
69 ‘The 3Ts’ is a collective name given for three minerals - tin, tantalum and tungsten - which are mined in the form of the cassiterite, coltan and wolframite ores.
72 US State Department, **Final rules for Dodd-Frank sections 1502 and 1504**, 23 August 2012.
Chapter II: Artisanal extraction of gold and diamonds in the CAR

Gold and diamonds are almost exclusively extracted by artisanal means in the CAR. According to accumulated diamond export figures since 1931, more than 84% of extraction is produced artisanally.\(^75\) Since independence, industrial exploitation has almost completely disappeared.

In order to legally join the artisanal mining sector, there are a few possibilities. With a miner’s card (carte d'exploitant artisan minier), miners are permitted to operate in designated artisanal mining zones, which are demarcated by the government’s mining administration. So far, however, not a single artisanal mining zone has been designated. In case a miner wants to obtain a title outside of a designated artisanal mining zone, he should also apply for a prospecting- or artisanal mining exploitation license.\(^76\)

The CAR’s gold and diamond mining sector involves mainly small alluvial deposits - in rivers and riparian areas - which are especially fit for artisanal mining.\(^77\) The map on page 34 indicates areas where a lot of artisanal mining activity takes place.

The southwest of the country is the area most densely populated by artisanal miners. It involves the prefectures of Nana-Mambéré, Mambéré-Kadéï Sangha-Mbaéré and Lobaye.\(^78\) The deposits are spread along the Mambéré, Lobaye, Sangha and Kadeï rivers.\(^79\) Important mining zones include Berbérati, Carnot, Nola, Boda, Salo, Bouar and Bozoum.\(^80\)

A number of other key mining sites can be found in the centre-east prefectures Ouaka and Haute-Kotto,\(^81\) along the Kotto river.\(^82\) Mining areas are centred around Bria, Ippy, Dimbi, Bambari, Bangassou, Ndélé and Sam-Ouandja.\(^83\)

Gold and diamonds are generally found in the same areas.\(^84\) The map on page 34 however shows slight variation over the Central African territory; gold, for example, is more often produced near Bouar, in the border area with Cameroon.\(^85\) The southwestern zone produces more diamonds than the east - an estimated 80% of total production - but they are smaller in size.\(^86\) Historically, the upper-Sangha region has accounted for about 60% of the CAR’s diamond production.\(^87\) The east’s lower official production might be partly explained by the fact that bigger diamonds are a more alluring candidate for smuggling\(^88\) and the government’s relatively limited control over its eastern territory.\(^89\)

In the above-mentioned mining areas, ASM offers an important livelihood strategy for local communities. It is an attractive employment opportunity in impoverished, rural areas as it requires very little capital, knowledge and technology. Furthermore, it is labour intensive and consequently an important provider of employment opportunities, providing cash income that helps to pay for healthcare, education for children, and construction of infrastructure.\(^90\) The artisanal mining sector employs an estimated 80,000

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\(^{75}\) Barthélémy F. et al (2008), op. cit., p. 36.
\(^{77}\) Mazalto M. (June 2009), op. cit., p.2.
\(^{78}\) World Bank (November 2010), op. cit., p. 21.
\(^{79}\) ICG (December 2010), op. cit., p. 1.
\(^{80}\) N’Zolamo-N’Zilavo (2012), op. cit; IPIS interview with Bangui University researcher, Bangui, July 2012.
\(^{81}\) World Bank (November 2010), op. cit., p. 21.
\(^{82}\) ICG (December 2010), op. cit., p. 1.
\(^{83}\) IPIS interview with Bangui University researcher, Bangui, July 2012.
\(^{84}\) Spittaels S. & Hilgert F. (February 2009), op. cit., p. 27.
\(^{85}\) IPIS interview with civil society representative, Bangui, July 2012.
\(^{86}\) ICG (December 2010), op. cit., p. 1; N’Zolamo-N’Zilavo (2012), op. cit.
\(^{87}\) Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. 15.
\(^{88}\) IPIS interview with USAID employees, Bangui, July 2012.
\(^{89}\) Lombard describes this area as an old buffer zone. It is an area that historically fell between several centralised polities, but was never claimed by any of these polities. Therefore, it is quite difficult to embed in formal nation-state. (Source: Lombard L., Raiding and refuge: The political economy of a Central African buffer zone, Conflict Prevention and Peace Forum, February 2012, p. 2.)
\(^{90}\) Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. 20.
to 100,000 miners; 600,000 people - 13% of the country’s population⁹¹ - depend at least partly on the sector for their income.⁹²

In order to make a living, many people in rural areas combine mining with other economic activities such as subsistence agriculture and fishing. During the rainy season in particular, from May/June to October/November, there’s a fall back in mineral production, and miners have to rely more on alternative sources of income.⁹³

In the 1980s and 1990s, however, many households started to rely more exclusively on artisanal diamond mining for their daily income. Consequently, it increased their dependency on the mining sector and made them more vulnerable to shocks. Such shocks occurred several times during the first decade of the century: political instability because of a failed coup in 2001, the overturn of Patassé, the closing down of several mineral buying offices in 2008 and the fall of diamond prices on the world market.⁹⁴

Because of the crisis within the diamond sector, it appears that increasing numbers of people are willing to leave artisanal mining behind, as revenues from diamond mining are often no longer sufficient to provide basic necessities. Many people have therefore decided to return (partly) to agriculture in order to make more money and to secure their own food supply.⁹⁵

1. Structure of the artisanal mining sector and trading chain

Miners

At the upstream end of the mineral supply chain an estimated 80,000 to 100,000 artisanal miners are extracting the CAR’s diamonds and gold ores.⁹⁶ The diggers, or ouvriers miniers, are those who provide the manpower not only to extract the minerals, but also to transport and wash the ores. With a card from the Mining Brigade they are officially registered.⁹⁷

The diggers are known to use very rudimentary tools. A survey carried out by CIFOR in the TNS landscape⁹⁸ in 2009 showed that 97% of Central African miners stated that extraction methods have not changed over the years. Most miners, for example, still empty their pits manually when they are flooded with water.⁹⁹

Next to the ‘digger’, the ‘diver’ is another kind of miner. They shovel sand from the bottom of the rivers to the surface. Most gold miners are diggers in CAR, but diamond mining includes digging as well as diving.¹⁰⁰

The exploitants artisans are the miners that are better-off. They command a group of at least three ouvriers miniers, working on the mining site that they operate. Groups of miners are often quite small

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⁹¹ As the CAR is a country of 4.5 million people. (Source: BBC, Central African Republic profile, last accessed on 16 October 2012 (http://www.bbc.co.uk/news/world-africa-13150041))
⁹² Spittaels S. & Hilgert F. (February 2009), op. cit., p. 27.
⁹⁴ The diamond price has known a strong decline during the century’s first decade. The August 2008 price per carat of 47,643 CFA, or 95 dollars, was less than half of the average price during the year 2000. (Source: DeJong T. U., PRADD – Environmental rehabilitation and artisanal diamond mining: A case study of land and livelihoods in the Central African Republic, Tetra Tech ARD/USAID, March 2012, p. 16.)
⁹⁶ This is definitely a rough estimate, no one really knows how many artisanal miners are active in the country (Source: ICG (December 2010), op. cit., pp. 8-9; Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. 20; IPIS interview with a buying office representative, Bangui, July 2012).
⁹⁷ EITI-CAR (March 2009), op. cit., pp. 27-28; IPIS interview with civil servant, Bangui, July 2012.
⁹⁸ The TNS Landscape, or the Sangha Tri-national Landscape or Tri-National de la Sangha, is spread over Cameroun, the Republic of Congo and the CAR. Central African south-western corner, which is part of TNS includes the Dzanga-Ndoki National Park and Dzanga-Sangha Special Reserve, and covers 4644 square kilometres. (Source: Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. 3.)
⁹⁹ Ibid., pp. 32-33.
¹⁰⁰ Ibid., op. cit., pp. ix and 25.
in the CAR, as the alluvial deposits themselves are small and close to the surface. In some cases these exploitants artisans own the mining site themselves, but quite often they operate it for a mineral trader, who is legally not permitted to operate as a miner. Mineral traders often also pre-finance artisanal mining operations, and as such acquire exclusive buying rights.

The exploitants artisans are also obliged to acquire a licence, which costs 30,000 CFA. In 2011, 1945 officially registered, of whom 1046 in the southwest, 265 in the northwest, 358 in the northeast and 47 in the southeast. On average no more than an estimated 5 to 10% of the miners have a licence.

Registered miners are authorised to hold, transport and sell diamonds and gold ores. They are however only permitted to trade their own production, meaning that they cannot collect from other mining sites and are not allowed to export minerals. Hence they can sell their production to registered mineral traders, jewellers, agents representing mineral buying offices, mining companies and diamond-cutting establishments. All mineral sales have to be noted down in the exploitant artisan’s production book, or cahier de production, including the place of the sale, the quantity, and the name of the buyer.

Revenues of the mineral sales are often divided as follows, 50% for the mine owner and 50% for the team of diggers.

Ten or more artisanal miners can establish a cooperative together. The Central African government encourages this in order to stimulate the formalisation of the artisanal mining sector. Furthermore, it should help the miners to pool resources to invest in better equipment thereby increasing production, and rendering them more stable earnings by mitigating the risk of not finding any diamonds. Artisanal miners’ cooperatives also have the right to bypass buying offices and export their own minerals at a lower export tax rate of 9%. This is intended to enable them to free themselves, over time, from their dependency on the collectors.

In 2004 the government created the Union Nationale des Coopératives Minières de Centrafrique (UNCMCA), an umbrella organisation for the registered cooperatives. UNCMCA claims it has more than 150 members.

There are currently not many active cooperatives and UNCMCA’s activities are quite limited. Miners often deem creating a cooperative and becoming a member of UNCMCA too expensive. These costs erase the advantage of the 3% lower tax rate. Furthermore, it is apparently quite difficult to find a foreign financier interested in investing, to whom the cooperative can sell its minerals. In 2011, all cooperatives together only managed to realise six diamond exports. Additionally, artisanal miners are often distrustful of government interference and officials, suspecting them of rent-seeking incentives and behaviour.

Mineral traders, or ‘collecteurs’

The following actors, positioned further up the mineral supply chain, are the mineral traders/collectors, or collecteurs. They are often based in local trading towns and buy minerals from the miners. Subsequently, they sell the minerals that they have gathered to other collectors, mineral buying offices, mining companies, jewellers or diamond-cutters. Under no circumstances are they allowed to export gold or

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101 Mazalto M. (June 2009), op. cit., p. 43.
102 EITI-CAR (March 2009), op. cit., pp. 29, 33.
104 US Diplomatic Cable, Diamonds in the CAR: Deleterious to Development, Wikileaks, January 2010; ICG (December 2010), op. cit., p. 10; Van Bockstael S., Levin A., Weinberg R., Feasibility of direct marketing of artisanal diamonds from Liberia and CAR to the USA, PRADD project, USAID, June 2011, p. 7.
105 EITI-CAR (March 2009), op. cit., pp. 29-30.
106 IC (December 2010), op. cit., p. 9.
108 Loi No. 09.005 (29 April 2009), op. cit., articles 144 and 178; Décret No. 09.126 (29 April 2009), op. cit., articles 273-275.
109 The miners’ dependency on/relationship with the collectors will be discussed below.
110 ICG (December 2010), op. cit., p. 11.
111 Africa Mining Intelligence, Mining cooperatives put out call for partners, 16 March 2011; EITI-RCA (December 2012), op. cit., p. 7.
113 N’Zolamo-N’Zilavo (2012), op. cit; ICG (December 2010), op. cit., p. 11.
115 World Bank (November 2010), op. cit., p. 25.
These mineral traders often originate from West Africa (including Mali and Senegal)\textsuperscript{117} and have considerable technical expertise to value gold ores and especially diamonds.\textsuperscript{118}

Registered collectors need to possess a collector’s licence, or \textit{carnet de collecteur}. In 2011, 352 collectors officially registered,\textsuperscript{119} 362 had registered in the first six months of 2012. In the case of a foreigner wanting to apply for a licence, he has to have lived in the country since at least five years.\textsuperscript{120} Furthermore, collectors are obliged to make a receipt, or \textit{bordereau}, in quadruplicate for every diamond or gold purchase made.\textsuperscript{121}

One copy should be handed to the seller, one should be kept by the collector, and two copies should go to the buying office to which the minerals are sold. The buying office subsequently has to hand over one copy of the receipt to BECDOR when it applies for an export licence.\textsuperscript{122} The \textit{bordereau} includes the name of the seller, the name of the buyer, the quality of minerals, the mining site, the quantity, the price, and the date and place of the purchase.\textsuperscript{123}

Some collectors, or mineral traders, work singlehandedly, but most work for a mineral buying office that pays for the collector’s licence and pre-finances his activities.\textsuperscript{124} The collector is free to choose how he uses the means put at his disposal, provided he delivers a sufficient amount of minerals for the money that he received. Consequently, most traders use part of their budget to buy minerals and another part to pre-finance mining activities. In return, the miners at a given site are obliged to sell at lower prices to the trader that pre-financed their activities. The collector can make more money like this, but of course also carries the risk of investing in a mine that does not deliver.\textsuperscript{125}

The role of the collectors is ambivalent and much discussed. On the one hand, collectors are key actors in the existence of the artisanal mining sector, providing necessary investments in, often isolated, mining areas.\textsuperscript{126} As mining sites often do not render profit immediately, and many other mines never even become fruitful, these investments are essential to finance the miners’ labour in the early stages of a mining site’s exploitation. During these start-up phases, collectors often also help out miners when hard times strike and unanticipated costs (for example for medical treatment) mount up.\textsuperscript{127} On the other hand, it creates an asymmetrical and tense relationship in which the artisanal miners are dependent upon the collectors. Miners often experience high levels of control by ‘their collector’, who only offers uncompetitive prices for their production. If a miner is discovered to have sold to another collector, harassments are quite common.\textsuperscript{128}

This asymmetric relationship is exacerbated by the fact that most artisanal miners do not possess the materials or technical expertise to assess the true value of their production.\textsuperscript{129} Furthermore, miners have very little up to date information on the mineral price on the world market, leaving them at the trader’s goodwill. Moreover miners’ geological knowledge is very limited, rendering their exploration activities inefficient.\textsuperscript{130}

Yet another disadvantage is the insufficient organisation of artisanal miners as an interest group, which leaves them very little bargaining power. Miners are once again forced to remain ‘price takers’.\textsuperscript{131}

\textsuperscript{116} EITI-CAR (March 2009), op. cit., pp. 31-32.
\textsuperscript{117} Barthélémy F. et al (2008), op. cit., p. 29.
\textsuperscript{118} ICG (December 2010), op. cit., p. 2.
\textsuperscript{120} IPIS interview with civil servant, Bangui, July 2012.
\textsuperscript{121} Décret No. 09.126 (29 April 2009), op. cit., articles 247-248.
\textsuperscript{122} IPIS interview with BECDOR representative, Bangui, July 2012.
\textsuperscript{123} Décret No. 09.126 (29 April 2009), op. cit., article 249.
\textsuperscript{124} EITI-CAR (March 2009), op. cit., p. 32.
\textsuperscript{125} IPIS interview with USAID employees, Bangui, July 2012.
\textsuperscript{127} IPIS interviews with USAID employees and buying office representatives, Bangui, July 2012.
\textsuperscript{128} Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. 36.
\textsuperscript{129} Ibid., p. ix-x.
\textsuperscript{130} World Bank (November 2010), op. cit., p. 23.
\textsuperscript{131} Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. ix-x.
Consequently, it is very hard for them to climb the social ladder and escape poverty. In chapter four, the poverty trap as a specific issue in the CAR’s artisanal mining sector will be discussed in more detail.

**Mineral buying offices**

Mineral buying offices, or *bureaux d’achat import-export*, constitute the final link in the country’s mineral supply chain. They are authorised to buy gold and diamonds from artisanal miners, cooperatives, collectors and mining companies in order to export them.

Under the Mining Code it is stipulated that a buying office can purchase minerals in their local branches through the employment of agents, or *agents acheteur*.\(^{132}\) Quite often, however, buying offices also pre-finance collectors, to buy minerals for them.

The Mining Code and accompanying regulations impose several obligations on buying offices, including:133

- The establishment of at least five local branches, or *centres secondaires d’achat* or *succursales*, in trading towns in the country, within one year;
- The payment of a CFA 50 million deposit to the national treasury;
- The investment, within three years, of CFA 350 million in real estate in favour of the Central African State or a local community;
- The construction of a head office, worth at least CFA 150 million, within five years;
- The export of gold and/or diamonds at least once a month.

Several buying offices have complained that these obligations fall hard on them and put their future in country in jeopardy.\(^{134}\) A number of buying offices did, in fact, leave the country in 2008 after the government installed similar rules in an effort to strengthen control over the mining sector and increase revenues from the mineral trade. Fines ranging from CFA 20 - 25 million were imposed on eight of the eleven buying offices operational in the country at that time as they had not invested enough in property in the CAR, violating the 2004 Mining Code. The president later proceeded to withdraw these buying offices’ licenses because they refused to pay the fine.\(^{135}\)

However other buying offices claim the obligations are bearable. Government officials also emphasise the positive effects of these measures, claiming that it was the buying offices that exported close to nothing in particular that closed down. Indeed, six of the closed offices reportedly exported only small quantities; two others were among the top five exporters.\(^{136}\) In addition, several buying offices have started up business in the country in recent years.

Besides the fixed charges to set up their business in the country, buying offices also have to pay a 12% tax on the value of their diamond exports.\(^{137}\) Regarding gold, buying offices used to pay 5.25% on the value of their exports.\(^{138}\) By the issuance of decree No. 039/12/PR/MM of 18 June 2012, this has been changed. Henceforth, the gold export tax comes to a fixed amount per gram of gold.\(^{139}\) In 2011 the export taxes on gold and diamonds yielded the Central African State 3.3 billion CFA.\(^{140}\)

There are currently seven official buying offices in the country: Badica, ADR, IAS International, Sodiam, Sud Azur, Adamas Swiss and Sino Sango. Most of them focus on diamonds, except for Adamas Swiss that

\(^{132}\) Loi No. 09.005 (29 April 2009), op. cit., article 1.
\(^{133}\) Loi No. 09.005 (29 April 2009), op. cit., article 154; Décret No. 09.126 (29 April 2009), op. cit., article 252.
\(^{134}\) IPIS interview with buying offices representatives, Bangui, July 2012.
\(^{135}\) ICG (December 2010), op. cit., p. 6.
\(^{136}\) Ibid., p. 7.
\(^{137}\) The diamond export tax includes: *Droit de sortie* (4%), *Taxe de Promotion Minière* (1%), *Redevance Equipement Informatique des Finances* (REIF) (0,5%), *Impôt Minimum Forfaitaire* (IMF) (3%), *Taxe Spéciale sur les achats de Diamants* (3%), *Secrétariat Permanent du Processus de Kimberley* (0,5%) (Source: Ministère des Mines de la République Centrafricaine, *Rapport annuel de la Direction Générale des Mines*, 2011).
\(^{138}\) The gold export tax included 1% *droit de sortie, 0,5% REIF, 3% IMF, 0,75% PDSM*. (Source: IPIS interview with BECDOR representative, Bangui, July 2012.)
\(^{139}\) IPIS interview with BECDOR, Bangui, July 2012.
only trades gold. The buying office COMIGEM, which can be found in table 3, is a state-owned buying office. It will be discussed in more detail below in part 2.1.2.

| Table 3: Diamond (carats) and gold (grams) exports per buying office, 2010-2012. |
|---------------------------------|----------------|----------------|----------------|----------------|
|                               | 2010           | 2011           | First half of 2012 |
|                               | diamonds       | gold           | diamonds       | gold           | diamonds       | gold           |
| BADICA                         | 83,161.18      | 4,032.70       | 93,449.41      | 4,900.51       | 74,061.70      | 3,903.20       |
| SODIAM                         | 145,240.01     | 1,167.30       | 131,222.96     | 0.00           | 75,184.61      | 0.00           |
| ADR                             | 72,298.35      | 65,423.25      | 26,222.97      | 273.00         |
| INALA                           | 517.65         | 1,718.10       | 392.98         | 348.00         | 0.00           | 0.00           |
| SINO SANGO                      |                |                |                |                |                |                |
| ADAMAS-SWISS                    | 29,203.00      | 58,665.20      | 23,947.50      |
| SUD AZUR                        |                |                |                |                |                |                |
| IAS                             |                |                |                |                |                |                |
| ANANT EXIM                      |                |                |                |                |                |                |
| COMIGEM                         | 294.50         | 446.94         | 0.00           | 0.00           |
| UNCMCA (cooperatives’ union)    | 340.43         | 9,676.30       | 4,401.00       | 194.37         | 2,546.70       |
| Source: BECDOR                  |                |                |                |                |                |                |

2. Government actors within the artisanal mining sector

The mining service, or Direction Générale des Mines, is responsible for the administration of the country’s mining sector. The service is headed by the general director who is supported by three central directors and four regional directors, based in Berberati, Bouar, Bria and Bangassou.

The three central directors are based in Bangui and are each in charge of a service, responsible for the following responsibilities:

- Direction de la Commercialisation, de l’Industrie et du Fichier Minier (DCIFM): Among other things it is responsible for the issuance of licences of all the actors in the artisanal mineral supply chain and the valuation of mineral exports. One of the services under its authority is BECDOR.141

- Direction d’Appui à la Production Minière (DAPM): is responsible for the promotion of the formalisation of the artisanal mining sector, and the provision of training and technical assistance to artisanal miners.142

- Direction de la Programmation des Etudes et de la Recherche (DPER): Focuses mainly on the industrial mining sector, executes geological research, makes maps and attributes mining licenses.143

For the areas where there is no regional directorate, the mining brigade, or brigade minier, supervises some of these responsibilities. Their main task is to monitor both the mining sector and the integrity of its internal controls.144 The Mining brigade has 13 units, two in Bangui (one in town and one at the airport)

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143 IPIS interview with senior official, Bangui, July 2012.
and 11 spread over the country’s mining areas. The mining brigade employs about 100 policemen and gendarmes – far too few to control the vast territory; in addition to this, they are poorly equipped. The mining brigade will be replaced by mining police brigades, Unité Spéciale Anti-Fraude (USAF), which should count about 1000 men. An important difference with the mining brigade's policemen is the fact that USAF is placed under the authority of the Ministry of Mines. Consequently, it should be easier for the ministry to avoid and address the issues that it experiences with the mining brigade. The USAF is, however, not yet operational, and for the time being the mining brigades are still at their posts.

Another prominent actor in the CAR's mining sector is BECDOR, which was established in 1982, after the World Bank introduced a certificate of origin system for diamonds. BECDOR is authorised to oversee the country’s diamond and gold market and to value official exports, in order to determine the export tax. BECDOR is also responsible for maintaining a database concerning all diamond and gold production and exports. It also validates the Kimberly Process Certificate of Origin.

The Comptoir des Minéraux et Gemmes (COMIGEM) is a state-owned mineral buying office which was legalised under the 2009 Mining Code. It has experienced considerable difficulties operating however, as it has no means by which to pre-finance collectors’ activities and consequently cannot compete with private buying offices. COMIGEM still exported some carats in December 2011, but has not carried out any other exports in the first half of 2012.

In March 2010 the government created the Office de Recherches Géologiques et d'Exploitation Minière (ORGEM). The office was commissioned to improve knowledge of the country’s mineral wealth in order to attract more industrial mining companies. This is, however, not an easy task, requiring considerable expertise, technical capacity and financial means, which ORGEM currently lacks. There is certainly a lack of geological information on the country’s subsoil, meanwhile available data is largely outdated, as it dates back to the early 1960s, when some French surveys had been carried out.

A major problem experienced by all the state’s mining authorities is a lack of means. Consequently, state agents can not conduct a sufficient number of field visits to closely supervise the mining sector.

### 3. Level of informality of the artisanal mining sector

Formalisation of the artisanal mining sector is a huge challenge to the Central African government. Above, it has already been mentioned that an estimated 30% of diamond production and 95% of gold production leaves the country secretly, which means the government looses significant amounts of tax revenues. The size of the country, its low population density, the inaccessibility of many mining zones and the ‘scatteredness’ of the alluvial mineral deposits, make it very difficult to control and monitor the sector.

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145 There are brigades based in Berbérati, Bozoum, Nola, Bouar, Abba, Boda, Carnot, Bria, Ndélé, Bangassou and Sam-Ouandja. The latter was however inactive at the time that the research team visited the CAR, because of insecurity in that area (Source: IPIS interview with Mining Brigade, Bangui, July 2012).
146 ICG (December 2010), op. cit., p. 10.
147 Africa Mining Intelligence, Overhaul for mining industry, 21 December 2011.
148 Loi No. 09.005 (29 April 2009), op. cit., articles 180-182.
149 Loi No. 09.005 (29 April 2009), op. cit., article 180.
150 ICG (December 2010), op. cit., p. 3.
152 Loi No. 09.005 (29 April 2009), op. cit., articles 142-146.
154 See table 3, page 17.
155 Loi No. 09.005 (29 April 2009), op. cit., article 10.
156 ICG (December 2010), op. cit., p. 8.
157 Interview IPIS with a senior official, Bangui, July 2012.
The legitimacy of the Central African government’s ownership over the country’s territory and its natural resources is often hardly acknowledged in rural areas, far away from Bangui. In these areas customary rights are often superior to modern law. Moreover, because the State is hardly present, miners experience very little incentive to register and pay a licence fee, as the chance of getting caught is almost non-existent. Furthermore, because there is very little visible government action to improve public welfare in these remote areas, miners do not perceive any encouragement to formalise.

Despite the fact that an estimated 70% of the diamond production leaves the country legally, there is a much higher degree of informality at the production level. There are numerous semi-legal operators in the country that connect formal and informal trading networks. Only an estimated 5 to 10% of miners have a licence. In many cases they only have one after a collector has bought it for them.

Next to the fact that there is only a small risk of being caught, there’s an economic incentive for actors in the country’s mineral supply chain to work informally. Mineral export taxes are considerably lower in several neighbouring countries. Regarding diamonds, for example, export taxes are 3.25 per cent in the DRC and 5 per cent in the Republic of Congo, while the CAR’s export tax is 12 per cent. Similarly, for gold, several officials claimed Cameroon’s export tax is lower than the CAR’s 5.25 per cent. Consequently, smugglers can make more money than legal buying offices and can therefore offer higher prices, fuelling illegal trading and informal production.

On top of that, the gold purity of jewels produced in the CAR needs to be at least 18 carats, while Cameroon allegedly only requires 12 carats. Jewellers in Cameroon can therefore offer higher prices per gram of gold than those located in the CAR.

Corruption is another considerable problem stimulating the informal sector and depriving the government of much-needed tax revenues. Local authorities, including the mining brigade, often try to capitalise on the mining sector. A 2009 CIFOR study revealed that government agents are perceived as a significant source of harassment by the miners. In addition to this it is nearly impossible to file a complaint.

As explained above, a large part of the CAR’s mineral production is consequently smuggled out of the country and enters the legal circuit in other countries with inadequate controls. It is very hard for the government to intercept parcels of smuggled diamonds and gold because of the small volume-high value ratio of these resources.

Smuggling along the frontier with Cameroon is a major problem and obviously a thorn in the CAR government’s flesh. Numerous gold buying offices can be found in Cameroon just across the border. The Douala-Bangui road is used by Central African and Cameroonian traders who import goods into the CAR and leave with their pockets filled with minerals. Furthermore, Cameroonian smugglers are also known to cross the border on smaller routes in the bush to buy minerals directly from the mines.

For the moment this illegal trade particularly concerns gold. Many local stakeholders, however, are concerned about the recent upgrade of Cameroon’s membership status in the Kimberley Process Certification Scheme. They fear that Cameroon’s admission as a participant in the scheme might increase the diamond smuggling to the same level as gold smuggling, as the required Kimberley certificate will also be available in Cameroon.

158 Especially the eastern part of the CAR is out of the government’s control. Remember Lombard’s notion of a ‘buffer zone’, see footnote 89. (Source: Lombard L. (February 2012), op. cit., p. 2.)
160 Ibid., p. 7.
162 IPIS interview with a buying office representative, Bangui, July 2012.
163 ICG (December 2010), op. cit., p. 12.
164 Interviews with a senior official and a buying office representative, Bangui, July 2012.
165 ICG (December 2010), op. cit., p. 11.
166 Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. 35.
167 ICG (December 2010), op. cit., p. 14.
168 IPIS interview with a buying office representative, Bangui, July 2012.
169 IPIS interviews with USAID employees and civil servants, Bangui, July 2012.
170 ICG (December 2010), op. cit., p. 14.
171 IPIS interviews with USAID employees, civil servants and buying office representatives, Bangui, July 2012.
Another smuggling destination is Nyala, in Sudan’s Darfur region. The Muslims that live in the CAR’s north-eastern region have much closer bonds with Sudan than Bangui. On top of that, during the rainy season, roads to Bangui are impassable. An estimated 30 percent of the Sam-Ouandja diamonds, in Haut Kotto, are smuggled out by Sudanese traders.\textsuperscript{172} Furthermore, Chadian traders are apparently also quite present in the area.\textsuperscript{173}

It is quite difficult for the government to address these issues, especially as it lacks equipment and financial means to increase its presence in the field.\textsuperscript{174} Nonetheless several measures have already been undertaken.

As discussed under section 2.1.1, the government is supporting the creation of miners’ cooperatives. The measure should stimulate miners to enter the legal sphere, as the cooperatives should help them to pool resources, and increase production and revenues. In practice, however, there are not many active cooperatives for the moment.

The mining brigade is still responsible for supervising the mining sector and capturing any illegally traded diamonds or gold ores. The \textit{Commission de saisie} is the ministry of mining’s commission which is responsible for judging whether a mineral seizure is justified. In the case of the commission deeming it justified, the ministry sells the minerals by auction to the registered buying offices based in Bangui. The revenues from these auctions go to the Treasury.\textsuperscript{175} It is, however, quite difficult for the mining brigade to intercept gold or diamonds because of the minerals’ small volume-high value characteristics, in addition to which, the mining brigade lacks manpower and equipment.\textsuperscript{176} Furthermore, local mining brigade units reportedly often refrain from sending their seizure to Bangui, but sell it to local buying offices themselves.\textsuperscript{177}

Bangui indeed regards the functioning of the mining brigade as part of the problem, and has tried to tackle this issue through their replacement by the \textit{Unité Spéciale Anti-Fraude} (USAF).\textsuperscript{178} The government expects a higher level of obedience of this anti-fraud unit as it is placed under the authority of the Ministry of Mines.\textsuperscript{179}

Furthermore, the government has also tried to address corruption with the possibility for buying offices to deposit taxes directly at the bank, because it deemed that civil servants embezzled too much.\textsuperscript{180}

\section*{4. Conflict, insecurity and mining}

When discussing the link between conflict and insecurity on the one hand and natural resources on the other, terms like ‘conflict diamonds’ or ‘blood diamonds’ easily come to mind. Particularly, the alliance between the CAR regime and Congolese rebel leader Jean-Pierre Bemba at the turn of the century fits into this picture. Bemba’s troops thwarted a coup attempt against Patassé in 2001 and he allegedly had links with two Central African diamond buying offices. Bemba financed his war in the DRC by controlling the sale of one to three million dollars worth of diamonds a month.\textsuperscript{181} Diamonds that were mined in the Congolese territory held by Bemba were allegedly often sold or laundered through the CAR.\textsuperscript{182}

The situation today is much more nuanced. Despite some links between the country’s minerals and insecurity, and the fact that some conflict actors occasionally gain profit from CAR’s natural resources, these resources should not be regarded as a conflict motivator.\textsuperscript{183}

\begin{footnotesize}
\begin{enumerate}
\item \textsuperscript{172} ICG (December 2010), op. cit., p. 14.
\item \textsuperscript{173} IPIS interview with a researcher from Bangui University, Bangui, July 2012.
\item \textsuperscript{174} Mazalto. M. (June 2009), op. cit., p. 39.
\item \textsuperscript{175} ICG (December 2010), op. cit., p. 6.
\item \textsuperscript{176} Van Bockstael S., Levin A., Weinberg R. (June 2011), op. cit., p. 12.
\item \textsuperscript{177} ICG (December 2010), op. cit., p. 11.
\item \textsuperscript{178} IPIS interview with civil servant, Bangui, July 2012.
\item \textsuperscript{179} Loi No. 09.005 (29 April 2009), op. cit., article 180.
\item \textsuperscript{180} ICG (December 2010), op. cit., p. 12.
\item \textsuperscript{181} Dietrich C. (January 2003), op. cit., pp. 4-5.
\item \textsuperscript{183} Spittaels S. & Hilgert F. (February 2009), op. cit., p. 42.
\end{enumerate}
\end{footnotesize}
None of the country’s rebel groups’ raison d’être is the potential profit that can be made from diamonds or gold. Also the most recent rebellion flare-up, the Seleka coalition’s march towards Bangui, had very little to do with the country’s mineral wealth. Nonetheless several examples can be quoted where these very same rebel groups are allured to the country’s mineral wealth.

In September 2011, for example, the Convention des Patriotes pour la Justice et la Paix (CPJP) clashed with the Union des Forces Démocratiques pour le Rassemblement (UFDR) in Bria, over the control of the area’s diamond mines.

In June 2012, between 70 and 100 armed men, alleged to be LRA rebels or Baba Ladé fighters, attacked AREVA’s Bakouma mining project.

Baba Ladé, rebel leader of the Chadian Front Populaire pour le Redressement (FPR), which operates in the centre-north of the CAR, allegedly also earns income from the sale of gold in Bangui. It is rumoured that he has even bought machinery to increase the effectiveness of his gold extraction activities. Nevertheless, cattle breeding has always been a much more important source of revenues for Baba Ladé. Since September 2012, however, FPR is retreating from the CAR after a tripartite agreement was signed between Baba Ladé, Chad and CAR.

Another important, if not the biggest, security issue is the presence of bandits, or coupeurs de routes, throughout the country. These gangs profit from state security services’ lack of control outside of the capital and randomly attack traffic on the country’s dilapidated road network. Banditry is also a major problem in mining zones and on mineral trading routes, where these bands demand diamonds and taxes from diggers and diamond traders. Since 2006, the threat of bandits has apparently diminished in the relatively stable southwest. In the east, however, the situation remains precarious.

Next to armed violence, including rebellion and banditry, natural resources can also give rise to friction between other, non-armed groups of society. Conflicts might, for example, arise between migrant workers and local communities over access to mining lands, or the migrants’ alleged lack of respect of local social norms and customs. However, because of the CAR’s low population density and the rural location of most mining sites, the number of conflicts over access to mineral resources is quite limited.

Another actual issue is a tension between artisanal miners and government officials. Non-registered miners are wary of avoiding capture by mining brigade units. Furthermore, artisanal miners are often distrustful of government agents, suspecting them of rent-seeking incentives. Government agents are, indeed, often cited as perpetrators of harassment.

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184 For an analysis of the country’s rebel groups’ motivations, see: Spittaels S. & Hilgert F. (February 2009), op. cit.
185 Seleka is a rebellion coalition formed by factions of Wa Kodro Salute Patriotic Convention (CPSK), Convention des Patriotes pour la Justice et la Paix (CPJP), and Union des Forces Démocratiques pour le Rassemblement (UFDR). The coalition began its insurgency on 10 December 2012, claiming that President Bozizé had failed to adhere to the terms of peace accords signed with various rebel groups in 2007 and 2011. (Source: AFP, C. Africa rebels threaten capital, say president must go, 31 December 2012.)
186 Ingerstad G., Rebellions and instability in the Central African Republic, unpublished article, June 2012.
188 Ibid.
189 Radio Ndeke Luka, 400 ex-rebelles de Baba Ladé en route pour Sido, 8 October 2012.
191 Dietrich C. (June 2002), op. cit., p. 21.
192 ICG (December 2010), op. cit., pp. 2, 15.
194 Ibid., pp. 24-25.
195 Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. 35.
Chapter III: The CAR’s industrial mining sector

1. Prospects and issues relating to the CAR’s upcoming industrial mining sector

As explained above, the CAR’s post-independence mining sector has been dominated by artisanal mining. Since the 1960s, industrial miners have had a hard time finding ground in the country, the reasons for which are explored below.

Industrial miners traditionally prefer primary deposits for their projects. The CAR’s scattered and small alluvial diamond and gold deposits are often not economically viable for industrial miners. The ease to access these alluvial sediments offers opportunities to artisanal miners. Consequently, it is often more attractive for companies to finance local diggers than to invest in industrial production.

As there have been very few profound exploration exercises since independence, the country’s subsoil is still largely unknown. It has not yet been determined whether primary deposits can be found in the country. Chirico, Barthélémy and Ngbokoto however claim that the geologic origin of the Central African’s alluvial diamonds are probably undiscovered kimberlites in the northern part of the DRC. Nonetheless, the Central African State does believe in the viability of the industrial mining sector in its country. AXMIN’s feasibility studies for its Passendro Gold project seem to endorse this view. The government believes that the country’s mineral wealth could yield the State and its inhabitants far greater benefits than the present-day situation if the sector were to be industrialised. It does recognise the importance of the artisanal mining sector, however, as an important employment provider. Furthermore, it acknowledges that artisanal mining remains appropriate for deposits that are not viable for industrial exploitation.

However, the underdevelopment of the country’s infrastructure, including transport and power supply infrastructure, constitutes a major impediment to foreign investment and trade in the mining sector. The limits placed on the country by its landlocked position are aggravated due to the lack of a rail connection to one of the neighbouring countries’ seaports. Furthermore, remote mining areas are practically inaccessible as no internal rail service exists and the country’s road network is quite dilapidated. This poses major logistical problems and puts a high cost on imports of material for mining companies interested in starting up operations in the country.

Another issue is the need for adequate governance conditions to attract large-scale mining operations to the country. It has been claimed that the Central African Ministry of Mining lacks long-term vision and that the Ministry appears to have a difficult relationship with several international miners. International companies’ patience is further tested by the administrative burden, which can be quite lengthy in the country.

197 Dietrich C. (January 2003), op. cit., p. 2.
199 More detailed info on AXMIN’s operations in the country can be found below.
200 Interview IPIS with a senior official, Bangui, July 2012.
201 World Bank (November 2010), op. cit., p. 23.
202 ICG (December 2010), op. cit., p. 8.
203 World Bank (November 2010), op. cit., pp. 21, 23.
205 World Bank (November 2010), op. cit., p. 24.
206 IPIS interview with industrial mining company representative, Bangui, July 2012; World Bank (November 2010), op. cit., p. 25; ICG (December 2010), op. cit., p. 8.
Other issues deterring industrial miners from investing in the CAR are the historical lack of exploration investments, political instability over the last fifteen years, insecurity in remote areas, and the global economic downturn. Diamond prices, for example, plummeted 40% in late 2008.

As explained above, industrial exploitation of the CAR’s minerals has not yet commenced. Nonetheless, several actors have already quoted some discreet concerns that should be taken into account as industrial mining might take off in the coming years.

Conflicts between local (mining) communities and industrial miners, which are quite common in many other countries, have so far not posed a major problem in the country. This can be explained by the current absence of these miners on the ground in the CAR. However this might become a more problematic issue in the future.

Environmental impact assessments (EIA) are mandatory for industrial mining projects. However the accompanying regulations of the Environmental Code should urgently be published in order to clearly outline what these EIAs should contain.

Regarding the EIAs, the public disclosure requirement, or ‘audience publique’, is apparently quite weak. The number of required interactions between the company and local communities on socio-economic impacts of the project are quite limited. Under the current regulations, after the company has gathered all the concerns of local communities, it has to compile them in a report and communicate new steps to the local communities. There is, however, no further requirement to consult these communities again. Soliciting full-fledged input of these communities on how to mitigate such impacts would nevertheless be advisable. Instead, the presentation of an ample set of EIA results to a community at the end of the research process leaves little room for their active participation.

2. AXMIN

AXMIN is a Canadian gold exploration company with projects in Central and West Africa. It is currently the only mining company that is still operational in the CAR. AXMIN’s presence in the country dates back to 1996, when its predecessor Asquith Resources started exploration.

The company’s Passendro Gold Project is located about 60km north of the town of Bambari, in the CAR’s Ouaka prefecture (See map on page 35). The project involves three permits. The 25-year Passendro mining licence of 357 square kilometres was granted in August 2010 to AXMIN’s wholly owned subsidiary SOMIO Toungou SA, or Société des Mines d’Or de la Ouaka. Furthermore, two gold exploration permits were granted in August 2010 to another wholly owned subsidiary of AXMIN, called Aurafrique SARL. It concerns the Bambari 1 and 2 licenses, respectively 481 and 432 square kilometres, which are valid for three years and renewable twice for two further three-year periods.

Under the agreements, AXMIN was obliged to start production at Passendro within 24 months of the date of issuance of the permit. In January 2012, nevertheless, the CAR granted AXMIN a two-year extension. Gold extraction should consequently commence before January 2014. In January 2013, however, AXMIN CEO George Roach stated that this deadline will be postponed with at least another year. Mr. Roach called upon force majeure, due to the Seleka rebellion, which has occupied and looted AXMIN’s operating camp near Bambari.

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208 ICG (December 2010), op. cit., p. 8; World Bank (November 2010), op. cit., p. 24.
210 World Bank (November 2010), op. cit., pp. 27-28; IPIS interview with civil society representative, Bangui, July 2012.
212 AXMIN, Annual Information Form, 7 June 2012, p. 11.
214 AXMIN, Annual Information Form, 7 June 2012, p. 11.
Other arrangements of the licences include:

- The payment of an annual surface tax to the CAR government of CFA 20,000 per square km.\textsuperscript{216}
- The payment of a 2.25% royalty on production, which applies both the mining licence and the exploration licences.\textsuperscript{217}
- The State received a signature bonus of US$11 million, which was payable in three tranches.\textsuperscript{218} The last tranche was paid in January 2012.\textsuperscript{219}
- A fuel tax and VAT exemption for the life of the mine.\textsuperscript{220}
- A five-year exemption from duties and VAT on capital, equipment, and consumables.\textsuperscript{221}
- A five-year extension on the 30% corporate tax.\textsuperscript{222}

With this renewed 2010 agreement and the advanced payment of the third tranche of the US$11 million signature bonus in January 2012,\textsuperscript{223} it looks like AXMIN is actually heading towards production after more than ten years of exploration. Apparently, during its initial years in the CAR, AXMIN did encounter some difficulties. The Central African government repeatedly halted its concessions because of disagreements over the terms of the previous licences.\textsuperscript{224} Recent developments, however, seem to suggest that the atmosphere between the two parties has improved into a practical working relationship.\textsuperscript{225}

Regarding employment opportunities for neighbouring communities, AXMIN declares it will pursue a policy of ‘localisation’ and will therefore publish recruitment notices in Sango, French and English.\textsuperscript{226} Nonetheless, it refrains from making any specific promises by stating: “\textit{However the reality of the socio-economic situation of the immediate external environment dictates that not all skills will be available locally. Candidates will be initially made from the neighbouring locales; only in the event that these skills are unable to be found locally, will the recruiting be opened to wider zones.}”\textsuperscript{227} This does imply a promise, however, that preference will be given to Central African people. On top of that AXMIN pronounces “\textit{It will be a policy to train and upgrade CAR personnel to replace expatriate labour over time where possible.}”\textsuperscript{228} A project report of the \textit{Secrétariat pour l’Evaluation Environnementale en Afrique Centrale} (SEEAC) reported that during the exploitation phase, 936 employment opportunities will be created, of which 633 will be offered to local people.\textsuperscript{229}

Infrastructure is still a major problem in the country. Consequently AXMIN will have to invest a considerable amount of money in developing it. To import goods and equipment, the company has chosen to ship cargo to the port of Doula (Cameroon) followed by road freight to the mining site. The refurbishment and construction of roads and bridges within the CAR will cost the company an estimated US$5.9 million.\textsuperscript{230} The road linking Douala to Bangui does not require any investment from AXMIN, as

\textsuperscript{216} SE\textit{NET} (November 2011), op. cit., p. 1-6.
\textsuperscript{217} Ibid.
\textsuperscript{218} http://www.axmininc.com/site/News\textnbsp;News2010/Aug92010.aspx, last accessed on 26 October 2012.
\textsuperscript{219} AXMIN, \textit{Annual Information Form}, 7 June 2012, p. 6.
\textsuperscript{220} http://www.axmininc.com/site/Operations\textnbsp;Projects\textnbsp;Advanced\textnbsp;Projects/PassendroGoldProject.aspx, last accessed on 27 October 2012.
\textsuperscript{221} Ibid.
\textsuperscript{223} Under the agreement AXMIN had to pay the third tranche only in April 2012. (Source: http://www.axmininc.com/site/Operations\textnbsp;Projects\textnbsp;Advanced\textnbsp;Projects/PassendroGoldProject.aspx, last accessed on 27 October 2012)
\textsuperscript{224} In 2008, for example, a decree restricted Aurafrique’s Bambari permit to gold. Before that date the permit involved exploration for gold, silver, copper, nickel, lead, zinc and iron ore. (Source: Africa Mining Intelligence, \textit{Bangui re\textsuperscript{i}ns in Axmin permit}, 10 September 2008.)
\textsuperscript{225} \textit{EIU}, March 2012, p.20
\textsuperscript{226} SE\textit{NET} (November 2011), op. cit., pp. 1-60, 1-61.
\textsuperscript{227} Ibid., p. 1-61.
\textsuperscript{228} Ibid., p. 1-66.
\textsuperscript{230} SE\textit{NET} (November 2011), op. cit., pp. 1-78 - 1-82, 1-94.
this already forms part of a US$67 million African Development Bank grant agreement with the Central African Republic and the Central African Economic and Monetary Community.231

Regarding environmental considerations, the Central African Ministry of the Environment and Ecology granted AXMIN a renewal of the Certificat de Conformité. It requires the company to implement the project in accordance with the environmental social impact assessment (ESIA) and the country’s Environmental Code.232 The Passendro project’s ESIA has been prepared for the first time in 2008 by Golder Associates Limited. The study identified the possible environmental and social impacts of the project, and defined mitigating measures.233 The final ESIA should be finalised by the last quarter of 2012.234

3. Other companies holding exploration and exploitation permits in the country

For the moment, all other companies that hold exploration or exploitation concessions in the CAR have suspended their activities. Most of them cite the global economic crisis as their main reason for not being present in the country.

South of AXMIN’s concessions, Tala Mining and Dimbi Diamants hold their exploration permits near the Congolese border. Tala Mining has been present in the country since March 2010. That year it contributed more than US$500,000 to the CAR’s treasury.235 The company suspended its activities only a few months ago.

Dimbi Diamants had been in the country for a longer time. As a subsidiary of Pangea Diamondfields, it was exploring the Dimbi project near Kembé, and the 2009 EITI report announced that industrial exploitation of diamonds was foreseen for the near future.236 In 2010, however, Pangea Diamondfields went into liquidation and its concessions were taken over by IGE Resources AB. The latter deems Pangea’s old CAR projects, Dimbi as well as Etoile, no longer relevant.237

In the east of the country lies AREVA’s 25-year uranium exploration and exploitation permit, near Bakouma. The company acquired the concessions in August 2007 when it bought the South African junior miner UraMin.238 In recent years, it was the most important source of tax revenues within the CAR’s mining sector. In 2010, for example, it was responsible for 39% of the State’s fiscal revenues from the sector.239 Since the beginning of this year, however, AREVA has suspended its activities in the country.

Adjacent to AREVA’s concessions are several uranium concessions held by Groupe Forrest, which is a group of companies owned by George Arthur Forrest. Forrest acquired the concessions in 2008 when he facilitated negotiations between AREVA and Bangui to amend the mining convention for UraMin240 as AREVA wanted to secure a number of adjacent concessions for potential extensions in the future.241 Other adjacent blocks that interested AREVA were apparently held by Richard Ondoko’s Uranio AG.242 Richard Ondoko is currently AXMIN’s representative in the country.

Most of the country’s concessions are, however, located in the western part of the country. In 2011, Société Perrière acquired a three-year exploration permit for gold and diamonds near Boda. Likewise Kamach Mines also holds another gold and diamonds exploration permit near Boda, however, like most others, it has also suspended its activities.

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231 Africa Mining Intelligence, Key Central Africa road accord, 12 March 2008.
232 AXMIN, Annual Information Form, 7 June 2012, p. 4.
236 EITI-CAR (March 2009), op. cit., p. 27.
239 EITI-RCA (December 2012), op. cit., pp.14-16.
240 Africa Mining Intelligence, George Forrest Smoothes Way for Areva, 1 April 2009.
243 Africa Mining Intelligence, Bakouma: Areva to pay out once again, 30 September 2009.
244 Africa Business Briefing, Mining CAR, 1 September 2010 (http://store.eiu.com/article.aspx?productid=176000176&articleid=1287433913)
Further to the west, near Carnot, Good Speed holds an exploration and exploitation permit. The government granted the concession to Good Speed in 2007, but in 2008 the company suspended its activities in the country. Next, southwards around Nola, Mossoro Mining renewed its three-year exploration permit in 2011, but shortly after it also suspended its activities.
Chapter IV: Socio-economic and environmental consequences of mining activities in the CAR

The CAR’s gold and diamond exploitation currently only involves artisanal extraction. Therefore this chapter, on the socio-economic and environmental consequences of mining, will only discuss these issues with regard to the artisanal sector.

The government agencies’ lack of means and capacity affects their level of control over the artisanal mining sector. Consequently, environmental and socio-economic impacts of mining are hardly addressed, or even mapped, and remain largely unregulated. The fact that mining operations are mainly artisanal, and the accompanying high level of informality, exacerbates the difficulty to control these problems.243

Moreover, policymakers often tend to neglect the artisanal mining sector as they deem its remunerations for the national treasury limited. It is well-known that governments have a preference for the high tax revenues of the more easy-to-manage industrial mining sector. Therefore it might be the case that incentives to create policies to effectively address socio-economic and environmental consequences of artisanal mining are lacking. This is indeed reflected in the country’s Mining Code. Whilst there are several obligations listed for industrial miners, the Code apparently only mentions the obligation of regeneration for artisanal mining sites.244

On the other hand, mistrust within affected communities towards outside interference is quite common. Miners are often suspicious of governance interference and externally crafted solutions, which makes it all the more difficult to address these issues.245

Finally, attention from civil society towards the environmental and socio-economic impacts of artisanal mining is also quite limited. The majority of NGOs in the CAR are working on humanitarian relief and malnutrition in addition to a number working on forestry and wildlife. All of these organisations encounter issues linked to the mining sector, but none of them really focus on them.246 Moreover, these organisations often lack the means and capacity to actually make a difference.247

USAID, however, did establish the Property Rights and Artisanal Diamond Development Project (PRADD) in the country in 2007. Amongst other things it aims to improve artisanal diamond miners’ livelihoods by achieving secure rights to land and resources. The idea is that people will be moved to pursue more sustainable activities and invest in productive activities when they have a feeling that their property rights are secure. There are five main objectives: (1) to identify and formally recognise customary land and natural resource rights; (2) to help Bangui to track the diamond trading chain up to the mining site; (3) to assist local communities to reap more benefits from the mining sector and to diversify and intensify food production; (4) to mitigate environmental impacts of artisanal mining; and (5) to gather information of and offer insight into the country’s artisanal diamond mining sector.248

1. Socio-economic issues linked to the artisanal mining sector

As explained in chapter two, artisanal mining offers an important livelihood strategy to local communities in mineral-rich areas. An estimated 600,000 Central Africans depend at least partly on the sector for their income. For example, for miners working in the Congo Basin’s Sangha Tri-National landscape, revenues from diamond mining account on average for 60% of their total income.249 This cash income helps

243 World Bank (November 2010), op. cit., p. 25; Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. x.
246 World Bank (November 2010), op. cit., p. 25.
247 IPIS interview with civil society representative, Bangui, July 2012.
248 DeJong T. U. (March 2012), op. cit, p. 4.
249 Ibid., p. 9.
them to finance important basic needs such as food, education of children, clothing, medicine, housing construction/improvement, and purchase of radios and television.250

Lack of diversification

Additional activities in the mining camps, next to mining, particularly include agriculture, livestock breeding, gathering of non-timber forest products, hunting, fishing and trade in basic commodities.251 For most miners, nonetheless, mining is their principal activity. A 2009 CIFOR study, for example, found out that this is the case for 87.5% of the miners in the CAR part of the TNS-landscape.252 Dependency on the mining sector is therefore demonstrable very significant in mining areas.

This level of dependency makes miners, and the communities in which they live as a whole, extremely vulnerable to external shocks. Two examples from recent history perfectly illustrate the potentially harmful effects of this dependency. Firstly, there is the closing down of several diamond buying offices in 2008, as described in section 2.1.1.3. The reduction of the number of buying offices, and consequently the number of collectors, as they depend on the buying offices’ pre-financing, had serious humanitarian consequences on local mining communities. Many miners fell out of work and were forced to cut their household budgets. On top of which, the remaining buying offices could offer lower prices as there was less competition.253

The impact of the global economic crisis is another illustration of risks involved in a high level of dependency on mining. The August 2008 price per carat of CFA 47,643, or 95 dollars, was less than half of the average price during the year 2000.254 The economic crisis and the closedown of several buying offices painfully coincided in 2008 and caused a serious cut in household budgets, which triggered food insecurity and malnutrition in the country’s mining communities. Even the southwestern region, which is relatively stable and secure, had to endure the resultant serious humanitarian impacts.255

Yet the crisis within the country’s diamond sector has made many people aware of the importance of diversification. Increasing numbers of people are willing to return to other economic activities such as agriculture and fishing in order to make more money and secure their own food supply.256 Such activities also serve to increase their resilience to external shocks.

Artisanal mining can sometimes also deter people more directly from other economic activities. The creation of an artisanal mining site and the accompanying property rights occasionally limit access to watercourses, land, and areas that were traditionally used for fishing and hunting.257

Diversification also offers an advantage in that sufficient economic and food-providing activities are carried out all year long. Since artisanal mining activities slow down during the rainy season, this complements the agricultural activities predominantly carried out during the rainy season. Vegetable farming, on the other hand, is only viable during the dry season when heavy rainfall does not threaten the plants.258 Fishing is mainly carried out in the dry season, and hunting in the rainy season.259

It must be said that motivating mining communities and individual miners to diversify their economic activities will require considerable external support. Miners who show willing to start one of the above-mentioned occupations require substantial technical capacity and initial investment.260

Within this logic, USAID launched the Post-Mining Income Generating Environmental Rehabilitation initiative (POMIGER) in 2010 as part of the PRADD project in the CAR. Through the transformation of exhausted mining sites into areas for fishing, vegetable farming and agroforestry, the project aims

250 Chupezi T.J., Ingram V. & Schure J. (2009), op. cit., p. 45.
251 Ibid., p. 24.
253 ICG (December 2010), op. cit., p. 7.
254 DeJong T. U. (March 2012), op. cit., p. 16.
255 Interview with OCHA Head of Office, Bangui, July 2012.
257 Mazalto M. (June 2009), op. cit., p. 46.
260 Mazalto M. (June 2009), op. cit., p.2.
to promote diversification of food and livelihood strategies and fight poverty and environmental degradation.\textsuperscript{261}

**Poverty trap**

The poverty trap is another major socio-economic issue linked to the CAR’s artisanal mining sector. In section 2.1.1.2., the asymmetric relationship between miners and collectors was described, alongside the resultant difficulty of miners in climbing the social ladder to escape poverty.

Only a handful of miners progress to become a collector; such a position requires capital and expertise. Furthermore it is a closed trading network with few openings for Central Africans; it has developed over the years based on trust between the collectors themselves, and collectors and the buying offices.\textsuperscript{262}

There are several other factors linked to artisanal mining that act as barriers against miners escaping poverty. Miners’ revenues are almost entirely spent on their daily necessities and those of their families; they rarely have an opportunity to save money or reinvest in order to increase productivity.\textsuperscript{263} Miners also often tend not to exhibit the most sparing spending habits; earnings are regularly spent on alcohol, cigarettes, cannabis and prostitutes.\textsuperscript{264} Yet if and when miners do intend to save money, there are no reliable ways to save money in mining camps.\textsuperscript{265}

Adding another layer of complexity, the mining camps that arise near productive mines tend to evolve into local inflated boom economies. Life can be particularly expensive, as the supply of consumer goods is costly and there is a high demand - something which is further boosted by incoming migrant workers who have been attracted by the mine’s potential yields.\textsuperscript{266}

When miners are asked how they can climb the social ladder, apparently they often reply that it is a matter of luck. On should be lucky to find a diamond that is big enough.\textsuperscript{267} It seems this attitude of resignation might be another disincentive to save or reinvest spare money.

Young people in mining areas are apparently “stuck” in the profession of artisanal mining. CIFOR’s 2009 field research on the TNS-landscape found that the role of the parents appears considerable in the CAR; almost 60% of miners had been initiated into the profession by their parents.\textsuperscript{268} A lack of schools and education in remote mining camps is another important clarifying factor as to why it is hard for these young men to opt for another livelihood strategy. Furthermore, child labour in the mines has already been reported, especially in the east.\textsuperscript{269}

### 2. Health issues linked to artisanal mining

Health issues related to the artisanal mining sector are frequent. This is not to say that the two are inevitably linked. Sensitisation, tighter control over the mining sector, and support for the miners could help to prevent most problems. Nonetheless, artisanal mining is heavy manual labour and, as such, will always be hard work with various physical consequences.

The most obvious health issues are the direct physical effects of mining. The hard work causes strained muscles, broken bones, hernias and exhaustion. Limited knowledge about shoring up pits creates the lurking risk of mines that collapse. Furthermore, long hours of wading through water make artisanal

\textsuperscript{261} DeJong T. U. (March 2012), op. cit., p. 3.
\textsuperscript{262} IPIS interview with USAID employees, Bangui, July 2012; ICG (December 2010), op. cit., p. 10.
\textsuperscript{263} Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. ix.
\textsuperscript{264} More detailed information on problematic spending habits of men in artisanal mining communities can be found in Cuvelier J., *Men, mines and masculinities: the lives and practices of artisanal miners in Lwambo (Katanga province, DR Congo)*, KU Leuven, 2011, Chapter 3.
\textsuperscript{265} ICG (December 2010), op. cit., p. 9.
\textsuperscript{266} IPIS interview with civil society representative, Bangui, July 2012; World Bank (November 2010), op. cit., p. 26.
\textsuperscript{268} Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. 27.
miners vulnerable to waterborne disease. Miners are exposed to these risks, and yet usually do not wear any safety equipment, such as hard hats, gloves and boots. 270

Diseases also have a considerable, albeit less direct, impact. Abandoned open pits and disrupted watercourses can create pools of stagnant water that serve as malaria mosquito breeding grounds. 271 Mining camp villagers are often also vulnerable to parasites as they have to drink from streams that are polluted by mining activities or by their own faeces. 272

Lastly, mining camps are remote and general living conditions feed into exposure to risk. Prostitution and sexually transmitted diseases often coincide. Families in these remote mining camps are cut off from health care due to a lack of medical practitioners. 273

Sadly, the situation is occasionally worsening; traders have spotted a business opportunity in the limited access to health care. Traders buy medicines in trading towns, and resell them to sick people in mining camps, without any medical knowledge. 274

Further exacerbating all these health issues is the fact that, as explained above, temporary artisanal mining camps often attract streams of migrant miners. These migrants further increase pressure on food supplies and poor water and sanitation facilities, worsening existing health problems. 275

3. Environmental issue linked to artisanal mining

Analysing artisanal mining inevitably entails concern for the environment. Nevertheless, if environmental issues receive sufficient attention and are effectively addressed, artisanal mining does not necessarily cause irreparable environmental damage, jeopardising the livelihoods of future generations.

However this understanding of environmental issues and the capacity to address them is often lacking in the CAR. For the moment, artisanal miners’ practices are definitely unsustainable. Field research carried out by CIFOR in 2009 in the TNS landscape showed that 53% of artisanal miners expressed the belief that gold and diamonds are infinite resources; exhaustion did not occur to them. Furthermore, two thirds of the miners did not believe that artisanal mining had a negative impact on the environment. 276 Those miners that do appear to understand the negative impact of their activities on the environment do not have the capacity or the willingness to address this. Their biggest concern is to feed their families.

As the country has a low population density, people often do not bother too much about leaving behind an area affected by artisanal mining activities, moving onto a new site without rehabilitating the one they left. The perception that there is sufficient land for the country’s people and the belief that nature will recover in the long term eases their minds. 277

The State’s lack of control over remote mining areas prevents it from being able to address the artisanal mining sector’s environmental issues. Initiatives such as USAID’s PRADD and POMIGER projects should therefore be welcomed, as they support the State in this massive challenge.

A key environmental issue is the impact of mining on watercourses. Water pollution and diversion of streams limits local populations’ access to clean water and disturbs fish breeding grounds. 278 Fishing catches consequently decrease, with serious repercussions to people's food supply. 279 Contamination of water in the CAR mainly involves siltation and sedimentation. Pollution by chemicals such as mercury, which is often used in small-scale gold extraction, is apparently not a significant

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270 ICG (December 2010), op. cit., p. 9; World Bank (November 2010), op. cit., p. 26; Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., pp. 42-43.
272 ICG (December 2010), op. cit., p. 9.
274 IPIS interview with an international NGO, Bangui, July 2012.
277 IPIS interview with civil society representative, Bangui, July 2012; Mazalto M. (June 2009), op. cit., pp. 43-44.
279 Mazalto M. (June 2009), op. cit., p. 68.
problem in the CAR. It is feared, however, that the influx of migrant miners might introduce the use of mercury more widely.

Deforestation is another environmental threat. Ongoing depletion of the most accessible minerals pushes miners deeper into the forests. Consequently trees are logged the make room for mining and agricultural activities near the mining camps. To complement their diet, households living in mining camps in forest areas often rely on poaching of wild animals.

However some claim that the environmental impact of artisanal mining on the CAR’s forests is limited, especially compared to the potential impact of large-scale industrial projects. As artisanal mining in the country involves mainly alluvial minerals, the activities are limited to areas along rivers. Large-scale cutting of trees is hardly an issue. As disruption often seems to be short-term and small-scale, regeneration would occur naturally. Impacts of individual artisanal mining activities are indeed much smaller and more localised than those of industrial mining. The cumulative impact, however, does pose the risk of increasing environmental degradation.

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280 Mazalto M. (June 2009), op. cit., p. 44; Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. 42; IPIS interview with a buying office representative, Bangui, July 2012.
283 IPIS interview with civil society representative, Bangui, July 2012; Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. ix.
284 IPIS interview with a buying office representative, Bangui, July 2012; Chupezi T. J., Ingram V. & Schure J. (2009), op. cit., p. 42.
Conclusion

The mining sector represents the CAR's third economic activity after agriculture and forestry and constitutes an important source of revenue for an estimated 600,000 persons in the country. Since independence, all mining has been carried out by artisanal miners, although AXMIN might start industrial gold extraction in 2014.

The country's mining sector is governed by its 2009 Mining Code and the accompanying regulations. Furthermore, the Environmental Code also has some authority over the mining sector. However, problems have arisen following several years' wait for the accompanying regulations to the Environmental Code. There is a lack of clarity in the sector and tensions have built between the Ministry of Mining and the Ministry of Environment. CAR's legislation also lacks attention to the socio-economic and environmental consequences of the artisanal mining sector and demands only weak 'public consultation' requirements for industrial miners.

Alongside the national regulation of the mining sector, there are several international initiatives that apply to the CAR and try to formalise its mining sector. These initiatives include the EITI, the Kimberley Process, ICGLR's certification mechanism, and the OECD's and American legislator's due diligence requirements. Not all of these initiatives are well-known in the country, yet they might have some consequences on the CAR's mining sector in the coming years. Therefore, it is important that the international community makes an effort to inform and sensitise all stakeholders within the CAR's mining sector about these initiatives.

Despite the fact that the CAR's artisanal supply chain is quite structured, the level of informality is sizeable. An estimated 30 percent of the country's diamonds and 95 percent of gold leaves the country secretly. Furthermore, no more than five to ten percent of miners are officially registered. This level of informality makes it all the more difficult to address a number of problematic issues linked to the country's mining sector.

However, it should be noted that there are other factors that feed into these issues. These root problems include corruption, a lack of willingness within the government, State service's lack of means and capacity to act, the vastness of the country, underdevelopment of the country, poverty, and the characteristics of the country's alluvial deposits.

In the above report, the mining sector's negative consequences within the country have been subdivided in three categories: socio-economic issues, health issues and environmental issues. Some of the issues that have been discussed are the poverty trap, a lack of education, a lack of diversification of sources of revenue, malnutrition, being cut-off from healthcare, physical consequences of mining, indirect diseases, water pollution, and disruption of fish breeding grounds.
# List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASM</td>
<td>Artisanal and Small-scale Mining</td>
</tr>
<tr>
<td>BECDOR</td>
<td>Bureau d’évaluation et de contrôle de diamant et d’or</td>
</tr>
<tr>
<td>CAR</td>
<td>Central African Republic</td>
</tr>
<tr>
<td>CFA</td>
<td>Communauté Financière Africaine</td>
</tr>
<tr>
<td>COMIGEM</td>
<td>Comptoir des Minéraux et Gemmes</td>
</tr>
<tr>
<td>CPJP</td>
<td>Convention des Patriotes pour la Justice et la Paix</td>
</tr>
<tr>
<td>DRC</td>
<td>Democratic Republic of the Congo</td>
</tr>
<tr>
<td>EIA</td>
<td>Environmental impact assessment</td>
</tr>
<tr>
<td>EITI</td>
<td>Extractive Industries Transparency Initiative</td>
</tr>
<tr>
<td>ESIA</td>
<td>Environmental social impact assessment</td>
</tr>
<tr>
<td>FPR</td>
<td>Front Populaire pour le Redressement</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>ICG</td>
<td>International Crisis Group</td>
</tr>
<tr>
<td>ICGLR</td>
<td>International Conference on the Great Lakes Region</td>
</tr>
<tr>
<td>IPIS</td>
<td>International Peace Information Service</td>
</tr>
<tr>
<td>KP</td>
<td>Kimberley Process</td>
</tr>
<tr>
<td>KPCS</td>
<td>Kimberley Process Certification Scheme</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>ORGEM</td>
<td>Office de Recherches Géologiques et d’Exploitation Minière</td>
</tr>
<tr>
<td>POMIGER</td>
<td>Post-Mining Income Generating Environmental Rehabilitation</td>
</tr>
<tr>
<td>PRADD</td>
<td>Property Rights and Artisanal Diamond Development Project</td>
</tr>
<tr>
<td>RCM</td>
<td>Regional Certification Mechanism</td>
</tr>
<tr>
<td>RINR</td>
<td>Regional Initiative on Natural Resources</td>
</tr>
<tr>
<td>SEC</td>
<td>Securities and Exchange Commission</td>
</tr>
<tr>
<td>TNS</td>
<td>Sangha Tri-national Landscape or Tri-National de la Sangha</td>
</tr>
<tr>
<td>UFDR</td>
<td>Union des Forces Démocratiques pour le Rassemblement</td>
</tr>
<tr>
<td>USAF</td>
<td>Unité Spéciale Anti-Fraude</td>
</tr>
</tbody>
</table>
CAR - Mineral deposits

IPIS 2012 (Sources: P.Rolin, BECDOR, IPIS, HDPT)
CAR - Mining permits

IPIS 2012 (Sources: DPER, HDPT, IPIS)
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   7.5 Coal  
   7.6 Diamonds  
8. Power Supply  
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   9.1 Road facilities  
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<td>KPMG’s footprint in Africa</td>
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1 Foreword

This publication seeks to highlight the policies that are affecting the investing activities in the mining sector.

It is a tough economic environment globally where commodity prices continue to be on downward trend, negatively impacting the performance of the mining sector in Zimbabwe. Companies and investors are now looking to participate in and develop projects that bring greater shareholder value. Mining ventures are typically highly risky projects consuming large amounts of capital. As such, they require careful planning and development necessitating employing highly skilled resources to successfully implement as various factors can derail such projects.

In this document, we consider the issues facing mining companies, the operating environment in Zimbabwe and what to consider when developing new mines or expanding existing mines. If you would like to discuss any of these topics in greater detail, please contact KPMG.

Yours sincerely

Craig Adamson
Partner – Energy and Natural Resources
## Country Snapshot

<table>
<thead>
<tr>
<th>Location</th>
<th>Southern Africa, bordered by South Africa (225 km), Zambia (797 km), Botswana (813 km) and Mozambique (1 231 km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>390 580 km²</td>
</tr>
<tr>
<td>Land</td>
<td>386 670 km²</td>
</tr>
<tr>
<td>Climate</td>
<td>Tropical, moderated by altitude</td>
</tr>
<tr>
<td>Rainy season</td>
<td>November to March</td>
</tr>
<tr>
<td>Mineral resources</td>
<td>Coal, chromium ores, asbestos, gold, nickel, copper, iron ore, zinc, vanadium, lithium, tin and platinum group of minerals</td>
</tr>
<tr>
<td>Population</td>
<td>14 229 541 (July 2015 est)</td>
</tr>
<tr>
<td>Age structure</td>
<td>0 - 14 years: 37.88%, 15 - 24 years: 21.65%, 25 - 54 years: 33.4%, 55 - 64 years: 3.57%</td>
</tr>
<tr>
<td>Population growth rate</td>
<td>2.21% (2015 est.)</td>
</tr>
<tr>
<td>Nationality</td>
<td>Zimbabwean</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>African 98% (Shona 82%, Ndebele 14%), others 2%</td>
</tr>
<tr>
<td>Religions</td>
<td>Syncretic 50%, Christian 25%, Indigenous 24%, Muslims and others 1%</td>
</tr>
<tr>
<td>Literacy</td>
<td>90%</td>
</tr>
<tr>
<td>Administration</td>
<td>Ten provinces</td>
</tr>
<tr>
<td>Government type</td>
<td>Parliamentary Democracy</td>
</tr>
<tr>
<td>Executive</td>
<td>Head of State and Government - President Robert Gabriel Mugabe</td>
</tr>
<tr>
<td>Legal system</td>
<td>Mixture of Roman-Dutch and English common law</td>
</tr>
<tr>
<td>Suffrage</td>
<td>18 years of age</td>
</tr>
<tr>
<td>Agricultural products</td>
<td>Tobacco, cotton, wheat, maize, sugarcane, coffee, tea, timber, flowers and vegetables</td>
</tr>
<tr>
<td>Industrial products</td>
<td>Minerals, wood, steel, food, plastic, textiles, chemicals, pharmaceuticals, cement, automobiles, detergents, beverages and tourism</td>
</tr>
<tr>
<td>Exports</td>
<td>Platinum, tobacco, cotton, gold, ferro-alloys, textiles and horticulture</td>
</tr>
<tr>
<td>Imports</td>
<td>Machinery, chemicals, information technology, vehicles, fuels and pesticides</td>
</tr>
</tbody>
</table>

*Source: CIA World factbook*
3 World Bank Rankings: Ease of Doing Business

Zimbabwe is ranked 171 among 189 countries covered under the World Bank Ease of Doing Business 2015 index. The country improved and moved one place up from its 2014 position.

The index tracks the ease with which it is possible to do business and trade. Zimbabwe scored better on some parameters such as obtaining credit (104) and electricity (153) and poorly on the rest of the parameters when compared to the 2014 rating.

The table below shows Zimbabwe’s ranking on various parameters in the World Bank Ease of Doing Business 2015 index.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>2015 Rank</th>
<th>2014 Rank</th>
<th>Change in rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting a business</td>
<td>180</td>
<td>177</td>
<td>-3</td>
</tr>
<tr>
<td>Dealing with construction permits</td>
<td>176</td>
<td>174</td>
<td>-2</td>
</tr>
<tr>
<td>Getting electricity</td>
<td>153</td>
<td>157</td>
<td>4</td>
</tr>
<tr>
<td>Registering property</td>
<td>94</td>
<td>95</td>
<td>1</td>
</tr>
<tr>
<td>Getting credit</td>
<td>104</td>
<td>147</td>
<td>43</td>
</tr>
<tr>
<td>Protecting investors</td>
<td>87</td>
<td>84</td>
<td>-3</td>
</tr>
<tr>
<td>Paying taxes</td>
<td>143</td>
<td>140</td>
<td>-3</td>
</tr>
<tr>
<td>Trading across borders</td>
<td>180</td>
<td>176</td>
<td>-4</td>
</tr>
<tr>
<td>Enforcing contracts</td>
<td>157</td>
<td>157</td>
<td>No change</td>
</tr>
<tr>
<td>Resolving insolvency</td>
<td>148</td>
<td>147</td>
<td>-1</td>
</tr>
</tbody>
</table>

The Government has acknowledged that it will respond to this issue and has started initiatives designed at improving the country’s ranking. As a means of improving the turnaround time in approving the investment process, currently investors who are in the process of making business enquires will be handled by an Inter-Agency Platform coordinated by the office of the President and Cabinet to avoid unnecessary bureaucracy.

There are also plans to amend the Companies Act (Chapter 24:03) so as to create a conducive investment climate. The Government is reported to be working on transforming the Zimbabwe Investment Authority (“ZIA”) into a full service Investment Promotion Authority from a simple licensing and facilitating board by the end of 2015.

The transformation will include the operationalisation of the One-Stop-Shop (“OSS”) investment centre including the appointment of a new board and an overhaul of ZIA’s structure for it to effectively facilitate investment. The OSS was launched in December 2010 but failed to carry out its mandate due to challenges related to primarily administrative issues. With the transformation of ZIA, it is expected that the OSS will work more effectively.
3.1 FRASER INSTITUTE RANKINGS

Zimbabwe was ranked 150 of the 152 countries covered in the Fraser Institute’s Economic Freedom of the World 2014 Report with a score of 4.92 points on a scale of 10.

The annual report ranks 152 countries around the world, based on their policies that encourage 42 different economic measures in the following areas:

- Size of Government;
- Legal System and Security of Property Rights;
- Sound Money;
- Freedom to Trade Internationally; and
- Regulation.

3.2 INBOUND AND OUTBOUND INVESTMENT

The table below shows Zimbabwe’s Foreign Direct Investments (“FDI”) flows into and out of the country:

![Graph showing FDI Flows](image)

Source: United Nations Conference on Trade and Development
FDI inflows in the country have been growing since 2009, albeit at a slow rate when compared to its regional counterparts due to its perceived country risk rating. In 2014, Zimbabwe received US$545 million in FDI inflows compared to Zambia (US$2.4 billion), Mozambique (US$4.9 billion) and South Africa (US$5.7 billion).

ZIA approved projects worth US$1.1 billion in 2014 and US$971 million for the half year ended 30 June 2015, indicating the increasing number of investors who still have an appetite for investing in Zimbabwe.

Zimbabwe’s FDI outflows have not been very significant and, in 2009, there were no investments that occurred.

The country has been intensifying efforts to attract FDI, which the economy is in desperate need of. One of the efforts relates to the Staff Monitored Programme (“SMP”) with the International Monetary Fund (“IMF”), wherein IMF monitors the implementation of the country’s economic programme. A second review of the 15 month SMP (October 2014 to December 2015), was positive and revealed that the Zimbabwean authorities had moved forward with their reform programme, despite increasing economic and financial difficulties. IMF also noted that the Government had intensified efforts toward reengagement with the international financial community.
4 \textbf{ECONOMIC ENVIRONMENT}

The Zimbabwe economy has been facing macroeconomic challenges and the Minister of Finance and Economic Development in the 2015 Mid-term Fiscal Review revised downwards the projected economic growth rate for 2015 from 3.2\% to 1.5\% due to the following reasons:

- Low FDI;
- Company closures and employee retrenchments;
- Tight liquidity challenges attributable to low exports of minerals and tobacco; and
- Low production due to high interest rates prevalent in the economy.

4.1 \textbf{INFLATION}

Zimbabwe continues to experience deflation on the back of depressed aggregate demand in the economy. Approximately 40\% of Zimbabwe’s imports emanate from South Africa and imported goods continue to flood the market due to the strengthening of the US$ against the South African Rand, the currency of the country’s major trading partner.

Year on year inflation as at June 2015 equated to -2.8\% and price declines are expected to continue during the remaining part of the year. The projected inflation rate for the rest of 2015 is expected to be -2\% compared to the initial projection of -1\%. 
4.2 MINING SECTOR REVIEW

The mining sector is a strategic industry and is expected to aid in the recovery of the economy through value addition and beneficiation.

Mining accounts for approximately 52% of the country’s export earnings. Since 2009, export earnings have accounted for, on average, 61% of the country’s liquidity. The mining sector offers significant investment opportunities.

The table below shows mineral production for the six months from January to June 2015:

<table>
<thead>
<tr>
<th>Mineral</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Cumulative to June</th>
<th>2015 Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chrome</td>
<td>18 123</td>
<td>23 894</td>
<td>15 273</td>
<td>8 956</td>
<td>13 795</td>
<td>16 008</td>
<td>96 049</td>
<td>500 000</td>
</tr>
<tr>
<td>Coal</td>
<td>570 005</td>
<td>489 801</td>
<td>320 836</td>
<td>460 214</td>
<td>460 214</td>
<td>460 214</td>
<td>2 761 284</td>
<td>7 800 000</td>
</tr>
<tr>
<td>Cobalt</td>
<td>26</td>
<td>32</td>
<td>37</td>
<td>27</td>
<td>30</td>
<td>31</td>
<td>186</td>
<td>344</td>
</tr>
<tr>
<td>Copper</td>
<td>707</td>
<td>703</td>
<td>697</td>
<td>695</td>
<td>624</td>
<td>685</td>
<td>4 111</td>
<td>7 942</td>
</tr>
<tr>
<td>Gold</td>
<td>1 231</td>
<td>1 293</td>
<td>1 656</td>
<td>1 479</td>
<td>1 465</td>
<td>1 669</td>
<td>8 794</td>
<td>17 500</td>
</tr>
<tr>
<td>Iridium</td>
<td>39</td>
<td>39</td>
<td>37</td>
<td>40</td>
<td>34</td>
<td>38</td>
<td>227</td>
<td>523</td>
</tr>
<tr>
<td>Nickel</td>
<td>1 222</td>
<td>1 502</td>
<td>1 716</td>
<td>1 282</td>
<td>1 293</td>
<td>1 403</td>
<td>8 419</td>
<td>17 000</td>
</tr>
<tr>
<td>Palladium</td>
<td>804</td>
<td>824</td>
<td>767</td>
<td>819</td>
<td>693</td>
<td>781</td>
<td>4 688</td>
<td>9 600</td>
</tr>
<tr>
<td>Platinum</td>
<td>1 022</td>
<td>1 042</td>
<td>955</td>
<td>1 031</td>
<td>869</td>
<td>984</td>
<td>5 903</td>
<td>12 000</td>
</tr>
<tr>
<td>Rhodium</td>
<td>91</td>
<td>94</td>
<td>87</td>
<td>91</td>
<td>78</td>
<td>88</td>
<td>529</td>
<td>1 096</td>
</tr>
<tr>
<td>Ruthenium</td>
<td>81</td>
<td>82</td>
<td>79</td>
<td>83</td>
<td>70</td>
<td>79</td>
<td>475</td>
<td>945</td>
</tr>
<tr>
<td>Diamonds</td>
<td>194 639</td>
<td>206 849</td>
<td>259 426</td>
<td>299 383</td>
<td>240 074</td>
<td>240 074</td>
<td>1 440 445</td>
<td>3 500 000</td>
</tr>
</tbody>
</table>

Source: 2015 Mid-term Fiscal Policy Review

The mining sector is projected to grow by more than 3.5%, up from the initial projection of 3.1% for the year to 31 December 2015. Platinum and gold are the largest contributors to revenues in the mining sector.

Zimbabwe’s dependency on raw mineral exports makes it vulnerable to depressed commodity prices and affects its growth potential. Global commodity prices have been on a downward trend since their peak in February 2011 due to weakening metal and energy prices and sluggish economic recovery in advanced economies and subdued economic activity in both emerging and developing economies. The commodity prices are projected to continue on the downward trend in 2015, posing potential risk to the country’s export of minerals, such as gold and platinum.

Mining continues to be affected by a large pool of factors that hinder growth and efficiency. Notably these factors include power, transport and access to funding.
5 Regulatory Environment

5.1 Legislation

The Mines and Mineral Act (Chapter 21:05) ("The Minerals Act") regulates the mining sector and rights to minerals are vested in the President.

<table>
<thead>
<tr>
<th>Acquisition and registration of mining rights</th>
<th>The Act deals with prospecting, the rights and obligations of prospectors, the rights of farmers, the pegging and registering of mining locations and a few other miscellaneous items which are related to these.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospecting Licences (Section 20)</td>
<td>Any person who is a permanent resident of Zimbabwe may take out a prospecting licence at any Mining Commissioner’s office.</td>
</tr>
</tbody>
</table>
| Rights of prospecting and pegging conferred by a Prospecting Licence (Section 27 and 29) | ■ Right to prospect and search for any minerals on land open to prospecting and pegging but not of removing ore, disposing of any mineral discovered, save for the bona fide purposes of having it assayed.  
■ The right to peg one block of other gold or base mineral.  
■ No drilling or excavation work, whether at the surface or underground, should take place at this stage.  
■ The right to take free of charge for primary purposes any public or private water from land not closed to prospecting and pegging only in so far as this does not interfere with the use of water for primary purposes by the farmer.  
■ The right to use dead wood for domestic use from the interested area, arrangement must be made in advance with the farmer for the payment of the wood.  
■ The right to erect temporary accommodation for the miner and workers in consultation with the farmer. |
| Obligations of the Prospecting Licence Holder | ■ Leave the area in the original state.  
■ Carry out prospecting in a good and work man like manner.  
■ On leaving the area fill in all trenches and excavations made.  
■ Appoint a responsible person to be in charge of operations if owner is absent for more than 24 hours. |
| Ground not open to Prospecting and Pegging (Section 31) | As the landowner has his business to carry out, the prospecting operations are not allowed to interfere and thus this section states the areas that are closed to prospecting and pegging.  
■ Within 450 metres of the Principal Homestead or the site of the intended homestead.  
■ Within 90 metres of any area set aside on which housing constructed of brick or concrete has been erected for occupation by farm employees, if the total value of such housing is not less than US$5 000.  
■ Within 90 metres of any permanent cattle dip tank or spray race.  
■ Upon any land under cultivation or within fifteen metres thereof.  
■ Within 9 metres of any other permanent improvement bona fide farm building. |
The Minerals Act provides for other entry points into the mining industry in Zimbabwe and this can be done through transfers, tributes and options. These have to be registered with the Provincial Mining Director.

There are other regulatory bodies put in place to assist facilitate mining activities, such as the Environment Management Agency (“EMA”). The Environmental Management Act (Chapter 20:27) was enacted to prohibit or regulate the impact of mining activities on the environment. Therefore, all mining projects are required to prepare an Environmental Impact Assessment report that EMA must approve.

An application to EMA for a licence is made each year and the application fee is paid in the first quarter every year. These licences differ and they include a waste licence, emission licence, an effluent discharge licence and hazardous waste discharge license.

The objective of the Indigenisation and Economic Empowerment Act (Chapter 14:33) (“Indigenisation Act”) of 2008 is to ensure that every business with a net asset value of US$1 (in respect of mining companies) or more disposes a controlling interest of not less than 51% of shares or interest to indigenous Zimbabweans within five years.

A number of mining companies have submitted their indigenisation plans to the Ministry of Indigenisation, Youth and Economic Empowerment for approval and have had their plans approved. The indigenisation legislation, although unchanged, appears to have been eased in some instances, as now foreign owned companies can negotiate with the relevant line ministry for approval of their indigenisation plans that may be at variance with those envisaged in the Indigenisation Act.
### 5.2 Acquisition of Mining Licence

This table shows the different mining titles and application requirements.

<table>
<thead>
<tr>
<th>Title (part of the Mines and Minerals Act)</th>
<th>Area</th>
<th>Minerals</th>
<th>Applicant requirement</th>
<th>Length of tenure</th>
<th>Processing period</th>
</tr>
</thead>
</table>
| Ordinary/special prospecting licence (IV) | 10ha precious stones 25ha base metal | All | - Any person above 18 years permanently resident in Zimbabwe  
- A company duly registered in Zimbabwe. | Two years | Instant (over the counter) |
| Exclusive Prospecting Orders (VI) | 65 000ha Any defined area (including reserved) | All except coal | Any person | Initial period of three years Renewable once | Three months |
| Mining lease (VIII) | Amalgamation of contiguous mining location | All | Holder of registered mining location | Perpetual Annual renewal | Three months |
| Special mining lease (IX) | As mining lease | All | - Holder of registered mining location  
- Investment of US$100 million  
- Mine output expected for export. | Perpetual Annual renewal | Three months |
| Special Grant (XIX) | Any defined area | All | - Any person  
- Area to be situated in reserved ground. | Perpetual Annual renewal | Two months |
| Special Grant under Part XX of Act (21:05) | 20 000ha for coal, 100 000ha for coal bed methane and natural gas | Coal, mineral oils, natural gas | - Any person  
- Area to be situated in reserved ground  
- Intention to mine coal, mineral oils, natural gas  
- Full information on financial status and technical expertise. | Perpetual Annual renewal | Three months |
6 Taxation

The corporate taxation of mining activities is covered by specific sections in the Income Tax Act (Chapter 23:06) which are different from those that cover other economic activities.

The table below shows the tax rates relevant to general mining companies.

<table>
<thead>
<tr>
<th>Company tax (general mining)</th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining companies and mining trusts</td>
<td>25.75%</td>
<td>25.75%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Mineral royalty rates

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold - small scale gold miners</td>
<td>1%</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>Gold - other miners</td>
<td>5%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Platinum</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Diamonds</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Precious stones</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Other precious stones</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Base metals</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Industrial metals</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Coalbed methane</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Coal</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Chrome</td>
<td>5%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Capital allowances under the new mine method (3)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining equipment and related capital expenditure</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Pre-production capital expenditure</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Environmental restoration costs/mining rehabilitation expenditure</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Value Added Tax (4)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining companies and mining trusts</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Withholding taxes

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-resident shareholders tax for listed companies</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Non-resident shareholders tax for unlisted companies</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Resident shareholders tax for listed companies</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Resident shareholders tax for unlisted companies</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Fees paid to non-residents</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Royalties paid to non-residents</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
</tbody>
</table>
Table 3 below contains the tax rates relevant to companies with a special mining lease and provides a brief on how each category of tax or tax deduction is to be treated.

<table>
<thead>
<tr>
<th>Company tax (special mining lease)</th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral royalty rates - same as the general mining rates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special mining lease</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Other special incentives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital allowances under new mine method[1]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mining equipment and related capital expenditure</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Environmental rehabilitation expenditure</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Pre-production capital expenditure</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Pre-production exploration costs</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Other special incentives - same as general mining rates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Added Tax - same as general mining rates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withholding tax - same as general mining rates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Gains Tax - same as general mining rates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other special incentives - same as general mining rates</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 1
- Additional profits tax may be chargeable on the income earned from a special mining lease. The additional profits tax is computed based on the net cash position where the net cash position is calculated based on specific income and expenditure of the entity and this additional profits tax may result in total taxes paid being more than 25%. This additional tax is calculated according to the 23rd Schedule of the Income Tax Act (Chapter 23:06).

Note 2
- Mining royalties are not a tax deductible expense.
- Income earned by expatriates in Zimbabwe is taxable in Zimbabwe.

Note 3
- The Income Tax Act (Chapter 23:06) provides three methods by which capital allowances can be claimed. These are the new mine, life of mine and mixed mine methods. Under the new mine method, pre-production expenditure (both capital and revenue) is accumulated and claimed in full in the year production commences. Thereafter, subsequent capital expenditure is claimed in full the year in which it is incurred. The capital allowances included in the table above on capital expenditure
are based on the assumption that the mining company elects to claim such allowances based on the new mine method. This method results in the maximum capital allowances being claimed in the earlier years of production.

Under the life of mine method, accumulated capital expenditure is claimed over the estimated remaining years considering the life of the mine. The estimated life of mine is required to be reassessed annually and the maximum years are prescribed based on the minerals being mined as illustrated in the table below:

<table>
<thead>
<tr>
<th>Mineral mined by the entity</th>
<th>Maximum estimated life of the mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead or Zinc</td>
<td>10 years</td>
</tr>
<tr>
<td>Iron</td>
<td>5 years</td>
</tr>
<tr>
<td>Other mines</td>
<td>20 years</td>
</tr>
</tbody>
</table>

The mixed method allows pre-production capital expenditure to be claimed over the estimated life of mine with subsequent capital expenditure being claimed in the year it is incurred.

The capital allowances claimed under any one of these methods is restricted in the following cases:

- Passenger motor vehicles – cost limited to US$10 000 which is the case with other companies.
- Staff housing for employees at a school or hospital at the mine are each limited to US$50 000.
- Expenditure that is incurred for staff housing for employees that work on a mine is not limited.
- The building costs of a school, hospital or nursing home at the mine are each limited to US$50 000.
- Shareholders housing is limited to US$10 000.

**Note 4**

- Value Added Tax (VAT) on the importation of goods will be calculated on the value for duty purposes plus any duty levied in respect of the importation of such goods.
- VAT on export of beneficiated chrome has been suspended, effective 1 January 2015.
- VAT on the export of beneficiated platinum and rough diamonds has been suspended, effective 1 January 2015.
7  **KEY COMMODITIES IN ZIMBABWE — PRODUCTION & RESERVES**

Zimbabwe has 40 known mineable resources, dominated by two prominent geological features, namely the Great Dyke and the ancient greenstone belts. The Great Dyke of Zimbabwe also has the second largest deposits of platinum group of metals in the world after the Bushveld Complex in South Africa. Being home to some of the major metals of the world, Zimbabwe’s key commodities include gold, diamonds, platinum group metals, nickel, coal and chrome.

7.1  **GOLD**

At least 95% of Zimbabwe’s total gold production has been derived from orogenic lode-gold style mineralisation, which occurs within many of the greenstone belts. In around half of the known deposits, the host rocks are not mafic volcanic but ultramafic and banded iron formations. In lode-gold deposits, gold and gold bearing sulphide mineralisation is present in quartz filled shear zones.

The graph shows the local production statistics for gold since 2009:

![Gold Production Graph](image)

Gold remains a significant contributor to the economy’s export earnings, being second after platinum. Cumulative output for the six months to June 2015 was 8 794 kgs and the 2015 projected output was revised upwards to 17 500 kgs from the initial projections of 16 000 kgs on the back of improved deliveries by small scale miners and primary producers.

Small scale miners have the potential to increase total gold output in the economy as they produced 3.1 tonnes in the first half of 2015 from the 1 tonne realised in the comparable period last year. The major areas of concern hindering their output capacity are yet to be addressed, which include access to finance, obsolete technology and inconsistent licencing requirements. To boost their output, royalties for small scale miners has been reduced from 3% to 1%.

7.2 PLATINUM GROUP METALS ("PGM")

Zimbabwe hosts the second largest known platinum reserves in the world, after South Africa, on the Great Dyke. The Great Dyke is a sinuous, layered, mafic, ultramafic intrusion. It is 550 km long and has a width ranging between 4 km and 11 km. The Great Dyke consists of four geological complexes, namely Msengezi, Hartley, Selikwe and Wedza. The Hartley Complex is by far the largest and contains approximately 80% of Zimbabwe’s total PGM resources. Resources are estimated to be 2.8 billion tonnes.

There are three platinum miners, namely Zimplats Holdings Limited ("Zimplats"), Mimosa Mining Company (Private) Limited and Unki Mines (Private) Limited.

The graph below shows the local production statistics for platinum since 2009:

Output for platinum continues to be weighed down by the closure of Bimha Mine, Zimplats largest underground mine (estimated 15% decline in the country’s platinum output compared to envisaged levels prior to closure of mine)\(^1\) as well as subdued international prices.

Moreover, during the first half of 2015, platinum output declined to 5.9 tonnes, compared to 6.4 tonnes recorded during the same period in 2014.

Zimplats plans to refurbish its old base metal refinery ("BMR") at its Selous Metallurgical Complex near Chegutu to further beneficiate from current final product of converter matte in line with Governments plan to encourage miners to value add and beneficiate. The feasibility studies were completed and the project commission is planned to commence in July 2016 at an estimated cost of approximately US$131 million.

\(^1\) 2015 National Budget
7.3  NICKEL

Production of nickel takes place at various mines located on the greenstone belt and there are more than 30 known deposits of nickel in Zimbabwe. Zimbabwe’s nickel sulphide endowment includes a variety of komatiite and mafic rock.

Local production statistics are shown on the graph below:

![Graph showing nickel production](image)

Nickel production output was initially estimated at 16,760 tonnes in the 2015 National Budget but was subsequently revised upwards to 17,000 tonnes, mainly from increased production at Bindura Nickel Corporation Limited (BNC)’s operations, which is the major producer of nickel in the country. However, BNC and other nickel producers in the country are under severe pressure due to low nickel prices on the global market which in turn is affecting profitability.

BNC undertook a US$20 million bond issue to restart the Trojan Mine smelter in order to beneficiate its nickel concentrate.

The closure of Bimha Mine has also negatively affected the overall growth of nickel production in that the Bimha Mine was the second largest contributor to nickel output in the country after BNC.
7.4 CHROME

Zimbabwe hosts approximately 80% of the world’s metallurgical chromite which occurs in two distinct geological environments, namely the Great Dyke and greenstone belts. With more than 4 000 registered chromite claims around Zimbabwe, the resource grade ranges between 42% and 48%.

The projected chrome output was revised downwards from the initial 700 000 tonnes to 500 000 tonnes for the year to 31 December 2015 due to low global market prices for ferrochrome.

Details of the local production statistics are shown on the graph below.

To boost chrome production and exports, the Government of Zimbabwe removed the ban that was set for the export of chrome ore in 2011 which was instituted as a means of encouraging local beneficiation and value addition of chrome ore. However, the ban did not result in anticipated additional smelting operations as envisaged due to lack of efficient and modern technology for processing chrome ore to ferrochrome and depressed international chrome prices, among other factors.

The lifting of the ban will allow licenced chrome smelters to export up to 30 million tonnes of chrome ore (lumpy, fines and concentrates) over and above the current export of processed ferrochrome.

The Government has set up a Special Purpose Vehicle (“SPV”), called Apple Big Investments (Private) Limited, to facilitate the purchase of chrome ore from small scale chrome producers and enhance the national output. The SPV is comprised of the Ministry of Mines and Mining Development, Reserve Bank of Zimbabwe (“RBZ”), Minerals Marketing Corporation of Zimbabwe (“MMCZ”) and the Zimbabwe Revenue Authority (“ZIMRA”).

The major chrome mining companies in the country are Zimasco (Private) Limited and Zimbabwe Alloys Chrome (Private) Limited.
7.5 COAL

Zimbabwe hosts the largest coal reserves in the Lower Karoo rocks of the mid-Zambezi Basin and the Save-Limpopo basin. Over 29 localities are known with estimated resources of over 12 billion tonnes. These coalfields include Sengwa coalfields near Gokwe, and Mkwasine coalfield.

The coal produced is split into coal peas, coal cobbles, coal fines and coking coal.

Coal production is shown on the graph below.

In the past, Zimbabwe used to produce an output of over 5 million tonnes annually which, however, declined to an average of 3.3 million tonnes annually from 2002. Cumulative production from January to June 2015 amounted to 2.8 million tonnes compared to 3.2 million tonnes achieved in 2014.

The industry is affected by antiquated equipment but output is expected to increase over average levels to 7.8 million tonnes by the end of 2015 due to the recent recapitalisation of Hwange Colliery Company Limited (“HCCL”) with the acquisition/installation of equipment worth in excess of US$13 million. Of this amount, equipment worth US$12.7 million had been received and installed as at 19 June 2015.

HCCL and Makomo Resources (Private) Limited are the major players in the coal extraction industry.
7.6 DIAMONDS

Diamonds mined in Zimbabwe are mainly alluvial white diamonds. The first significant diamond site was discovered at Murowa in south-central Zimbabwe in 1997, some 400 km east of Harare. Diamonds were also discovered in 2006 in the Chiadzwa area of Marange District. Some reserves were also found in the Binga and Masvingo area.

Local production statistics are shown in the table below:

The alluvial diamonds have been significantly depleted leading to lower levels of diamond output. Cumulative output from January to June 2015 amounted to 1.44 million carats against an annual target of 3.5 million carats which was revised downwards from the initial projection of 6.5 million carats mainly attributable to the depletion of alluvial diamonds and now only conglomerates remain which require significant capital investment for underground mining.

The Government is working towards consolidating the diamond mining companies in order to streamline the number of companies operating in the sector. The objective is to enhance oversight, transparency and accountability in the diamond sector.

Some of the major diamond mining companies in Zimbabwe include Murowa Diamonds (Private) Limited, Mbada Diamonds (Private) Limited and Marange Resources (Private) Limited, amongst others.
The Zimbabwe Electricity Supply Authority (“ZESA”) is a state controlled producer and distributor of electricity in the country. ZESA has four subsidiaries which include Zimbabwe Power Company (Private) Limited (“ZPC”), Zimbabwe Transmission and Distribution Company (Private) Limited (“ZETDC”), ZESA Enterprises (Private) Limited (“ZENT”) and Powertel Communications (Private) Limited.

ZPC’s mandate is for electricity generation while ZETDC is responsible for transmission and distribution. Currently, Zimbabwe generates an average of 1 100 megawatts (“MW”) against a peak demand of 2 500 MW. To augment the locally generated power, Zimbabwe has power purchase agreements with neighbouring countries, including Mozambique.

To fill this gap, several projects have been embarked on. ZPC has commenced work on Kariba South extension which is expected to result in additional capacity of 300 MW. Rehabilitation work has been completed at Hwange Power station and the construction of Hwange 7 and 8 is awaiting financial closure. If successful, the project will have the capacity to add 600 MW to the current installed capacity of 920 MW. There are also other projects which are in the early stages of development. These include the Batoka Gorge hydro power project for which feasibility studies have been carried out. The project is on the Zambezi river, downstream from Victoria Falls, and has the capacity to produce 1 600 MW. The project will be implemented under a special purpose vehicle to be formed by the Zambezi River Authority (“ZRA”).

Power generation as at 21 September 2015 was low at 984 MW against an installed capacity of 1 910 MW and is depicted below.

![Power Generation Chart]

Source: ZPC as at 21/09/15
9 Infrastructure Development

Zimbabwe is a landlocked country which is strategically positioned linking other countries in the region, such as South Africa, Zambia, Malawi, Mozambique, Botswana and Tanzania. Infrastructure development and upgrade has been slow in Zimbabwe owing to the economic challenges which the country has been facing over the past 15 years. Infrastructure development has since been identified by Government as a priority area due to its ‘knock on effects’ on the overall performance of the economy.

Most of the infrastructure projects currently underway are being financed by debt mainly from China, the African Development Bank (“AfDB”) and other fund providers. The limited funding from Government continues to be an impediment to the anticipated growth within the infrastructure sector of the economy.

9.1 Road Facilities

The country mainly relies on road transport as a major mode of transportation. Zimbabwe also links the Southern Africa region with some regional trunk roads. The road network within the country has become dilapidated owing to lack of maintenance. Recently, Zimbabwe completed the rehabilitation and resurfacing of the Plumtree to Mutare highway which had deteriorated to very poor standards. This is a critical road network as it links two major cities in the country and it also runs along the Great Dyke, linking major mining towns. This road network also links Zimbabwe to two neighbouring countries, Botswana and Mozambique.

Another project that is expected to commence in the near future is the dualisation of the Harare-Beitbridge highway which is also a link to one of Zimbabwe’s major trading partners, South Africa.

9.2 Rail Network

Given the large variety of minerals that are mined in Zimbabwe, the country has traditionally relied on rail transport for the movement of bulk goods within the country and to the sea ports of Beira and Maputo in Mozambique, Dar es Salam in Tanzania as well as to South Africa and Botswana. The National Railways of Zimbabwe (“NRZ”), a wholly owned Government entity, is a provider of rail services in the country. All mining areas and towns are well linked to the national rail network but the only concern is the deterioration in the quality of the railway system as some of the sections are more than thirty years old. The use of alternative means of transport for bulk goods has had an impact on the cost structure of many companies as the alternatives are generally more expensive than rail. According to the national budget of 2014/2015, the NRZ is in need of US$653 million for both network maintenance and upgrade of locomotives.

9.3 Water and Sanitation

The Zimbabwe National Water Authority (“ZINWA”) is the body that is responsible for water resources in the country and is wholly owned by the Government. 73% of the population in Zimbabwe have access to safe water and 60% to improved sanitation facilities. Funds have been invested in the construction of dams and improving water transport mechanisms to enhance water supply in many of the country’s regions for mining and agriculture, and for all industrial and domestic use.
9.4 ICT

Zimbabwe has a very strong ICT sector that is comprised of mainly private players providing fast internet, mobile telecommunications and fixed telecommunications. The liberalisation in this sector has been instrumental in attracting private sector investment making it a key contributor to economic growth. Zimbabwe’s ICT sector is one of the fastest growing compared to those of other countries in the region.

The Government, through the Ministry of Information, Communication and Technology, Postal and Courier Services (“ICT”), intends to create a knowledge based society. The following projects are being undertaken as a result:

- Construction and installation of ICT laboratories in all schools;
- Construction of community information centres;
- Installation of communication infrastructure (connecting to the undersea cable);
- E-government;
- E-health; and
- Review of ICT policy framework and development of other sector policies.

Over the last few years, there has been increased activity in the sector with projects to improve access to broadband. This has led to Zimbabwe being connected to the rest of the world through fibre optic cables that provide faster, cheaper and more reliable broadband and internet services. Major players in this sector include Liquid Telecom (Private) Limited (“Liquid Telecom”), TelOne (Private) Limited and Powertel. Liquid Telecom has invested more than US$150 million into its fibre optic project and has laid cables that span more than 10 000 km in Zimbabwe alone.

9.5 MANUFACTURING

Zimbabwe traditionally has been able to manufacture most of the goods consumed locally due to import substitution policies adopted during the UDI era. It is against this background that the country had one of the most diversified and integrated manufacturing sectors in sub-Saharan Africa.

The country’s competencies in manufacturing have since been eroded over the past 15 years with key industries haemorrhaging due to the use of antiquated machinery and failure to compete against imported goods.

Capacity utilisation had fallen to an all-time low in 2008 which was estimated to be around 10%. A rebound was realised in 2009 on the back of the introduction of the multiple currency regime by the inclusive Government.

The Confederation of Zimbabwe Industries (CZI) State of the Manufacturing Sector Survey estimated capacity utilisation at 36.3% for 2014. The CZI snap survey covering January to May 2015, indicated that capacity utilisation had increased to 39.15%. However, the sector continues to be affected by challenges, such as power shortages, obsolete technology and an influx of imported and cheaper products from South Africa and China.
10 MINING PROSPECTS IN ZIMBABWE

10.1 VAST MINERAL RESOURCES

Zimbabwe has 40 known mineable resources, dominated by two prominent geological features, namely the Great Dyke and the ancient greenstone belts. The Great Dyke of Zimbabwe also has the second largest deposits of platinum group metals in the world after the Bushveld Complex in South Africa.

This table shows the estimated resources for Zimbabwe.

<table>
<thead>
<tr>
<th>Mineral</th>
<th>Description</th>
<th>Estimated resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>There are over 4 000 recorded gold deposits, nearly all of them are located on ancient rocks. More than 90% of gold deposits are associated with the greenstones. Other gold deposits occur in the Limpopo Mobile Belt in the south of the country and in the Proterozoic Piriwiri rocks in the northwest of the country.</td>
<td>13 million tonnes</td>
</tr>
<tr>
<td>Coal</td>
<td>Zimbabwe hosts the largest coal reserves in the Lower Karoo rocks of the mid Zambezi Basin and the Save-Limpopo basin.</td>
<td>&gt;12 billion tonnes on over 29 coal localities</td>
</tr>
<tr>
<td>Platinum Group Metals (PGM)</td>
<td>Zimbabwe hosts the second largest PGM resource in the world, after South Africa, on the Great Dyke, which stretches up to 550 km. PGM comprises of platinum, palladium and rhodium.</td>
<td>2.8 billion tonnes</td>
</tr>
<tr>
<td>Chrome</td>
<td>Zimbabwe hosts about 80% of the world’s resources of metallurgical chromite. The chrome ore occurs in two distinct geological environments, namely the Great Dyke and the greenstone belts.</td>
<td>10 billion tonnes</td>
</tr>
<tr>
<td>Nickel</td>
<td>Zimbabwe’s nickel sulphide endowment includes a variety of komatite and mafic intrusion-hosted deposits.</td>
<td>761 000 tonnes</td>
</tr>
<tr>
<td>Copper</td>
<td>Over 70 known deposits in Zimbabwe have produced copper as the primary or secondary products. The main producing area has been the Magondi basin (located in the north-western part of the country covering Chinhoyi and Mhangura) in an area which stretches over 150 km. Similar copper deposits are found in the south-eastern part of the country in the Umkondo Basin. Several copper prospects also occur in greenbelts.</td>
<td>5.2 million tonnes</td>
</tr>
<tr>
<td>Iron ore</td>
<td>Iron ore deposits are associated with banded ironstone formations in greenstone belts. The most important deposits with high-grade ore are the Buchwa and Ripple Creek. Other significant ironstone deposits include the huge Mwanesi deposit west of Chivhu and Nyuni near Masvingo. Manyoka, Mongula and several similar deposits in the Limpopo Mobile Belt are also important deposits.</td>
<td>30 billion tonnes</td>
</tr>
<tr>
<td>Pegmatite</td>
<td>Usually found on the edges of greenstone and in metamorphic belts. These have a variety of minerals including tantalite, tin and wolframite, beryl, mica, feldspar and gemstones, such as Resources not ascertained</td>
<td>Resources not ascertained</td>
</tr>
<tr>
<td>Mineral</td>
<td>Description</td>
<td>Estimated resources</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Dimension stones</td>
<td>The most well known dimension stone in Zimbabwe is black granite, plentiful in the north-eastern part of the country. Examples of dimension stones are granites, gneisses, migmatites, gabbro-norites, dolerite, marbles and quartzites.</td>
<td>Resources not ascertained</td>
</tr>
<tr>
<td>Diamonds</td>
<td>Economic kimberlites are commonly found in the ancient cratons such as the Kaapvaal, the Siberia, the Slave and the Congo. With similar geology to these areas, the well-exposed Zimbabwe craton presents vast opportunities for kimberlitic diamond discoveries. The recent discovery of significant placer diamond deposits at Chidzwa points to significant potential in ancient basins on the edges of the craton. If the deposits are mined extensively, Zimbabwe has the potential to produce approximately 25% of the world’s diamonds.</td>
<td>16.5 million tonnes</td>
</tr>
<tr>
<td>Coal Bed Methane</td>
<td>Vast resources of CBM were discovered in Matebeleland north, which is to the western side of the country. Exploration can be through partnerships with Government institutions, like Zimbabwe Mining Development Corporation (ZMDC) which was granted special grants to explore and produce CBM. Hwange Colliery Company Limited also holds Special Grants for the exploration of CBM. It has been proven that this resource can be mined commercially and it being an energy resource the Government of Zimbabwe can issue Special Grants to prospective investors. There is increasing concern to mine this resource with the decline in power production at Kariba and Hwange given that CBM can be used in the generation of electricity and can be used in the production of fertiliser, an important input in Zimbabwe's strategic sector, agriculture.</td>
<td>Resources not ascertained</td>
</tr>
</tbody>
</table>

Source: July 2009 Monetary Policy Statement, Investing in the Zimbabwe mining sector by the Ministry of Mines and Mining development
10.2 MINING SECTOR REFORMS

As indicated in the 2015 Mid-term Fiscal Policy, the Government is working on the following reforms:

- Amendments to the Minerals Act to improve transparency and accountability;
- Establishing a Mining Fiscal Regime to coordinate mineral revenue collections by Government Agencies as well as local authorities so as to avoid unnecessary burdens on mining operations;
- Capitalisation of the Mineral Exploration Company in order to enhance exploration activities;
- Pursuing the value addition thrust, particularly on minerals such as gold, diamonds, platinum and chrome;
- Funding of the newly established Sovereign Wealth Fund;
- Establishment of the Small Scale Mining Facility; and
- In line with the Zimbabwe Agenda for Sustainable Socio-Economic Transformation ("ZimAsset") thrust towards empowering small scale miners, Government, through the Zimbabwe Mining Development Corporation, is negotiating a financial facility for provision of small scale mining equipment on credit. Beneficiaries of the facility are small scale miners in gold, chrome and tantalite minerals.
11 MINING ASSET LIFE CYCLE

11.1 KPMG’S MINING STRATEGY SERVICE OFFERINGS
12  KPMG’s Global Mining Practice

KPMG member firms’ mining clients operate in many countries and have a diverse range of needs. In each of these countries, we have local practices that understand the mining industry’s challenges, regulatory requirements and preferred practices.

It is this local knowledge, supported and coordinated through KPMG’s regional mining centres, that helps to ensure our mining clients consistently receive high-quality services and advice tailored to their specific challenges, conditions, regulations and markets. We offer global connectivity through our 14 dedicated mining centres in key locations around the world, working together as one global network. They are a direct response to the rapidly evolving mining sector and the resultant challenges that industry players face.

Located in or near areas that traditionally have high levels of mining activity, we have centres in Melbourne, Brisbane, Perth, Rio de Janeiro, Santiago, Singapore, Toronto, Vancouver, Beijing, Moscow, Johannesburg, London, Denver and Mumbai. These centres support mining companies around the world, helping them to anticipate and meet their business challenges.

For more information, visit kpmg.com/mining
13 KPMG’S FOOTPRINT IN AFRICA

33 OFFICES SERVICING 54 COUNTRIES
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