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FOREWORD







Hon. Lucia Iipumbu Minister of Industrialisation and Trade

Hon. Tom Alweendo Minister of Mines and Energy

Namibia has an extensive and diverse mineral endowment and the mineral industry has been and remains an integral part of the Namibian economy. Its contribution to the Namibian Gross Domestic Product (GDP) has been on the rise since 1990 and it contributed about 9% and accounted for approximately 50% of the country's foreign exchange earnings in recent years. Notwithstanding these contributions, Namibia's mineral endowment makes it a good candidate for further processing of minerals since the global demand for minerals has grown much broader over the years to include minerals used in a range of conventional and emerging high technology applications. The main purpose of this Mineral Beneficiation Strategy (MBS) is to provide a clear road map on how minerals may be beneficiated locally in order to contribute to downstream industrialisation through the provision of feedstock and other inputs to the manufacturing industry. 'Beneficiation' of minerals is the processing of mined ore to separate valuable mineral products from the associated waste rock or impurities. The extent to which this is carried out determines whether the product is intermediate in its purity and should be processed further or it is refined, ready for further value addition through manufacturing.

Although there is capacity for some mineral commodities such as copper and zinc to be refined in the country to pure metals before they are exported, Namibia can generally be defined as an economy that is currently operating with low levels of mineral beneficiation. The level of beneficiation is varied, in some cases due to economies of scale, and the country exports most of its minerals as concentrates and semi-processed forms rather than high-value intermediates to finished products. The desired situation is for Namibia to develop an internationally competitive industry in which beneficiated and value-added minerals/metals become feedstock in the field of manufacturing of semi-finished products or consumer end-products. The value of some mineral commodities (e.g. diamonds) could be increased locally by at least a factor of ten through beneficiation and manufacturing from rough form to jewellery.

The Namibian government has unquestionable commitment to working with the role players in the minerals and manufacturing industries to create the investment in infrastructure that is necessary for beneficiation to reach its full potential and contribute to the industrialisation of the country. For a country like Namibia, with specific economic and industrial development requirements as outlined in Vision 2030, the 2012 National Industrial Policy and the Growth at Home Strategy, there is a need to take a more strategic approach to diversify supply of mineral products in order to satisfy the demand for industrialisation. This mineral beneficiation strategy seeks to complement key national development initiatives by creating an environment that is conducive for investment and value-addition through the provision of mineral-based feedstock for competitive manufacturing and produtive development sectors in an environmentally sustainable way. Relentless and timeous implementation of this strategy will result in immense benefits for Namibian citizens through job creation, skills development, technology transfer and economic diversification thereby improving the quality of life and reducing poverty levels through increased earnings. To this end a comprehensive implementation plan has been compiled to guide the process. In order to achieve our ambition, this calls for a quadruple helix approach where government, industry, universities and the community will need to work together to derive maximum value and returns from the mineral value chain. Our aspirations as portrayed in this strategy go beyond mining. Namibia can capitalise on its unique comparative advantage and can build on it to attract more investment into diversifying mineral production and increasing the domestic processing activities.

We therefore urge all stakeholders, and citizens at large, to spare no effort in implementing this strategy so that the anticipated benefits may accrue to the nation.



EXECUTIVE SUMMARY

The mining industry is one of the main contributors to the Namibian economy, accounting for approximately 9% of the country's Gross Domestic Product (GDP). In terms of foreign exchange, the sector accounted for at least 50% of the foreign exchange earnings in 2017 and 2018 (Namibia Statistics Agency, 2019). The mineral sector's contribution, however, has not yet reached its full potential in terms of converting Namibia's extensive mineral endowment to create corresponding advances in social and economic development across the country. The Mineral Beneficiation Strategy was developed as an inclusive long-term modernization and economic transformation programme that enables substantive and sustained raising of living standards, intensifying structural change and accelerating Namibia's industrialization. The strategy aims to facilitate the realisation of full social and economic potential that can be derived from Namibia's vast mineral endowment and to promote investment, trade, and industrial development. The strategy is defined on three levels, namely;

- Overarching strategy that addresses broad and cross-cutting issues for the broad range of mineral commodities;
- Grouped mineral commodities strategies addressing issues that apply to the seven groups of mineral commodities as defined in the strategy; and
- Individual mineral commodities strategies addressing all the individual mineral commodities identified in Namibia.

The beneficiation subject is a theme under the Africa Mining Vision as well as the Southern Africa Development Community's (SADC) Industrialization Strategy and Roadmap: 2015-2063. In view of these developments across the globe, it is a concern that Namibia has not leveraged on the abundant mineral resources to develop an internationally competitive industry. Ideally, a competitive industry consists of a well-developed manufacturing sector that adds value to raw materials to produce either semi-finished products or products that are ready for market consumption in various industry sectors including construction, battery storage, pharmaceutical, chemical, agricultural, automotive, oil, metallurgical, electronics, aerospace, plastics, and energy. For the past decades.

Namibia has had no overarching national or sectoral mineral beneficiation strategy to guide the Namibian mining industry towards unlocking its potential to make a significant contribution to the nation's long-term social and economic development through both midstream and downstream processing.

The absence of a national Mineral Beneficiation Strategy (MBS) has been a major handicap for the Government in the implementation of policies that promote value addition particularly in the mining industry. It is against this background that the Government of the Republic of Namibia (GRN), through the Ministry of Mines and Energy (MME), constituted a Joint Value Addition Committee (JVAC) to oversee the development of a mineral beneficiation strategy (MBS) for Namibia.

The development of the MBS called for wide consultations with stakeholders and benchmarking nationally, regionally and internationally. This process revealed that the main constraints hindering beneficiation and manufacturing in the mining sectors were:

- (Unfavourable costs of production due to high costs of utilities and low productivity levels;
- (a) International investors finding operating environment not conducive enough and conditions unfavourable in terms of credit rankings of the country;
- Resources required for beneficiation and manufacturing are not adequate for cost effective and viable operations due to low economies of scale;
- Limited access to skills required for beneficiation and manufacturing;
- O Local entrepreneurs finding it difficult to obtain finance from financial institutions; and
- O Low appetite for locally beneficiated and manufactured products at national, regional and international level.

Based on these constraints and SWOT analysis, six main intervention areas were identified, namely;

- 1. Enhanced mineral sector governance.
- 2. Securing raw material and intermediate resources.
- 3. Skills development, research and innovation.
- 4. Investment attraction and retention.
- 5. Beneficiation technology, enabling infrastructure and environment; and



The mineral beneficiation strategy builds upon initiatives taken for Namibia to improve competitiveness as an investment destination. This competitiveness, coupled with considerable natural endowment in mineral resources, provides a platform for increased beneficiation, leading to the realisation of more economic value from the various mineral commodities in the country.

This minerals beneficiation strategy seeks to complement key national development initiatives by creating a conducive environment for investment and value-addition through the provision of mineral-based feedstock for a competitive manufacturing sector in an environmentally sustainable way. It aims to address critical intervention areas in order to direct Namibia's mineral endowment and outputs towards enhanced economic development and social progression.

Considering the factors such as the availability of domestic and regional resources, projected impact and required levels of investment, this document provisionally identifies a selection from diamonds, coloured gemstones, zinc, industrial minerals (gypsum, dimension stone, limestone), iron and steel foundry products, battery minerals (lithium and graphite) and salt as pilot projects for mineral beneficiation in Namibia. This implies that the identified commodities have the potential to be successfully processed into end-products and/or feedstock for manufacturing with relative ease, taking into account the identified factors. However, the need to address the identified intervention areas, either wholly or partially is a prerequisite for the successful targeting of the identified pilot projects.

It is recognized that the private sector, particularly the investors, have a role to play and may decide on different alternatives as informed by their decisions on economic feasibility for various value chains. Equally the role of key industrial development agencies under the Public sector is also recognize to ensure the initiation of pioneering investments where feasible.

INTRODUCTION

1.0 Introduction

Namibia has an extensive and diverse mineral endowment but options for beneficiation are increasingly constrained by economic, technological, environmental and social factors as well as the lack of adequate infrastructure (transport, water and energy), which can threaten long-term competitiveness. Notwithstanding these constraints, Namibia's mineral endowment makes it a good candidate for further processing of minerals since the global demand for minerals has grown much broader over the years to include minerals used in a range of conventional and emerging high technology applications. Many countries with similar economic and industrial development requirements have started to take a strategic approach to ensure security of supply of minerals with a thrust towards beneficiation.

The Namibian government has unquestionable commitment to working with the role players in the minerals industry to create the investment in infrastructure that is necessary for beneficiation to reach its full potential and contribute to the industrialisation of the country as outlined in Vision 2030 and National Development Plans (NDP5 and beyond). This minerals beneficiation strategy seeks to complement key national development initiatives by creating a conducive environment for investment and value-addition through the provision of mineral-based feedstock for a competitive manufacturing sector in an environmentally sustainable way.

It aims to address critical intervention areas in order to direct Namibia's mineral endowment and outputs towards enhanced economic development and social progression. In order to achieve this, the optimisation of linkages in the minerals value chain that facilitate economic diversification and industrialisation is required. This will result in immense benefits for Namibian citizens through job creation and skills development, thereby improving the quality of life and reducing poverty levels through increased earnings



2.0 Global mining industry -**Demand and Supply**

Global demand for metals is constantly growing, and is mostly driven by increasing world population, industrialization and the drive towards the 4th industrial revolution which is fueled by emerging high technology industries, particularly in the information, renewable energy and transport sectors. The increased global demand for high-tech metals and other minerals creates significant supply challenges. Many of these minerals are hard to find and difficult or expensive to extract.

2.1 Global Production Trends and Outlook

2.1.1 Copper

The International Copper Study Group projected that global mine and refined production of copper would increase slightly in 2018, owing to a decrease in supply disruptions. The global consumption of refined copper was also expected to rise slightly and to exceed global refined production by roughly 90,000 tonnes. The largest producer of mined copper in the world in 2017 was Chile, accounting for 5.5 million tonnes out of the total 20.0 million tonnes of global copper output as shown in Figure 1. With new applications for copper in antimicrobial touch surface, high-tech copper wires and heat exchangers, the demand for copper continues to increase. This is in addition to the demands of fast-growing economies like China and India, whose industrialization continues to increase their appetite for copper. Another factor in the increasing demand for copper is that many nations are also shifting from fossil fuels to electricity in an effort to mitigate global warming (N. Rötzer and M. Schmidt (2020)).



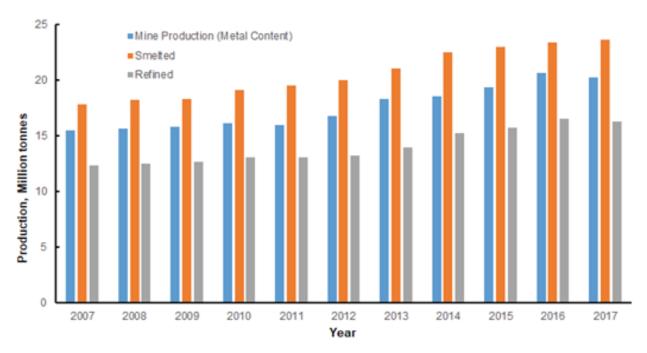


Figure 1: Global copper production (Source: British Geological Survey, 2019)

2.1.2 Iron Production

According to the US Geological Survey (2019), global raw steel production was forecast to have increased by 3.9% in 2018 and 1.4% in 2019, spurred by investments in industrialised nations and economic improvements in emerging economies as shown Figure 2.

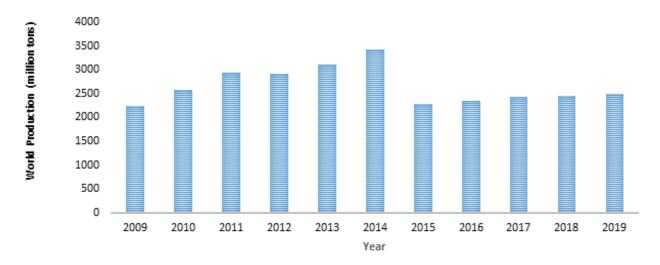


Figure 2: Global Iron production (Source: US Geological Survey, 2019)

2.1.3 **Uranium Production**

According to IAEA (2018), the trend in world primary energy demand is steadily growing as a result of the increasing world population and the expansion of the global economy as shown in Figure 3. This demand may be satisfied by nuclear energy.

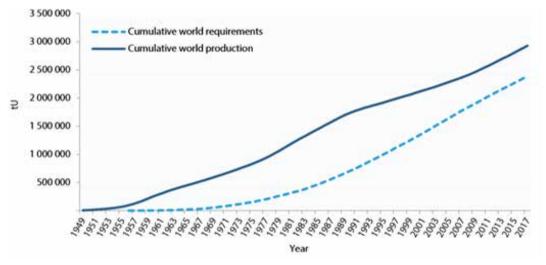


Figure 3: Cumulative uranium supply and demand (IAEA, 2018)

The currently defined global resource base is more than adequate to meet high case uranium demand through 2035, but doing so will depend upon timely investments to turn resources into refined uranium ready for nuclear fuel production (IAEA, 2018).

2.1.4 Zinc Production

Global zinc mine production in 2019 was estimated to be 13 million tonnes, a slight increase from that of 2018 as shown in Figure 4. According to the International Lead and Zinc Study Group, global refined zinc production in 2018 was estimated to be 13.42 million tonnes, and metal consumption was estimated to be 13.74 million tonnes, resulting in a production-to-consumption deficit of 322,000 tonnes of refined zinc. Figure 5 shows the casting and packaging of Zinc ingots at Skorpion Zinc.

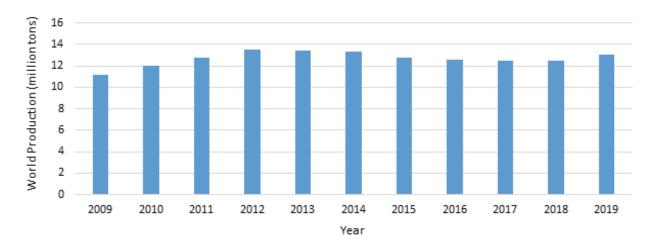
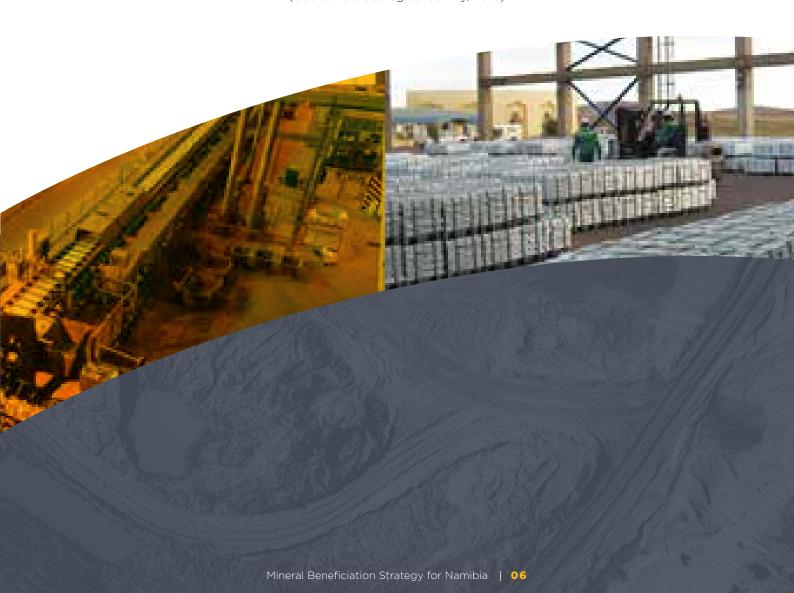


Figure 4: Global Zinc production (Source: US Geological Survey, 2019)



2.1.5 **Gold Production**

Figure 6, indicates that global production may be seen to be about 3 100 tonnes annually. Worldwide gold production is increasing; this is due to the steadily increasing prices. Major producers include China, Australia, the U.S.A., Russia, and Canada. Global production figures have steadily risen in the last 10-15 years and got to 3 260 tons in 2018. Mine production accounts for the largest part of gold supply - typically, 75% each year. However, annual demand requires more gold than is newly mined and the shortfall is made up from recycling (World Gold Council, 2019). Approximately 20 to 30% of the annual global gold production can be attributed to artisanal and small-scale miners. On average, this would translate to approximately US\$ 27bn contributed to the world economy by artisanal and small scale-miners (IGF, 2014).

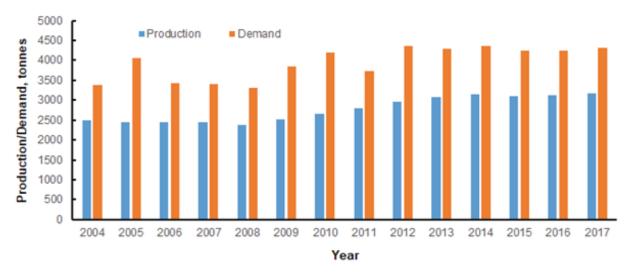


Figure 6: Global gold demand/supply trend (Source: Climateer Invest, 2019)

2.1.6 **Diamond Production**

Diamond production increased to 151 million carats in 2017 from 127 million carats in 2016 leading to an unprecedented 19% growth in rough diamond production, breaking an eight-year trend of flat output. However, increase in the revenue is not as expected due to processing of lower-quality supplies and tailings, which increased the cost of production (Bain & Company, 2018). Figure 7 shows the world's annual production of diamonds with 2017 estimates.

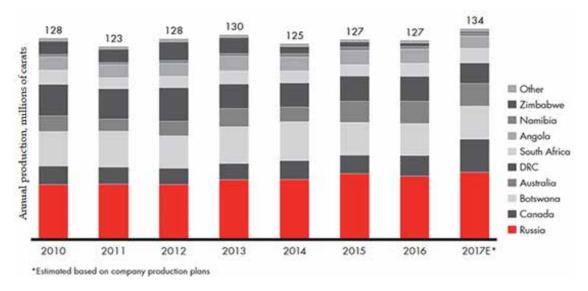


Figure 7: World rough diamond production since 2010 (Bain & Company, 2018)

2.1.7 **Dimension Stone Production**

The demand for the dimension stones has been steadily growing since 1980, at an average rate between 7 and 9% per annum (Ashmole & Motloung, 2008). Along with early dimension stones market leaders such as Italy, Spain, Portugal and Greece, new players have evolved which include China and India as the key dimension stones producing as well consuming countries. The export trend (Figure 8) indicates that the demand for marble is significantly higher than granite. In 2006, the marble and granite export values were US\$ 1.2 billion and 1.4 billion respectively, and by 2016, the value of marble exports reached US\$ 2.5 billion, while granite exports stood at US\$ 1.6 billion, indicating a greater demand for marble than granite. The greater popularity of marble can be traced back to its more diverse applications in the form of blocks, tiles, mosaic and powder in various industries.

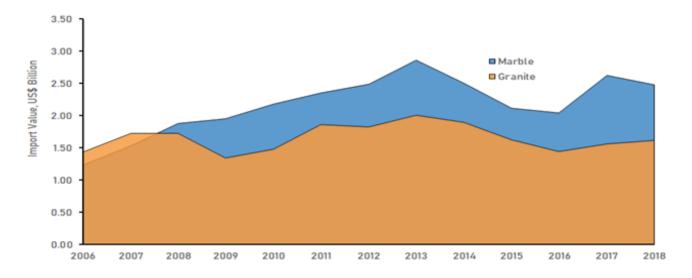


Figure 8: World granite and marble export trend

2.1.8 **Lead Production**

Lead is bought and sold by many countries on the world market, in the forms of ore, impure metal and refined metal, as well as final products. The International Lead and Zinc Study Group (ILZSG, 2018) data for 2018 showing that demand exceeded supply by 98kt on the global market for refined lead metal. China was the leading producer of lead in 2018 followed by Australia, Europe, United States of America (USA), and Peru. Similarly, China was the largest consumer of lead metal in 2018, followed by USA, Europe, Korea and India. Figure 9 shows the Lead production usage statistics over last five years.

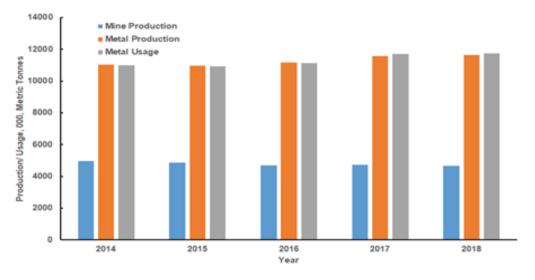


Figure 9: Lead production usage statistics (Source: ILGSG)

Mining sector's contribution to the economy

The mining industry is one of the main contributors to the Namibian economy, accounting for around 9 % of the country's Gross Domestic Product (GDP) and approximately 50% of the foreign exchange earnings in 2018 and 2019 as shown in Figure 10 (Namibia Statistics Agency, 2019). The mineral sector's contribution, however, has not yet reached its full potential in terms of converting Namibia's extensive mineral endowment to create corresponding advances in social and economic development across the country. The exporting of raw or semi-processed mineral products exposes them to market price fluctuations, which do not usually apply to end products. The value of some mineral commodities (e.g. diamonds) could be increased by at least a factor of ten through beneficiation and manufacturing from rough form to jewellery.



Figure 10: Contribution to GDP

Source: Namibia Statistics Agency 2019.

Namibia has significant uranium mines capable of providing 10% of world mining output and is the fourth largest exporter of uranium in the world (World Nuclear Association, 2020). In addition, Namibia is the source of the richest alluvial diamond deposits in the world and has become one of the world's leading gem-quality diamond producers as highlighted in Figure 11. Namibia is the fourth largest exporter of non-fuel minerals in Africa (KPMG report, 2014).



Namibia is the source of the richest alluvial diamond deposits in the world. Namibia has become one of the world's leading gem-quality diamond producers. (Source: Mines and Metals accessed November 2020)



Namibia is the 4th largest exporter of non-fuel minerals in Africa. (Source: KPMG report accessed in November 2020)



The Namibian mining sector's share of GDP has reduced to an average of 9%, suggesting a diminished role in the Namibian economy. (Source: Chamber of Mines of Namibia Annual Report, 2019, p.23)



Namibia has significant uranium mines capable of providing 10% of world mining output. (Source: World Nuclear Association accessed in November 2020)



Namibia is the fourth largest exporter of uranium in the world. (Source: World Nuclear Association accessed November 2020)



Namibia has the largest integrated Zinc operation and the only Zinc Refinery in Africa that beneficiates ore to metal. (Source: Vedanta International report accessed in November 2020)

Figure 11: Namibia Mining Highlights

3.0 STEEP Analysis

The situational analysis focuses on establishing the status quo in terms of the social, technological, economic, environmental and political (STEEP) standing of Namibia. The rationale behind the situational analysis was to gain some insights into the broad circumstances under which the proposed strategy would be premised, thereby providing a basis upon which the proposed mineral beneficiation strategy would be anchored. The various factors were investigated and put within regional and global contexts to provide a clearer perspective of how the country competes within the region and at the global scale. The following sections provide a brief insight into the findings of the situational study as presented in the situational analysis report.

3.1 Social

Namibia has made tremendous progress in terms of human development and the country's Human Development Index (HDI) value for 2017 stood at development category, positioning it at 129 out of 189 countries and territories. Between 1990 and 2017, Namibia's HDI value increased from 0.579 to 0.647 (see Figure 12), which is an increase of 11.7 percent. In terms of poverty, noticeable progress was made in the reduction of poverty, where the country more than halved the proportion of Namibians living below the national poverty datum line from 69.3% in 1993/94, to 28.7% in 2009/10, and further to 17.4% in 2015/16.

The GINI coefficient, which is the most acceptable measure of income inequality, shows that inequality in the distribution of income has decreased. Despite this decline, however, the level of inequality in Namibia remains among the highest in the world. The GINI coefficient for Namibia for 2003/2004, 2009/2010 and 2015/2016 was 0.60, 0.58 and 0.56 respectively.

Namibia in general and the mining industry in particular experiences a skills shortage in several technical areas. According to the GCI Report (2018), Namibia is ranked 100th in the world, alongside Botswana at position 92 and South Africa at 84. Therefore, investment in skills development is critical if Namibia is to make progress towards developing world-class skills capacity to move towards the global leaders such as Finland, which is ranked number 1 in the world. Alongside skills shortage is the weak state of national health. According to the GCI Report (2018), Namibia scored 51 in the health pillar and ranked number 117 in the world.

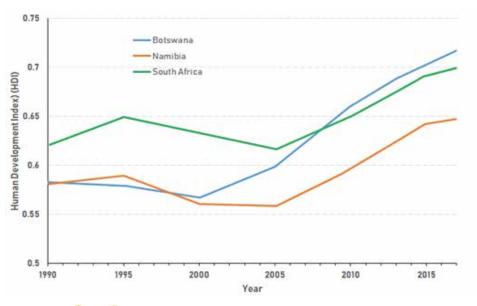


Figure 12: HDI trends for Namibia, Botswana and South Africa, 1990-2017 Source: Modified UN Human Development Index Report, 2019

Technology 3.2

The country's state of technological advancement is measured by the degree of diffusion of specific information and communication technologies, the private sector's capacity to generate and adopt new technology, and the quantity and quality of formal research and development. Based on these indicators, the situation analysis found that Namibia was trailing behind all its immediate competitors. In terms of ICT adoption, Namibia ranked 105, behind Botswana at position 98 and South Africa at position 85.

In terms of Business dynamism, Namibia stood at 121 out of 140 countries, trailing behind Botswana at position 103 and South Africa at position 56. Namibia's innovation capability remains favourable at a global position of 77 out of the 140 countries, trailing behind South Africa at position 46 but ahead of Botswana which is standing at position 101 as shown in Figure 13.

In terms of expenditure on creative work undertaken systematically to increase knowledge, including knowledge of humanity, culture, and society, and the use of knowledge for new applications, Namibia spends relatively little on research and development (R&D). As a share of GDP, Namibia's Research and Development (R&D) expenditure stood at 0.3% in 2018. This is low compared to Botswana and South Africa, whose R&D expenditures stood at 0.5% and 0.8%, respectively.

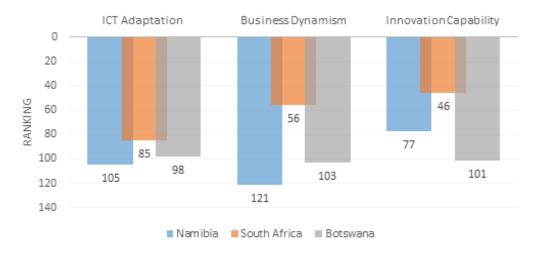


Figure 13: Namibia rankings for ICT adaption, business dynamism and innovation capability

3.3 Economic

TThe Namibian economy was already on a fragile footing when the coronavirus disease 2019 (COVID-19) was declared a Public Health Emergency of International Concern by the World Health Organisation (WHO) in January 2020 and a global pandemic in March 2020. The economy entered a recession in 2018 and for the past three years, GDP growth has been in negative territory and many economists had initially forecasted that 2020 will be a better year with GDP growth of more than 1%. However, with the arrival of COVID-19, the projections are that the economy is likely to register a negative GDP growth of 7.8 percent in 2020.

The domestic economy contracted by 11.1 percent during the second quarter of 2020 compared to a decline of 3.6 percent recorded in the corresponding quarter of 2019 (Figure 14). Making it the highest contraction recorded since the commencement of compilation of quarterly Gross Domestic Product. The last severe contraction of 6.1 percent was recorded in the first quarter of 2009, as a result of the global financial crisis.

The contraction in the economy during the second quarter of 2020 is observed across the entire sectors of the economy as domestic activities were under pressure due to the impact of the COVID-19 measures which was put in place for the country to contain the spread of the virus.

The measures entailed among others, closing of the country's borders and only allowing businesses that provides essential services to operate. However, of the 16 sectors under observation, 3 sectors recorded positive performance during the period under review. These were 'Agriculture and forestry', 'Information and communication' and Health sectors. Growth will be held back by weak productivity growth, stagnant competitiveness and weak regional prospects. The sectors expected to be most affected by travel restrictions and weakening global markets include hotels and restaurants; mining; transport and storage; manufacturing; wholesale and retail trade; financial and insurance services; and construction.



Figure 14: Namibia quarterly GDP Growth rates from 2014 – 2019

The global economy is facing a confluence of risks, which could severely disrupt economic activities and inflict significant damage on longer-term development prospects. These risks include the global outbreak of the coronavirus pandemic (COVID-19), an escalation of trade disputes, an abrupt tightening of global financial conditions, and intensifying climate risks. Global commodity market is remained volatile. The general trend showed commodity prices falling in 2018 because of continuing trade tensions between the US and China. Supply concerns (especially in copper and zinc), disruptions in iron ore production due to the tailings dam disasters in Brazil, and China's fiscal stimulus are expected to provide support.

Environment

The state of the environment assessment focused on environmental developments which involve the ecosystem factors such as water, wind, food, energy, pollution and environmental regulations. Looking at the environmental dynamics from a sustainable development perspective, Namibia has a very comprehensive environmental policy and legislation framework, encompassing all economic activities as captured in the Environmental Management Act, No. 7 of 2007. However, the challenge concerning the legislative framework is the limited institutional capacity for the enforcement and monitoring of these policies and legislation which ultimately weakens the framework.

Respondents from the key institutions such as MME, MEFT, MAWLR, COM, and COE suggested that capacity is one of their concerns. In terms of climate and weather developments, the arid nature of the country remains a critical concern for development. The World Resources Institute (WRI, 2014), estimated that the water risk for Namibia's industrial sector is at 3.5 - 5 or "high to extremely high" (baseline stress).

3.5 Political ==

Namibia has a stable political environment that has brought about an independent judiciary system and other key democratic institutions, which is a pull factor for investors. Namibia enjoys strong political and economic ties with countries across the East-West divide including China, Russia, and European Union countries.

In terms of transparency, corruption and bureaucracy, Namibia scored 53 points out of 100 on the 2018 Corruption Perceptions Index reported by Transparency International, placing it on position 52 in the world. Figure 15 shows a comparison for Botswana, South Africa and Namibia's investment attractiveness trend for the past five years. Namibia ranks number 5 on the African continent, and in the SADC region, the country takes position 3 after Botswana and Seychelles. These rankings negatively affected Namibia's investment outlook and hence the country observed a drop on the competitiveness to 107th in the 2018 World Bank Easy of Doing Business ranking from 106th in 2017.

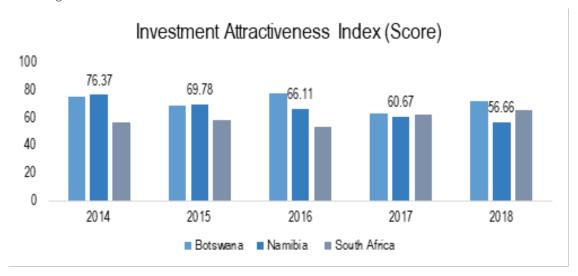


Figure 15: Investment attractive index for Namibia, Botswana and South Africa

4.0 Status of Mineral Beneficiation in the Country - the **Opportunities**

Beneficiation, or value-added processing, involves the transformation of a primary material (produced by mining and extraction processes) to a more finished product, which has a higher value. Each successive level or stage of processing adds value and permits the product to be sold at a higher price than the previous intermediate product or original raw material (Figure 16).

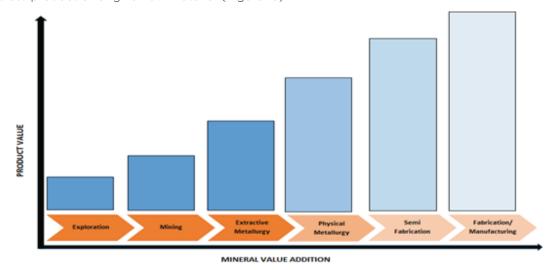


Figure 16: Mineral value chain (Marginal increment is not captured in the graph)

The status of mineral beneficiation in Namibia varies with some mineral commodities being exported as raw ores or mineral concentrates, while others are exported as refined metal. Further beneficiation of the semi-processed mineral products is necessary to enable local industrialisation and economic development. Table 1 shows the classification of minerals produced in Namibia.

Table 1: Classification of minerals produced in Namibia

Mineral Classification	Minerals or Metals				
Precious and Semi-Precious Stones	Diamonds Coloured Gemstones				
Nuclear Fuel Minerals	Uranium				
Base Metals	Copper	Zinc	Lead	Cobalt	Lithium
	Tin	Tantalum			
Precious Metals	Gold	Silver			
Steelmaking/Ferroalloy Metals	Iron	Manganese	Tungsten	Vanadium	
Rare Earth Elements	Dysprosium	Yttrium	Lanthanum	Cerium	Gadolinium
Industrial Minerals	Phosphates	Salt	Dimension stone	Limestone	Gypsum
	Graphite	Silica sand	Clay		

The status of mineral beneficiation in Namibia varies with some mineral commodities being exported as raw ores or mineral concentrates, while others are exported as refined metal. Further beneficiation of the semi-processed mineral products is necessary to enable local industrialisation and economic development. Namibia has capacity for varying levels of mineral beneficiation, ranging from first stage concentration as in the case of zinc concentrates from Rosh Pinah to final refining capacity as in the case of zinc (99.99% pure) ingots from Skorpion Zinc and 99.99% pure copper cathode at Tschudi Mine. The country is among the world's top 10 gem-quality diamond producers, mined both on land and offshore, and a portion of the rough diamonds produced in the country are allocated by the Namibia Diamond Trading Company to local cutting and polishing factories.

Gold is partially refined in Namibia and exported for further refining outside the country. Both Navachab gold mine (owned by QKR Corporation) and B2Gold Otjikoto mine currently export their gold to South Africa for further processing at Rand Refinery.

Uranium oxide produced in the country is exported in the form of "yellow cake" to power utilities in countries that are signatories to the Nuclear Non-Proliferation Treaty. Namibia also produces a wide variety of industrial minerals including graphite, dimension stone, limestone, wollastonite, bentonite, salt and others. Apart from limestone, graphite and salt, these minerals are mined on a small scale and the country is also known for its wide variety of high quality semi-precious stones.

Battery minerals, notably lithium, graphite and cobalt, and rare earths have been found in Namibia, but they are currently not being mined These minerals full scale. present opportunities for mining and beneficiation, thus significantly contributing to the manufacture of various components used in electric vehicles and the storage of relatively large amounts of energy for longer periods especially from renewable sources such as solar, for which Namibia has a comparative advantage due to long hours of sunshine.

5. MBS Development Process

Independent but complementary approaches were used in the development of the Mineral Beneficiation Strategy, namely a desktop study, baseline study, local site visits and interviews, regional and international benchmarking visits and data analysis. Relevant senior officials in relevant government ministries, public institutions, private sector organisations, small- and large-scale mining companies and individuals in the mining sector were consulted. The baseline study was conducted with the aim of analysing the current situation and characterising the industry, including strengths, weaknesses, opportunities and threats (SWOT) analysis.

5.1 Stakeholder Participation

Stakeholder engagement leads to project buy-in and usually assists in the collective ownership of project outcomes, thus improving the quality of participation and recommendations. In the Namibian mining and manufacturing sectors, there are various stakeholder groups along the value chain, some of whom directly influence the value chain process, while the others influence policy decisions. Stakeholders engaged in the project were classified into three categories, namely, micro, meso and macro level stakeholders as shown in Figure 17. In addition, the Namibian Mineral Beneficiation Strategy amply recognizes the central role of the private sector as a wealth creator and facilitator of national and regional industrial development and transformation

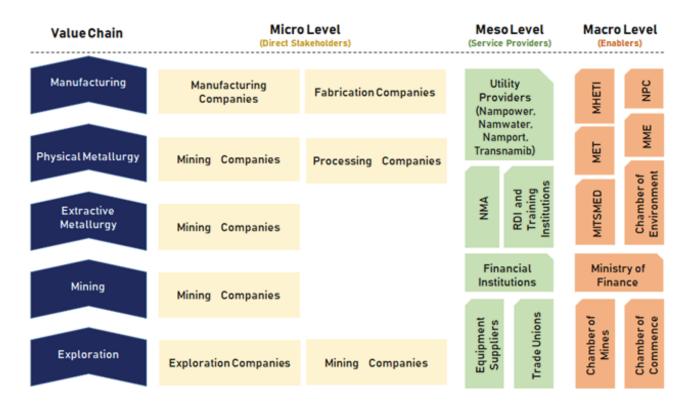


Figure 17: Stakeholders mapping for mineral beneficiation strategy

It further underscores that a productive and systemic relationship be established between the public and private sector and other stakeholders. Specifically, the Strategy calls for the establishment of a platform for public-private dialogue on industrial development and enable business leaders to participate in regional policy-making and capacity development. It advocates for incentives be created for business participation within the regional context, and that the sector should be supported with adequate space created for the participation of the business associations.

5.2 **SWOT Analysis**

The strengths, weaknesses, opportunities and threats (SWOT) of Namibia with respect to mineral beneficiation were identified at a stakeholders' workshop held in Windhoek and these were analysed to determine how Threats could be turned into opportunities and how Weaknesses could be turned into Strengths (see Table 2).



Table 2: Strengths Weaknesses Opportunities and Threats (SWOT)

6.0 Constraints for Beneficiation in Namibia

The SWOT analysis and logical framework approach were used to identify the negative aspects of the existing situation and established the cause and effect relationship between the identified problems. A participatory and interdisciplinary workshop with all major stakeholders was conducted. A major outcome of this problem analysis was that the value addition in the mineral sector was not happening to an extent that would maximise the benefit to Namibians. As shown in Figure 18, this has resulted in:

- National economy not growing as it should,
- A decrease in processing and manufacturing activities resulting in income and employment losses,
- Loss of government revenue,
- The job creation potential of the mining and mineral beneficiation sector not being fully realised and
- Beneficiation and manufacturing sectors not performing optimally.

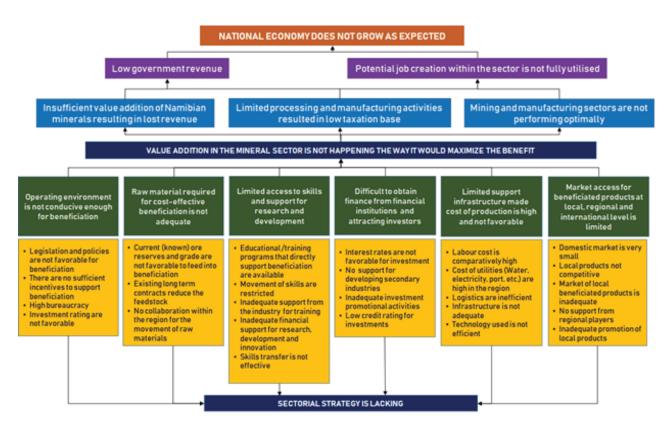


Figure 18: Outcome of the problem analysis

The main constraints hindering the mineral beneficiation and manufacturing sectors were identified as:

- Limited access to skills required for beneficiation and manufacturing.
- Local entrepreneurs finding it difficult to obtain finance from financial institutions. *
- Investors finding conditions unfavourable in terms of investment rankings of the country. *
- Low appetite for locally beneficiated and manufactured products at national, regional and international level.
- * Operating environment not conducive enough for beneficiation and manufacturing.
- Unfavourable cost of production.
- Resources required for beneficiation and manufacturing are not adequate. After identifying the main (higher level) causes, 5-whys analysis was conducted for each cause with the help of stakeholders in order to explore the root cause of the problem.

7.0 The MBS Strategy Structure

As illustrated in Figure 19, the mineral beneficiation strategy is defined on three levels, namely;

Overarching strategy that addresses broad and cross-cutting issues for a broad range of mineral commodities considered in the study:



Grouped mineral commodities strategies addressing issues that apply to the seven groups of mineral commodities as defined in the formulation of the strategy; and



Individual mineral commodities strategies addressing the individual mineral commodities identified in this study.

The overarching Mineral Beneficiation Strategy has been developed to provide a roadmap for the combined range of minerals mined in Namibia to be value added through beneficiation and manufacturing within the country, thus contributing to employment creation and economic development.

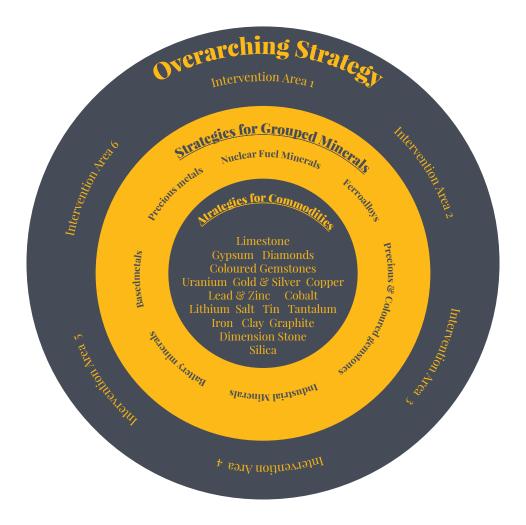


Figure 19: Beneficiation strategy levels

Figure 20 summarizes the key features of the proposed overarching mineral beneficiation strategy. The areas shaded green indicate activities currently underway in Namibia while those in orange show the opportunity areas.

The status of mineral beneficiation in Namibia varies with some mineral commodities being exported as raw ores or mineral concentrates, while others are exported as refined metal. Further beneficiation of the semi-processed mineral products is necessary to enable local industrialisation and economic development. Table 1 shows the classification of minerals produced in Namibia.

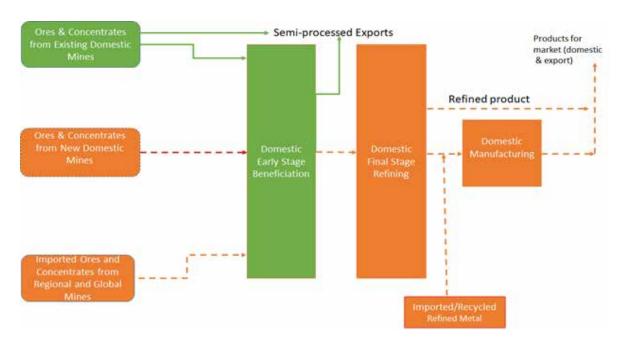


Figure 20: Summarized Overarching Mineral Beneficiation Strategy



Vision of Industry Stakeholders

By 2030, the Namibian minerals beneficiation industry and associated economic activities will have come more profitable, diversified and sustainable.

Strategic Objectives, Indicators and Proposed Interventions

Six core areas have been identified where interventions are necessary in order to achieve the outlined industry growth vision by 2030 (Figure 21). The change each intervention intends is captured in one strategic objective per area, while progress made towards each objective is captured through area-specific indicators and targets.

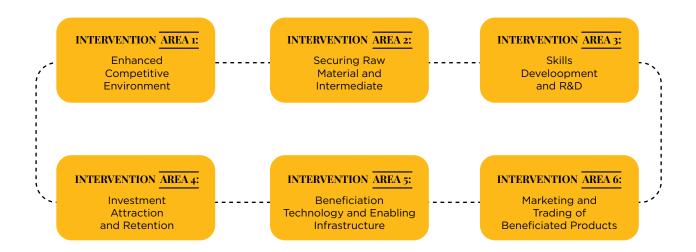


Figure 21: The six core intervention areas which form the basis of the MBS

The Strategy outlines three corresponding time-framed growth scenarios underpinning this process, referenced as:

Phase I: Years 2021-2023.

This phase constitutes a period of active frontloading of the Mineral Beneficiation Strategy and laying firm foundations for long-term development. Most activities in this phase falls under the short-term period for implementation.

Phase II: Years 2024-2027.

This phase will focus on diversification and enhancement of productivity of factors of production and competitiveness. Most activities in this phase fall under the medium-term period for implementation.

Phase III: Years 2028-2030.

This phase will focus on diversification and enhancement of productivity of factors of production and competitiveness. Most activities in this phase fall under the long-term period for implementation.

8.1 Intervention Area 1: Enhanced Mineral Sector Governance Strategic Objective 1:



- * Have finalised coherent/harmonised legislation which is easily understood by investors by 2023
- Number of days to set up businesses per sector should be decreased by 50% by end of 2025
- * Number of women, youth and people with disabilities actively participating in national and regional value chains increased by at least 20% by 2025.

Int. Num.	Intervention	Key Activities	Proposed Champions
1.1	Align mineral	Finalise the Review and update of the	MME, MoF,
	beneficiation	Mineral Policy and ownership (e.g.	CoM, MIT,
	promotion and	NEEEF) legislation	AG
	taxation policies and	Finalise the Review and update of the	! ! !
	legislation to promote	investment legislation (e.g. NIPA)	
	investments	Finalise the Review and update of the	! !
	1 / 50	Income Tax Act Non-deductibility of	! !
		non-diamond mineral royalties	
1.2	Minimize bureaucracy	Establish One Stop Shop for mining and	MME, MoF
	relating to permitting	business permits to reduce processing	CoM, MIT
	processes across the	times	AG
	value chain	Monitor and evaluate business	
		establishment duration/times	! ! !
1.3	Implement effective	Strengthen transparency and access to	MME, MoF,
	engagement with	information at all levels	CoM, MIT
	stakeholders to gain a	Develop guidelines for the equitable	¦ AG
	social license to	distribution and utilisation of portions of	I I I
	operate	the mineral wealth	!
1.4	Increase women,	 Develop and implement Namibia's 	MME, MoF,
	youth & people with	Women's Economic Empowerment	CoM, MIT,
	disabilities	Programme	L AG
	participation in the	Develop and implement Youth Economic	
	industrialization	Empowerment Programme	! ! !
	process	Develop and implement Namibian	I I I
		Persons with disabilities Economic	I I I
		Empowerment Programme.	!

8.2 Intervention Area 2: Securing Raw Material and Intermediate Resources Strategic Objective 2:

Facilitate the supply of sufficient raw material for local beneficiation and manufacturing activities by improving exploration and tapping on regional and international resources

- MME regional Mapping activities at the 1:100 000 scale coverage increased by 40% per year.
- At least 15 active joint partnerships established between Geological Survey Namibia (GSN) and other partner Geological Surveys around the world (including local industry) by 2028.
- Number and type of functioning geo-scientific databases and cadastral infrastructure systems increased by 50% by 2026.
- * Number of active partnerships between ASMs and large scale mining, beneficiation and manufacturing companies increased by at least 30% by 2025.

Int. Num.	Intervention	Key Activities	Proposed Champions
2.1	Securing Raw Material and Intermediate Resources	 Develop the Namibian Raw Material Initiative Increase the volumes of raw material and intermediate resources needed for beneficiation via formalized trade agreements and mechanisms 	MME/GSN, Exploration & Mining Companies
2.2	Increase regional mapping and exploration activities to upgrade mineral inventories and geoscientific information base	 Carry out regular geological reviews update geological database Improve resourcing of the Geological Survey of Namibia for the development of future deep exploration technologies and unlocking of new greenfield exploration Invest in high capacity technology and systems for geological exploration Promote exploration of and registration of EPLs by entrepreneurs and other investors upgrade mineral inventories and geoscientific information base 	MME/GSN, Exploration & Mining Companies
2.3	Improve collaboration between government and industry in exploration	 Enhance Governments and industry collaborations in exploration Enhance relations between landowners and exploration companies 	MME/GSN, Exploration & Mining Companies
2.4	Improve international collaboration	 Examine ways to increase international collaboration on geoscience innovation 	MME/GSN, Exploration & Mining Companies,
2.5	Improved dissemination of information and visibility of the	 Ensure that potential investors in minerals exploration and other stakeholders have access to the geoscientific information they need as efficiently as possible. 	MME/GSN, Exploration & Mining Companies

8.3 Intervention Area 3: Skills Development, Research and Innovation Strategic Objective 3:



- Local skilled workforce in mining, beneficiation, and manufacturing industries developed and increased by at least 20% by 2025.
- Skills transfer mechanisms implemented to increase availability of local critical skills in mining, beneficiation, and manufacturing by at least 20% by 2025
- Local participation in research and development activities in mining, beneficiation, and manufacturing increased (by establishing research institutes and dedicated funds) by at least 20% by 2025

Int. Num.	Intervention	Key Activities	Proposed Champions
3.1	Develop requisite	Identify the requisite skills areas required	MME/ MHETI
	skills	across the value chains	NUST/UNAM
	18	 Increase training programmes for the 	/CoM/CoC
		requisite skills across the value chain	
		 Invest in development of Mineral and 	
	1/-	Manufacturing training institutions	N),
		Collaborate and/or share training facilities	_
	7/6	among local institutions as well as with	
		international institutions	
3.2	Facilitate skills	Provide easy access for work visas for	MME/ MHETI
	importation and	critical and scarce skills	NUST/UNAM
	transfer	 Enforce mechanism for skills transfer 	/CoM/CoC/
			MHAISS
3.4	Promote	Establish research and development	— MME/ MHETI
	innovation, applied	institutions focusing on mining, mineral	NUST/UNAM
	research and UN	beneficiation and manufacturing (e.g.	/CoM/CoC
	development in	Mintek)	
	mineral	 Increase funding for, research and 	
	! beneficiation	development in mineral beneficiation and	
		manufacturing	
	'		
	Table # C	Securing Skills Development, Research and Innovation	

8.4 Intervention Area 4: Attracting and Retaining Investments Strategic Objective 4:



Indicators and Targets

- Number of critical bottlenecks in the regulatory framework and overall business environment reduced at least 50% between 2021 and 2030.
- At least 10 mining beneficiation investment projects (over N\$25 million each) attracted through various investment promotion activities by 2030.
- Establish at least 2 MOUs every year among representative stakeholders across the beneficiation sector and ensure a regular and structured collaboration framework by 2030.

Int. Num.	Intervention	Key Activities	Proposed Champions
4.1	Promote investment in mining,	 Conduct targeted investor identification and 	MIT, MIRCO,
	beneficiation and manufacturing	engagement and foster relationships with investors	CoM, MME
	sector	and manufacturers in mineral supply chains.	<u>:</u>
4.2	Promote a strong local industry	 Identify and promote local investment in the mineral 	MIT, CoM,
	capable of providing supply chain	beneficiation sector industries.	. MME, DBN
	services	Facilitate access to affordable business financing for	! !
	7/ (local companies that wants to engage in mineral	! !
	4 4 1	beneficiation supply chain activities.	1
		Assist local companies to procure modern equipment	!
		and supplies through grants or purchases (e.g. IUMP)	i !
4.3	Improve Namibia investment	Conduct image promotion shows and related	MIT, MoF,
	ratings	campaigns internationally	NPC
		Harmonies macroeconomic policies for consistency	! !
		and predictability	1 1 1
4.4	Review and streamline existing	Identify and implement appropriate incentive	MIT, MoF,
	fiscal and non-fiscal incentives to	schemes to promote minerals related manufacturing	. NPC
	enhance and attract investments	industries in Namibia	1 1
		Implement Special Economic Zones	!

Table 6: Attracting and Retaining Investments

8.5 Intervention Area 5: Beneficiation Technology and Enabling Infrastructure

Strategic Objective 5:



Facilitate the procurement, installation and utilisation of modern technology and related infrastructure for efficient and cost-effective beneficiation of minerals and manufacturing of products for the local, regional and international markets

- * Access to advanced mineral beneficiation technology increased by at least 20% (through assisting local companies to procure and develop modern equipment, and implementing regional integration of techno logical facilities) by 2025.
- * Productivity improved by at least 20% by 2023 through upgrading/developing new infrastructure and integrating it for use by the mineral industry
- * Waste generation during production operations reduced by at least 20% by 2023 (through recycling, reusing and implementing cleaner production principles for greater environmental sustainability)

Int. Num.	Intervention	Key Activities	Proposed Champions
5.1	Facilitate the	 Enter into bilateral and other agreements with 	MIT
	sourcing and	suppliers of technology for discount	AG
	installation of	arrangements	MME
	mineral	 Implement regional integration through sharing 	MoF
į	beneficiation	of technological facilities	MIRCO
!	technology	Assist local companies to procure modern	
	16-	equipment and supplies through grants or	
		purchases (eg. National Industrial Upgrading	
	7/	Programme (IUMP))	
	4	Assist local companies to manufacture modern	
		equipment for mineral beneficiation	
5.2	Provide	 Upgrade or develop supporting infrastructure 	MIT
	supporting	timeously, including	AG
	infrastructure	■ Roads	MME
	for mineral	Railways	MoF
1	beneficiation	Ports (sea and air)	MIRCO
!	industries and	Energy Energy	
	related value	 Water 	
į	addition	• ICT	
	activities		
5.3	Connect	 Ensuring close collaboration and integrated 	NPC, MIT,
į	minerals and	planning between the utilities and the logistics	AG, MME,
!	other sectors	sector	MoF,
	projects with	Identify planned projects in other sectors	MIRCO
1	infrastructure	which require sharing of same infrastructure	
	development	and logistical facilities	
5.4	Ensuring	 Mitigation of impacts of extraction, processing, 	MET, MME,
	greater	manufacturing and transportation	MoF,
	environmental		MAWLR
	sustainability		

8.6 Intervention Area 6: Marketing and **Trade of Beneficiated Products**

Strategic Objective 6:

Stimulate the demand for Namibian products in targeted local and foreign market segments through quality and sustainability management (i.e. certification) combined with product differentiation and promotion (i.e. branding) efforts.

- Trade of mineral beneficiated products increased by at least 50% per year by 2025 and at least 85 per cent by 2030.
- Number of accredited laboratories for products certification increased to at least one in each region by 2025.
- At least one comprehensive market study for beneficiated products to be conducted yearly starting from 2021 to 2030 (in order to expand the marketability of mineral beneficiated products).

	Int.	Intervention	Proposed	
	Num.		Key Activities	Champions
Si	6.1	Enhance visibility and recognition of Namibian beneficiated products internationally	 Establish dedicated marketing institutions and promotional tools (i.e. Namibia Mineral marketing and Promotion hub). 	MIT MME, CoM, CoC, NTF
Table 9: Income tax for companies	6.2	Increase domestic consumption of locally beneficiated products	 Promote and encourage the buying of domestically manufactured products. Roll out consumers Education campaign about the benefits of buying Namibian manufactured goods. 	MIT, MME, CoM, CoC, NTF
	6.3	Strengthen the competitiveness of local products	 Establish/upgrade laboratories for certifying products to ensure local products meet international standards. Apply infant/SME industry protection Investigate cost-reduction subsidy or packages for beneficiation entities. 	MIT, MME, CoM, DBN,
	6.4	Increase regional and international consumption of products manufactured in Namibia	 Actively participate in regional and international agreements and 	MIT, MME, CoM, CoC, NTF

9.0 Investment/Funding Incentives in Place

The investment climate in Namibia is generally positive. Despite global economic disruptions caused by the COVID-19 pandemic, Namibia has maintained political stability and continues to offer key advantages for inward Foreign Direct Investment (FDI): a favorable macroeconomic environment, an independent judicial system, protection of property and contractual rights, good quality of physical and ICT infrastructure, and easy access to Southern African neighbours. Namibia is upgrading transportation infrastructure to facilitate investment, after completing expansion of the Walvis Bay Port in 2019 and with plans to renovate the Hosea Kutako International Airport and extend the national rail line underway. Namibia also has access to the Southern African Customs Union (SACU), the Southern African Development Community's (SADC) Free Trade Area, the African Continental Free Trade Area (AfCFTA) and markets in Europe.

9.1 Investment incentives

The Namibian Government aims to stimulate economic growth and employment through industrialization and promotion of export. To this end, the government has introduced numerous incentives that are largely concentrated on stimulating manufacturing in Namibia and prompting exports into the region and to the rest of the world. General tax regulations that are indicative of the government's commitment are:

- * Non-resident Shareholders' Tax is only 10%;
- Dividends accruing to Namibian companies or resident shareholders are tax-exempt;
- Plant, machinery and equipment can be fully written off over a period of three years;
- ⊁ Buildings of non-manufacturing operations can be written off, 20% in the first year and the balance at 4% over the ensuing 20 years;
- Import or purchase of manufacturing machinery and equipment is exempted from Value Added Tax (VAT); and,
- Preferential market access to EU, USA, and other markets for manufacturers is provided.

Joint financing for foreign direct investment is occasionally implemented through the Namibia Development Corporation or another, sector-relevant state-owned enterprise.

9.2 **Export Processing Zones (EPZs)**

Namibia currently has an Export Processing Zone (EPZ) regime that offers favorable conditions for companies wishing to manufacture and export products. The EPZ scheme is due to be phased out, possibly in 2021, and replaced by Special Economic Zones (SEZ), outlined in the Income Tax Amendment Bill, which the Minister of Finance tabled in Parliament on February 19, 2020. There is a moratorium on new applications under the existing EPZ regime. In 2019, there were 19 EPZ companies in operation, most of which were closely linked to minerals beneficiation, including Namzinc (which produces Special High Grade zinc at the Skorpion zinc mine), Namibia Custom Smelters (which produces blister copper from imported copper concentrates), and a variety of diamond cutting and polishing operations (which cut and polish locally and internationally sourced rough diamonds).

Under the EPZ regime, the government offered a package of tax and non-tax special incentives, applicable to both existing and new manufacturing enterprises, exporters, and EPZ enterprises. Companies operating under the EPZ regime are free to locate their operations anywhere in Namibia. Through the Offshore Development Company (ODC), EPZ enterprises also have access to factory facilities rented at economical rates. Current EPZ incentives are:

- * Corporate tax holiday:
- * Exemption from import duties on imported intermediate and capital goods;
- * Exemption from sales tax, stamp and transfer duties on goods and services required for EPZ activities;
- * Reduction in foreign exchange controls;
- * Guarantee of free repatriation of capital and profits;
- * Permission for EPZ investors to hold foreign currency accounts locally;
- * Access to streamlined regulatory service ('one stop shop'):
- * Refund of up to 75% of costs of pre-approved training of Namibian citizens;
- * No strike or lock-outs allowed in EPZs;
- * Provision of factory facilities for rent at economical rates.

9.3 Capital allowances

For buildings used for the purposes of trade, 20% of the cost of erection may be written off in the first year of use, and 4% may be written off annually over a 20-year period (the 4% allowance is increased to 8% for certain manufacturing buildings, and the write-off period is reduced to 10 years).

A general three-year write-off period applies for fixed assets other than buildings (e.g. plant, machinery, equipment, aircraft and ships), with an accelerated write-off period for certain expenditure relating to mining operations and farming operations.

9.4 Taxation system

Namibia operates a modern system of taxation which is reasonably competitive by international standards and is modified and updated on a regular basis usually, but not always, following announcements in the national budget speech. The basic system has remained fairly simple. Tax administration is carried out primarily by the Directorates of Inland Revenue and Customs and Excise within the Ministry of Finance, which administer the Income Tax Act, Value Added Tax Act, Stamp Duty Act, Transfer Duty Act as well as parts of the Petroleum Taxation Act.

Some mining taxes, however, are the responsibility of the Ministry of Mines and Energy under the Diamond Act and Minerals (Prospecting and Mining) Act. Taxation for mining and quarrying as well as oil and gas companies is different to other companies. Diamond mining company's pay a 50% corporate profits tax, plus a 10% surcharge resulting in an effective 55% corporate tax rate. They also pay a 10% duty on the export of unpolished diamonds, according to the Diamond Act of 1999 administered by the Department of Diamond Affairs within the Ministry of Mines and Energy. The Land Tax is provided for under Agricultural (Commercial) Land Reform, Act 6 of 1995, which is currently administered by the Ministry Agriculture, Water and Land Reform. There are tax offices in Windhoek, Walvis Bay, Rundu, Otjiwarongo, Oshakati, and Keetmanshoop. Government has established a "semi-autonomous Revenue Agency" to improve the efficiency of tax collection. Table 9 provides a full picture of taxation applicable in Namibia.

The implementation of the Action Plan would require significant financial, technical and logistical resources, which for the sake of greater economic and social prosperity, should be situated within a long-term macroeconomic equilibrium path. The relative importance of these sources of demand for finance will naturally vary according to the stage of Namibia's development, its resource endowments, macroeconomic challenges and the sophistication of the private sector. Given the funding constraints, the Action Plan prioritizes those activities most crucial to the successful implementation of the Industrialization Strategy.

Income tax - Companies	Tax (%)
Standard corporate rate	32
Manufacturing Companies	18 - 32
Diamond mining companies	55
Non Diamond Minerals	37.5
Mining service companies	37.5 - 55
Petroleum mining companies	37.5 - 55
Insurance Companies	32
Retirement Funds	Exempt

Table 9: Income tax for companies

10.0 Growth Drivers

Industrial sector

Namibia's mining sector dominates the country's industrial sector, and is still considered to be the backbone of the economy. After a difficult period of underperformance particularly in 2016, the mining sector is set to benefit from the completion of the country's two largest mines, which will add to production levels from the country's other two uranium mines. Both existing mines have faced difficulty under the low price conditions of the last few years. Additional impetus to the industrial sector's growth outlook is expected to be provided from an ongoing (albeit gradual) recovery in commodity prices. A vastly improved outlook for diamonds - Namibia's key foreign exchange earner - bodes well for the sector. Namibia's other two major mining commodities, gold and copper, the former is expected to enjoy resilient demand in the face of rising geopolitical risk in the global sphere. The outlook for copper prices is not as optimistic, yet Namibia is still expected to post strong production numbers. Industrialization and diversification.

On top of the aforementioned sectoral growth drivers, Namibia has pinned its growth objectives on industrialisation and diversification efforts. Government adopted a pro-industrialisation policy in 2012, with the

- 🔆 Growth at Home' plan launched in 2015 in an effort to implement the policy. Although the road ahead post Covid-19 proves to be a difficult road, the industrialisation policy "lays a strong foundation for economic diversification and job creation" vover the medium to long term. The
- 🗱 Fifth National Development Plan' (NDP5), launched in May 2017, outlines the government's vision for "structural transformation through value added industrialisation". The NDP5 aims to promote structural change through industrialisation in nine key focus areas, namely: enterprise development; manufacturing; agriculture; rural economic development; the so-called
- * blue economy'; mining; fishery; tourism; and research & innovation. The development of the Special Economic Zones policy and legislation will help embellish these ambitions further.

Conclusions 11.0

The mineral resources industry constitutes an integral part of the Namibian economy. However, realisations from the mineral resources have not translated into corresponding socio-economic development due to a myriad of factors. Chief amongst these factors is Namibia's inability to beneficiate mineral commodities into more valuable refined products that can serve as feedstock for a competitive manufacturing industry. Namibia's options for beneficiation/manufacturing are constrained by economic, technological, market, environmental and social factors as well as the lack of adequate infrastructure (transport, water and energy), which can threaten long-term competitiveness. The purpose of this study was to develop a strategy that defines a roadmap on how Namibia can potentially benefit from downstream processing of the country's mineral endowment by deriving more value from increased downstream processing and manufacturing of end products. The proposed strategy is defined on three levels, namely:

- * Overarching strategy that addresses broad and cross-cutting issues of all the mineral commodities considered in the study;
- * Grouped mineral commodities strategies addressing issues that apply to the seven groups of mineral commodities as defined in the formulation of the strategy outlined herein; and
- Individual mineral commodities strategies addressing the mineral commodities identified in this study.

This minerals beneficiation strategy seeks to complement key national development initiatives by creating a conducive environment for investment and value-addition through the provision of mineral-based feedstock for a competitive manufacturing sector in an environmentally sustainable way. It aims to address critical intervention areas in order to direct Namibia's mineral endowment and outputs towards enhanced economic development and social progression. The mineral beneficiation strategy provides a blueprint for Namibia to improve competitiveness as an investment destination. This competitiveness, coupled with considerable natural endowment in mineral resources, provides a platform for increased beneficiation, leading to the realisation of more economic value from the various mineral commodities in the country. The requisite resources will need to be allocated to facilitate the smooth operations of the implementation team and incorporate the results of a quantified beneficiation and manufacturing inputs study.

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