

The Mineral Sector of Namibia: a nuanced overview of selected key aspects



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Contents

Acronyms and Abbreviations	2
Executive summary	3
1. Introduction	7
1.1. Background and context	7
1.2. Objective	7
1.3. Methodology	7
2. The legal framework	8
2.1. Background and context	8
2.2. Namibian mineral sector legal framework	9
2.3. Issues with the mineral sector legal and policy framework	11
3. The Nature of minerals rights and transparency of the granting process	15
4. The key mining companies: commodity mined and capital invested	19
4.1. Swakop Uranium Pty Ltd	19
4.2. Namdeb Holdings	20
4.3. QKR Namibia Minerals Holding	20
4.4. B2Gold Namibia (Pty) Ltd	21
4.5. Skorpion Zinc	21
5. Employment and gender composition in the sector	22
6. Environmental impact of mining operations	25
7. Selected CSR cases	29
8. The tax regime with focus on illicit transfer, tax avoidance and evasion	32
8.1. The tax regime	32
8.2. Illicit financial flows, tax avoidance, and evasion	34
8.3. Revenue transparency issues	38
9. Conclusion	39
References	43
List of Tables	
Table 1. Employment by gender in the sector from 2015 to 2018	43

Acronyms and abbreviations

AMD	Acid mine drainage
CGN	China General Nuclear
DWA	Department of Water Affairs
EPL	Exclusive prospecting license
FDI	Foreign direct investment
GDP	Gross domestic product
SARW	Southern Africa Resource Watch
IGF	Intergovernmental Forum
GSN	Geological Survey of Namibia
EMA	Environmental Management Act
EIA	Environment Impact assessment
ASM	Artisanal and small-scale mining
PPI	Policy Perception Index
MME	Ministry of Mines and Energy
QKR	Qatar Kulczyk Resources
METF	Ministry of Environment, Tourism and Forestry
MOF	Ministry of Finance
IRD	Inland Revenue Directorate
EEC	Equitable Employment Commission
CSR	Corporate social responsibility
TDS	Total dissolved solids
UNECA	United Nations Economic Commission for Africa
UNW-ESA	United Nations Women-East and Southern Africa
SME	Small and medium enterprise
DFATD	Foreign Affairs, Trade and Development Canada
CSU	Colorado State University

Executive summary

This study investigated the Namibian mineral sector with the purpose of providing a nuanced understanding of the following selected key aspects: the legislative framework; the nature of mineral rights and how transparently they are granted; the environmental impact of mining operations focussing on selected mines; the key mining companies; employment, with a special focus on gender composition; corporate social responsibility practice in the sector; the tax regime with special focus on illicit financial flows, tax avoidance and evasion practices; and revenue transparency in the sector. The main objective of the study was to give an overview of Namibia's mineral sector in an effort to promote a transparent, participative, accountable, gender-inclusive, and environmentally sensitive management of natural resources.

The study employs a mixed-methods approach which includes the use of secondary research in order to leverage existing local literature generated on the subject matter, and primary research based on interviews with key stakeholders in the sector.

The study found that, the country's mineral sector legal, policy and regulatory framework has a number of weaknesses that require attention. While the Minerals (Mining and Prospecting) Act requires that mining companies submit reports of their exploration activities to the Ministry of Mines and Energy (MME), the geological data derived from companies is incomplete and poorly archived. No meaningful production of baseline geoscientific maps is happening, yet these maps are essential for sustainable development of the mineral sector. The Minerals (Prospecting and Mining) Act is weak on aspects of mine closure (which is largely absent from the Act) and does not contain financial assurances for closure. The Act does not provide a legal framework for mine closure or relinquishment. While the Environmental Management Act (EMA) and the Minerals Policy explicitly refer to rehabilitation as a requirement, there is no specific regulation, authorised agency, or sufficient resources to implement these rehabilitations (IGF, 2018).

There are no mechanisms or provisions in place in the tax code or other legislation to address commodity price volatility. The mineral legal and policy framework does not have windfall tax that enables the government to mobilise optimal resources commensurate with production on the ground when world commodity prices are high. Mining license fees are low compared to other mining jurisdictions such as Angola.

There is limited support of small-scale and artisanal miners by the government. Small-scale and artisanal miners lack understanding of the mining legislation, environmental management and occupational health and safety issues. There is a lack of government support with regards to funding training, education and innovation programming (IGF,2018).

Namibia's mineral rights licensing and management is regarded as one of the best in the world. The interest of stakeholders is protected by legal instruments, and where disputes occur there are clear channels and procedures for recourse. As a result of this friendly operating environment, Namibia is home to some of the world's largest mining companies, including De Beers, the world's largest diamond producer. De Beers is a 50:50 partner in Namdeb Holdings together with the government of Namibia. Indian giant Vedanta, China General Nuclear, Canada's B2Gold, and QKR of Qatar have a presence in the country.

The mineral sector in Namibia exhibits strong gender bias in terms of employment at all levels. Data from the review periods (2015-2016, 2016-2017, and 2017-2018) show that women were under-represented, making up 20.9 per cent, 17.4 per cent and 16.7 per cent of the total permanent employees in the sector. For example, at the executive level, female employees were a measly 3 per cent, 10 per cent, and 5 per cent of the total executives employed in the sector during three review periods. Along the entire mineral value chain, benefits accrue mostly to men.

The data shows the environmental impact of mining operations emanating from 260 mines that were abandoned without any closure or reclamation plan. Impacts include heavy metal poisoning, such as at Berg Aukas (Mapani et al 2009); acid mine drainage, such as at Matchless mine (Hahn et al 2004); dust pollution,

such as at Oamites mine; and water pollution, such as at Klein Aub mine (Hahn et al, 2004).

Corporate social responsibility (CSR) is not legislated in the mineral sector, and it is not a condition for obtaining any licenses in Namibia. Mining companies operating in Namibia generally consider CSR as a business strategy that is meant to gain favour with communities in areas where they operate. The companies view compliance with CSR as a means to gain acceptance from the relevant community, which provides a social license to the mining company to effectively operate in a particular area or community (Nande, 2017).

The three main taxes (corporate tax, export levy and royalties) in place for mobilising financial resources from the sector at the current levels are inefficient. Based on the Chamber of Mines of Namibia figures, 91.7 per cent of the total corporate, 73.7 per cent of total royalties, and 60 per cent of total export levies paid by the entire sector was paid by one company, Namdeb Holdings. Yet, Namdeb Holdings turnover only represented 37.7 per cent of the entire sector's turnover. The mining industry considers the corporate tax levied on their profits too high; 55 percent for diamond mining companies and 37.5 per cent for companies mining other minerals, compared to an average of 20.8 per cent in Asia. As a result of the high corporate tax, there is a high risk of transfer pricing manipulation by mining companies in the country. The country is not collecting enough revenue from the extractive sector due to possible illicit financial flows, tax evasion, and avoidance practices. Royalties paid by mining companies (3 per cent) are way too low compared to other mining jurisdictions, such as South Africa, Canada, and Australia. Export levies charged by the Namibian government are way too low, at less than 2 per cent average for the 18 different mineral commodities it exports.

There is a lack of capacity in the various government institutions responsible for the mobilisation of financial resources. There is poor policing of Section 95A of the Namibian Income Tax Act, 2005. Despite the Inland Revenue Directorate (IRD) having this effective tool at its disposal to enhance its resource mobilisation efforts, the tool has not been widely used since its introduction in 2005. Price manipulation is widespread in the mineral sector in Namibia and is carried out in many different ways. Mining companies inflate their investment expenditure

in order to offset profits and avoid paying corporate taxes. This tax avoidance practice is rampant throughout the entire extractive sector. The regulator is not working as “whole-government” to combat this phenomenon, and far too many communication gaps exist between institutions that are supposed to work as one and combat this phenomenon.

There seems to be a serious lack of technical and business savviness to understand and negotiate business deals that have maximum benefits for the country. Companies financed through high-interest loans from the holding companies offshore use this fact to erode the tax base for Namibia.

Namibia has weak and self-destructing anti-avoidance policies. The IRD uses debt to equity ratio of 3:1 in determining whether a Namibian company is adequately capitalised. This ratio is not efficient; it is too high compared to other mining jurisdictions such as Canada and Australia.

There is excessive leveraging by multi-national companies in the sector that causes major domestic tax base erosion. The incentives given to foreign mining companies to attract foreign direct investment (FDI) into the sector do not make economic sense. Companies that pay taxes may continually record losses because they are selling unprocessed ore to sister companies at a discount.

Namibia does not levy a tax on capital gains on individuals and companies. As a result, the country is not benefiting from shares sold overseas by individuals and companies. A good example is the sale of Trekkopje Uranium mine by UraMin to Areva in 2007. The mine, including UraMin’s mineral rights in South Africa and the Central African Republic, was sold for US\$2.5 billion but because the transaction took place overseas Namibia did not get a single cent from the transaction.

The mineral sector is not a member of any voluntary organisation that encourages revenue transparency in the sector, such as the Extractive Industries Transparency Initiative.

While mining companies publish their financials in the annual Chamber of Mines review reports, traceability revenues generated from the sector stop once the funds enter the national coffers.

1. Introduction

1.1. Background and context

The mining sector is the mainstay of the Namibian economy. The sector contributes 11.5 per cent of Namibia’s gross domestic product (GDP) and over 50 per cent of its foreign trade earnings. Namibia’s progress in mining is anchored on her plentiful diamonds, base metals, precious metals, and nuclear fuel minerals. The country is ranked fourth uranium oxide and sixth diamond producer in the world. Namibia’s diamonds are ranked first in the world in terms of their quality, fetching on average US\$400/ carat. Due to the significance of the sector, the legal framework and the regulations governing the sector are a key consideration, as this has a direct impact on the economy, the environment, and society.

The purpose of this overview study is to provide a nuanced understanding of the following selected key aspects: the legislative framework; the nature of mineral rights and how transparently they are granted; the environmental impact of mining operations; the key mining companies; employment; the mining tax regime with a specific focus on illicit financial flows, and tax avoidance and evasion; corporate social responsibility practices in the sector; and the overall capacity of the government to manage the sector.

1.2. Objective

The main objective of the study is to have an overview of Namibia’s mineral sector in an effort to promote transparent, participative, accountable, gender-inclusive, and environmentally sensitive management of natural resources.

1.3. Methodology

The study employs a mixed-methods approach which includes the use of secondary research in order to leverage existing local literature generated on the subject matter, and primary research based on interviews with key stakeholders in the sector.

2. The legal framework

2.1. Background and context

The mineral sector is a major contributor to economic development in most African countries with large mineral resources endowment. In Namibia, the mineral sector contributes on average 11.5 per cent of GDP, over 50 per cent of foreign exchange earnings, and employs 2 per cent of the country's total population. The mining sector contributed N\$1.707 billion in 2018 and N\$1.437 billion in 2019 in tax on profit paid to the government. The sector paid total taxes of N\$3.656 billion in 2018 and N\$3.409 billion in 2019 (Chamber of Mines Annual Review Report, 2019).

The country's long-term economic and social development framework and strategy, Vision 2030, which sets the direction for Namibia's economic and social development, supported by the government's national development plans, affirms the government's recognition of mining as a key sector in contributing to the achievement of its policy objectives to reduce poverty, create employment, promote empowerment, and stimulate and sustain economic growth (Alex, 2020).

Cognisant of the mineral sector's importance to the country, there is a need to ensure that the mineral resources of the country are developed and exploited sustainably. Sustainable mineral resources development and exploitation require that the regulator put in place a policy, legal, regulatory, guideline and institutional framework to manage social and environmental risks and impacts, to maximise social and economic benefits from mining activities, and to enhance development opportunities related to mining investment. The primary objective of a mature mineral sector policy framework is to make sure that benefits accrued from the development and exploitation of minerals are used to enhance human development sustainably.

The small-scale mining sector is not well established in Namibia. It is estimated that there are between 5000 and 8000 people engaged in small-scale mining country-wide. There are 779 active (registered) mining claims in the whole country and 1665 applications are pending.

2.2. Namibian mineral sector legal framework

The mineral sector in Namibia is governed by a raft of laws, most of them enacted soon after independence in 1990.

The mineral resources of Namibia are owned by the state. As clearly stated in Article 100 of the Namibian Constitution: "Land, water and natural resources below and above the surface of the land and in the continental shelf and within the territorial waters and the exclusive economic zone of Namibia shall belong to the State if they are not otherwise lawfully owned."

The mineral rights are issued to individuals and entities according to the Minerals (Prospecting and Mining) Act of 1992 guidelines. The Act provides for the reconnaissance, prospecting and mining for disposal of, and exercise of control over, minerals in Namibia. It is critical in regulating and administering the mining sector of Namibia. It provides for licensing procedures, the rights of right holders, the administration and the ownership of minerals. The Act was amended in 2008 to make provision for the introduction of mining royalties of up to 5 per cent of gross sales. Several types of mining and prospecting licenses can be awarded in terms of the Minerals Prospecting and Mining Act. The Act states that, "no person shall carry any reconnaissance, prospecting or mining operations in Namibia except in accordance with licences granted". No other institution may issue mineral rights apart from the Ministry of Mines and Energy, a government institution.

The Diamond Act, 1999 (Act No. 13 of 1999), which became effective in 2000 provides for the regulation and control of the holding, transport and further processing of diamonds through a system of licenses approved by the Diamond Commissioner. Critically, section 58 of the Act empowers the Minister of Mines and Energy, amongst other things, to oblige local rough diamond producers to supply a portion of the produce to local cutting and polishing companies. This section has resulted in local value addition of the diamonds. The value of a rough diamond increases by 1000 times once it is cut and polished. Currently, there are 17 registered cutting and polishing companies in Namibia. Section 59 of the Act enables the government to measure international market prices of unpolished diamonds by selling a proportion of Namibian unpolished diamonds directly on the open market. This has led to the establishment of Namdia Pty Ltd, a whol-

ly-owned government company that is responsible for marketing Namibia's diamonds internationally.

The Minerals Development Fund of Namibia Act of 1996 provides for the establishment of the Minerals Development Fund of Namibia (MDF), a semi-governmental institution, hosted by the Ministry of Mines and Energy. It is managed by a Board of Directors, representing mining interests in the country. The Fund was established in 1996 in order to support the local mining sector through, among other things, provision of low-interest loans to viable local mining ventures; financing of generative geological exploration and baseline geological mapping in order to gather and disseminate information that is crucial for meaningful exploitation of the country's mineral resources by local and international mining ventures; and provision of scholarships to Namibian students in mining-related subjects in order to enhance national skills capacity.

Namibia's Minerals Policy of 2003 recognises the role of the private sector in exploration and mine development. It sets out guiding principles and direction while communicating the values of the Namibian people in pursuit of the development of the mining sector. It was developed to ensure the continued development of the mining industry of Namibia and to contribute to the creation of an environment that attracts both foreign and local investment in mining. Another objective is to contribute to the development of opportunities for the Namibian people to benefit from the country's mineral resources in line with the government's policy on socio-economic empowerment (Amadhila N.C, 2019).

Other features of the policy include: promoting and encouraging local participation in exploration and mining; maximum local beneficiation of mineral products; and regularising and improving artisanal and small-scale mining to become part of the formal mining sector. It also caters for promoting research and development for improving technology in exploration, mining and mineral processing operations, and the establishment of appropriate educational and training facilities for human resources development to meet the human resource requirements of the minerals industry.

The Foreign Investments Act 27 of 1990 regulates ownership, and how foreign investment should be organised in the country. Specifically, the Act stipulates that

no foreign national engaged in a business activity or intending to commence a business activity in Namibia shall be required to provide for the participation of the government or any Namibian as a shareholder or a partner in such business, or for the transfer of such business to the government or any Namibian: Provided that it may be a condition of any licence or other authorisation to or any agreement with a foreign national for the grant of rights over natural resources that the government shall be entitled to or may acquire an interest in any enterprise to be formed for the exploitation of such rights.

The Environmental Management Act 7 of 2007 promotes the sustainable management of the environment and the use of natural resources by establishing principles for decision-making on matters affecting the environment; to establish the Sustainable Development Advisory Council; to provide for the appointment of the Environmental Commissioner and environmental officers; to provide for a process of assessment and control of activities which may have significant effects on the environment; and to provide for incidental matters.

The Water Act of 1956 controls, conservation and use of water for domestic, agricultural, urban and industrial purposes, and makes provision for the control, in certain respects, of the use of seawater for certain purposes. The Act also provides for the control of certain activities on or in water in certain areas; for the control of activities which may alter the natural occurrence of certain types of atmospheric precipitation; for the control, in certain respects, of the establishment of the extension of townships in certain areas; and for incidental matters

The Income Tax Act, 1981 provides for the tax levied on taxable income accruing to a mining company from sources within (or deemed to be within) Namibia and is calculated by determining the gross income, being all income accrued excluding that of a capital nature, subject to some exceptions, from which is deducted all amounts that are exempt from normal tax as well as the deductions and set-offs allowed by the Income Tax Act, 1981.

2.3. Issues with the mineral sector legal and policy framework

A recent assessment of the mineral legal and policy framework of Namibia by the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) (2018) identified a number of weaknesses and gaps in the framework.

The evaluation found that, while the Minerals (Mining and Prospecting) Act requires that mining companies submit reports of their exploration activities to the Ministry of Mines and Energy (MME), the geological data derived from companies is incomplete and poorly archived. If these reports were submitted in readily usable formats, the government would save substantial amounts of money by avoiding repeating the same work. Exploration data such as geochemical surveys and point data must be submitted in a usable format. There ought to be a standard format for geological maps generated from exploration that are submitted by all mining companies. The geological maps should, in addition to pdf files, be submitted as shapefiles too.

IGF (2018) argues that, a well-developed and modern mineral sector legal and policy framework must ensure that geological information generation and access is a continuous process. Currently, the Geological Survey Namibia (GSN) is not producing baseline geological and regional geochemical maps, and much of the northwestern region of the country is not mapped at all. Mineral prospectivity maps are an important tool for marketing the mineral resources to potential investors. Geological and geochemical maps are also important for land-use planning. Once the fund availed under the Mineral Development Fund Act was depleted, the survey has not been allocated enough funds to carry out its work. A clear knowledge of the mineral potential of the country should be used as the basis for setting up value addition industries in the country or regionally. Investors need assurance that there will be sufficient supply of the mineral raw materials before they build plants for value addition.

The Minerals (Prospecting and Mining) Act is weak on the aspect of mine closure (which is largely absent from the Act) and does not contain financial assurances for closure. The Act does not have a legal framework for mine closure or rehabilitation. While the Environmental Management Act (EMA) and the Minerals Policy explicitly refer to rehabilitation as a requirement, there is no specific regulation, authorised agency or sufficient resources to implement these rehabilitations (IGF, 2018).

Namibia's mineral legal and policy framework requires a formal system for, among other things, handling the approval of closure plans, and a mandatory financial assurance mechanism to cover the costs of mine closure.

Namibia should learn from the environmental problems related to 260 mines that were abandoned without any closure plans or financial guarantees to finance their rehabilitation and reclamation. The regulatory authority should consider incentivising progressive rehabilitation, as well as imposing appropriate penalties for inadequate closure. According to IGF (2018), good mine closure and relinquishment is one whereby the closure planning is done during the entire operation of the mine. Namibia lacks the institutional capacity to monitor and enforce the provisions of the legislation. There is no capacity in terms of the required skills and the institutions lack funding.

IGF (2018) proposes the following as the best practice for formulating closure plans: that stakeholders be consulted in the development of closure objectives and plans; a comprehensive closure report and adequate financial assurance be provided before the requisite development and mining permits for a new mine are approved. There is particularly a need to assist small-scale and artisanal miners with risk assessments, studies and activities associated with high-risk elements such as tailings dams, waste dumps and acid rock drainage.

A mature and modern mineral sector legal and policy framework permitting process must ensure that adequate funds are put aside for mine closure purposes. These funds can be in the form of appropriate financial security such as bonds and insurance. Conditions and details of these financial securities must be specific, and the financial securities must be issued or held only by qualified and approved financial institutions. For example, Angola requires that cash deposits or financial securities are obtained even before a prospecting license is issued.

The Minerals (Prospecting and Mining) Act is silent on the mineral rights application turnaround time. The permitting process should be completed in a timely, unambiguous and consistent manner, but in practice, there can be significant delays and opacity. Stakeholders noted the need for increased transparency in the granting or rejection of mine permits and licenses.

There are no mechanisms or provisions in place in the tax code or other legislation to address commodity price volatility. Mining license fees are low (US\$0.70 per square kilometre) compared to other mining jurisdiction such as Angola (US\$3 per square kilometre). In Angola, the rate increases to US\$10 per square kilometre.

tre in the second year and up to a maximum of US\$40 per square kilometre. The mineral legal and policy framework does not have a windfall tax that enables the government to mobilise optimal resources commensurate with production on the ground when world commodity prices are high. The government of Namibia should consider the implementation of a revenue generation (taxation and royalties) scheme that maximises resource levy revenues to society during times of high prices, while minimising the need for entities to reduce or end production during times of low prices, and supporting a variety of sustainable development objectives.

The mineral sector of a resource-endowed country can be a vehicle for poverty reduction. In order to achieve this, the host country's mineral legal and policy framework must be designed in a way to optimise socio-economic benefits. Namibia's mineral legal and policy framework has gaps. While section 50 of the Mineral (Mining and Prospecting) Act explicitly asks mining companies to prioritise Namibian nationals in their recruitment, there is no requirement for capacity-building programmes for communities to understand the potential environmental and socio-economic impacts identified during the environmental impact assessment (EIA) process.

While the mineral sector contributes one per cent of their annual payroll towards education, there is a need to integrate community, regional and national issues by: targeting every level of education from primary to post-graduate levels in a manner consistent with local and national needs; ensuring that both the physical infrastructure and the human resources to staff and service educational facilities are put in place and upgraded over time through the efforts of all stakeholders, including the permit holder; and ensuring that (with government leadership) stakeholders other than the permit holder assume greater responsibility over time. Thus, when mine closure approaches, the physical and human educational infrastructure can make the post-closure transition with a minimum of disruption (IGF,2018).

Artisanal and small-scale mining (ASM) employs 2.4 per job compared to mainstream mining. A well-managed and resourced small-scale mine can be a source of employment. Namibia's small-scale and artisanal miners have limited understanding of the mining legislation, including environmental management and

occupational health and safety. The sector is not well supported by the government ministries. There is a lack of funding for training, education and innovation programming in the ASM sector (funds allocated under the Mineral Development Fund having been depleted). There are no mechanisms or legislation in place to improve the savings of ASM miners, to establish more acceptable forms of financing to improve access to credit, or to encourage responsible investment in the sector. Minimal revenues are collected from small-scale miners. MME capacities with regards to ASM are largely limited to geology, and do not include areas such as business development. If properly formalised, artisanal and small-scale mining can be used to reduce poverty as well as make a significant contribution to the national fiscus in a sustainable manner. The ASM sector should be decriminalised and allowed to work within the legal framework. There ought to be a clear legal framework and regulatory mechanisms to facilitate the organisation of ASM, access to property rights, and ensuring obligations for ASM. The sector needs to be capacitated through training, and integrated into the formal economic system. Business practices such as encouraging savings, establishing acceptable forms of financing, and investments are recommended ways of formalisation. The government of Namibia should resuscitate the mineral development fund. This could be done by allocating 10 per cent of the total tax paid by the mineral sector to this fund.

The Minerals (Prospecting and Mining) Act and Minerals Policy are largely outdated. The Act does not include sand and gravels as minerals, yet these materials are the low-hanging fruits that should be reserved for Namibians. The development of sand and gravels is not capital intensive, and their exploitation is easier and less costly.

3. The Nature of minerals rights and transparency of the granting process

Namibia's mineral rights licensing and management is regarded as one of the best in the world. The country was ranked first in the world as a destination for extractive sector-based investment by the Fraser Institute in 2014. The Fraser Institute Policy Perception Index (PPI) for the country has consistently been favorable. The country was ranked first in Africa and 14th in the world in 2018 (Fraser Institute, 2019).

The issuing and management of mineral rights in Namibia is legislated. The country has specific institutions mandated with the issuing and management of mineral rights. The MME is responsible for issuing mineral rights on behalf of the Namibian government. Under the Minerals Prospecting and Mining Act 33 of 1992, mineral rights are issued on a first-come-first-served basis, and there are five different types of licenses through which the rights can be issued:

Mining Claims – Mineral rights under the mining claims license are issued to Namibian citizens only and concern small-scale mining operations. The rights are for an initial period of three years and can be renewed for a further two-year period.

Reconnaissance License – These licenses are granted for six months, with a possible extension of another six-month period, to conduct a preliminary exploration of a considerable expanse of land in order to determine where prospecting should be focused once an exclusive prospecting license (EPL) has been obtained.

Exclusive Prospecting License – this license is issued to companies and individuals that would like to carry out systematic prospecting of areas up to 100 000Ha. The licenses are issued initially for a period of three years with the possibility of up to two two-year extensions, provided sufficient license development progress can be demonstrated.

Mining License – The license is issued for a maximum of 25 years depending on the size of the reserves. The license is renewable for a further 15 years and for as long as the reserves permit.

Mineral Deposit Retention license – The license is valid for a period of five years, and is issued while waiting for certain circumstances related to the viability of the mine to improve (e.g., world commodity prices, or investors requiring time to mobilise capital).

Mineral rights under any of the above licenses involve completing standard forms specific to each type of license. Once the application is submitted at the MME, the details of the application and applicant are immediately available online and anyone can check its status anywhere in the world. The license information includes license number, holder's name, contact details, and date of issue, expiry date, district and region where the license is located, and an outline map of the license.

Namibia does not have an independent body responsible for the technical assessment of mineral rights applications. To prevent conflict of interest, the Act prohibits officers of the Ministry of Mines and Energy and their spouses, irrespective of the nature of their work and portfolios, to directly or indirectly involve themselves in mineral activities. It states that officers of the MME “shall not acquire, whether directly or indirectly, any right or interest in any of the licenses issued by the ministry, they are not allowed to acquire or hold any share or interest in a company which is the holder of any of the licenses issued by the ministry”. While the Act allows licences issued for different mineral commodities to overlap, the Act requires that the later applicant informs and gets the consent of the earlier holder before the license can be granted.

Exploration companies in the country complained about the administrative delays, land locking, and foreign operators permit. They feel that the administration of licenses is still facing significant challenges at MME. They complained that, out of the 981 licenses issued, only 745 were actually active on the MME portal as of December 2019 (Chamber of Mines Annual Review, 2019). The Chamber feels that MME is not adequately implementing the Minerals Act, “whereby companies fail to submit any evidence that exploration work is carried out, yet receive license renewals” (Chamber of Mines Annual Review 2019:19). The result is an unproductive situation of landlocking, whereby licenses are granted to entities that are incapable or lack the resources to conduct meaningful exploration.

Companies and individuals granted mineral rights are required by law to carry out an environmental impact assessment (EIA) according to the Environmental Management Act of 2007 before the proposed work commences in the license area.

The Act stipulates that “all development projects that are authorized through permitting/licensing are subject to environmental impact assessment”. The EIA must be conducted following the guidelines of the EIA policy. The EIA policy is supported by the Environmental Management Plan (EMP) Act regulation of 2012. The Act requires that an EIA study is carried out and an EMP to guide the proposed work developed. The Ministry of Environment, Tourism and Forestry (METF) is mandated with implementation of the EIA Act of 2007 and EMP Act regulation of 2012.

Traditional authorities, the Chamber of Mines of Namibia, and farmers are key stakeholders in the governance of the mineral resources in the country. The Chamber of Mines of Namibia represents the interest of the companies in the extractive sector. Traditional authorities give consent before a mineral licence is awarded. Private farmers are stakeholders in the operation of licences. The law requires that there be an agreement between landowners and licence holders before any prospecting or mining work commences on the ground. This recognises both parties as important at law, and if the farmer is not happy with the proposed activities, he or she has every right to decline the activities or propose amendments to the activities.

The Chamber of Mines is of the opinion that the Fraser Institute ranking is outdated. The size of the Institute's sample upon which results are based is small and fails to grasp the realities of policy issues on the ground in Namibia. The Chamber argues that disallowing the deductibility of royalties for non-diamond mining companies, and proposals to introduce "major policy proposals", created a poor policy environment for Namibia in 2019. This, the Chamber argues, is supported by a drop in the country's best practice mineral potential that dropped from 40/63 in 2018 to 38/89 in 2019 (Chamber of Mines Annual Review, 2019). The Chamber is of the opinion that, because of a decline in the number of countries participating in the annual Fraser Institute Survey of Mining companies, it is no longer accurate to compare the overall rankings of a country. The Chamber proposes that the focus should be more on absolute scores as the same Fraser Institute overall Investment Attractiveness (IA) index shows that Namibia's index fell from 60.78 in 2017 to 56.66 in 2018. This fall in the IA index is attributed to a significant drop in Namibia's Best Practices Mineral Potential Index that fell from 53.7 in 2017 to 40.63 in 2018. Rather, it is more useful to focus on absolute scores. In the 2018 report, Namibia's overall Investment Attractiveness (IAI) index fell from 60.78 in 2017 to 56.66 in 2018. The decline in IAI was due to a significant drop in Namibia's Best Practices Mineral Potential Index (Chamber of Mines of Namibia Annual Review, 2018). The Chamber's argument is right and wrong; it is right, because the Geological Survey (GSN) has recently been producing Prospectivity maps that show the mineral potential of the country, especially in areas Kaokobelt, and this affects the Best Practice Mineral Potential Index. The Chamber is wrong in its argument that disallowing the tax deductibility of royalties is unfavourable. This argument is self-serving because currently royalty, export levy and corporate tax

as tools for resource mobilisation for the government from non-diamond mining companies are inefficient (as clearly demonstrated in this report).

4. The key mining companies: commodity mined and capital invested

Namibia is a major uranium mining country, ranked fourth uranium producer (Nuclear Association 2020), and sixth diamond producer in the world.

In addition to uranium and diamonds, Namibia produces zinc, gold, and a host of other minerals. As a result of this huge mineral endowment, Namibia is home to some of the world's major mining companies.

Company Name	2018	2019
Namdeb Holdings	N\$13 282 billion	N\$12 054 billion
Swakop Uranium	N\$4 691 billion	N\$6 238 billion
B2Gold Namibia	N\$2 824 billion	N\$3 584 billion
Rossing Uranium	N\$2 835 billion	N\$2 685 billion
Skorpion Zinc	N\$2 645 billion	N\$2 438 billion
QKR Namibia Minerals Holdings	N\$774.6 million	N\$957.4 million

(Data source: Chamber of Mines Annual Review, 2019;2018)

4.1. Swakop Uranium Pty Ltd

Swakop Uranium is owned 90 per cent by China General Nuclear (CGN) and 10 per cent by Epangelo Mining. It operates the Husab mine, the third largest uranium mine in the world (CGN Swakop Uranium 2019). The Husab Mine Project was bought from Extract Resources for US\$2.2 billion in 2012 (Namibia Uranium Association n.d).

Since it took over the operation, CGN has invested a total of US\$5.2 billion with more than US\$2 billion spent on construction of the mine alone. According to the Ministry of Mines and Energy, CGN reports that it is investing between N\$5.3

and 5.4 billion every year. These figures have not been verified by the regulatory authority. The Husab Mine has a planned 15 million tonnes per year production from two separate pits. The processing plant is designed to produce 6000t U3O8 per year. Since it commenced production, it has produced 192t U3O8 in 2016, 1 345 in 2017, and 3 571 in 2018 (Chamber of Mines Annual Review 2018). The expectation is to ramp up production to 5 500t U3O8 per year in 2020. The Husab Mine has an estimated mine life up to 2036 (Namibia Uranium Association, n.d).

4.2. Namdeb Holdings

Namdeb Holdings, equally owned (50:50) by the government of the Republic of Namibia and De Beers, is by far the largest mining company in the country, both in terms of revenue and employment. Namdeb Holdings is the holding company for Namdeb Corporation and Debmarine. Namdeb holds 100 per cent shareholding in each of the companies. Namdeb Corporation runs diamond mines on land while Debmarine operates offshore mines. Namdeb Holdings, through its subsidiaries, holds seven mining licenses, namely Orange River (ML42), Mining Area 1 (ML 43), Bogenfels (ML 44), Elizabeth Bay (ML45), Douglas Bay (ML 46), Atlantic 1 (ML47) and Midwater (ML 128A, B, and C).

Namdeb Holdings, through its subsidiary Debmarine, has approved US\$468 million to construct the world's first-ever custom-built diamond recovery vessel expected to commence operations in 2020. The ship will be the seventh addition to six already in operation in Namibia. The vessel is expected to add 500 000 carats per year to the group's production. In 2017, Namdeb invested US\$157 million in construction of an advanced diamond exploration and sampling vessel, the SS Nujoma. Namdeb Holdings diamond production has been steady over the years. The company produced a total of 1 885 265 carats in 2014, 1 764 324 carats in 2015, 1 573 000 carats in 2016, 1 804 000, (2017), and 2 007 847 (2018) (Chamber of Mines Annual Review 2018).

4.3. QKR Namibia Minerals Holding

Gold in Namibia is produced from two mines, the Navachab Gold mine, and the Otjikoto Gold mine. The Navachab Gold mine is owned by QKR Namibia Minerals Holdings while the Otjikoto Gold mine is owned by B2Gold Namibia.

QKR Namibia Minerals Holding has owned 92.5 per cent by Qatar Kulczyzak Resources (QKR) and 7.5 per cent by Epangelo Mining. The Navachab gold mine was bought for NA\$4.4 billion from Anglo Ashanti Gold in 2014. Since it took over the mine, QKR has invested an estimated NA\$1.2 billion in plant expansion and exploration.

Gold production for the past six years to 2019 has consistently been above 1.5 tonnes per year on average. The mine produced 1 938 kg in 2014, 1 878kg in 2015, 1 890kg in 2016, 1 843kg in 2017, 1 427 kg in 2018, and 1 489 kg in 2019 (Chamber of Mines Annual Review 2018; 2019). In 2018, production was affected by cashflow constraints that resulted in the suspension of waste stripping of the main orebody, and a subsequent drop in production. The life of the mine is estimated to last until 2029.

4.4. B2Gold Namibia (Pty) Ltd

B2Gold Namibia (Pty) Ltd operates the Otjikoto Gold Mine, which is owned by B2Gold Namibia (Pty) Ltd (90 per cent) and EVI Mining Company Ltd. (10 per cent). B2Gold Namibia (Pty) Ltd is owned by B2Gold Corp., a Vancouver-based gold producer.

B2Gold acquired the Otjikoto Gold Project, through a merger with Auryx Gold Corp. in December 2011. The company received the Otjikoto Mining Licence in December 2012 and construction of the Otjikoto Mine commenced in April 2013.

The mine started production 19 months after the acquisition and the first gold pour occurred on 11 December 2014 (<https://www.b2gold.com/projects/producing/otjikoto/>). Full commercial production was achieved on 28 February 2015, way ahead of schedule. To date, production has been steadily increasing at 202kg (2014), 4 131kg (2015), 4 714kg (2016), 5 429kg (2017), 4 744kg (2018), and 5 045kg (2019). The life of mine is estimated to be until 2027 (Chamber of Mines Annual Review, 2019).

4.5. Skorpion Zinc

Namibia produces zinc from two mines, the Skorpion Zinc Mine and the Rosh Pinah Zinc Mine. The Skorpion Zinc property, previously owned by Anglo Ameri-

can, is the largest integrated zinc producer in Africa and the eighth largest in the world (Vedanta Zinc International <https://www.vedanta-zincinternational.com/>). The property comprises of an open-pit mine and a refinery that are operated as two separate business units and registered locally in two different companies. Skorpion Zinc (Pty) Ltd is the mining company responsible for production drilling and blasting of the pit, and Namzinc Refinery is responsible for the processing of the ore and production of the special high grade (SHG) zinc for export to the world markets.

The entire Skorpion Zinc mine is owned by the Indian giant Vedanta, listed on the London Metal Exchange (LME). The mine came into production under Anglo American ownership in 2003. Vedanta acquired the property in 2010 through its wholly-owned subsidiary Sterlite Industries for US\$707 million, and has invested US\$200 million in the expansion of Pit 112. This expansion increased Skorpion's reserves and resources to 26Mt (3Mt zinc) and extended the life of mine from 2017 to 2020 (Chamber of Mines Annual Review, 2019). A further US\$160 million was committed to the conversion of Skorpion's refinery to refine zinc sulphide concentrate from the Gamsberg mine in South Africa, and any other sources in Namibia.

Since it acquired the property, Vedanta embarked on an aggressive exploration drilling campaign whose objective is to turn the mine into an underground mining operation. Trial processing of a 6Mt stockpile of low-grade zinc material and over 100 000t of copper is also considered. Special high-grade (SHG) zinc production from the mine for the six years to 2019 is 102 188t (2014), 82 029t (2015), 85 427 t (2016), 84 215 (2017), 65 993t (2018) and 67 295t (2019) (Chamber of Mines Annual Review, 2018; 2019).

5. Employment and gender composition in the sector

The mineral sector is a major source of wealth and opportunity in economies world-over. The sector has the potential to spur economic growth by creating jobs, revenue, development opportunities, and to contribute to poverty reduction (Department of Foreign Affairs, Trade and Development, 2014).

The mineral sector projects exhibit a strong gender bias in the distribution of

risks and benefits. Along the entire mineral value chain, benefits accrue mostly to men, in the form of employment and remuneration, yet the cost (such as family or social disruption and environmental impact of the sector industries operations) is borne mostly by women (United Nations Women (2016)).

Business-wise, women are a key component for the sustainable development of the mineral sector throughout the entire value chain. Socio-economically, empowering women in the mineral sector positively impacts on the lives of women, children and communities, increasing the well-being and the sustainability of the communities where extraction activities take place (World Bank, Gender in Extractive Industries, 2013). Studies have shown that when women have control over their own income or family earnings, they reinvest in their families, children and communities, benefitting the communities where extraction takes place.

Available data show that, the mineral sector in Namibia employs on average 2 per cent of the population. The number of people employed by the sector increased from 5 513 employees in 1999 to 10 177 in 2018 (Equitable Employment Commission (EEC) Annual Review, 2019). The sector had 8 965 permanent employees in 2019, 8 880 in 2018, 9 343 in 2017, and 9 143 in 2016 (Chamber of Mines Annual Review, 2019).

The Namibian mineral sector exhibits a huge gender disparity in terms of employ-

Table 1 Employment by gender in the sector from 2015 to 2018

Review Period	2015-2016		2016-2017		2017-2018	
Job Category	Men	Women	Men	Women	Men	Women
Executive Directors	36	1	36	4	3	2
Senior Management	91	32	123	37	113	38
Middle Management	415	166	481	195	511	202
Specialised Supervisory	766	329	917	324	1037	354
Skilled	1733	550	2070	454	2029	439
Total including semi-skilled and others	6066	1602	7743	1633	8477	1700

ment. Employment data show that the mineral sector employed a total of 7 668 permanent employees of whom 20.9 per cent were females in 2015 to 2016, 17.4 per cent in 2016 to 2017, and 16.7 per cent in 2017 to 2018 review periods (Table 1). This disparity is exhibited at all levels of employment in the sector. The sector employed 37 people at the executive level during 2015 to 2016 period of whom one was a female, representing 3 per cent of total executives. In the 2016 to 2017 review period, the sector had 40 executives of whom four were females, representing 10 per cent of the total executives in the sector. During the 2017 to 2018 review period, the sector had 38 executives of whom only two were females, representing 5 per cent of the total executives in the sector. At senior managerial level, the mineral sector employed a total of 123 people of whom only 26 per cent were females during 2015 to 2016 review period; 160 people in 2016 to 2017, of whom 23.1 per cent were females; and 151 people during 2017 to 2018 of whom only 25.2 per cent were females (Table 1). Middle management level shows exactly the same trend. During the 2015-2016 review period, the sector employed 581 middle managers, and only 28.6 per cent were females; during the 2016-2017 review period, the sector employed 676 middle managers of whom 28.8 per cent were females; and during the 2017-2018 review period, the sector had 713 middle managers of whom females constituted 28.3 per cent (Table 1).

While there has been a steady increase in the number of skilled people employed by the mineral sector in Namibia, females are still under-represented.

In the review period 2015-2016, the sector employed a total of 1095 people with specialised skills and with supervisory roles. Females only constituted 30 per cent of the total in 2015-2016. In 2016-2017, the sector had 1241 and females made up only 26.1 per cent of the total. And during 2017-2018, the sector had 1391 people and females constituted 25.4 per cent.

The same trend is exhibited at skilled labour level where in the 2015 to 2016 review period the sector employed 2283 people of whom 24.1 per cent were females; in 2016 to 2017, the sector had 2524 of whom 18 per cent were females; and in 2017 to 2018, the sector had 2448 skilled people of whom 17.9 per cent were females.

6. Environmental impact of mining operations

Environmental impacts of mining operations result from activities happening throughout the mineral value chain. The impacts can be short-term, medium-term, or long-term and can be localised or widespread. Impacts can result in erosion, loss of biodiversity, or the contamination of soil, groundwater, and surface water and air by chemicals and particulates emitted from mining processes.

Research has shown that exposure to mine dust or living close to a mine is a risk factor for asthma caused by the inhaled dust that harms the respiratory system. Adverse environmental conditions such as the absence of natural light, fresh air, and high dust volumes contribute to mental stress and ill health as well as diseases specific to the dust characteristics and metal content (Makris 2019).

High acid concentration levels due to acid mine drainage (AMD) can burn human skin and kill fish and other aquatic life. AMD also leaches toxic metals, including arsenic, cadmium, chromium, and lead from waste rock, which can cause further pollution. High concentrations of sulphuric acid have health effects through direct exposure. Sulphuric acid is extremely corrosive and direct exposure can result in severe irritation and burns to the skin, severe lung damage, life-threatening accumulation of fluid (pulmonary edema), permanent damage to eyes and possible blindness. If swallowed, sulphuric acid can cause burns to mouth, throat, oesophagus, and stomach. Long-term exposure to even low concentrations of sulphuric acid can cause dermatitis (red, itchy, dry skin), and erosion of the teeth.

The environmental impact of mining operations in Namibia is localised and historical emanating from 260 mines that were closed and literally abandoned without any closure plan (Andreas et al 2020). The mines were abandoned before the Minerals (Prospecting & Mining) Act, No 33 of 1992 was promulgated. The responsibility for rehabilitation and reclamation of these historically abandoned mines now lies with the state. Andreas et al (2020) assessed available awareness of the threats presented by disused mines to natural and human environments in Namibia and established that there are limitations to mine rehabilitation, and that the 260 abandoned mines are a “significant hazard throughout the country”. They found that although the mineral sector is the largest contributor to Namibia’s economy, the country has a fragmented and incomprehensive legal

framework, and “has failed to protect the environment from adverse impacts of mining.”

In addition to a fragmented and incomprehensive legal framework, Namibia lacks the knowledge, requisite skills, coordination, and funding necessary for the successful planning and implementation of mine rehabilitation.

Andreas et al (2020) argue that, a holistic approach is needed to address the environmental impacts posed by the disused mines. They propose better integration of mining and environmental legal frameworks, capacity building in terms of training and expertise, monitoring the long-term effects of mining, international collaboration, and implementation of a binding financing mechanism for mine rehabilitation to improve the present situation.

Mapani et al (2009) analysed, soil, crops, and water from the Berg Aukas area for pollutants. Berg Aukas was once a mining town, where lead, vanadium, and zinc ores were mined and roasted on-site until 1979. The main pollutants in the area, they said, are heavy metals, Pb, Zn, Cu, Cd, As, Hg and Mo and are found bound to layered silicate minerals, sulphide minerals, or as elements.

Analytical results found that there is severe heavy metal contamination of the surface soils south and east of the Berg Aukas settlement (Mapani et al 2009). Unfortunately, this land was used to grow sweet potatoes, cabbage, and Irish potatoes, crops that are known to accumulate heavy elements that are deleterious to health. Long periods of exposure to high concentrations of heavy metals like the ones in the Berg Aukas area soils and crops can cause severe health problems like diabetes, skin lesions, bladder problems, neurological effects, as well as skin, kidney or lung cancer (Mapani et al, 2009). The study found that approximately 3.5 km (E-W) and 2.5 km (N-S) of Berg Aukas are the most severely contaminated areas and represent zones of high hazardous risk.

Hahn et al (2004) investigated the environmental impact of the Klein Aub, Oamites, Matchless, Namib Lead, and Onguati Mines. They analysed the major, trace, and rare earth elements composition of samples collected from tailings, soil, and

stream sediment from these mines. Hahn et al (2004) assessed the environmental impact of the elements by comparing with the guideline values for drinking-water quality of the Department of Water Affairs (DWA). Hahn et al (2004) also compared the inorganic major constituents of the water samples with the DWA guideline values. Samples collected from Matchless, Namib Lead, and Onguati Mines tailings were tested for their acid-producing (AP) and acid-neutralising (NP) potentials by an acid-base accounting test. AP and NP were determined with the pyritic sulphur and Ph-stat method respectively. Geotechnical investigations focus on the safety aspects of the mine sites; open shafts and ramps, collapsed ground, toxic chemicals, calculation of the volume of the tailing dumps, the stability of tailing dumps and earth dams, dry density tests with tailings material, removal of scrap metal heaps, and other things. Dust monitoring systems were established on top of the dumps.

Hahn et al (2004) investigations found that, at the Klein Aub Mine, the main environmental impacts are wind-borne tailings dust, erosion features on the tailings dump, collapsed structures related to the underground mine caving, and the quality of the shaft water. The studies revealed that the community of Klein Aub is affected by easterly winds which transport dust from the adjacent tailings dump. Shafts and areas with the caved ground are not fenced off and are potential traps for both domestic and wild animals. In the event that the shaft water is pumped out, there is a good chance that there will be more ground cavings. The study shows that the water from the van Zyl shaft is unfit for human consumption. It has high (444-560mg/l) concentrations of sulphides compared to the recommended DWA guideline value (200mg/l SO₄). If this water is consumed by humans, it may cause digestive problems. Human consumption is only recommended if the water is diluted. At Matchless mine and its surroundings, they found that the major environmental concerns are pyrite-rich tailings and waste rock dumps, and contamination of water and sediments of a 4km-long section of the Matchless River between the mine workings and Myburgh's Dam by acid mine drainage (AMD).

The stream sediments have elevated copper, zinc, lead, and cadmium concentrations that show seasonal variations. Samples collected from the river during the rainy season showed higher concentrations of heavy metals compared to those collected during the dry season. The heavy metals higher concentrations are at-

tributed to higher discharge of AMD from the mine site and transport of tailings material as a result of higher river flow (Hahn et al 2009).

“The water surveys showed that acidic, heavy-metal-containing (Cu, Pb, Cd, Co, and Ni) sulphate water derived from the oxidation of pyrite-rich tailings and waste rock material contaminates the river system. Due to evaporation, the total dissolved solids (TDS) of the dry season water was higher than those measured in the rainy season. In the case of one of the earth dams in the mine surroundings breaking due to advancing erosion or a flash flood, “the contamination could reach the Friedenau Dam which is located 16 km downstream of the mine” Hahn et al (2004: 11).

The team recommended the construction of a spillway system to by-pass the main tailings dump as the most urgent remedial measure. The spillway will help contain future erosion and reduce the discharge of pollutants downstream. They recommended reinforcement of the earth dam S3, repairing S5, and raising N3 dam or construction of a new dam in the river system below the workings in order to attenuate or contain AMD. Cutting off access to the old adits on the Minen River and the ventilation inlet beneath the main shaft will entail the construction of walls to close the openings (Lahn et al, 2004).

At the Oamites mine site, subjects of environmental concern for the adjacent camp of the Namibia Defence Force are wind-borne tailings dust, the caved area of the old underground workings and the wastewater-treatment plant.

A wind monitoring program showed a uniform ENE wind direction on the SW tailings dump and ENE and NNE directions on the NE tailings dump. The construction of a 0.5 m high graded gravel cover on top of the NE tailings dam is recommended to reduce the wind transport of fine tailings material. The cover material could be partly derived from a waste rock dump close to the tailings dam.

The caving of the old underground mine workings has created a very dangerous situation and the hole which was originally fenced by the mine operators should be refenced. Furthermore, it was noted that the wastewater treatment plant located at the southwestern edge of the SW tailings dump is out of order so that

untreated sewage with high ammonia and nitrite concentrations discharges directly into the adjacent Oamites River.

Studies of selected abandoned mine sites show that the environmental impacts depend on the type of mineralisation, its host and country rocks, the geographical situation, and the climatic conditions (Lahn et al 2004).

- All mine tailings are commonly affected by wind and/or rain erosion.
- The Matchless Mine is the only mine with typical acid mine drainage features.
- The other mines are marked by an almost neutral or alkaline environment which reduces the dissolution and transport of toxic metals.
- At Berg Aukas, the environmental impacts are soil, water, and vegetation heavy metal contamination.
- This review found that most of the recommended mitigation measures have not been implemented due to lack of funds and (to a lesser extent) due to lack of expertise.
- No environmental tax has yet been introduced in Namibia, although the Minister of Finance announced in 2010 that the legislation is in the process of being finalised.
- The current legal framework does not make provision for mobilising financial resources from the sector for the purposes of land rehabilitation and reclamation of these old and abandoned mines.
- Rehabilitation and reclamation should be regarded as an opportunity for job creation. Scrap metal collection and smelting is one area that needs serious consideration.

7. Selected CSR cases

Mines have finite lives and their operations have both social and environmental impacts in the communities where they occur. It is expected that mining companies operate in an ethical and sustainable way and deal with their environmental and social impacts. Mining companies must carefully consider human rights, the communities, and the societies in which they operate. Mining companies embark on sustainable and ethical corporate social responsibility (CSR) practices to derive benefits to their businesses. Even though CSR is not legislated, it is still expected that companies must operate in a way that demonstrates social responsibility.

Mining companies operating in Namibia generally consider CSR as a business strategy that is meant to gain favour with communities in areas where they operate.

The companies view compliance with CSR as a means to gain acceptance from the relevant community and therefore provide a social license to the mining company to effectively operate in a particular area or community (Nande, 2017).

CSR is a tool used by a firm as a plan to enhance the lives of the people around whom it operates. In Namibia, most of the firms in the extractive sector publish their CSR efforts on their websites and in the Chamber of Mines of Namibia Annual Review Report. In most cases, the motive behind this is to project the image that the firm is a responsible business in the communities where it is carrying out its mining activities. According to the Chamber of Mines of Namibia, the three leading mining companies carrying out CSR are Namdeb Holdings, CNNC Rössing Uranium, and B2Gold. Namdeb Holdings and CNNC Rössing Uranium CSR initiatives are carried out by Debmarine-Namdeb Foundation and Rössing Foundation respectively.

Debmarine-Namdeb Foundation runs CSR initiatives for the Namdeb Holdings group. The group's CSR initiatives are anchored on the belief that the country's most inaccessible diamonds turn into wealth that touches the lives of all Namibians. The majority of Namdeb's CSR initiatives are on providing support to communities within the Karas region where its mining operations are located. The CSR initiatives include the renovation of buildings, provision of science kits for schools, and financial support towards the training of science teachers in the region.

Throughout the country, the company has invested in education, small and medium enterprise (SME) development, health, and welfare, sports, science, heritage and tourism, and nature conservation (<https://www.namdeb.com/csr-profile/>). The company paid a total of N\$14.1 million in 2019 on CSR initiatives (Chamber of Mines Annual Review, 2019;2018).

The Rössing Foundation was established in 1978 through a Deed of Trust as a vehicle to oversee and implement many of Rössing Uranium's corporate social

responsibility activities in Namibia. The CSR activities included education where the foundation supports teachers and learners especially in English, Science and Mathematics at its three centres in the country and through mobile outreach programmes amongst others. In the Erongo region where the operations are, in addition to the above, the foundation supports SME with market gardening among their flagship CSR initiatives (https://www.rossing.com/rossing_foundation.htm). The company spent N\$26.2 million in 2019 and N\$13.1 million in 2018 on CSR initiatives in Namibia (Chamber of Mines Annual Review, 2019;2018).

B2Gold CSR in Namibia says they support relevant CSR projects that meet local needs. The company has created a multi-stakeholder CSR Board that reviews proposals from various parts of the country. Their CSR programmes, they said, "are selected to align with the Namibian government's key development plans and stakeholder needs which are identified through broad-based consultation". The company's CSR focusses on four areas which they think will continue to deliver long-lasting and positive impacts: education, the environment, health, and livelihoods. Their education initiative is focused on inspiring interest in science and physics and they have partnered with the Colorado State University (CSU) to empower individuals to see the world and themselves in a different light through hands-on science, while CSU's Little Shop of Physics programme aims to demonstrate to students and teachers that "science is something anyone can do." The company is also engaged in Early Child Development and SME social entrepreneurship support that is meant to sharpen entrepreneurial skills, management, finance, marketing, and IT skills of the SMEs. The company's long-term CSR initiative is sustainable land wildlife management. The company spent N\$17.9 million in 2019 and N\$16.2 million in 2018 on CSR activities.

All three leading companies' reports on CSR are not dated and do not give a clear picture of the current status of these efforts, and this seems to be the trend throughout the sector. The Chamber of Mines does not give details and refers back to the same reports. As noted by Nande (2017), "the extent to which these CSR positively impacts welfare in communities the mining firms in Namibia operates has not been adequately investigated. Currently, it is difficult to say whether these CSR promises have been carried through [or] are mere efforts meant to portray a positive image for the mining firms." CSR is not legislated in Namibia, and it is not a condition for obtaining any licenses in the country. In Namibia, it is

up to mining companies whether they take the initiative to reduce the negative impacts of mining projects and to improve the welfare of the local communities.

Mining firms' direct investments in CSR efforts such as infrastructure development (building of schools, hospitals, shops, and promotion of social projects) can positively impact socio-economic activities in areas where the government cannot reach. CSR can have a huge impact if it is used to enhance the capabilities of local people to supply goods and services required by the mining companies throughout the mineral value chain.

The Namibian economy is anchored on the extractive sector, so mining companies need to select CSR projects that will have the most positive impact on welfare if they are to help the government with its socio-economic developmental efforts.

Taking into consideration that the majority of the mining companies are not paying corporate tax, for whatever reasons, CSR is a good tool for the companies to cement a good relationship with the communities where they operate. Regulation of CSR projects should ensure that the efforts are not just made for mining company image enhancement, but that they provide relevant and suitable infrastructure and support for communities, even after a mine has closed (Nande, 2017). While the mining sector has proposed its CSR benchmarks and scorecards, legislation is needed to make compliance with CSR benchmarks and scorecards mandatory.

8. The tax regime with a focus on illicit transfer, tax avoidance and evasion

8.1. The tax regime

The tax regime in Namibia's extractive sector is governed by the Income Tax Act of 1981, the Export Levy Act 2 of 2016, and the Mineral (Prospecting and Mining) Act 33 of 1992 Section 114 and 115. In Namibia, the income tax is source-based. The tax is levied on all receipts and accruals from a Namibian source, other than receipts or accruals of a capital gain nature. The taxable income of external companies is computed in the same way as for local companies.

The Export Levy Act 2 of 2016 provides for the imposition of an export levy on certain goods, so as to improve Namibia's value share in its resource base, to encourage further processing or beneficiation of or value addition to such goods, to support national or regional industrial development, to promote the development of regional value chains, to meet revenue needs, and to provide for incidental matters.

Royalties are governed by the Minerals (Prospecting and Mining) Act of 1992 Section 114, and Section 115 governs the penalties imposed for non-compliance. Royalties for rough diamonds, emeralds and rubies are levied at 10 per cent; dimension stone unprocessed 5 per cent; copper, gold, zinc and other base metals 3 per cent; semi-precious stones 2 per cent; industrial minerals, salt and fluorspar and others 2 per cent; and non-nuclear fuel 2 per cent.

The sector allows 100 per cent foreign ownership of mining operations, has no clause or provisions for compulsory government share, and has limited foreign exchange controls.

The government has no tax stability agreements with the mining companies. The government collects revenue from the sector via corporate tax rates capped at 32 – 55 per cent of company profits. Mining companies (other than diamond mining companies) and companies that render services to such companies in connection with mining are levied corporate tax at 37.5 per cent of their profits. Diamond mining companies and companies that render services to such companies in connection with mining are levied corporate tax at 55 per cent. Non-mining companies' corporate tax is at 32 per cent. The same rate is applied to income taxes on employee salaries. The government further imposes mining royalties on different minerals, and export levies. A deduction for exploration and development costs is allowed, at 100 per cent in the first year of operations. Ring-fencing is allowed for oil and gas and forward carrying of losses is allowed indefinitely under the taxation regime. Value-added tax is deducted and payable to the state. There is no capital gains tax in Namibia.

This tax regime has resulted in limited government revenues (taxes or royalties) being generated from small-scale mining. There are no mechanisms or provisions in place in the tax code or other legislation to address commodity price volatility.

Section 95A of the Namibian Income Tax Act, 2005, regulates transfer pricing. The legislation intends to enforce the arm's length principle in the cross-border transactions between connected entities. A practice note (PN2/2006) contains the guidelines on the application of the transfer pricing legislation. The objective of the legislation (Section 95A) is to ensure that cross-border transactions between connected entities are fairly priced, with the main aim of making sure that Namibia collects optimal resources from its taxpayers. The Act empowers the minister of finance to adjust any tax returns and to tax Namibian entities as if these transactions were done at market-related prices.

- The mining industry consider the corporate tax levied on their profits too high; 55 percent for diamond mining companies and 37.5 per cent for companies mining other minerals compared to an average of 27.6 per cent in Canada, 30 per cent in Australia and an average of 20.8 per cent in Asia.
- Royalties paid by companies in Namibia (three per cent) are way too low compared to other mining jurisdictions, like South Africa's five per cent for refined mineral resources and seven per cent for unrefined mineral resources (calculated on the value of minerals and royalty percentage applied to the base), Canada's -six per cent and Australia's 10 per cent.
- Export levies charged by the Namibian government are way too low, less than two per cent average for the 18 different mineral commodities that it exports.
- There is poor policing of Section 95A of the Namibian Income Tax Act, 2005. Despite the Inland Revenue Directorate (IRD) having this effective tool at its disposal to enhance its resource mobilisation efforts, the tool has not been widely used since its introduction in 2005.

8.2. Illicit financial flows, tax avoidance, and evasion

There is a strong suspicion that, because of the high corporate tax levied on their profits, there is a high risk of transfer pricing manipulation by mining companies in Namibia. High corporate tax rates are a disincentive to mining companies operating in the country.

Extractive companies have designed subtle price manipulation, tax avoidance, and evasion methods in order to reduce their total tax liabilities.

The regulatory authority strongly feels that it is not collecting tax revenues from its minerals that is commensurate with the value of minerals being produced in the country. A study by Jemwa (2018) on the effects of foreign direct investment (FDI) inflows into the extractive sector on poverty reduction in Namibia found that, while FDI inflows into the sector contribute to poverty reduction, their significance was small in the long run. This finding supports the government of Namibia's view that its extractive sector's contribution to socio-economic development is not at a level commensurate with production on the ground. The country is not collecting enough revenue from the extractive sector due to possible illicit financial flows, tax evasion, and avoidance practices.

Currently, it is difficult to establish how much money has been lost through illicit financial transfers, tax avoidance and evasion practices in the extractive sector. Studies show that, Africa's mineral-rich countries are losing US\$50 billion annually to illicit financial flows, tax evasion and avoidance practices (United Nations Economic for Africa, 2017 and Report of the High-Level Panel on Illicit Financial Flows from Africa, 2013).

Figures from the Chamber of Mines of Namibia Annual Reviews show that mining companies paid total corporate tax of N\$1.437 billion in 2019, N\$1.707 billion in 2018, and N\$2.130 billion in 2017. A closer look of the figures shows that 93 per cent of the total corporate tax paid by the entire sector in 2019, 92 per cent in 2018, and 90 per cent in 2017 was paid by one company, Namdeb Holdings.

The reports show that the entire mining sector paid total royalties of N\$1.729 billion in 2019, N\$1.734 billion in 2018, and N\$1.560 billion in 2017. Yet again, a closer look at the figures shows that, 70 per cent of royalties paid in 2019, 77 per cent in 2018, and 74 per cent in 2017 were paid by one company, Namdeb Holdings. The mining sector paid a total of N\$243.2 million in 2019, N\$214.6 million in 2018, and N\$115.3 million in 2017 export levies. Again, the same pattern shows here, Namdeb Holdings accounting for 52 per cent of the total export levies paid by all mining companies in 2019, 66 per cent in 2018, and 62 per cent in 2017. The mining sector had revenue turnover of N\$33.524 billion in 2019, N\$33.545 billion in 2018, and N\$29.090 billion in 2017. Namdeb Holdings accounted for 35 per cent of total sector revenue turnover in 2019, 40 per cent in 2018, and 38 per cent in 2017.

Clearly, the three main taxes (corporate tax for other minerals besides diamonds and related companies, export levies, and royalties) in place for mobilising financial resources from the sector at the current levels are inefficient. The corporate tax is too high and may have resulted in mining companies engaging in practices that lower their tax liabilities. For the past six years, over 90 per cent of total corporate tax paid by the sector was paid by one company, Namdeb Holdings.

Policy and compliance gaps in the regulatory system along the entire mineral value chain create loopholes that cause financial leakages through illicit financial transfers in the extractive sector of mineral-rich countries. This includes the lack of a good resource governance policy, legal and regulatory frameworks such as a whole-of-government policy consistency framework, too generous incentives to attract foreign direct investment (FDI) into the sector that are not grounded on facts, excessive leveraging by multinational companies in the sector, and loss of financial resources in gathering data that would otherwise have been collected free from companies.

Price manipulation is widespread in the mineral sector in Namibia and is carried out in many different ways. Mining companies inflate their investment expenditure in order to offset profits and avoid paying corporate taxes. This tax avoidance practice is rampant throughout the entire extractive sector. The regulator is not working as “whole-government” to combat this phenomenon. Far too many communication gaps exist between institutions that are supposed to work as one and combat this phenomenon. There is a communication gap between the Ministry of Mines and Energy and the IRD, and there is a communication gap between the Bank of Namibia and the Ministry of Mines and Energy.

From the interviews, a player in the precious metals inflated expenses such that it was given a tax credit of N\$1 billion. A grader was valued at N\$10 million when its market price is less than N\$2 million. The companies are exploiting the communication gap between the MME and the Ministry of Finance (MF). The MME, which has the capacity to analyse these expenses from the sector, gets only a brief report of the expenditure while the detailed report is submitted the MF, but the MF does not have the capacity to assess the authenticity of the expenditure.

Another example is a vertically integrated player in the nuclear fuel minerals. According to the interviews, if the price of uranium remains at US\$48 per pound, this company may not pay any corporate tax in the foreseeable future. This is because its operating expenses are pegged at US\$55 per pound against a sale price of US\$48 per pound. At first glance, the company is mining at a loss, but a closer look shows that the company is making 30 times further downstream when its affiliated companies add value to the “yellowcake” offshore. The yellowcake is used to generate electricity or make fuel for rockets and submarines. There seems to be a serious lack of technical and business savviness to understand and negotiate business deals that have maximum benefits to the country.

Worse still, the company’s operating expenditure is financed through high-interest loans from the holding company offshore. The high interest is used to further erode the tax base for Namibia, yet the value of uranium at the end of the value chain is 30 times more than that of the yellowcake produced locally.

Namibia has weak and self-destructing anti-avoidance policies. For example, the IRD uses the thin capitalisation tool to enhance its financial resource mobilisation efforts. Thin capitalisation is an unusually high debt to equity capital ratio in the financing of a company by its offshore or associated company. The effect of thin capitalisation is to inflate tax-deductible interest payments beyond what is economically normal.

The IRD uses debt to equity ratio of 3:1 in determining whether a Namibian company is adequately capitalised. If this ratio is exceeded and loans have been advanced by a related company, there is a real risk that IRD may disallow some of the interest expenditure when the taxable income of the taxpayer is assessed. Such an adjustment will result in an increased income tax payment. However, the ratio IRD is using is not efficient, it is too high compared to other mining jurisdictions such as Canada and Australia where the debt-to-equity ratio is far lower at 1.5:1. Namibia’s neighbour, South Africa, adopted an earnings stripping approach that limits the number of deductibles as a share of earnings before taxable income (United Nation Economic Commission for Africa, 2017).

The use of an efficient ratio such as the one used in Canada and Australia, and effective policing of the transfer pricing and thin capitalisation legislation should enable Namibia to generate additional funds from the extractive sector. Currently, the high ratio used and poor management at the IRD due to lack of capacity is denying Namibia essential financial resources for its developmental needs.

Related to the above is, excessive leveraging by the multi-national companies in the sector that causes major domestic tax base erosion. This research also found that Namibia is suffering major domestic tax base erosion due to incentives given to companies to attract FDI into the sector. A base metal mining company negotiated that its operations be split into two companies, one for mining and the other processing. The mining product is input into the processing company. The processing company was given an Export Processing Zone status and does not pay tax, while the mining operations company pays taxes, but it is always making losses because it sells unprocessed ore to the processing company at a discount. Royalties are based on the value of the ore, but the company further negotiated a formula for calculating the royalty whose effect is to reduce the royalties by twofold.

Namibia does not levy a tax on capital gains on individuals and companies. As a result, the country is not benefiting from shares sold overseas by individuals and companies. A very good example is the sale of Trekkopje Uranium mine by UraMin to Areva in 2007. The mine, including UraMin's mineral rights in South Africa and Central African Republic, was sold for US\$2.5 billion. The Trekkopje Mine was the anchor project but its true value was never known. The transaction took place overseas and Namibia did not get a single cent from the transaction.

8.3. Revenue transparency issues

The objective of promoting revenue transparency in the mineral sector is to prevent corruption and provide citizens with a general standard for demanding a fair use of revenues generated by the mineral sector. A transparent industry positively contributes to the growth of investments in the sector. The mineral resources of a country belong to its citizens, so both government and the mining companies have a duty to inform citizens how these resources are being managed. It is imperative that data to inform greater transparency and accountability in the mineral sector be available to citizens. Citizens should know how the various min-

eral rights are issued, how revenues from the sale of extracted mineral resources are paid into the national coffers, and how such revenues are used to benefit the citizens. The objective of any investment and economic growth plan must be to enhance human development.

Mining companies and the host country government must provide open and transparent data on taxes and royalties to government and show how these funds have benefited the citizens. The mineral sector in Namibia has taken the initiative to publish in the Chamber of Mines Annual Reviews their turnovers, taxes paid, funds paid for training purposes, corporate social responsibility budgets, total people employed, and so on. However, traceability of these funds, once they reach the national coffers, is lost. The government needs to be more transparent regarding sector-based resource allocation and distribution.

Conclusion

This overview study of the mineral sector in Namibia established that the country's mineral sector legal, policy and regulatory framework has a number of weaknesses that require attention. While the Minerals (Mining and Prospecting) Act requires that mining companies submit reports of their exploration activities to the MME, the geological data derived from companies is incomplete and poorly archived.

Ever since the Mineral Development Fund was depleted, no meaningful production of baseline geoscientific maps has taken place, although these maps are important for sustainable development of the mineral sector.

The Minerals (Prospecting and Mining) Act is weak on the issue of mine closure, and does not contain financial assurances for closure. While the Environmental Management Act (EMA) and the Minerals Policy explicitly refer to rehabilitation as a requirement, there is no specific regulation, authorised agency, or sufficient resources to implement this rehabilitation (IGF, 2018).

There are no mechanisms or provisions in place in the tax code or other legislation to address commodity price volatility. The mineral legal and policy framework

does not have a windfall tax that enables the government to mobilise optimal resources commensurate with production on the ground when world commodity prices are high.

Mining license fees are low (US\$0.70 per square kilometre) compared to other mining countries, and there is limited support of small-scale and artisanal miners by the government. Small-scale and artisanal miners lack understanding of the mining legislation, environmental management and occupational health and safety issues. There is a lack of government support with regards to funding training, education and innovation programming (IGF,2018).

Namibia's mineral rights licensing and management is regarded as one of the best in the world, and the Fraser Institute Policy Perception Index (PPI) for the country has consistently been favourable. The interest of stakeholders is protected by legal instruments and where disputes occur there are clear channels and procedures for recourse. As a result of this friendly operating environment, Namibia is home to some of the world's largest mining companies. De Beers, the world's largest diamond producer, is a 50:50 partner in Namdeb Holdings with the government of Namibia. Indian giant Vedanta, China's China General Nuclear, Canada's B2Gold and QKR of Qatar have a presence in the country.

The mineral sector in Namibia exhibits strong gender bias in terms of employment at all levels. Data from the review periods (2015-2016; 2016-2017; and 2017-2018) show that females were under-represented at all levels.

The serious environmental impact of mining operations in Namibia is exemplified by 260 mines that were abandoned without any closure or reclamation plan. From the selected cases, impacts include heavy metal poisoning such as at Berg Aukas (Mapani et al 2009); Acid mine drainage, such as at Matchless mine (Hahn et al 2004); dust pollution, such as at Oamites mine; and water pollution, such as at Klein Aub mine (Hahn et al, 2004).

CSR is not legislated in the mineral sector, and it is not a condition for obtaining any licenses in Namibia. Mining companies operating in Namibia generally consider CSR as a business strategy that is meant to gain favour with communities in areas where they operate. The companies view compliance with CSR as a means to gain acceptance from the relevant community (Nande, 2017).

The three main taxes (corporate tax, export levy and royalties) in place for mobilising financial resources from the sector at the current levels are inefficient, with most of the revenue coming from just one company, Namdeb Holdings. As a result of the high corporate tax, there is a high risk of transfer pricing manipulation by mining companies in the country. The country is not collecting enough revenue from the extractive sector due to possible illicit financial flows, tax evasion, and avoidance practices. Royalties paid by mining companies (three per cent) are way too low compared to other mining jurisdictions like South Africa's five per cent for refined mineral resources and seven per cent for unrefined mineral resources and Australia's 10 per cent. Export levies charged by the Namibian government are also far too low.

There is a lack of capacity in the various government institutions responsible for the mobilisation of financial resources, and poor policing of Section 95A of the Namibian Income Tax Act, 2005. Despite the Inland Revenue Directorate (IRD) having this effective tool at its disposal, the tool has not been widely used since its introduction in 2005. Price manipulation is widespread in the mineral sector in Namibia. Mining companies inflate their investment expenditure in order to offset profits and avoid paying corporate taxes. The regulator is not working as "whole-government" to combat this phenomenon, and far too many communication gaps exist between institutions that are supposed to work as one and combat this phenomenon. Companies are exploiting communication gaps between the Bank of Namibia, the MME and the MF.

Namibia has weak and self-destructing anti-avoidance policies. The IRD uses debt to equity ratio of 3:1 in determining whether a Namibian company is adequately capitalised. This ratio is not efficient, and is too high compared to other mining jurisdictions such as Canada and Australia.

The study found that there is excessive leveraging by multi-national companies in the sector that causes major domestic tax base erosion. The incentives given to foreign mining companies to attract FDIs into the sector do not make economic sense.

Namibia does not levy a tax on capital gains on individuals and companies, and as a result, the country is not benefiting from shares sold overseas by individuals and companies. For example the US\$2.5 billion sale of Trekkopje Uranium mine

by UraMin to Areva in 2007. Because the transaction took place overseas, Namibia did not get a single cent from the transaction.

The mineral sector is not a member of any voluntary organisation that encourages revenue transparency in the sector. While mining companies publish their financials in the annual Chamber of mines review reports, this is not enough because traceability of revenues generated from the sector stops once the funds enter the national coffers.

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SARW Objectives

Monitor corporate and state conduct in the extraction and beneficiation of natural resources in Southern Africa, and assess to what extent these activities uplift the economic conditions of the region's communities.

- Generate and consolidate research and advocacy on natural resource extraction in Southern Africa.
- Create informed awareness of the specific dynamics of natural resources in Southern Africa, building a distinctive understanding of the regional geo-political dynamics of resource economics.
- Provide a platform of action, coordination and organisation for communities, activists, researchers, policy-makers, corporations, regional and global governing bodies in the watching and strengthening of corporate and state accountability in extractive industries.
- Engage with and support government on building accountable and transparent management of extractive resources.
- Build capacity for communities, civil society, parliaments, and media to hold governments and corporations to account, and to participate in decisions about resource management.
- Advocate and promote human rights and environmental protection in resource extraction activities.
- Support efforts to legislate mandatory public disclosure of and access to financial, social, environmental and regulatory compliance information in the extractives industry.
- Promote extractive industries that create wealth for local communities.

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