



# NAMIBIA

IMPROVING THE  
ENVIRONMENTAL AND  
SOCIAL ASPECTS OF  
MINING SECTOR





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## **IMPROVING THE ENVIRONMENTAL AND SOCIAL ASPECTS OF MINING SECTOR**



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## Abbreviations

GDP	Gross domestic product
MME	Ministry of Mines and Energy
MET	Ministry of Environment and Tourism
MARC	Minerals Ancillary Rights Commission
EMA	Environmental Management Act
EIA	Environmental impact assessment
DEA	Department of Environmental Affairs
EC	Environmental commissioner
ECC	Environment clearance certificate
EAP	Environmental assessment practitioner
EPP	Environmental protection plan
EMP	Environment management plan
CSR	Corporate social responsibility
SIA	Social impact assessment
IBM	Indian Bureau of Mines
NMCF	Namibian Mine Closure Framework



## INTRODUCTION

Namibia, located in southern Africa, is a middle income country, well known for its rich biodiversity and abundant mineral reserves. Namibia is blessed with a number of minerals. The major ones being uranium, diamond, cobalt, nickel, iron and precious and semi-precious stones. In Husab and Rössing, Namibia houses the world's largest uranium mines. Namibia also has the richest marine diamond deposits in the world, with an estimated resource potential of over 1.5 billion carats.

The mining sector is one of the most regulated one in the country, a fact clear from the exhaustive and comprehensive list of mining and environment-related acts and regulations. The Mining Act, enacted in 1992, is the centrepiece legislation governing the sector. Subsequently, the Environment Management Act of 2007 and the Environmental Impact Assessment Regulation of 2012 were enacted for environmental management. Both the acts and the regulation broadly cover the environmental aspects of the mining sector.

Namibia's mining laws and regulations are predominantly industry-centric and focussed on boosting investment in the sector. Aspects like benefit sharing, corporate social responsibility, strengthening of local content plans, and insurance against damage to environment and the community are under consideration to make mining policies environmentally and socially responsible. Further, the implementation of policies requires strengthening of institutional capacity through proper guidelines, manuals, and standard operating procedures (SOPs) for ensuring effective enforcement and compliance.

Legally, mines are classified as small-scale and other mines. In addition, there is a special class of mines which do not find a place in the statute but are common. They are called artisanal mines. Small-scale and artisanal mines provide employment to thousands in rural areas and are perceived by the government as a means to alleviate poverty. The Mining Act reserves areas for small-scale mining in order to support the livelihood of the mine workers. However, small-scale mining sector needs to align with laws and regulations better since it records the maximum number of mining accidents.

This policy brief by CSE attempts to study the mining sector in Namibia, predominantly its environmental and social aspects, including provisions and practices related to health and safety, and the regulatory framework. The document also compares the scenarios in India, Tanzania and Namibia, while showcasing certain practices which can enable Namibia in making mining sector socially and environmentally responsible. This policy brief does not take into account the oil and gas sector.

This document incorporates the study and analysis of different acts and regulations assisted by desktop research. Along with site visits, the CSE team has conducted comprehensive interactions with different stakeholders for their views.

*Namibia is blessed with vast natural wealth,  
both above and below the surface*



# 1

## NAMIBIA—THE NATIONAL CONTEXT

### Introducing Namibia

The Republic of Namibia, a country located in southern Africa, is a vast, sparsely populated country with an estimated population of 2.47 million. It shares land borders with Zambia and Angola to the north, Botswana to the east and South Africa to the south and east while it has a sea boundary on western side with the Atlantic Ocean. Windhoek is the capital and largest city. Namibia has a total area of around 824,292 sq km, 823,290 sq km land and around 1,002 sq km water bodies.<sup>1</sup> As per Knoema World Data Atlas report, 47.2 per cent land is under agriculture,<sup>2</sup> of which only 1 per cent is arable and 8.8 per cent is under forests.<sup>3</sup>

### Economy

Namibian economy heavily relies on the primary and secondary sector. Agriculture and mining have been the cornerstone of the economy. Mining contributes 11.1 per cent of the GDP whereas it employs only 3 per cent of the workforce. In 2010, Namibia was the world's ninth largest country in terms of diamond production. It is the fourth largest producer of uranium in the world, accounting for 8 per cent of the world's output.

**Map 1: Namibia—political**

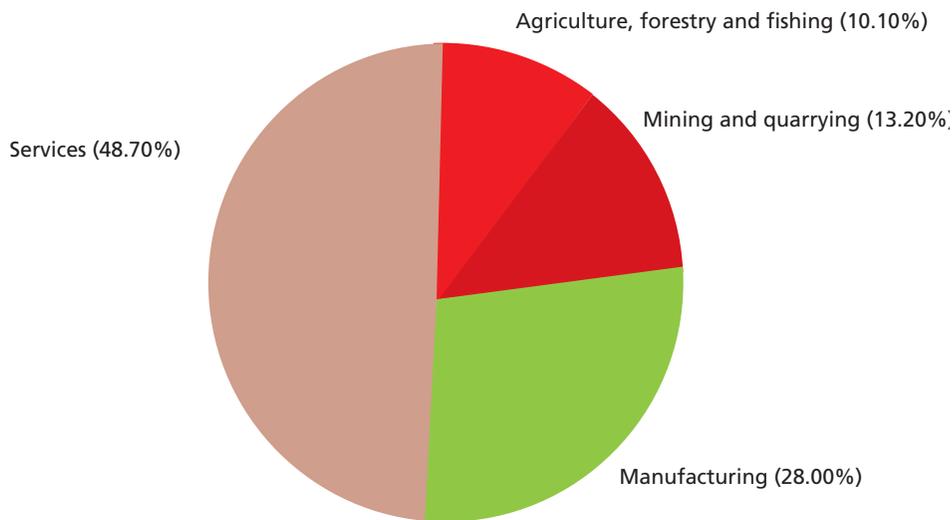
Source: maps.com

Agriculture, forestry and fishing contribute around 10 per cent to the GDP while employing half of the population. Namibia generally imports more than 50 per cent of its food grains. The shortage of food supply is a major concern during droughts, which are not uncommon. Aquaculture, commercial fishing and fish processing are the fastest growing sector of the economy since the Benguela Current Marine Ecosystem is the strongest coastal upwelling system in the world, providing the richest fishing grounds for Namibia to exploit. Tourism is also an important sector of the economy. It contributed 14.5 per cent to the GDP in 2013 and employed 18.2 per cent of the country's labour force (see *Figure 1: Contribution of different sectors to the economy*).

Based on a World Bank report, Namibia comes under the category of higher middle-income countries, with an average per capita income of US \$4,415. In terms of income inequality, the Gini-coefficient of the country is 0.7, showing inequitable distribution of wealth. About 28.7 per cent population lives below the poverty line.<sup>4</sup>

In 2014, 91 per cent of the population had access to clean drinking water, which shows enormous progress from 1990, when only 70 per cent people had access to potable water. Access to improved sanitation has increased from 7 to 34 per cent during the same period. In 2014, only 49.5 per cent population had access to electricity,<sup>5</sup> 32 per cent of which was generated from fossil fuels and 68 per cent in the form of hydroelectricity.<sup>6</sup> The energy use and electric power consumption was 1,584 Kwh per capita, respectively, in the 2014.

**Figure 1: Contribution of different sectors to the economy**



Source: focusafrica.ru

**Education, health and demography**

Namibia has a population of 2.47 million with a population density of 2.6 per sq km and a moderate population growth rate of 2 per cent. It has a sex ratio of 1,030 males per thousand females. Namibia has a young population with around 56 per cent of the population under 24 years of age. The country spent 8.9 per cent of GDP on the health sector in 2014.<sup>7</sup> Life expectancy at birth is 64 years.<sup>8</sup> HIV–AIDS remains a major problem, with 13.8 per cent population affected by it.<sup>9</sup>

Namibia has a literacy rate of 81.9 per cent. In 2014, government expenditure on education was around 8.3 per cent of the GDP. Namibia has a high unemployment rate of around 50 per cent for males and 62.2 per cent for females.

**Environment**

The CO<sub>2</sub> emissions of the country have gone up at a consistent rate—from 0.029 metric tonnes per capita in 1990 to 1.58 metric tonnes per capita in 2014. This highlights the increasing carbon footprint of the country (see *Table 1: Namibia—country profile*).

Namibia is vulnerable to climate change, manifested by the occurrence of large number of droughts and floods. It is one of the driest sub-Saharan African countries, with desertification an increasing problem due to unsustainable land management practices. The forest land in Namibia has decreased from 87 thousand sq km in 1990 to 69 thousand sq km in 2016. Namibia is also facing scarcity of water resources. Water desalination can be a solution to this crisis, as suggested by the Chamber of Mines in its annual review report of 2016. The condition is worsened by the fact that a large proportion of the population relies on climate-sensitive sectors like agriculture, fisheries, etc. Unsustainable exploitation of minerals has also caused land degradation, water and air pollution and loss of biodiversity. Marine mining is gaining ground but is also putting stress on oceanic ecosystems.

**Table 1: Namibia—country profile**

Vital statistic	1990	2000	2014–16
Population (millions)	1.41	1.90	2.47 (2016)
Population growth (annual per cent)	3.94	2.19	2.2 (2016)
Surface area (thousand sq km)	8,233	8,233	8,233
Life expectancy at birth	61.2	55.1	64 (2015)
Fertility rate	5.2	4.02	3.5 (2015)
Forest area (thousand sq km)	87.62	80.30	69.19 (2016)
Population with access to clean drinking water (per cent)	69.6	78.5	91 (2015)
Population with access to toilets (per cent)	7	9	34 (2015)
Urban population growth (annual per cent)	4.9	3.82	5.2 (2017)
Access to electricity( percentage of total population)	25.20	36.5	49.6 (2014)
Electric power consumption (per capita kWh)	1049	994	1,584 (2014)
CO <sub>2</sub> emissions (per capita metric tonnes)	0.03	0.86	1.58 (2014)
Population density (people per sq km of land area)	1.71	2.306	2.6 (2016)
Health expenditure, public (per cent of government expenditure)	NA	13.89	8.9 (2014)

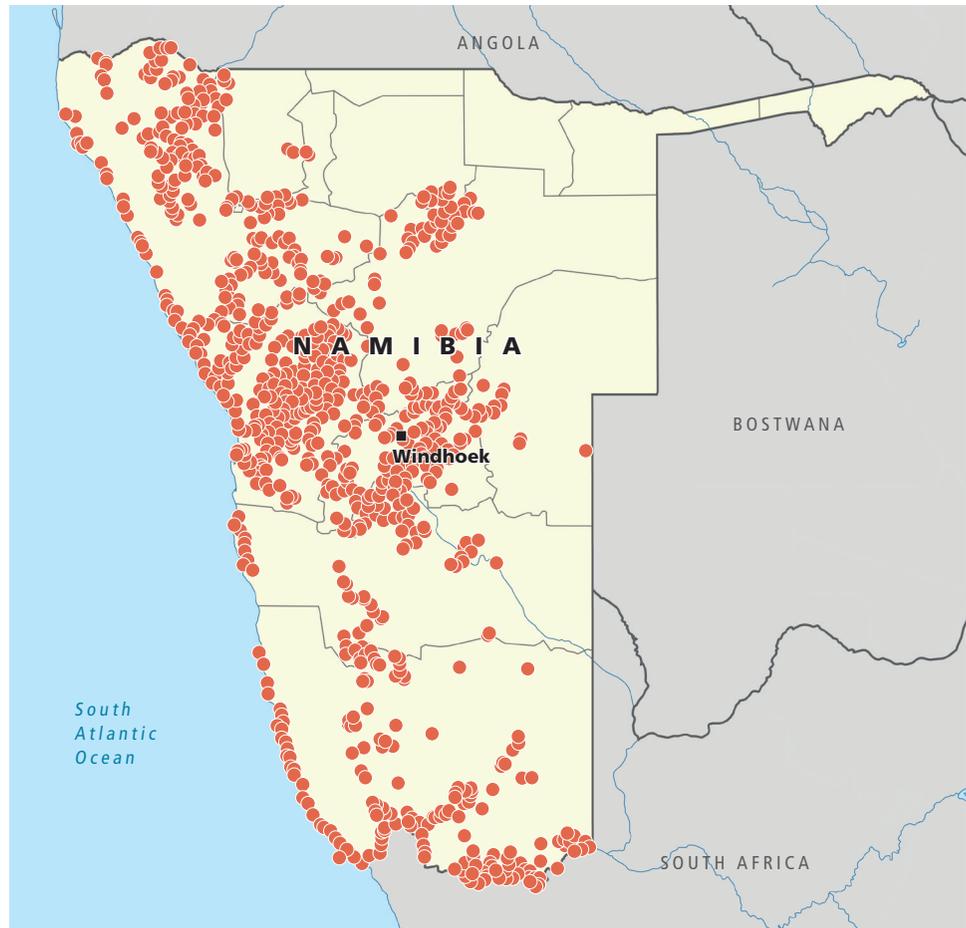
Source: World Development Indicators Database; CIA World Factbook

Namibia has formulated the National Green Plan for securing the interest of present as well as future generation and at same time balancing economic development. The concept of enhancing environment and ecological sustainability are embodied in the VISION 2030 and National Development Plans of the country. The concern for the environment is also manifestly mandated in Minerals (Prospecting and Mining) Act, 1992, the country’s mineral policy, and the Atomic Energy and Radiation Protection Act of 2005.

### Mining in Namibia—an overview

Mining as an economic activity is known to mankind from time immemorial and Namibia is no exception to it. The history of mining in the country goes back to 1851 when explorers found the Ovambo people smelting surface copper deposits in Otavi. The mining industry was officially established in 1855 in the Walvis Bay. At that time, Namibia was a Germany colony and after World War I, the country was ruled by White South Africa. Namibia got independence in 1990. As part of economic restructuring, the sovereign government pushed for the development of the mining sector. Subsequently, the Ministry of Mines and Energy (MME) was established to look after the development of the sector. The ministry drafted a mining statute for an independent Namibia, titled the Minerals (Prospecting and Mining) Act of 1992, and also provided regulation for workers—Mine Health and Safety. A specialized agency, the Geological Survey for Namibia, was established for the exploration of minerals. In 1993, the government of Namibia and the European Union signed an agreement making some €40 million available under the Sysmin scheme to support the Namibian mining industry.

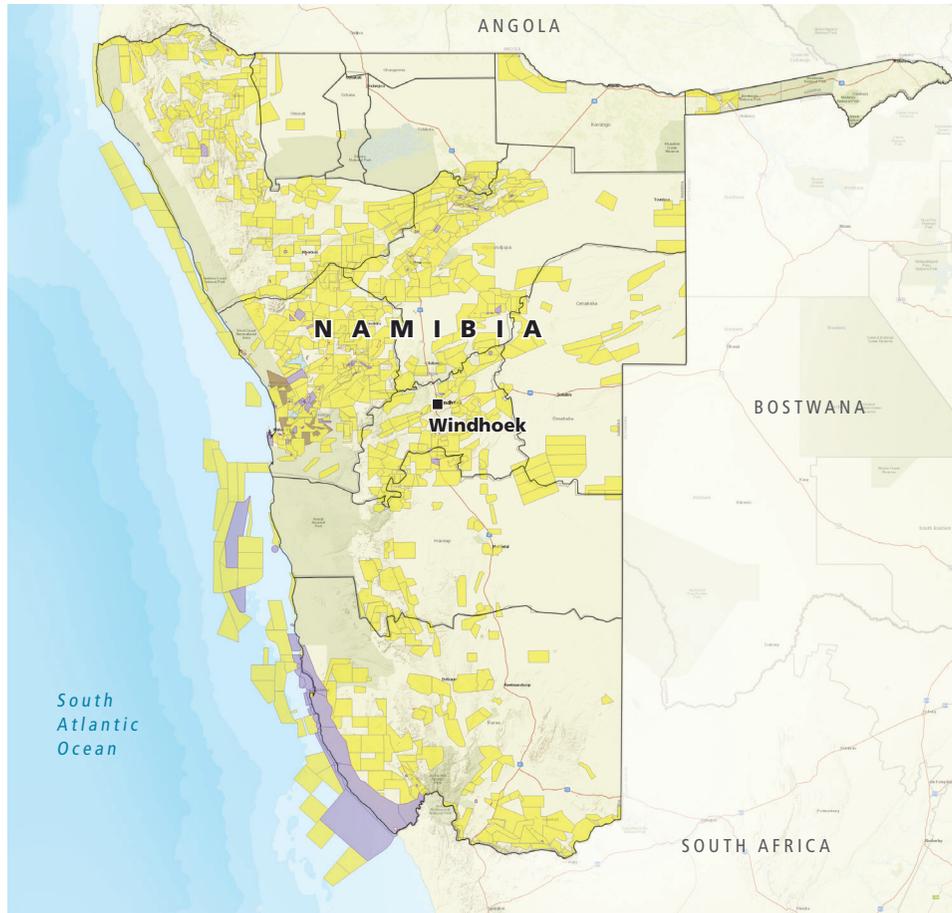
**Map 2: Mineral distribution**



Source: Online cadastre map, 2017

In November 1994, a milestone was reached when three agreements were signed between the government of Namibia and De Beers, giving the government a 50 per cent stake in the former Consolidated Diamond Mines and leading to the formation of Namibia's leading diamond producer, Namdeb, as a joint venture between the government and the private sector.

At present, Namibia's mining sector is blossoming with the help of private investment. The country has explored various minerals and the process of exploration is still continuing. It has huge reserves of uranium, copper, diamond, coal and rare earth minerals. Currently, Namibia produces around 8 per cent of world's uranium and the Etango mine is considered to have the largest unexploited uranium resources in the world, which the country intends to develop with the help of private investment. The country is a medium level producer of copper, lead, zinc, and silver and a smaller producer of gold, lithium, tin, tungsten, iron-pyrite, fluorite, rare-earths and gemstones. The Tsumeb deposit is one of the world's greatest polymetallic ore body. Coal reserves in the Karoo structure, in northwestern Namibia, are upward of 500 million tonnes but, at present, production is uneconomic. Namibia produces about US \$250 million worth of uranium. Diamond production is valued at over US \$300 million, all from unique sand-dune, beach and offshore detrital

**Map 3: Mining and exploration**

Source: Online mining cadastre map, 2017

deposits. Upcoming mining projects are Swakop Uranium's Husab mine, B2 Gold's Otjikoto gold mine, and Dordabis iron ore mine.

The mining reforms have resulted in positive development of the sector. According to the 2016 annual review report of the country's Chamber of Mines, the mining industry contributes 11.1 per cent of the GDP and made a fixed investment of N \$4.8 billion (US \$0.41 billion) in 2015 and N \$3.46 billion (US \$0.29 billion) in 2016. The industry spent over N \$ 11 billion (US \$0.94 billion) on procurement of local goods and services during 2016, which was 64 per cent of the total amount spent on procurement and approximately 41 per cent of the total industry revenue. These figures speak volumes and demonstrate that the procurement policies in the mining sector are already aligned to support local small and medium enterprises and local contractors. The full potential of the mineral-rich country is still largely untapped in a topography which requires intensive mineral exploration.

The exploration of minerals is the cornerstone of the development of the industry, a fact clearly depicted in the number of exploration projects that are being carried out by private as well as public sector companies. A large number of new mine developments are being carried out by mining companies, mainly

**Table 2: Mining and exploration licences granted**

License Granted	2009	2010	2011	2012	2013	2014	2015	2016
Non Exclusive prospecting License	311	439	348	441	465	598	656	641
Exclusive Prospecting License	179	230	402	258	395	138	56	142
Claims registered	305	133	428	212	331	101	117	97
Mining License	4	2	4	3	0	3	0	1

Source: Annual Review 2016, the chambers of Mines of Namibia

of uranium, diamonds etc. Although coal deposits are present in Namibia, there are no operating coal mines in the country, although efforts are on to develop the coal sector too.

The government of Namibia provides for many different types of exploration and mining licences as follows:

- Non-exclusive prospecting licences
- Mining claims
- Reconnaissance licences
- Exclusive prospecting licences
- Mining licences
- Mineral deposit retention licences.

The number of non-exclusive prospecting licences granted in 2009 was 311, which increased to 641 in 2016. The number of mining licences granted are not commensurate with the number of prospecting licences. Available data clearly establishes that the mining sector is in a nascent stage of development and a lot of mineral exploration work is still progress (see *Table 2: Mining and exploration licences granted*). As per the data, a large number of exploration licenses have been granted.

Marine exploration and mining has a great future in Namibia. Namibia has the richest marine diamond deposits in the world, with an estimated resource potential of over 1.5 billion carats. Marine diamonds accounted for 60 per cent of Namibia’s total diamond production in 2001. The increase in marine diamond production was a response to the dwindling on-shore diamond reserves as well as to the development of new exploration technologies. With on-going research and further improvements in technology, marine diamond production is likely to increase. Polymetallic nodules that contain large amount of manganese and iron with other metallic minerals are present in marine reserves. Deposits of rock phosphates are expected to be found around 120 kilometers off the coast of Luderitz. There is potential to establish future processing of beneficiated phosphate into higher value phosphorous and compound fertilizers. Local production of phosphate will help to secure agricultural productivity and increase food security in Namibia as well as elsewhere in the world. However, impacts of sea mining on the environment are not yet fully understood. A high degree of caution, therefore, needs to be exercised in carrying out such mining activities to avoid irreversible damage to the marine ecosystem, and ensure that appropriate social and environmental safeguards are in place as part of strong governance arrangements for this emerging industry.



*A large dump truck on its way out from a mine in Namibia. Proliferation of mining must be accompanied with a robust and equitable policy and institutional framework*

## 2 MINING POLICIES AND INSTITUTIONAL FRAMEWORK

Key acts and regulations:

- Minerals (Prospecting and Mining) of 1992
- Diamond Act of 1999
- Mineral Development Fund of Namibia Act of 1996
- Labour Act of 2007
- Atomic Energy and Radiation Protection of 2005
- Income Tax Act of 1981
- Export Levy Act of 2016
- Mine Health and Safety Regulation

Namibia is a mineral rich country, known for its uranium, diamond, copper, rare earth minerals etc. The mining and quarrying sector contributes 11.1 per cent to the GDP and 40 per cent of the export of Namibia. However, the mining industry employs only 3 per cent of the country's labour force. According

to the 2016 annual review report by the Chamber of Mines, in the last three years, the mining sector, on an average, created direct employment ranging from approximately 16,000 jobs in 2013 to 19,000 in 2015, which dropped to approximately 16,000 in 2016 as the Swakop Uranium completed the construction of its Husab mine. The mining sector in Namibia is an important generator of revenue for the government. In 2016, the Chamber members paid N \$3.2 billion (US \$0.27 billion) in taxes and royalties.

The principal act which regulates the mineral sector is the Minerals (Prospecting and Mining) Act, 1992. Afterwards, the Environmental Management Act, 2007 was enacted to safeguard the environment and prevent ecological degradation and, therefore, it is also applicable to the mining industry. The health and safety of workers is comprehensively covered in the Mines Health and Safety Regulation. Some aspects of workers' well-being are also governed by the Labour Act, 1997. Other laws applicable to the mining sector, are the Atomic Energy and Radiation Protection Act of 2005, Water Resources Management Act of 2013, the Income Tax Act of 1981, and the Export Levy Act of 2016.

## Regulatory agencies of the mineral sector

### Institutional framework

In Namibia, all mineral rights are vested with the state and are regulated by the Minerals (Prospecting and Mining) Act of 1992. MME is the nodal agency for preparing policy, strategies and legislative framework, implementing government policies, monitoring the operation of all bodies, reporting to the cabinet, granting of different licences and monitoring the issuance of licences, changing the duration of the licences in certain cases, renewal of the licences, and stipulating the terms and conditions of such licenses.

MME is the central authority for the governance of the sector. A mining commissioner is appointed by the minister of mines to perform the duties and functions conferred upon him under the Act. The minister administers the payment of royalties, security for payment of royalties, may determine the pricing of a particular mineral, settle disputes between the licence holder and the owner of the land, and delegate power to commissioner or permanent secretary or any officers.

The ministry has six different directorates:

1. Geological Survey
2. Energy Affairs
3. Diamond Affairs
4. Mines Affairs
5. Petroleum Affairs
6. Administration and Finance

These directorates look after the different affairs of the ministry. The Geological Survey of Namibia looks after the exploration of minerals reserves. The Directorate of Diamond Affairs controls and monitors diamond exploration and mining activities, trying to ensure maximum contribution to the socio-economic development of the country.

MME also houses a Mines Safety and Services department to conduct inspections of mines, investigate into accidents, and issue blasting certificates to competent persons. Apart from these bodies, the ministry also houses a small-scale mining division to provide requisite support for the development of the sector.

A Minerals Board has been established under the Act. The function of the board is to advise the minister in matters related to reconnaissance, prospecting and mining policy. The minister also seeks advice from the board in relation to the exercise or performance of any power or duties enumerated under the Act. The board also takes into account the interests of persons involved in small-scale prospecting and mining operations.

Minerals Ancillary Rights Commission (MARC) has been established as per section 108 of Minerals (Prospecting and Mining) Act, 1992. The Commission is a cooperative and consultative body between land owners and mineral explorers. MARC develops guidelines for the settlement of land disputes. The holder of a non-exclusive prospecting licence, a mineral licence or a mining claim makes an agreement with landowners:

1. Upon entry on land in order to carry on operations authorized by such a licence or mining claim on such land
2. When erecting or constructing accessory works on any land for purposes of such operations
3. When obtaining supply of water or any other substance in connection with such operations
4. When disposing of water or any other substance obtained during such operations
5. When carrying out any other activity in order to exercise any right conferred upon him or her by such licence or mining claim

#### **Ministry of Environment and Tourism (MET)**

The Ministry of Environment and Tourism (MET) is the nodal agency for environmental governance in the country. The department of environmental affairs of the ministry houses an environmental impact assessment (EIA) unit that assesses EIA reports and provides clearance to mining and non-mining projects. It also ensure compliance with the environmental law of the land.

#### **Key provisions of acts and regulations applicable on mining project**

The Minerals (Prospecting and Mining) Act, 1992 is the principal legislation guiding the mining sector in Namibia. The Act provides a legal framework for exploration, exploitation, retention and export of various types of mineral, royalties, and compensation and resettlement issues.

The Act empowers the commissioner or any person designated to be an authorized officer for inspecting legal compliance. The commissioner or authorized officer may, at any time, enter an area over which mineral rights have been granted, or any premise or working place, except residential houses, for the following purposes:

- (a) Inspecting that area, premise, working place and accessory work place to take any mineral mined out during prospecting or mining.
- (b) Seize any sample, book, record or document which may in his or her opinion be used in evidence in connection with any offence in terms of this Act
- (c) Investigate and inquire about the provisions of this Act or any terms and condition, direction or order whether the mining operations will cause any public nuisance

According to the Minerals (Prospecting and Mining) Act, 1992, mining licence applications shall contain an estimate of the effect of mining and prospecting operation on the environment and the measures taken in order to prevent or minimize such effects. The Act stipulates environmental impact studies.

The application shall also contain measures to conserve and protect natural resources. The general terms and conditions enumerate the provisions for employment, development and training of Namibian citizens. Section 130 of the Mining Act provides for the liability of holders of mineral licences for pollution of environment or other damages or losses caused. Licence holders shall take remedial steps to control spilling, pollution, loss or damages and ensure environmental management in mines.

The Labour Act of 2007 intends to promote sound labour relations and fair employment practices by encouraging freedom of association through formation of trade unions to protect worker's rights and interests. The Act prohibits and restricts child labour, forced labour, sexual harassment and any form of discrimination at the work place. Further, the Act limits the work hours of employees to 45 hours a week, over and above which an employee is entitled to additional payment of overtime wage and night work. The employer must give an employee who works for five hours a meal interval of not less than 30 minutes. Employees are entitled for annual, sick, paid compassionate leave and leave on public holiday. Female employees who have completed six months of employment are entitled to 12 weeks of maternity leave, which can be extended. As per the Act, it is the employer's duty to ensure a safe workplace and minimize health risks. The Labour Act also contains provisions empowering the labour minister to make regulations in relation to safety, health, hygiene, sanitation and welfare of persons employed in or about mines, including seabed operations.

The Diamond Act of 1999 is the central legislation guiding the diamond sector. It stipulates the establishment of a separate Diamond Board to look after the development of the sector. The Act stipulates for the following kinds of licences for unpolished diamonds:

1. Diamond dealer's licence
2. Diamond cutting licence

The Act envisages the development of beneficiation and processing of the diamond sector in a wholesome manner.

For protection of water resources, the government of Namibia has formulated the Water Resource Management Act, 2013, which stipulates that a person shall require a licence to extract and use water for commercial use, which can also be combined with a licence to discharge effluents. Under Section 61 of the Act, a borehole licence is issued for the purpose of exploring or extracting minerals which require deepening or enlarging of an existing borehole that may be below the water table. Such a licence can only be issued with a condition that the licence holder has to ensure conservation and protection of water resource. Further, wastage of groundwater in boreholes, wells, shafts, mines or other excavations is prohibited under Section 63 of the Act. A requirement of a licence is prerequisite to dispose of groundwater extracted from a mine or any underground work which has also been mandated under Section 109(1)(d) of the Minerals (Prospecting and Mining) Act.

The Mineral Development Fund of Namibia Act of 1996 provides for the establishment of a Minerals Development Fund. This fund is managed by the Minerals Development Fund Control Board. The objective of the fund is to:

1. Safeguard the production and earnings of the mining sector
2. Broaden and diversify the production base of the mining sector



*A uranium mine in Namibia. The new legal regime has strengthened licencing requirements*

3. Support the mining sector by improving the national geological, geophysical and mineral database
4. Expand national training facilities and programmes

The main sources of funds are:

- (a) Money, including interest on the repayment of any loan granted from the Fund
- (b) Interest derived from the investment of money standing to the credit of the Fund
- (c) Money appropriated by the parliament for purposes of the Fund and paid for the benefit of the Fund
- (d) Money accruing to the Fund from any other source, including donations, grants, etc.

Mine Health and Safety Regulation, Employees Compensation Act, 1995 and Environmental Protection Act, 2007 also enumerate various provisions for the mining sector. The Mine Health and Safety Regulation made under the Minerals (Prospecting and Mining) Act of 1992 deals with issues of health, safety, blasting and use of explosives in mining activity. The recently amended Export Levy Act, 2016 introduces an export levy at a rate of 0–2 per cent, depending on the type of raw material.

### **Permit system and financial provisions**

In Namibia, mines are legally classified as small-scale and other mines. The Mining Act provides for mining claims intended for small-scale miners, where the average size of the claim is 600 x 300 m. Small-scale mining claims are available exclusively to Namibian citizens. However, even though small-scale mines are an important source of employment and income for local communities, the mining sector is dominated by large-scale mines run by foreign companies.

The Minerals (Prospecting and Mining) Act of 1992 is the central legislation guiding the exploration and mining activity. The different types of licences issued by the ministry are summarized in *Table 3: Types of licences in the mining sector*.

**Table 3: Types of licences in the mining sector**

Type	Purpose	Validity and renewal	EC certificate	Granting authority
Non-exclusive prospecting licence	For initial prospecting operations on any land for any mineral	Issued for 12 months. Non-renewable	Not required	Commissioner
Exclusive prospecting licence	<ul style="list-style-type: none"> <li>Allows systematic prospecting in areas of up to 1,000 sq km. Gives exclusive exploration rights to the land</li> <li>The application for such a licence shall state the period for which the licence is required along with a detailed plan of the area which shall not exceed 0.1 million hectare in extent</li> <li>The mines minister shall only grant the licence when satisfied about the technical and financial credibility and the proposed programme of the prospecting operations</li> </ul>	Three years. May be extended twice for two-year periods if demonstrable progress is shown but not more. Renewals beyond seven years requires special approval from the Minister of Mines.	Required	Commissioner
Reconnaissance licence	<ul style="list-style-type: none"> <li>Are designed for remote sensed exploration</li> <li>Facilitates for the identification of exploration targets and is area specific</li> <li>The commissioner shall not grant the permission to carry out reconnaissance operations in respect of accessory work on private land unless the holder of the licence complies with the provisions in relation to compensation paid to the owner</li> </ul>	Six months. Non renewable and non-transferable	Required	Minister of Mines
Mining licence	<ul style="list-style-type: none"> <li>Gives the holder exclusive mining rights in the licenced area for a period of 25 years or the life of the mine</li> <li>Holder of the mining licence is entitled to carry out mining operations in the mining area to which the licence relates and remove minerals other than controlled minerals found or won in the course of the mining operations</li> </ul>	25 years or life of mine. Renewable for a further 15 years	Required	Minister of Mines

As of November 2017, 157 mining licences have been issued in the country, out of which 136 are active and 12 are pending renewal. The areas for which mining licences have been issued range from 50 hectare to 0.4 million hectare. 836 mining claims have been issued exclusively to Namibian citizens, with a registered area ranging upto 20 hectares.

### Salient features

1. Permit process is robust, with detailed description of required documentation, obligations and timelines for issuance, renewal, transfer and cessation. The procedure and the concerned issuing authority for obtaining permits have been clearly laid out in the Act.
2. The commissioner or any other officer employed in the Ministry of Mines and Energy are prohibited to acquire directly or indirectly any right or interest in any types of licences. They are also prohibited to acquire or hold any share or interest in a company that is a holder of non-exclusive prospecting licence, a mining claim or a mineral licence.

	<ul style="list-style-type: none"> <li>• The holder is required to demonstrate the financial and technical report to develop and operate a mine and carry out ore treatment</li> <li>• The application shall contain particulars of the effects the proposed prospecting operations may have on the environment and the steps or the manner in which it is intended to prevent pollution, to deal with any waste, to safeguard mineral resources, and to reclaim and rehabilitate land disturbed by mining operations</li> <li>• It should also contain documentary proof of technical and financial credibility</li> </ul>			
Mineral deposit retention licence	<ul style="list-style-type: none"> <li>• Allows an exploration company, in certain circumstances, to retain tenure on a prospecting licence, mining licence or mining claim without mining obligations</li> <li>• The licence holder must, however, meet work and expenditure obligations and submit regular project reviews</li> <li>• Only a person who is the holder of an exclusive prospecting licence or mining claim in relation to the land that is being applied for, can apply for this licence</li> <li>• The application shall contain particulars of the effects the proposed prospecting operations may have on the environment and the steps to minimize or prevent such effects. It should also contain documentary proof of technical and financial credibility</li> <li>• The commissioner shall not grant the permission to retain the land for future mining operations in respect of accessory work on private land unless the holder of the licence complies with the provisions in relation to compensation paid to the owner</li> </ul>	Five years. Can be further extended for not more than two years or as may be determined by the minister.	Required	Minister of Mines

Source: CSE compilation

3. A separate licence of mining claims is provided for the development of small-scale mines. The mining claim is available for Namibian citizens only. Mining claims are granted for development of small-scale and artisanal mines.
4. A separate and specialized Minerals Development Fund of Namibia has been constituted to look after the development of the mining sector. The Fund is intended to assist small- and medium-sized enterprises involved in mining, facilitate research and raise the standard of living of local miners.
5. The Mining Act stipulates that the holder of a mineral licence cannot exercise any rights on private land until the holder has entered into an agreement with the owner regarding payment of compensation. If any dispute arises between the holder and the owner in relation to the liability or the amount of compensation, such holder or owner may appeal to the commissioner and then appeal to the minister and thereafter appeal to the High Court if need be.

6. Application for licences entails provisions that require the applicant to demonstrate the financial and technical ability to develop and operate a mine.
7. Provisions for royalty are being uniquely designed and conceptualized as per the need of the country. Royalty is not fixed, it varies as per the type of mineral. The minister may require the holder to provide a guarantee to secure the payment of royalties.
8. There is a provision for levying a windfall royalty on the holder of a mining claim or a mining licence that has been won or mined in the course of any prospecting or mining operations. The minister can also levy windfall royalty if he deems fit that the market prices have increased to such an extent that the operation has become more profitable.
9. Corporate tax is uniquely levied in Namibia. Corporate tax for mining companies other than diamond companies is 37.5 per cent of the profit and 55 per cent of profit for diamond mining companies.
10. The Act directs that training programmes be carried out to encourage and promote the development of Namibian employees. Employment preference is given to Namibian citizens who possess appropriate qualification and experience. The Act also stipulates the use of products and equipment manufactured within Namibia.
11. The Act stipulates that during the course of any mining or prospecting operations, if any mineral is spilled into the sea or on land, the holder shall report such spillage and take remedial steps to counter such spilling or pollution. If the holder fails to comply with such provisions, the minister may direct the holder to take specified remedial steps and even after repetitive directions, if the holder fails to comply, the ministry may carry out such steps and recover the cost.
12. In the national interest, the Act empowers the minister to direct the licence holders for carrying out any mining or prospecting operations on any land in the country. Also, if the minister feels that there is any kind of threat to the environment or the natural resources, any mining activity will only be carried out after special permission granted by the minister.
13. The Act requires mineral licence holders to prepare EIAs indicating the extent of any pollution of the environment and if any pollution is likely, an environment management plan (EMP) indicating the proposed steps to be taken in order to minimize or prevent such pollution and time-to-time revision of such EMP is mandatory.
14. The minister is empowered by the Act to give directions to the mineral licence holders for carrying out good reconnaissance, mining and prospecting practices, protection of the environment, conservation of natural resources, payment of liability fee and royalty, and remedial steps for any damages.

15. The Act mandates that the rights of the holder are not to be applicable on private or state land used as gardens, orchards or land under cultivation, land within a horizontal distance of 100 m from any water source, land within a horizontal distance of 300 m a fishing or marine navigation point without prior permission of the minister.
16. On abandonment of a mine, the Act directs that the holder shall take all necessary remedial steps to reasonable satisfaction of the minister for any damage caused by any mining operations.
17. The Act mandates that if, in course of the mining operations, any damage is done to the surface of land, water source, cultivation, building, or any other structure, the holder is liable to pay the compensation to the owner of the damaged structure.



*Mining workers resting under makeshift sheds. New labour rules seek to achieve a better working climate for the miners*

### 3 SOCIO-ECONOMIC BENEFITS

- Key acts and regulations:
- Minerals (Prospecting and Mining) Act of 1992
  - Mineral Development Fund of Namibia Act ,1996
  - Labour Act, 1992
  - Mine Health and Safety Regulation
  - The Forest Act of 2001
  - Employees Compensation Act, 1995

Namibian economy is heavily dependent on the mining sector. The government also envisages strengthening the mining and mineral sector to reduce poverty and create employment opportunities. However, except for focussing on creation of employment, compensation to private owners and reserving mining claims for Namibian citizen, the initiatives such as benefit sharing and CSR have largely been ignored. CSR is not mandatory in Namibia and is carried out on a voluntary basis majorly by large mining companies. On the contrary,

### CSR in India

In India, the concept of CSR is governed by Clause 135 of the Companies Act of 2013. It is applicable on companies with an annual turnover of US \$146 million or more, or a net worth of at least US \$74 million, or a net profit of not less than US \$0.8 million. Any company (mining, non-mining, banks etc.) meeting these criteria has to spend 2 per cent of its annual profit-before-tax in activities for social development. Such money must be preferentially utilized around areas where the company operates. As per government guidelines, the money has to be spent on education, healthcare, sanitation, environment, drinking water, eradicating poverty, skill development etc.

As per the Act, every eligible company has to file annual returns to the government on the expenditures. The Act also stipulates that CSR activities do not include:

- (a) Normal business activities of the company
- (b) Contribution to any political party
- (c) Welfare schemes for the employees and their family

### Benefit sharing under the District Mineral Foundation

In 2015, the Indian Mining Act was amended to insert the concept of benefit sharing with the local communities. Section 9 (b) of the Mining Act defines a local non-profit trust called the 'district mineral foundation', funded based on calculations as a certain percentage (up to 33 per cent) of the royalty of the mineral. This is over and above the royalty of the mineral paid to the government and CSR expenditure as mandated under the Companies Act of 2013. This fund will be accrued upon the local exchequer and the local authority is authorized to disburse the amount in a particular manner as stated by the government. To ensure proper utilization of the fund, the government developed guidelines to identify the affected areas and people, while also defining key areas where the funds will be utilized—60 per cent of the fund must be spend on providing clean drinking water, environment preservation, healthcare, education, welfare of women and children, welfare of aged and disabled, skill development and sanitation. The rest (40 per cent) will be utilized in the development of the district's infrastructure, irrigation, energy and watershed and any other measure for enhancing environmental quality in the mining districts.

CSR policy in India clearly mandates an amount of 2 per cent of annual profit-before-tax for social-economic development. Namibian mining industry is and will continue to form a significant part of the national economy in the foreseeable future. It is, therefore, the obligation of the government that the extraction of natural resources be sustainable and used for the common good of the Namibian citizens.

Namibia has enacted a number of laws for the socio-economic development of its communities. The Affirmative Action (Employment) Act of 1998 has been enacted to ensure equitable employment opportunities. Further, The Minerals (Prospecting and Mining) Act of 1992, the Labour Act of 2007 and the Mine Health and Safety Regulation stipulate the conditions for workspace safety, hygiene, sanitation and other benefits.

### Salient features

- Section 50 of the Minerals (Prospecting and Mining) Act, 1992, provides for mineral agreements. The terms and conditions of mineral licences stipulate that licence holder give preference to Namibian citizens in employment in mines. This is to ensure that the mining and technological skills of the citizens are developed so that they can become more productive part of the country while becoming financially self-sufficient. Affirmative Action (Employment) Act of 1998 provides for a commission. The commissioner has to ensure that equitable employment opportunities for the local communities are provided.

- A separate and specialized Minerals Development Fund has been established to assist small and medium-sized enterprises involved in mining, facilitate research and raise the standard of living of local miners.
- A Mine Health and Safety Board has been established under the Mine Health and Safety Regulation to regulate workers health and safety issues in mines.
- The Labour Act, 2007 prohibits and restricts child and forced labour, sexual harassment and any form of discrimination at the work place. Employees are entitled for annual, sick, paid compassionate leave and leave on public



*A female mine worker. Maternity leave benefits to female members equal 100 per cent of basic wage up to a ceiling of N \$13,000 (US \$1,097)*

### Keys provisions of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, India, 2013

- For public-private partnership mines, at least 70 per cent people must consent, whereas for private mines, consent of 80 per cent people is required.
- Social Impact Assessment (SIA) is mandatory for acquisition and SIA must demonstrate
  - (a) Acquisition serves public purpose
  - (b) Absolute bare minimum acquisition of land
  - (c) Estimation of the number of affected families and families likely to be displaced
  - (d) Extent of public, private and common properties to be affected
  - (e) Alternative site
  - (f) Potential benefit of project outweighs the social cost and adverse social impact
- No irrigated multi-cropped land can be acquired, except as a last resort. In case of diversion of multi-cropped irrigated land, an equivalent area of cultivable wasteland shall be developed for agricultural purposes or an amount equivalent to the value of land acquired has to be deposited with the appropriate government authority.
- Public participation (public hearings) are conducted at two stages
  - (a) During SIA
  - (b) When draft compensation, resettlement and rehabilitation (R&R) package are finalized
- Both title and non-title holders are eligible for compensation and R&R packages.
- No declaration of land to be acquired shall be made unless the requiring body (proponent) deposits the cost of land acquisition in full or part with the government.
- Criteria for determining market value for compensation, including method for determining compensation package and R&R entitlements for title and non-title holders, are provided in Act.
- The compensation is four times the market value in case of rural projects and two times higher in case of urban projects.
- Government can take possession of land after ensuring full payment of compensations well as R&R entitlement to the affected family.
- A five-year development plan in case of acquisition of land in tribal areas is required.

holiday. Female employees that have completed six months of employment are entitled to 12 weeks of maternity leave, which can be extended. As per the Act, it is the duty of the employer to ensure safe workplace and minimize health risks.

- The Labour Act also has a provision which empowers the minister to make regulations in relation to safety, health, hygiene, sanitation and welfare of persons employed in or about mines, including sea bed operations.
- A separate accident fund is established under the guardianship of social security commission to provide compensation to employees in the case of accidents.
- Maternity, sick and death benefit fund is established under the social security commission that provides benefits for maternity, sick and death. The maternity leave benefits to female members equal 100 per cent of the basic wage up to a ceiling of N \$13,000 (US \$1,097) .
- Land in Namibia belongs to private individuals, companies or to government. Mineral explorers currently have to negotiate a contract directly with landowners to gain access for exploration or mining purposes. Minerals Ancillary Rights Commission (MARC) offers an opportunity for the implementation of a co-operative and consultative process between

mineral explorers and landowners. The legal framework makes provisions for agreement between landowners and mineral explorers.

- No person shall carry out any mining activity in a classified forest unless they have been authorized to do so. The Forest Act of 2001 stipulates that if a person wishes to carry out any activity for the purpose of mining in a forest reserve, they shall apply for the licence to a licencing officer who has been designated for the area where the forest reserve is situated. Upon receipt of such an application, the licencing officer may issue a licence to the applicant only after the royalty or fee as prescribed by the Minister in concurrence with the Minister of Finance has been paid. Point to be noted is that no licence shall be issued unless the applicant is the holder of mining licence.



*A tailing pond in Namibia. As the country scales up its mining operations, it must ensure that the environment is protected from any adverse effects*

## 4 ENVIRONMENTAL MANAGEMENT

### Key acts and regulations:

- Minerals (Prospecting and Mining) Act of 1992
- Environment Management Act of 2007
- EIA Regulation, 2012
- Nature Conservation Ordinance of 1975
- Water Resource Management Act, 2013

Namibia is one of the driest countries in the world and it is highly vulnerable to climate change. With the growth of industries, the problem of environmental degradation has also worsened. Namibia faces a lot of environmental issues such as pollution, climate change, water scarcity, land degradation and soil erosion.

The principle of biodiversity conservation and sustainable development is embedded in the constitution of Namibia. Article 95 envisages that the state shall actively promote and maintain the welfare of people by adopting policies which include the “maintenance of ecosystems, essential ecological processes

and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefits of all Namibians.” Namibia has enacted an Environment Management Act and a Nature Conservation Ordinance for the preservation of its environment. The government has also formulated the Green Plan, Vision 2030 and National Development Plan for sustainable and equitable development.

In addition, the provision of environment protection have been broadly covered in Minerals (Prospecting and Mining) Act of 1992. It stipulates that EIA be undertaken during prospecting or mining operations and if any pollution is likely to be caused, an EMP indicating the proposed steps to be taken in order to minimize or prevent such damage be chalked out. The Act also has provision to revise an EMP in case of circumstantial impacts.

Further, under Section 57 of Minerals (Prospecting and Mining) Act of 1992, the minister is empowered to give direction with respect to (a) protection of the environment (b) conservation of any natural and mineral resources, and prevention of the waste of such resources.

Section 68 of the Act stipulates that while submitting application for exclusive prospecting licences the applicant needs to estimate the impact of proposed prospecting operations on the environment and subsequently propose steps to prevent or minimize effects on the environment. Under section 109 (1) (d) of the Minerals (Prospecting and Mining) Act, it is necessary for the holder of a non-exclusive prospecting licence, a mineral licence or a mining claim to obtain a right to dispose of water or any other substance released during such operations. Further, Section 130 of Minerals (Prospecting and Mining) Act stipulates the liability of the licence holder for pollution of environment or other damages caused.

### **Institutional framework**

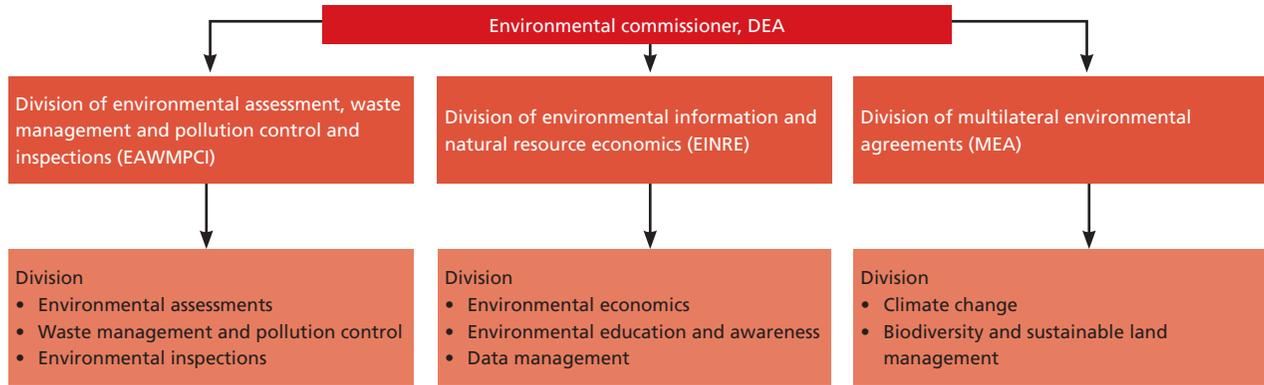
The Ministry of Environment and Tourism is the nodal agency for the administration of environmental acts and policy. Namibia is one of the few countries in the world to have linked environment with tourism. The country has achieved significant conservation successes and now has the largest population of black rhinoceros in Africa. In addition, it has also expanded its population of lions, giraffes and elephants (the number of elephants has gone up from 7,000 to 23,000 in around 20 years).

The Ministry consists of three important departments, tourism, planning and administration; natural resources management; and environmental affairs. The main objective of the Department of Environmental Affairs (DEA) is to promote environmental sustainability across all other ministries, the private sector and non-governmental organizations. The functions of DEA include:

- Promoting sustainable development
- Protecting biological diversity
- Improving environmental awareness
- Promoting natural capital accounting as a decision-making support tool
- Encouraging participatory environmental planning and management
- Actively involving Namibia in regional and global environmental issues, programmes and treaties

The environmental commissioner serves as head of the DEA, which also houses three divisions (see *Figure 2: The department of environmental affairs*).

**Figure 2: The department of environmental affairs**



Division of environmental assessment, waste management and pollution control and inspections (EAWMPCI)	Division of environmental information and natural resource economics (EINRE)	Division of multilateral environmental agreements (MEA)
<ul style="list-style-type: none"> <li>Receive and review environmental assessments and provide recommendations on the issuing of environment clearance certificates</li> </ul>	<ul style="list-style-type: none"> <li>Establish and maintain a natural resource accounting system, with the regular production of natural resource accounts</li> </ul>	<p>This division is the national-level focal point for a number of multilateral environmental agreements:</p> <ul style="list-style-type: none"> <li>Convention on biological diversity (CBD) (ratified in 1997)</li> <li>United nations framework convention on climate change (UNFCCC) (ratified in 1995)</li> <li>United nations convention to combat desertification (UNCCD) (UNFCCC) (ratified in 1997)</li> <li>United nations commission on sustainable development</li> </ul>
<ul style="list-style-type: none"> <li>Promote management of waste, hazardous substances and pollution in an environmentally sound manner</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate all research activities within DEA</li> </ul>	<ul style="list-style-type: none"> <li>Promote and support implementation of all environmental policies and legislations related to biodiversity, sustainable land management and climate change</li> </ul>
<ul style="list-style-type: none"> <li>Monitor and enforce environmental management plans and general measures for environmental protection</li> </ul>	<ul style="list-style-type: none"> <li>Carry out economic analysis and provide economic advice on relevant policies, legislation and interventions</li> </ul>	<ul style="list-style-type: none"> <li>Negotiate on behalf of Namibia at conferences and meetings of the CBD, UNCCD and UNFCCC</li> </ul>
<ul style="list-style-type: none"> <li>Save as the national focal point and coordinate national-level implementation of relevant international conventions (including the Basel Convention on the control of transboundary movement of hazardous wastes and their disposal and the Stockholm convention on persistent organic pollutants)</li> </ul>	<ul style="list-style-type: none"> <li>Foster cross-sectoral partnerships and networks and coordinate environmental education initiatives nation wide</li> </ul>	<ul style="list-style-type: none"> <li>Support and coordinate all programmes, plans and projects relating to CBD, UNCCD and UNFCCC</li> </ul>
	<ul style="list-style-type: none"> <li>Collect, maintain, update, develop, produce and disseminate environment related information</li> </ul>	<ul style="list-style-type: none"> <li>Raise awareness at the national and local levels of the CBD, UNCCD and UNFCCC</li> </ul>
	<ul style="list-style-type: none"> <li>Organize environment education events and outreach as well as celebration of relevant international environmental days</li> </ul>	<ul style="list-style-type: none"> <li>Advise decision-makers accordingly on all matters related to biodiversity, sustainable land management and climate change-related programmes, plans and projects</li> </ul>
	<ul style="list-style-type: none"> <li>Support the establishment, management and administration of environmental education centres, activities and programmes</li> </ul>	<ul style="list-style-type: none"> <li>Ensure the fulfilment of Namibia's reporting requirements to the CBD, UNCCD, UNFCCC and UNCSD</li> </ul>

Source: Namibian Ministry of Environment and Tourism

## Environment Management Act, 2007

The Environment Management (EMA) Act, 2007 is an umbrella act to promote sustainable management of environment and use of natural resources. The law stipulates the functions of the minister, constitution of a sustainable advisory council, its functions, composition, tenure etc., and also includes the appointment and function of the environmental commissioner. The Act also has a provision for formation of management plans by the organ state, their approval by the ministry and compliance. The law discusses the environmental assessment process, including any special provisions relating to it, and empowers agencies to undertake inspection and ensure compliance. The EMA provides for appeals to the minister. Any person aggrieved by the decision of a minister can approach the High Court against the minister's decision.

The Part VII and VIII of EMA Act 2007, specifically deals with the procedure of environmental assessment and its process respectively, and Part IX of EMA Act has special provisions relating to environmental assessments such as procedure for identifying competent authorities, application for environmental clearance certificates, registration of applications and determining whether an assessment is required, procedure where assessment is required or not, duration of environmental clearance certificates, suspension or cancellation of environmental clearance certificates, offences, access to environmental information, international environmental agreements and so on.

In order to streamline the assessment process under Section 56 of EMA, 2007, the parliament has enacted Environment Impact Assessment Regulation in 2012 and categorized project through a government notice for which environment clearance certificates are a prerequisite (see *Box: Procedure for carrying out environmental impact assessment*).

## Salient feature of Environment Management Act and Regulation

- Possession of an EIA certificate is a prerequisite for issuing any licence or permit by any authority under any Act. Despite any other law to the contrary, a competent authority may not issue an authorization unless the proponent has obtained an environmental clearance certificate. An authorization issued contrary to this is invalid. Although, an application for non-exclusive prospecting licence and mining claim does not require an environmental clearance.
- The Minister is empowered to make regulations and guidelines to strengthen the EIA framework, and make or amend the listed activity for which an EIA is a prerequisite, by (a) adding an activity to the list (b) removing an activity from the list or (c) making other changes to the particulars in the list.
- The Act mandates constitution of a Sustainable Development Advisory Council to advice ministers and promote cooperation and coordination between organs of the state, NGOs, funding agencies etc. on environment and sustainable development. The council also advises the minister on development of policy and strategy, and management and protection of environment, it also advises the minister on possible amendments to the legislation.
- The law also stipulates general functions and powers of the minister. The Act empowers the minister to declare a site for waste disposal after consultative process through notice in the gazette or by a regulation.

- The Act also mandate that every organ of state is required to submit an environment plan to the environment commissioner within a stipulated period and get it approved by the minister.<sup>10</sup> Further, every organ of state submits an annual compliance report to ministers on its adopted environment plan. Further, the Act also stipulates that a copy of every environment plan is available for public inspection.
- Under the Water Resource Management Act, 2013, mineral licence holder requires a separate licence to extract and use water, or to discharge effluents. Under the Act, a borehole licence is issued for the purpose of exploring or extracting minerals. Such licence is issued with a condition that the licence holder has to ensure conservation and protection of water resource. The said Act also prohibits wastage of groundwater in boreholes, wells, shafts, mines or other excavations.
- Namibia has a well-structured EIA process mandated under law with a clear timeline for each step. In order to streamline the EIA process, different types of forms and schedules are appended to the Environmental Impact Assessment Regulation, 2012, and provide a ready guide to project proponents, consultants and government agencies.
- People's participation is taken into account during environment clearance so that they get a chance to give feedback during three stages:
  - (a) At the time of preparation of the scoping report
  - (b) After submission of the detailed report (kept for inspection)
  - (c) Environment Commissioner (EC) may hold public hearing prior to issuing ECC in case large project
- Transparency and accountability are well considered while issuing ECCs.
  - (a) Low impact projects: People are consulted once, i.e., before EIA process begins
  - (b) High impact projects: Where detailed assessment is required, the Act has provisions for consultation at three stage (1) before EIA begins (2) assessment report kept for inspection and (3) at the time of review, if the Environment Commissioner thinks it is appropriate (optional).
- The Act also stipulates that the application and assessment report are made available for inspection at the office of the EC; if anybody wants to submit written comment, they can do so. To promote transparency, all record are public documents and must be made available for public inspection at the office of the EC during office hours.
- Under the Act, the EC may suspend or cancel an ECC in case the certificate holder:
  - (a) Has contravened any condition of the certificate
  - (b) Has contravened any provision of the Act
  - (c) Is convicted of an offence in terms of the Act
- An ECC may be suspended (a) for a period specified in the notice of suspension or (b) until the EC is satisfied that the person concerned has rectified the failure which led to the suspension.
- A person commits an offence, if the person (a) alters or forges an environmental clearance certificate or any notice, order or document

## Procedure for carrying out environmental impact assessment

### Step 1: Appointment of Environmental Assessment Practitioner (EAP)

The proponent firstly has to designate an environmental assessment practitioner (hereinafter referred to as EAP) to manage the assessment process. He or she should be aware about assessment, law, policy and guidelines. Further, the regulation stipulates that EAP shall have access to information of the proponent regarding the application, whether or not the information is favourable to the proponent.

Problem: The EAP herein is referred to as a consultant. Both the Act and Regulation fail to elaborate whether EAP is an organization or individual consultant.

### Step 2: Determining, if proposed activity is a listed activity

Before submitting an application for an environmental clearance certificate (ECC), the proponent must determine that the activity for which the application is made is a listed activity. The proponent shall also consult the Environmental Commissioner (EC), the competent authority and refer to guidelines, if any.

Listed activities are exhaustive and categorized into 11 headings. These are (a) energy generation, transmission and storage activities (b) waste management, treatment, handling and disposal activities (c) mining and quarrying activities (d) forestry activities (e) land use and development activities (f) tourism development activities (g) agriculture and aquaculture activities (h) water resource development (i) hazardous substance treatment, handling and storage (j) infrastructure and (k) other activities.

The listed activities also include small projects which may be cleared by submitting EMPs. The listed activities for which EIA is required does not have a threshold value. For example, for generation of electricity, no threshold capacity is given, which means that large and small power project follow the screening process, thereafter, the EC decides the requirement of the EIA. A similar process is applicable in construction of wastewater treatment plants. Also, there is no clarity on whether a wastewater treatment plant or thermal power plants also require separate or combined clearance.

**Step 3:** If a project is listed under an activity, the application for ECC is made in an application form, herein referred to as Form 1, appended to the said regulation.

### Step 4: Process after submission of application

After submitting the application to the competent authority (organ of state or minister) in Form 1, the proponent must (a) conduct a public consultation process (b) maintain a register of all interested and affected parties (c) consider all objections and representations received from interested and affected parties (d) identify all potential impacts (e) require further investigation, if any (f) identify whether and to what extent the potential effects can be mitigated and (g) prepare a scoping report.

The scoping report contains (a) potential impact of the project (b) magnitude and (c) whether mitigated or not or require further investigation. The said scoping report is shared with interested and affected parties for comments.

**Step 5:** After completion of step 4, the project proponent should approach the competent authority and submit the following documents (a) scoping report (b) management plan (c)



copies of any objections and comments received in connection to the scoping report (d) copies of the minutes of any meetings held by the proponent with interested and affected parties and (e) any responses by the EAP to those representations, objections, comments and views.

**Step 6:** On receipt of an application as mentioned in step 5, the competent authority forwards the application to the EC for grant of an ECC.

**Step 7:** Consideration of scoping report and determining detailed assessment (screening process)

On receipt of an application, the EC shall, within three days, acknowledge receipt of the application and register the application in the assessment register; and within 14 days of receipt of application, EC shall consider the scoping report and decide whether to:

- (a) Accept the scoping report
- (b) Reject the scoping report, if it does not comply with the Act, Regulations and guidelines, if any  
or decide whether the
- (c) Application requires a detailed assessment

Note: If a scoping report is rejected, then there is a provision in the said regulation for reconsideration after it is being amended and being resubmitted by the proponent.

**Step 8:**

- a. If detail assessment is not required, then, after receiving a prescribed fee and conditions, the EC shall within seven days issue the ECC and, in writing, notify the proponent and the competent authority of the decision.
- b. If the EC decides that the proposed activity requires assessment, they have the power to determine the scope, procedures and methods for assessment and, in writing, shall notify the proponent to prepare an assessment report and also in writing notify to the competent authority.
- c. After receiving the Terms of Reference (ToR) from the EC, the proponent instructs EAP to prepare assessment report within 21 days. On the completion of the assessment report the proponent submits the report to the EC.

**Step 9:** Upon submission of the assessment report, the EC issues a notification for inspection at the office of the EC and invites written submissions within stipulated time at the cost of proponent.

After closing date, the EC reviews the application and may take any action considers appropriate for the review:

- a. Consulting any person, institution, or authority on any matter concerning the application, the assessment or any submission received in relation to the application
- b. Carrying out, or appointing a person or a committee of persons to carry out an investigation, including a process of public consultation
- c. Holding a public hearing

**Step 10:** After reviewing the assessment report, EC may (a) issue an ECC to the proponent on payment of the prescribed fee and (b) refuse the application with reasons for the refusal.



issued (b) knowingly gives false information in any application for an environmental clearance certificate made (c) without lawful excuse, fails or refuses to give data or information, or gives false or misleading data or information when required to give information or (d) makes any false entry or declaration in any register, record or document required.

- The EC may with the approval of the minister appoint an external specialist reviewer and may recover costs from the proponent in cases where (a) the technical knowledge required to review any aspect of an assessment is not readily available within the ministry or (b) a high level of objectivity is required which is not apparent in the documents submitted, in order to ascertain whether the information contained in such documents is adequate for decision-making.
- EIA is done only by the person or organizations having practical experience or knowledge in the sector.
- The cost of EIA-related activities like public hearing, consultation, appointment of experts for review of EIA even if appointed by the Commissioner, has to be borne by the proponent.
- The EC conducts site visit post issuance of the EC certificate.
- EC certificate may be transferred from one holder to another only after prior permission of the Environmental Commissioner.
- Provision for delegation of power: The minister delegates the power to issue EC certificates to the EC or deputy EC and staff of the ministry provided by the permanent secretary for assistance.
- Any person aggrieved by the decision of the EC may appeal to the minister and bring an appeal against the minister (if need be) in the High Court.

### **Salient features of reclamation and restoration**

Mine reclamation and restoration has gathered importance in contemporary times to conserve the environment and community after mining activities in an area are finished. Generally, mines are closed when minerals get exhausted. However, in some cases, mines are closed when the extraction of minerals is economically non-viable. Mine closure and restoration is a challenge in developing nations and Namibia is no exception. Namibia has more than 150 registered mines and probably in excess of about 250 abandoned mine sites in total. There is a wide variety of abandoned mines, some are underground, while others are open pits and quarries. Associated structures, overburden dumps, tailing facilities and beneficiation plants are in various stages of deterioration and decay. The primary concern for remedy and rehabilitation of abandoned mine sites are to ensure public health and safety, and environmentally stable conditions compatible with the surrounding environment, and consequently minimizing the environmental impacts caused by past mining activities.

Mine closure and rehabilitation process is guided by the Minerals (Prospecting and Mining) Act of 1992 and EMA, 2007. In 2010, the Chamber of Mines produced a framework titled “Namibian Mine Closure Framework (NMCF)” for mine closure. The purpose of this Namibian Mine Closure Framework is to provide guidance for the Namibian mining industry on this aspect.

## Financial provisions for mine closure in India

### Non-auction mine

Financial assurance for mine closure is US \$4,698 per hectare for mechanized mines and US \$3,132 per hectare for non-mechanized mines. The policy also stipulates that the leaseholder shall be liable to pay for any expenditure over and above the fixed amount for mine reclamation and rehabilitation measures.

### 'Auction' mine

Financial assurance is referred to as 'performance security'. The lease holder has to furnish an amount equal to 0.5 per cent of the 'estimated value of the resources'.

In case of coal mining projects, the closure cost for open cast mine is US \$9,395 per hectare; it is US \$1,566 per hectare for underground mines. The said amount, which is called financial assurance, is deposited in the bank. The computed annual cost is deposited every year as financial assurance throughout the mine life, compounded at an annual rate of 5 per cent.

## Bank guarantee for auction mines

For mine leases granted through auction, the holder has to place a performance security, calculated as follows:

Performance security = 0.5 per cent x Estimated value of the reserve

### Estimated value of the reserve

All active mines in India are obligated to complete the exploration of the mine lease area at G1 level within a period of five years after 2017. After exploration has been completed, total estimation of reserves is done. The total estimated reserves will then be used in calculating the total 'estimated value' of the reserves by multiplying the 'estimated reserves' with the 'average sale price' of the mineral. As the average sale price is dynamic, the rules provided for revision of the estimated value of the reserves after every five years.

- Section 91 of the Act puts obligation on the licence holder to reclaim and rehabilitate land disturbed by prospecting and mining operations, and to minimize the effect of such operations on land adjoining the mining area.
- Under Sections 43 and 54 of the Mineral Act, the holder of a mining claim or mineral licence can abandon such a claim or licence by giving a notice to the commissioner, along with the registration certificate or mineral licence. Further, the Act puts an obligation on the licence holder to demolish buildings and structures, and remove debris and objects and also to remedy the damage caused to the surface and the environment.
- Licence holders have a general duty to take care of the environmental care and are expected to practice continuous rehabilitation at their own cost.
- Section 128 (3) of the Mining Act stipulates that failure to rehabilitate a mined area properly is an offence carrying a penalty of N \$100,000 (US \$8,423) or five years imprisonment.

# 5 RECOMMENDATIONS

In order to strengthen the environmental and social aspects of the mining sector in Namibia, CSE would like to make the following recommendations:

## Permit systems and compliance

- Although most areas have been mapped, reserves have not been proven at the G1 level. In India, the government has made it mandatory for every mine lease holder to carry out the exploration at G1 level within a period of five years from the date of enactment of the Mineral Conservation and Development Rules, 2017, non-compliance with which may result in huge penalties.
- The development of the mining sector depends upon mineral exploration. Mineral exploration needs capital investments. It would be beneficial for the sector to levy a cess on mineral production to augment capital investments required for exploration. In India, the National Mineral Exploration Trust has been established under the country's mining law to strengthen exploration, research and development and the fund is generated by levying a cess of 2 per cent on the royalty. This is in addition to mineral royalty paid to the government.
- There is lack of guidelines and manuals to ensure effective and smart compliance (environment, health, safety, audit and inspection etc.)
- The concept of local content plan exists in Namibia but it requires further strengthening. The government of Tanzania, in 2017, included the concept of a local plan in the mining act. The objective of the local content plan is to create employment, build skills and boost the local economy by making it mandatory to use goods and services produce within the country by mineral right holders. Under a local content plan, the mineral right holders are required to prepare and submit five-year procurement plans and compliance status to the Commission, including the annual achievements in utilizing local goods and services.
- The concept of integrity pledge should be introduced. Recently, this concept has been mandated in Tanzania. A key provision of the integrity pledge related to environment and community protection is maintenance of satisfactory and effective insurance coverage against losses, injuries or damage to environment, communities, individual and properties due to mining operations. Failure to comply with the integrity pledge can result in cancellation or withdrawal of the licence.
- Small- and large-scale mines have different issues and challenges and at the same time they have different impact on the society and environment. So, a separate regulation for small-scale mines should be developed. In Tanzania, EIA is not applicable to small-scale mines and is regulated by the Mining (Environmental Protection for Small-scale Mining) Regulations of 2010, which stipulates that an applicant, prior to commencing mining operations, shall conduct a baseline environmental investigation and social study (i.e., presence of human settlement, identification of burial

sites, presence of cultural heritage sites, water vegetation, etc). Based on the findings, the applicant has to prepare an environment protection plan (EPP) to mitigate those impacts and has to submit the plan to the Commission prior to the grant of a licence. In case of non-compliance with the EPP and other provisions of the said regulations, a holder of licence is to take all reasonable actions to mitigate those impacts and inform the Commission or pay a fine for every breach. Regulations also stipulate that the licensee shall not knowingly discharge, deposit or emit liquid, solid, gaseous or particulate matter, or noise or vibration from the mine.

- There is a need for proper categorization of mines. Currently, the Mining Act defines mining claims for small-scale mines and has no definition for medium- and large-scale mines. For instance, in India, the mining sector is categorized based on the type of mining lease into 'A' and 'B', and 'B' is further divided into 'B1' and 'B2'. 'A' category mines, having a lease area of more than 50 hectare in case of non-coal and 150 hectare in case of coal mines, are cleared at the Central level, whereas mines spread over five–50 hectare are cleared at the state level, and mines of an area with less than 5 hectare are cleared at the local level.
- To strengthen transparency and accountability in the mining sector, the following is strongly recommended:
  - (a) Auction of mines should be encouraged
  - (b) Creating a web portal will bring transparency in compliance assurance and help in effective management of mines
  - (c) An online system should be developed for filing of daily production reports for better transparency and compliance
- Coordination within different departments of MME and with other line ministries should be strengthened.
- There is a need for capacity building in MME as well as other line ministries for better compliance and monitoring.
- A standardized inspection manual shall be developed for inspection of large as well as small-scale mines.
- The lack of monitoring of small-scale mining activities has led to labour malpractice and unsafe mining practices. This results in health and safety hazards and abuse of children. There is a need for better compliance and monitoring of small-scale mines.
- Marine mining is a new and upcoming concept. Namibia has huge marine mineral deposits. There should be a separate policy for exploiting them. EIA norms for marine mining should be separately laid out.
- The existing mine safety regulations are not adequately enforced. This can be attributed to the critical shortage of qualified and experienced mine inspectors.
- No separate court deals with redressal of grievances to ensure speedy trial of the non-compliances. For instance, in India, the Mining Act (Amendment) 2015 stipulates formation of a separate court.

### Socio-economic benefits

- The current process of land acquisition is restricted to providing compensation for loss of assets attached to land. The process of free and prior informed consent is not practiced. The compensation amount is based on the market value. It also includes financial losses caused by the expropriation, and an additional amount of 10 per cent of such amount, not exceeding N\$10,000 (US \$840).

Namibia can learn from India where the law mandates undertaking a social impact assessment (SIA) and offering a compensation rate four times higher than the market rate in rural area. This is done to ensure that the acquisition process is smooth and lucrative for the local communities. India's Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 mandates a process of free and prior consent and SIA to be carried out along with a five year socio-economic development plan if land acquisition carried out in tribal area (see *Box: Keys provisions of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, India, 2013*).

- The concept of benefit sharing is not mandated in Namibia. Only employment and training for local communities is mandatory. In India, the mining law mandates the establishment of the institution of DMF, which is funded by the mines in every district at the rate of not less than one third of the royalty. This Fund is over and above taxes, royalty and CSR (see *Box: Benefit sharing under the District Mineral Foundation*).
- Unlike India, CSR is not mandatory in Namibia. Most of the CSR activities are carried by companies on a voluntary basis. As per the Namibian Chamber of Mines, CSR spendings in the country, as of 2016, was a 0.088 per cent of the corporate profits. Namibia has a large number of small-scale mines and implementation of CSR at the mine level will be difficult. The concept of resource pooling by a cluster of mines for CSR might be more suitable. The CSR policy in India clearly mandates the amount of 2 per cent of annual profit-before-tax in activities for social development to be spent on CSR (see *Box: CSR in India*).
- There is no provision for compensatory afforestation in Namibia. An approval is required by the Director of Forestry to plant trees under Section 23 of the Forest Act of 2001. Namibia can learn from India to compensate for forestland diversion for non-forest purposes by planning and building capacity to carry out compensatory afforestation and forest conservation. As per the Indian Forest Conservation Act, 1980, developers have to pay for purchase of an equivalent area of non-forestland as nearby as possible to the site of diversion for compensatory afforestation. In addition to compensatory afforestation, the developer has to pay net present value (NPV) for forestland diversion, ranging from US \$8,943–16,082 per hectare. Compensatory Afforestation Fund Act, 2016 seeks to restore forests which have been diverted to non-forest purposes. It establishes a Fund for compensatory afforestation, plantation and forest conservation.
- In India, there is a separate act—the Scheduled Tribe and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006—to protect the rights of tribal whose livelihood depends on forest and forest produce. The law mandates that prior to forestland diversion, the rights should settled and

compensated. Namibia should learn to address such issues to make the mining sector socially responsible.

- Many provisions have been put in place to ensure safety of workers under the Labour Act and Mine Health and Safety Regulation, but the informal sector, which provides maximum employment in the small-scale mining segment, remains untouched by these legal reforms. The concept of resource pooling for clusters of mines can be a good option to maintain health and cater to injury and accident victims in small-scale mines.
- Although Namibia has enacted a number of laws for the socio-economic development of the local communities, it can learn from Tanzania's Mining Act which mandates submission of a 'local content plan' by all mines. The objective of the local content plan is to create employment, build skills and boost the local economy of the country by mandating use of goods and services produced in the country by the mineral right holders. The mineral rights holder has to submit a procurement plan and its compliance status to the commission.

### **Environmental impact assessment**

- Namibia follows an EIA process which deals with mines on a case-to-case basis. This is a good approach, but it will only be successful if the MME has sufficient guidelines, technical review teams, and in-house capacity. Currently, there is a dearth of such particulars.
- Namibia follows screening for all projects irrespective of size, magnitude of impact and potential emissions. To strengthen the process of ECCs, it is crucial to categorize projects based on size and potential emissions. This is doable because Section 29 of EMA empowers the minister to amend the list by adding and removing activities, and making other changes to the particulars.

Projects should be categorized into A, B1, B2 and C. The projects falling under 'A' category form a mandatory list and assessment of such projects is a prerequisite. A process of screening should be applicable for type 'B1' projects to determine whether they should belong to category 'A' or 'B2' and whether the project requires further environmental assessment. If it is determined during the screening that EIA is not applicable, then type 'B1' projects shall be treated as type 'B2'. The project falling under 'B2' and 'C' category should be cleared based on an EMP.

- In order to strengthen the current assessment process, the concept of a siting guideline should be introduced as a screening mechanism. It is a good preventive approach to control pollution.
- The basis for determining assessment is not mentioned in the EMA Act and the associated Regulation. Namibia needs a framework or guidelines for deciding the requirement of assessment, particularly for small projects. This is doable because Section 56 empowers government to prepare guidelines, regulation etc. to strengthen the assessment process.
- A cluster EIA and common EMP is needed for mining clusters, owing to their large numbers, concentration in certain areas, large employment potential and poor environmental compliance. Namibia should examine

the concept of cluster EIAs and develop a detail framework in this regard.

Similarly, a common EIA should be encouraged for a notified industrial zone or export processing zone or special economic zone, if the zone comprise of a collection of homogeneous industries or a pre-defined set of industries or projects. In such cases, a common management plan is prepared for the entire zone. However, the individual industrial project within these zones have to submit a comprehensive environment management plan for air, water, health, safety, employment and worker welfare, solid wastes and others as deemed fit by the ministry. The individual industrial projects within these zones or clusters are required to pay applicable fees and fulfill all other applicable conditions, as deemed fit by the ministry.

- Possession of an EC certificate as a prerequisite for receiving finance from banks is not mandatory in Namibia, whereas in Tanzania, ECs certificate are a prerequisite for bank financing.
- Namibia needs a sector-specific terms of reference (ToRs) and best management practices manual. At present, no such reference guide is available. Further, there is also a need for guidelines on the protocol for baseline data collection (where, how and when to monitor) for different categories of pollution. This is doable because Section 56 of EMA empowers government to prepare guideline, regulation etc. to strengthen the assessment process.
- Appointing an appraisal committee is the discretion of an Environment Commissioner. It is advisable to constitute sector-specific, expert appraisal committees (for mining, industry, infrastructure etc.) which will review the applications for determining requirement of an assessment, issuing ToRs, and appraising and recommending proposals for ECC to EC. This will improve the review and appraisal process. This is possible because Section 56 of EMA stipulates that the minister may make regulations relating to the assessment process and the content of an assessment report.
- There is a need for standardization of ECC conditions. Both general and specific conditions are needed. Specific conditions are further classified into (a) sector specific conditions which may be common across the sector and (b) site specific conditions, may be prescribed depending on location sensitivity.
- EIA guidelines for marine mining should be separately developed. Currently, marine mining is in its nascent stage and it needs a holistic approach. Marine mineral extraction is intertwined with fishing and environmental degradation, so it needs multi-dimensional impact assessment.
- Currently, existing policy mandates transparency and a consultative assessment process, however, the ministry website should be used to make environment clearance process more transparent by creating requirement of a scoping report, EMP, assessment report, feedback of public consultation, and decision of commissioner.
- The Act does not mention (a) what happens when the validity period is over, and (b) during the three-year validity period, can construction be carried out. Moreover, the duration is too short for large infrastructure projects but it holds good for small project. Further, there is no clarity on renewal,

once the validity period is over. Overall, the ministry is in charge of ECCs, inspection and compliance. Periodical renewal of ECCS is a good option from the compliance perspective. Renewal of ECCs should be subject to compliance of previous ECC conditions.

- Namibia should also bring in a policy for safe decommissioning and rehabilitation on expiry of a project, this has been mandated in the Tanzanian Environment Act, which stipulates that project proponents have to undertake safe decommissioning, site rehabilitation and ecosystem restoration at their own cost before the closure of a project. The Director of Environment shall not discharge environmental performance bonds until the holder fulfills the stipulated conditions.
- Namibia shall introduce a policy for insurance against damages. The Mining Act of Tanzania mandates insurance coverage against losses, injuries or damage to communities, individuals and properties due to mining operation and activities.
- To strengthen mining compliance in small mining operations, a separate policy should be encouraged, both India and Tanzania have separate policies to deal with small-scale mining, for instance, in Tanzania, there has been a separate regulation titled the Mining (Environmental Protection for Small-scale Mining) Regulations, 2010, which stipulate that small-scale mining operators, prior to commencing mining operations, consider environmental and social aspects. It also mandates small-scale mines to backfill an abandoned or previous working area prior to working in a new pit or area under licence.
- Namibia should capacitate the small-scale mining sector through workshops, consultation and training activities. Currently, there is a serious lack of capacity related to applicable laws and regulations, environment, and health and safety in small-scale mining sector.
- Namibia can learn from Tanzania regarding management of acid generated from mine waste or rocks. Tanzanian Mining (Safety, Occupational Health and Environment Protection) Regulation, 2010 mandate proper disposal of waste that may generate acids.
- There is a need for strengthening institutional capacity for EIA, audit, inspection and monitoring. Currently, to ensure compliance, the laws mandate inspection. Namibia can learn from India and Tanzania on inspection, monitoring and compliance. In Tanzania, to ensure EMPs are complied with and conditions of the EIA certificate are met, a 200 regulation mandates three types of audit for mining and non-mining projects (a) control audit—conducted by regulators (b) self-audit—annual submission of compliance to regulatory agency by the proponent, and (c) audit petition—done by regulators based on complaint or petition filed by an aggrieved person. In India, to ensure compliance with mining and environmental conditions, laws mandate three agencies to ensure mine compliance, Indian Bureau of Mines (IBM) looks after mine planning and closure, Director General of Mine Safety is responsible for ensuring safety, and environmental management (air, water and hazardous waste) is mainly taken care of by Pollution Control Board, and partially by IBM. Every year, companies have to disclose production and environmental compliance in the form of an environmental statement. Under the EIA mandate, every

mining company has to submit environmental clearance compliance status biannually. Under the Mining Regulation, to check environmental and social performance of mining, star-rating of mines is done. The rating is based on an assessment of four components—mine management, social impacts of mining, mine closure, and reporting. It is mandatory for mine owners to achieve four-star rating, otherwise their licence might be cancelled.

- The system of registration of freelancer consultants and organization is not robust, some key areas that need to be strengthened are:
  - (a) Only an organization with adequate infrastructure (e.g. manpower, laboratory, office set up, functional experts, experienced and qualified professionals for survey and data collection) should be encouraged for registration because EIA requires a multi-disciplinary approach and individual or freelancer consultants cannot have all the desired qualifications or expertise. However, individuals or freelancer consultant, working with an NGO or research organization, may give advice in their respective domain area. At the time of empanelment, the freelance consultant domain experts must enter a written agreement with the registered organization. Such experts can apply for empanelment every three–five years
  - (b) To improve the quality of EIA, sector-specific consultants and the registration of firms should be encouraged, notified on the basis of expertise and experience in that particular sector
  - (c) Other criteria may include infrastructure availability (laboratory, equipment, and area of the office)
- Namibia is well known for its national parks and biodiversity. Currently, environmental assessments and policy do not cover the impact on biodiversity. There is a need to strike a balance between biodiversity and mineral extraction.

### Reclamation and restoration

- The existing laws and regulations are too general for mine closure and restoration. Many of the mines are operating without mine closure plans. Closure plans should be made mandatory in licence application and EIA studies. Post-mine closure environmental and safety monitoring systems should be developed till the relinquishment period.
- Namibia has a number of abandoned mines and the guidelines and policies do not cover the closure of these mines. A separate policy for mine closure and rehabilitation of the abandoned mines should be developed.
- There is lack of policies and guidelines for a mine closure framework for small-scale mines and quarries.
- Before opening a mine, the applicant should submit a plan for closure of the mine and ensure its compliance during the operation of the mine. Under current law, there is no provisions for progressive mine closure and rehabilitation during the operational phase of the mines. There is lack of a clear framework for the financial costs of mine closure (see *Box: Financial provisions for mine closure in India*).
- The social security and stability in terms of employment and availability of basic amenities to local communities after mine closure should be encouraged and taken into account while preparing a mine closure plan.

The concept of alternative land use supporting local economy after a mine closes should be encouraged.

- Stakeholder's participation and consultation in preparing mine closure plans should be made mandatory.
- Outsourcing the task of mine reclamation progressively with the mining operations can be a good approach to ensure better closure of mines. The following practices should be encouraged to strengthen mine closure and restoration process:
  1. Auctioning the area to be reclaimed
  2. Choosing contractors as per domain experience
  3. Constituting an empanelled committee for the selection of contractors
  4. Disqualification of contractors in case of non-compliance.
- The concept of remote sensing monitoring of the progressive and final mine closure should be introduced for large mines.
- In order to strengthen mine reclamation and restoration, the following should be encouraged:
  - a) Devising a methodology for estimating the cost of proper closure of mines and implementation of mine reclamation plans
  - b) Encouraging national and international exposure visits on mine reclamation
  - c) Making people's participation obligatory

# ANNEXURE

## Policy comparison between India, Tanzania and Namibia in managing environmental and social impacts of the mining sector

	India	Tanzania	Namibia
<b>Mining</b>			
Permit system	Well-defined, specified time-limit, and disqualification and penalty in case of violation	Well-defined, specific time-limit, and disqualification and penalty in case of violation	Well-defined, specific time-limit, and disqualification and penalty in case of violation
	Both state and Central governments are empowered to issue exploration and exploitation licences	The Commission issues all exploration and exploitation licences	The Minister of Mines and Energy issues all the licences
	Auctioning of mine lease has been introduced to promote transparency and accountability	There is no process of online auctioning	There is no procedure for online auctioning
Classification of mines	<p>Categorization of mines is based on:</p> <ul style="list-style-type: none"> <li>Types of minerals, namely metallic, non-metallic, fuel minerals and atomic minerals</li> <li>Basis of mechanization— Category A (mechanized mines), and Category B (non-mechanized mine)</li> <li>For conducting environmental impact assessment (EIA), the mines are categorized on the basis of size (category A and category B)</li> </ul>	Categorization is based on investment: Large-, medium- and small-scale mines	Categorization is based on the size. The licence for small-scale mines are issued by mining claims, the average size of the claim is 600 x 300 m. Claims for the development of small-scale mines and minerals deposits are only available to the Namibian citizens. An individual or company can have a maximum of 10 claims
Safety and hygiene	Rules and regulations are properly laid down with proper benchmarks	Safety and hygiene are adequately addressed under acts and regulations; however, implementation is not satisfactory	Safety and hygiene are adequately addressed under acts and regulations; however, implementation is not satisfactory
Child labour	The Child Labour Act prohibits the employment of children	Child labour is prohibited under the law; however, child labour is still prevalent, particularly in small-scale mines	Child labour is prohibited under law
Groundwater	In case of groundwater intersection, a no objection certificate needs to be obtained from the concerned authority (Central Groundwater Board). Clearance is given subject to use of mine seepage water for agriculture and other public purposes	No such provision for effective use of mine seepage water	Prohibition on wastage of groundwater in boreholes, wells, shafts, mines or other excavations. A requirement of a licence to dispose of groundwater extracted from a mine or during any underground work

Social			
Land acquisition	People's consent is mandatory	No consent is required	People's consent is mandatory in case of private land
	Social impact assessment is mandatory	No such provision	No such provision
	No irrigated multi-crop area can be acquired for mining unless as a last resort	No such provision	No such provision
	Both title and non-title holders are eligible for compensation	Only titleholder are compensated	Only titleholder are compensated
	Criteria for determining market value for compensation, including a method for determining compensation package and rehabilitation and resettlement (R&R) entitlements for title and non-title holders are provided in Mining Act. The compensation is four times the market value in rural areas and two times in urban area	Compensation is calculated as per market value	No such provisions. The compensation depends on negotiation between private land owners and project proponents. No rehabilitation and resettlement is mandated by law
	Special provisions for tribal areas; preparation of a five-year plan for socio-economic development	No such provision	No such provision
	No declaration of land acquisition is made unless the developer or project proponent deposits the cost of acquisition with the government	No such provision	No such provision
	Construction of resettlement colonies having defined amenities in case of relocation	Provisions exist, but require strengthening	No such provision
CSR	<ul style="list-style-type: none"> <li>• CSR is mandatory and capped at 2 per cent profit (i.e., net profit before taxes for CSR corpus)</li> <li>• It is mandatory for companies to file annual return on CSR expenditure</li> </ul>	CSR is mandatory, but no financial provision defined on annual CSR expenditure	CSR is not mandatory, voluntarily done by large mine only
Benefit-sharing	The Mining Act mandates the formation of District Mineral Foundations. Funds are to be used for socio-economic development of the area around the mine. This is in addition to CSR	No provision for such a fund	No such provisions

Environmental			
Environmental clearance	EIA is mandatory for obtaining environmental clearance. Categorization of mines requiring EIA is done on the basis of size	EIS is mandatory for obtaining an EIA certificate. Categorization of projects requiring EIA is based on investment	EIA is mandatory for obtaining environmental clearance
	Clearance process is decentralized. Low-impact projects are cleared at the state level and high-impact project at the Central level	EIA certificates are issued on the basis of recommendation of the National Environment Management Council (NEMC)	EIA certificate is issued by Ministry of Environment and Tourism (MET)
	Cluster approach is used for small-scale mines and EIA is done for clusters. Additionally, each mine has to prepare a management plan	There is no cluster approach, preparation of environment protection plan is required for each mine	There is no cluster approach, preparation of environment protection plan is required for each mine
Accreditation of consultants	Accreditation of organizations who can undertake sector-specific EIA and EMP	Registration of consultants. The process is not satisfactory	Registration of consultants. The process is not satisfactory
Environment clearance as a pre-requisite for financing by banks	No legal mandate	EIA certificates are a prerequisite for getting a loan from a bank	No legal mandate
Insurance against damage	No such provisions	Liability of effective insurance coverage against losses, injuries, and damage to environment, communities, individual and properties due to mining operations	No such provisions
Mineral conservation	It is mandatory for every lease holder to complete the exploration of the whole area at G1 level within a period of five years from the start of the lease period	No such provision	The Mining Act has provided for mineral conservation, but it doesn't have any legal mandate for G1 level exploration
	A mining tenement system has been put in place, under which companies have to record their production daily, thereby ensuring proper conservation of minerals and reducing the scope of corruption	There is no such online system for filing daily production	There is no such online system for filing daily production
	To strengthen exploration, National Mineral Exploration Trust has been established and its fund are generated by levying a cess of 2 per cent on the royalty. This is in addition to mineral royalty paid to the government	There is no such provision	There is no such provision
	Clean energy cess is levied for coal mines at the rate US \$7 per tonne of coal for development of renewable energy	No such provision	Coal reserves exist, but no extraction is taking place
Acid mine drainage	There is no specific provision for controlling acid mine drainage. It is covered separately under water pollution laws	Mining regulations clearly define the procedure for placing the overburden dump so as to reduce chances of acid mine drainage	There is no specific provisions for acid mine drainage and heavy metals

Mine closure	A specified security amount needs to be deposited with the bank for the purpose of mine reclamation. For non-coal mines, it is US \$4,800 per hectare in case of mechanized mines, and US \$3,200 per hectare in case of manual mines. For coal mines, it is US \$9,600 per hectare for open cast mines and US \$1,600 per hectare for underground mines. All mining companies have to submit progressive (submitted after every five year) and final closure plans	Rehabilitation bonds are to be deposited with the banks for mine closure. The value of the bond is calculated by a mine closure committee	More than 200 orphan abandoned mines exist in the country, where no reclamation has been done, in many cases mine operators vanish without trace. <sup>11</sup>  Section 91 of the Mining Act puts an obligation on the licence holder to reclaim and rehabilitate land disturbed by way of the prospecting operations and mining operations, and minimize the effect of such operations on land adjoining the mining area.  Section 128 (3) of the Mining Act stipulates that failure to rehabilitate a mined area properly is an offence carrying a penalty of N\$100,000 (US \$8,400) or five years imprisonment
Performance security	For mines granted lease through auction, performance security is 0.5 per cent estimated value of the reserve deposited in the bank. The security is required against any non-compliance of environmental, social, mine closure and other provisions	Rehabilitation bonds for mine closure	No such provisions
Compliance and monitoring	Laws mandate three agencies to ensure mine compliance, Indian Bureau of Mines (IBM) looks after mine planning and closure, Director General of Mine Safety is responsible to ensuring safety, environmental management (air, water and hazardous waste) is mainly taken care of by Pollution Control Board, and partially by IBM	Commission and NEMC is the nodal agencies to ensure mine compliance. Lack of manpower, guidelines and standard operating procedures are the main reason for poor enforcement	Ministry of Mines and Energy and Ministry of Environment and Tourism is the nodal agencies for compliance and monitoring. Lack of manpower, guidelines and standard operating procedures are the main reason for poor enforcement
Separate judiciary	Separate environmental courts called National Green Tribunal look into environment-related complaints	No such provision	No such provision
	The Mining Act also establishes special courts for dealing with non-compliance with provisions of the Mining Act or any other complaint of a public nature related to the working of a mine	No such provision	No such provision
	Separate courts to address grievances related to land acquisition, compensation and R&R package	No such provision	A Land Tribunal has been constituted to deal with matters related to compensation and R&R issues

Audit	<p>Every year, companies have to disclose production and environmental compliance in the form of an environmental statement.</p> <p>Under the EIA Notification, every mining company has to submit environmental clearance compliance status biannually</p>	<p>Environmental control audits are done every five years. There is also a provision for conducting self-audit, which takes place every year. An audit petition is made whenever the public complains about the project</p>	<p>For compliance with the environmental management plan and conditions of the certificate, Environmental Management Act, 2007 provides, under Section 26, that the designated organ of the state has to report annually to the Minister on its adopted environmental plan, which shall be made available for public inspection, without charge, at the office of the Environmental Commissioner</p>
	<p>Under the Mining Regulation, to check environmental and social performance of mining, star-rating of mines is done. The rating is based on an assessment of four components—mine management, social impacts of mining, mine closure, and reporting. It is mandatory for mine owners to achieve four-star rating, otherwise their licence might be cancelled</p>	<p>No such rating exercise</p>	<p>No such rating exercise</p>
Local content plan	<p>There is no such provision</p>	<p>The Act provides for local content to boost the Tanzanian economy and provide training and employment to the host communities</p>	<p>The Mining Act provides for the employment and training of the host communities. But broader concept of local content plan is missing.</p>
Statement of integrity pledge	<p>There is no such provision</p>	<p>Every licensee has to submit a pledge of integrity to ethical business. Integrity pledges provide for the maintenance of effective insurance coverage against losses, injuries, and damage to environment, communities, individual and properties due to mining operations</p>	<p>There is no such provision</p>

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**Namibia is a relatively new entrant to the league of free countries of the world. In the three decades since its independence, the country has left no stone unturned to usher in a new era of progress and justice.**

**During this time, the country has put in place a new mining regime to ensure mining becomes a cause and catalyst of a more equitable and developed Namibia, while ensuring that the adverse effects on the environment are minimized. But have the efforts made so far been adequate? What more can be done? How does the country compare with India, a country facing similar challenges and dealing well with them, and Tanzania, Namibia's African cousin just across the peninsula?**

**This report by CSE examines these aspects in detail to arrive at some solid conclusions and a way forward.**



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