

THE CHAMBER OF MINES



OF ZIMBABWE

# 2017 - STATE OF THE MINING INDUSTRY SURVEY REPORT

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# President's Foreword

Bati Manhando

Conceived primarily as a decision support instrument, the State of the Mining Industry Survey is undertaken to promote the use of evidence in policy making and foster a shared mining vision among key stakeholders—Government, the mining industry, labour, suppliers, communities and the general public.

The provision of adequate and accurate empirical and factual data is fundamental to the crafting of stable and competitive fiscal and regulatory policies that support the growth and development of the mining industry.

The growing prominence of the sector can be traced to the leading role the sector had during the recovery of the economy from a decade-long downturn since 2009 growing by double digits and faster than all other sectors between 2009 and 2012.

In spite of a slowdown in mining sector growth between 2014 and 2015, the industry remains key to the long-term, sustainable growth of the economy.

In the long term, the mining sector is envisaged to play an even greater role through mineral beneficiation/ value addition, procurement and other broad-based inter-sectorial linkages.

It is my conviction that once the sector gets necessary information support, it can drive the mining industry towards sustainable growth.

I would like to thank the Chamber of Mines of Zimbabwe Secretariat for sponsoring the State of the Mining Industry Survey and every stakeholder who supported the study in various ways.

My best regards,

**Bati Manhando**

# Sponsor's Memo

Isaac Kwesu



The Chamber of Mines is proud to sponsor the 2017 State of the Mining Industry Survey, which is a data-driven empirical inquiry into the performance of the mining industry.

To ensure independence and objectivity, a Consultant was engaged to conduct the Survey, covering the whole spectrum of research from research design to the presentation of findings.

Our role in the Survey as the Chamber of Mines was restricted to sponsoring and facilitating the researchers' privileged access to our members who formed a greater part of the respondents.

As you all know, credibility, objectivity and reliability are the hallmark of professional research. It is our hope that the Survey will address the information asymmetries that exist among the key stakeholders.

As part of our mandate the Chamber remains committed to the establishment of a large knowledge

base that meets the information needs of all stakeholders involved in the mining industry

This year's 95% response rate shows that the mining industry is committed to our goal of promoting evidence-based decision-making.

We would like to thank the Consultants, specifically the Lead Researcher Professor Albert Makocheke for working hard to produce this report under very tight timelines.

***Isaac Kwesu***

Chief Executive Officer



# Findings on the Confidence and Prospects of the Mining Industry

## 1.0. Mining Business Confidence Index

The Mining Business Confidence Index (MBCI) is an important barometer that measure business sentiments (optimism or pessimism) about the prospects of the mining industry and the economy in general in the next 12 months.

The 2018 MBCI was computed based on sentiments of mining executives and investors on prospects of the mining industry and the economy as it related to new political developments which manifested in a change of Government and its leadership.

### 1.1. Measured Variables

The MBCI for 2018 was constructed and measured based on a set of 12 proxy variables of business confidence as below:

1. Economic prospects
2. Profitability prospects
3. Growth prospects
4. Market outlook
5. Access to and cost of capital
6. Employment (new hirings and layoffs)
7. Investment plans and commitments (including project development plans)
8. Mining title security
9. Investment competitiveness
10. Stability of and optimality of mining fiscal regime
11. Consistence and predictability of mining policies
12. Perception of political risk

The first six variables relate to business risk. Business risk measures the probability that either performance will decline or the business will fail as a result of typical business uncertainties. The last six variables relate to political, policy and regulatory risk. Political risk is defined as the possibility that political events in a country will affect the business climate and mining investors will not make as much money as expected.

### 1.2. Interpretation of the Business Confidence index

The index is interpreted from a scale ranging from -100 to +100, with the lowest score representing the least level of confidence and the biggest score representing the highest level of confidence.

**Table 1: Business Confidence Index Scale**

Score	Significance
+100	Much more confident
+50	Slightly more confident
0	As confident
-50	Slightly less confident
-100	Much less confident

### 1.3. Findings: 2018 Mining Business Confidence Index

The overall 2018 MBCI was +21.9, compared to -6.6 recorded for 2017.

The new index shows that respondents are bullish about the prospects of the mining industry in 2018 given the new political dispensation, with the majority of respondents (90%) optimistic that the new Government will endeavor to resolve all legislative and policy bottlenecks affecting the mining industry.

Supporting the above, all of the 12 measured indicators recorded improvements for 2018, compared to

those recorded for 2017. Only 2 variables, political risk and access to capital remained in the negative territory, however, they also recorded improvements for the comparable periods.

**Table 2: Mining Business Confidence Index**

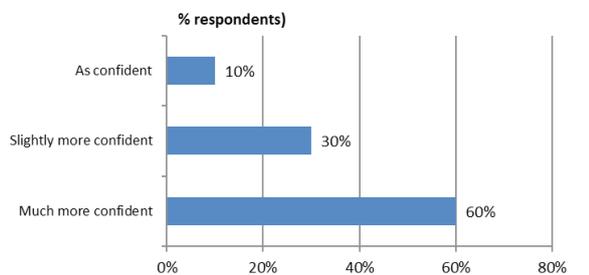
Confidence Indicator	2018 Index	2017 Index	Change
1 Economic prospects	4	(50)	Increase
2 Profitability prospects	18	11	Increase
3 Mining growth prospects	78	50	increase
4 Market outlook	22	17	increase
5 Access to and cost of capital	(15)	(72)	Increase
6 Employment	32	28	increase
7 Investment plans and commitments	50	39	increase
8 Mining title security (Use it or lose it)	2	(11)	increase
9 Investment competitiveness	50	3	Increase
10 Stability of and optimality of mining fiscal regime	30	(39)	increase
11 Consistence and predictability of mining policies	2	(11)	increase
12 Perception on political risk	(10)	(44)	increase
Average Business Confidence Index (BCI)	21.9	-6.6	increase

Source: Survey

Note: 1. ( ) denotes negatives

**1.4. Analysis by Confidence Variable**

**1.4.1. Economic prospects**

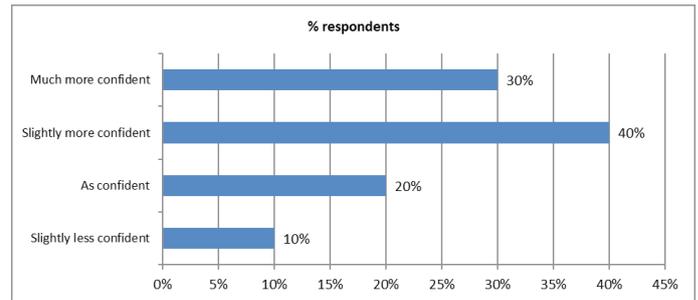


Source: Survey

The economic prospects confidence indicator for 2018 was at +4, compared to -50 recorded for 2017, indicating overall optimism about the economic

prospects in 2018. Survey findings show that 90% of respondents are optimistic of positive economic growth in 2018. Of the optimistic, about 70% expect the economy to grow by more than 5% in 2018, while the remaining respondents expect the economy to grow by between 1% and 5%). 10% of the respondents were of the view that the economy will remain largely the same as in 2017.

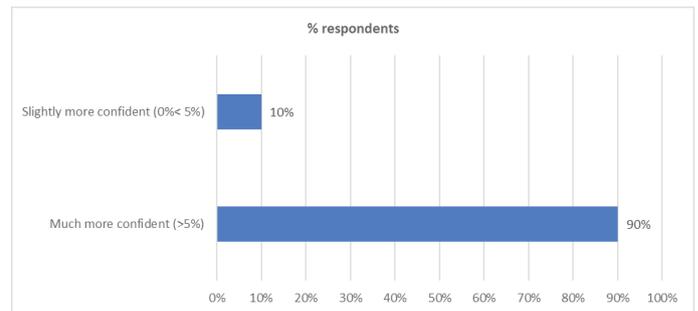
**1.4.2. Profitability Prospects**



Source: Survey

The profitability prospects confidence indicator for 2018 stood at +18%, compared to +11 recorded for 2017, indicating strong optimism of profitability of mining businesses in 2018, with 70% of respondents anticipating profits in 2018 and 20% expecting just to break even. About 10% of respondents are expecting to record losses in 2018.

**1.4.3. Growth Prospects**

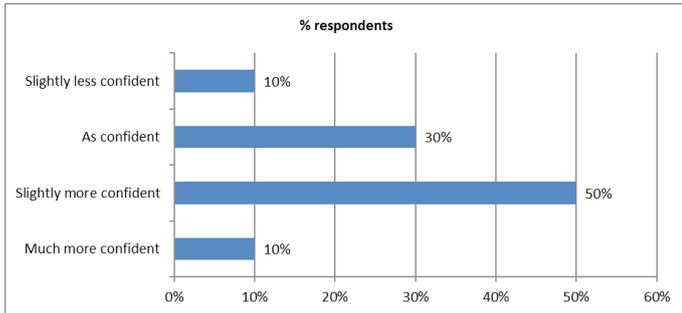


Source: Survey

The growth prospects index for the mining industry for 2018 at +78, compared to +50 for 2017, shows that the mining industry is bullish that the industry will record strong growth in 2018, compared to 2017, with 90% of respondents anticipating the industry to grow by more than 10%, while the rest are of the view that the industry will post a moderate output growth.



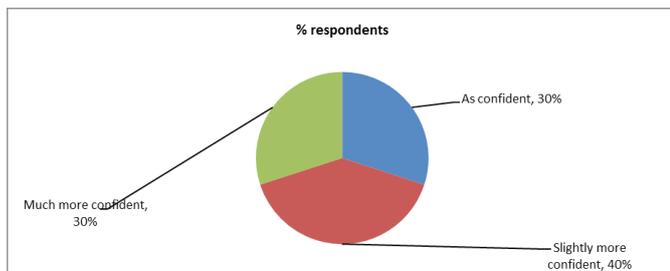
### 1.4.4. Access to and Cost of Capital



Source: Survey

The access to capital index for 2018, though in the negative territory at -15, improved from -72 or 2017, with 60% of respondents expecting availability of capital to improve in 2018, compared to 2017. The respondents were of the view that the new Government will accelerate finalization of Doing Business Reforms in the country as well as dealing with country risk factors. About 10% of respondents expected availability of capital to remain challenging in 2018, while 30% were of the view that the situation will remain predominantly the same.

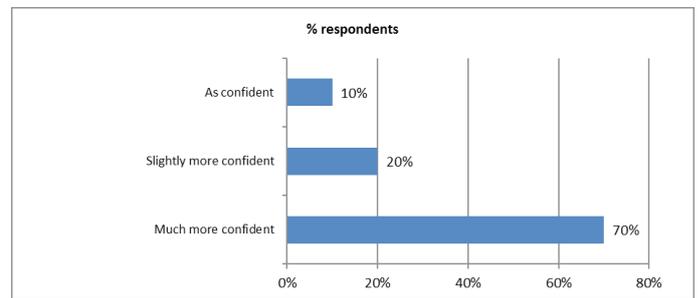
### 1.4.5. Employment Forecasts



Source: Survey

The mining industry is positive on employment prospects in the next 12 months as shown by the confidence index of +32, compared to +28 in 2017. Around 70% of respondents are anticipating to increase headcount in 2018, while 30% are planning to maintain the same levels of employment as in 2017.

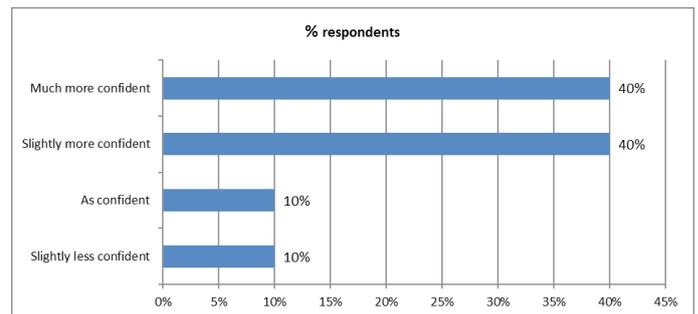
### 1.4.6. Investment Plans and Commitments



Source: Survey

Survey findings show that the investment plans index at +50 for 2018 reflects strong desire by mining companies to spend on investment projects when compared to +39 for 2017. About 90% are planning to spend on capital projects in 2018, while 10% are not sure as to whether they will spend or not.

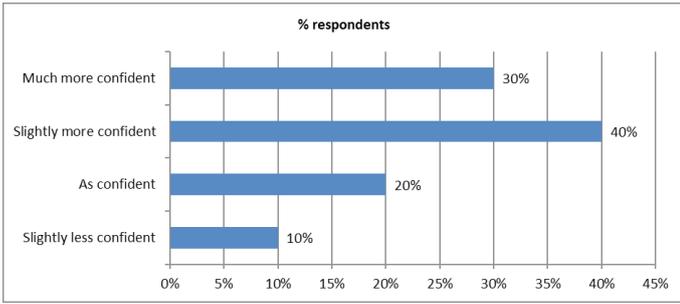
### 1.4.7. Investment Competitiveness



Source: Survey

The investment competitiveness index for 2018 at +50 shows that respondents are very optimistic that the investment environment will improve in 2018 when compared to +3 for 2017. About 70% of respondents were of the view that finalization of doing business reforms will significantly improve the investment environment for the country.

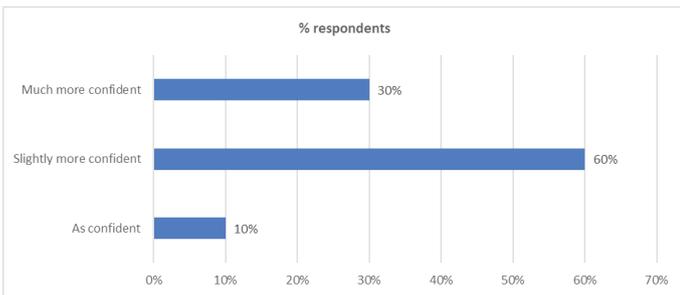
**1.4.8. Mining Title Security**



Source: survey

Respondents were of the view that mining title will be more secure in 2018, as reflected by the title management index of +2, compared to -11 for 2017. Whilst 30% of respondents had indicated that the current title management system undermines mining activities, about 70% of the same respondents were of the view that the security of their titles will improve given the new political dispensation.

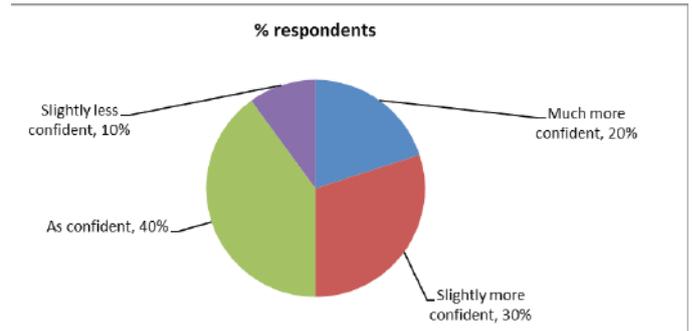
**1.4.9. Stability of Mining Fiscal Regime**



Source: Survey

The confidence index score for the stability of the mining fiscal framework for 2018 at +30, compared to -39 for 2017, shows strong optimism about the stability of the mining fiscal regime in 2018, with 90% of respondents confident that the finalization of the proposed new fiscal framework for the mining industry being developed by the Ministry of Finance will stable the fiscal framework and make it more predictable.

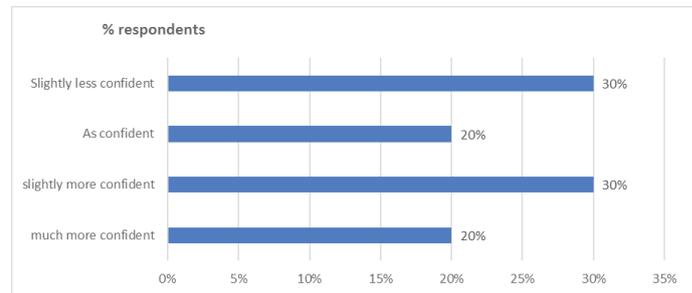
**1.4.10. Consistence and Predictability of Mining Policies**



Source: Survey

Survey findings show that the respondents are optimistic that the new Government will implement consistent and predictable mining policies in 2018 as shown by an index of +2, compared to -11 for 2017. Around 50% of respondents are optimistic about prospects of a consistent and predictable mining policy environment, while 10% were of the view that the policy environment will remain uncertain and unpredictable.

**1.4.11. Perception on Political Risk**

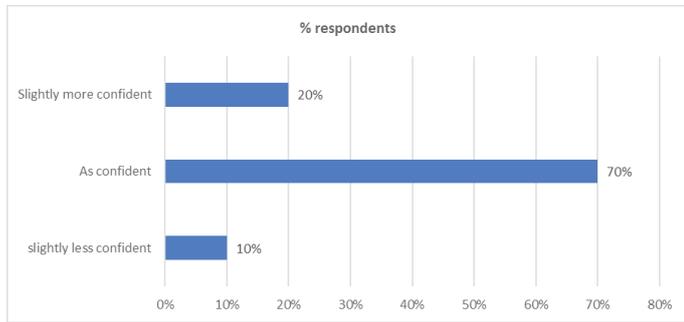


Source: Survey

Perception on political risk, though still in the negative territory, improved in view of the new Government to -10 for 2018, compared to -41 for 2017, with 50% of respondents expressing confidence on the new political dispensation that the new Government will address political risk issues, while 30% remained pessimistic and still feel that political risk will remain high in 2018. About 20% of respondents were indifferent on political risk.



### 1.4.12. Market Outlook



The mining industry expects the 2018 market outlook to be relatively positive with an index of +22, compared to +17 in 2017. About 20% of respondents indicated that they expect the outlook for 2018 to be better than 2017, while 70% of respondents expect the market to remain predominantly the same as 2017. About 10% are pessimistic about market trends in 2018.

Source: Survey

# Findings on Policy Requirements for the Mining Industry

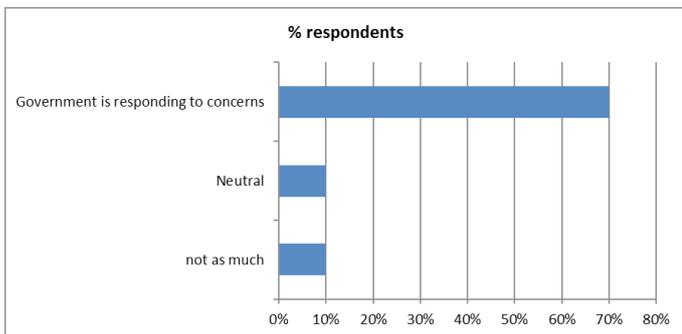
## The Policy Brief

*Policy issues raised by respondents covered in this brief which outlines policy perception issues and recommendations thereof, arising from the Survey.*

## Mining Sector Perception on Policy Environment

Survey findings show that the mining industry views the policy environment as improving, with 80% indicating that Government is consulting and responding to mining industry concerns, while 10% were neutral and the remaining 10% were of the view that Government should do more in addressing industry concerns.

### Perception on Government responds to industry concerns



Source: Survey

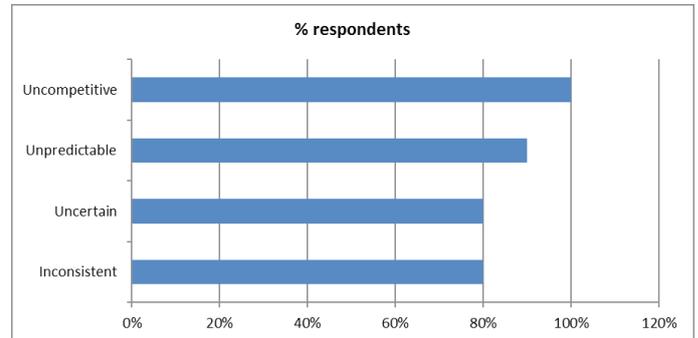
The majority identified the following as positive moves by Government:

- Doing Business Reforms under the Rapid Results Initiative;
- Review of the fiscal framework for the mining industry and reduction in fiscal charges; and
- Amendments to the Mines and Minerals Act.

Notwithstanding the above, the majority of respondents were of the view that the overall policy environment remains unfavourable with the majority of respondents indicating that the policy environment is uncompetitive, unpredictable and inconsistent.

All respondents, however, expect Government to take corrective measures in 2018 to address some of the concerns.

## Perception on policy environment

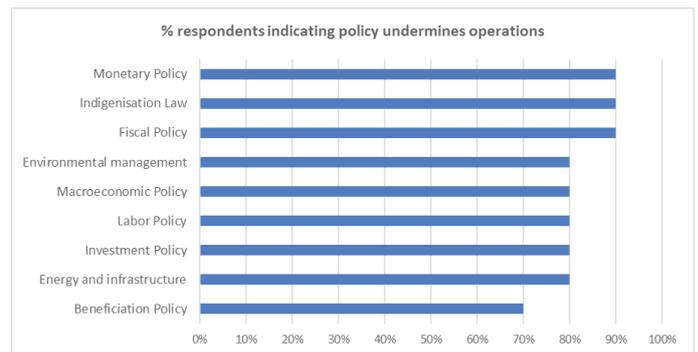


Source: Survey

## Issues by Policy Category

Below are the key policies that were identified by respondents as affecting the mining sector performance. The majority of respondents indicated that policies relating to Fiscal issues (90%), Monetary (90%), Indigenization (90%), Energy and Infrastructure (80%), Labor (80%) and Investment (80%) are among policies undermining the performance of the mining sector.

## Policy issues in the mining sector



Source: Survey

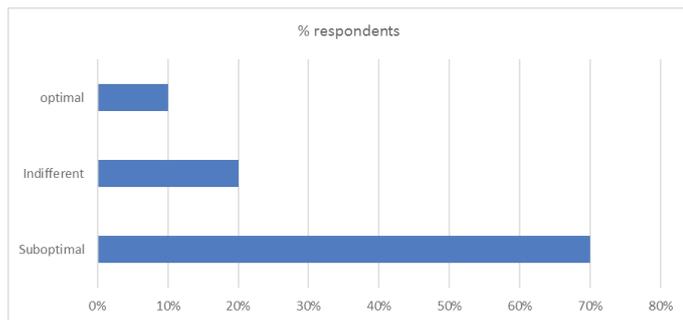
The following table shows respondents indicating severity of impact of policies on mining operations, with the majority of respondents indicating that current policies are negatively affecting mining activities.



## Fiscal Policy

Survey findings show that 70% of respondents were of the view that the current fiscal framework for the mining industry was suboptimal, while 20% were indifferent and 10% indicated that it was optimal.

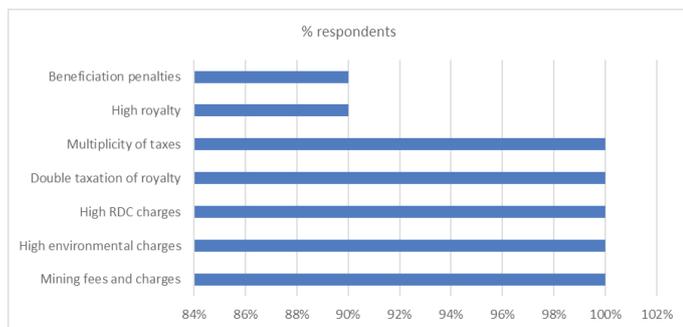
### Optimality of current fiscal framework for the mining industry



Source: Survey

The following issues about the current fiscal policy were identified as impacting adversely on the optimality of the current fiscal framework.

### Fiscal policy issues affecting optimality of the current fiscal framework

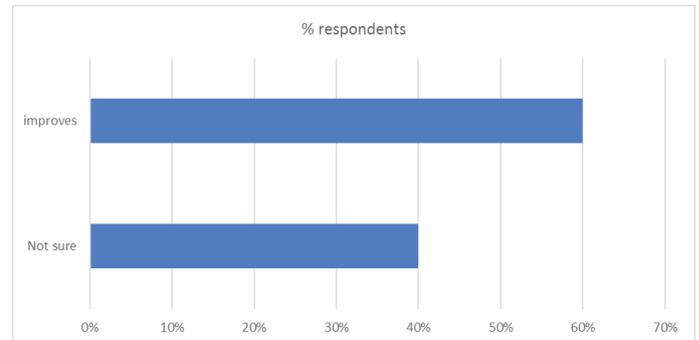


Source: Survey

## Proposed new fiscal framework for the mining industry

Survey findings show that 60% of respondents were optimistic that the proposed new fiscal framework for the mining industry will improve the competitiveness of the mining industry, while 40% were indifferent.

### Perception on the potential of the proposed new fiscal framework to improve competitiveness



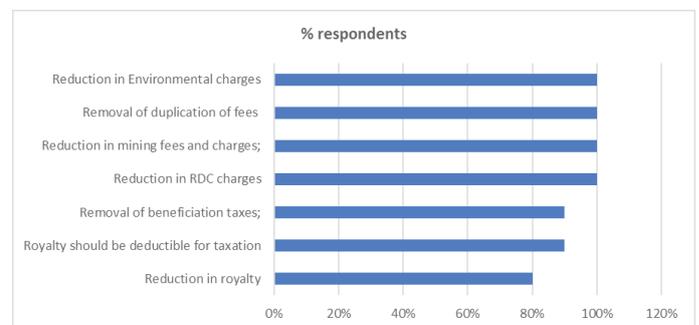
Source: Survey

### Policy recommendations on fiscal framework for the mining sector

All respondents underscored the need to finalise the new fiscal regime for the mining sector to address the fiscal challenges undermining the performance of the sector. In addition, all respondents were of the view that there should be one revenue collecting agent and proposed a composite single tax for the mining industry.

### Mining industry expectations from the proposed new fiscal regime for the mining industry

The majority of respondents indicated that they expect the following from the proposed new fiscal framework for the mining industry:



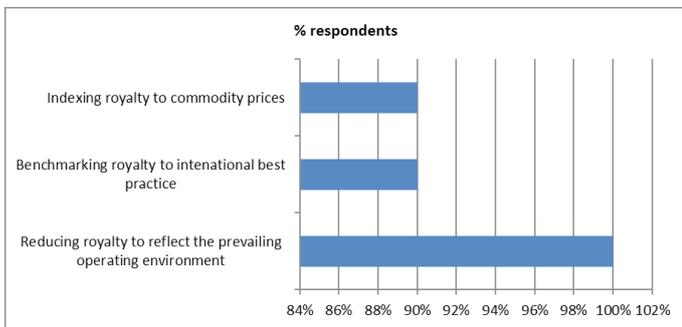
Source: Survey

**a) Royalty**

Survey findings show that 90% of respondents indicated that the current royalty regime is relatively high and uncompetitive.

*Recommendations on royalty*

All respondents (100%) recommended that the country’s royalties be reduced to reflect the industry’s peculiar circumstances (grades, cost structure, ability to pay and overall fiscal landscape), while 90% were of the view that royalties should be benchmarked and aligned to those prevailing in competing mining jurisdictions, and that the royalty be indexed to commodity prices to promote viability.



Source: Survey

**b) Non-deductibility of royalties**

All respondents (100%) expressed concerns on the current policy of double taxation of royalty, indicating that by so doing it becomes a direct expense, thereby undermining viability of the mining industry.

*Recommendation*

All respondents recommended that royalty should be deductible as a tax expense as is the best practice in other mining jurisdictions.

**c) Mining fees and charges**

All respondents felt that mining fees and charges are high and unaffordable, and in some cases more than thrice the turnover of mining companies. All respondents (100%) were aware that Government is reviewing mining fees and charges and that the industry was consulted.

*Recommendations*

All respondents recommended the gazetting of the mining fees and charges before 1 January 2018, and all respondents underscored the need for the Ministry of Mines to consider mining industry proposals and reduce the mining fees and charges.

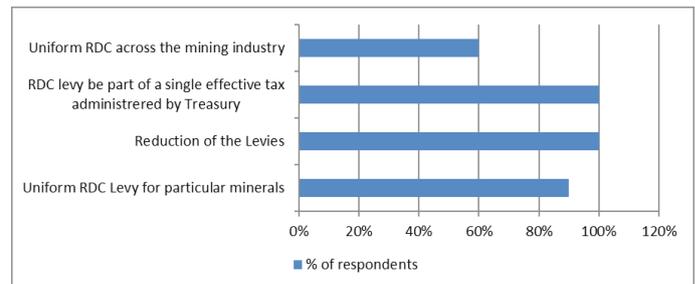
**d) Rural District Councils charges**

All respondents (100%) indicated that Rural District Councils (RDCs) are high and unaffordable. All respondents also expressed concern over the manner in which RDCs determine unit taxes (based on RDC budgetary requirements) and that the charges vary across districts. All respondents (100%) were aware of ongoing consultations between association of RDCs and the Chamber of Mines and expressed optimism on the outcomes of the consultations.

*Recommendations*

All respondents (100%) recommended that the RDC unit taxes be rationalized (reduced based on affordability) within the new fiscal framework for the mining industry and be administered by Treasury. 90% of respondents were of the view that unit taxes be unified for particular minerals, while 10% advocated for unification across the whole mining industry.

*Recommendations on RDC Levy*



Source: Survey

**Environmental Management Policy**

*2% EMA fee*

All respondents (100%) indicated that the fee for exploiting the environment at 2% of the gross revenue is extremely high and undermining the competitiveness of the local mining industry in terms of attract-



ing FDI as well as the viability and sustainability of the mining industry.

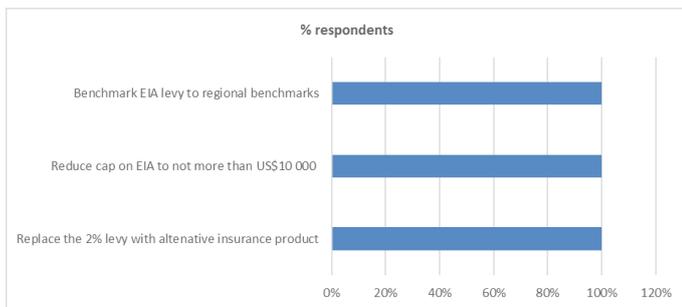
*Environmental Impact Assessment (EIA) Levy*

All respondents were of the view that the Environmental Impact Assessment fees at US\$210 or 1.2% of the cost of the project whichever is higher, is hampering down investment in the mining industry. All mining executives felt that the cap of US\$2 million is also too high when compared to other mining jurisdictions.

*Recommendations*

All respondents (100%) recommended the removal of the 2% EMA Fee and replace it with an alternative insurance product being developed by the mining industry.

With regards the EIA levy, all respondents (100%) recommended the reduction of the cap for EIA levy to US\$10 000 to align with regional peers. They cited South Africa which charges ZAR 10 000 as a case in point. They also felt that the charge is administrative and therefore should be significantly reduced



Source: Survey

**Beneficiation Policy**

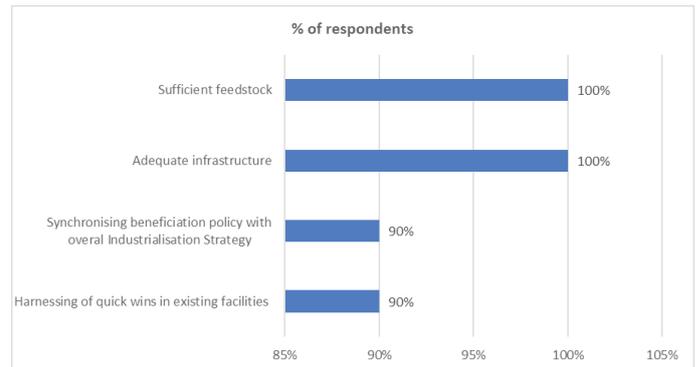
All respondents were supportive of Government thrust on beneficiation and value addition and highlighted that it is a lasting solution to inclusivity in the mainstream mining sector through downstream and upstream linkages. In addition, all respondents recognized that there are many beneficiation opportunities across the mining industry.

*Beneficiation penalties*

All respondents (100%) expressed concern on the application of beneficiation penalties to compel mineral producers to beneficiate, specifically as it relates to the 15% export tax on unbeneficiated platinum. All respondents (100%) were of the view that the current 15% export tax on unbeneficiated platinum, though not being collected by Government at the moment, remains a key risk to the PGMs sector as it is levied on gross revenue. All respondents (100%) felt that the PGMs industry has no capacity to absorb such a huge tax on the backdrop of subdued platinum prices.

The respondents identified key success factors for beneficiation as follows;

*Success factors in beneficiation*



Source: Survey

*Recommendation on beneficiation*

All respondents recommended that the beneficiation policy must not be treated in isolation, thus it should be developed in the context of broader national policies such as Minerals Development Policy, Investment Policy, Industrial Policy and Infrastructure Development Policy.

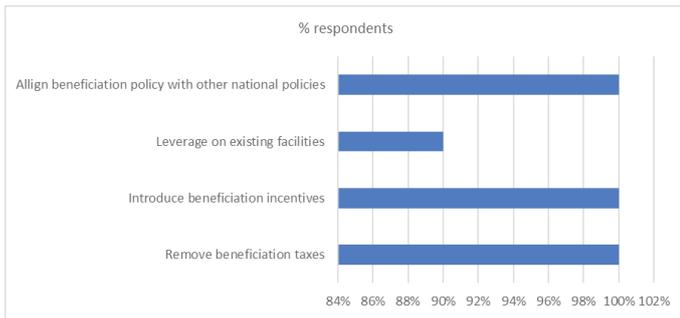
90% of respondents proposed the replacement of beneficiation taxes with beneficiation incentives. Accordingly, all respondents were of the view that the 15% tax on unbeneficiated platinum be either deferred to another date or be removed completely.

80% of respondents advocated for leveraging on ex-

isting beneficiation facilities in areas such as coal, nickel, ferrochrome and iron ore, whilst planning and implementing beneficiation facilities in relatively new minerals like diamond and platinum.

All respondents (100%) underscored the need to investing in generating sufficient feedstock that justify beneficiation facilities for the economics of the projects to be justified. All respondents recommended the provision of adequate infrastructure (particularly power and transport) as a key enabler to beneficiation.

*Recommendations on Beneficiation Policy*



Source: Survey

**Monetary policy and foreign exchange management**

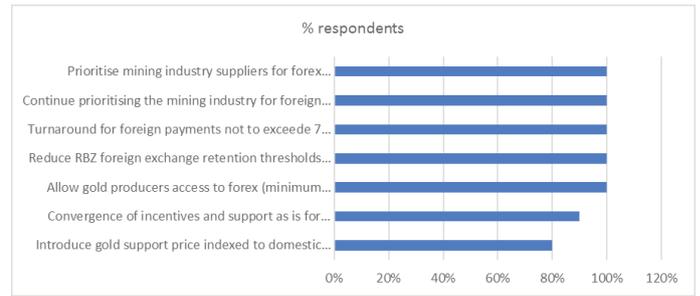
90% of respondents indicated that they are facing challenges in terms of foreign payments, with all gold producers concerned by the current exchange control policy where all their proceeds are retained by the Reserve Bank of Zimbabwe.

All gold producers indicated that they were experiencing foreign payments delays during 2017, with outstanding payments exceeding 8 weeks.

All mining executives were concerned by the recent increases in foreign exchange retention specifically for platinum and chrome (from 50% to 80%), highlighting that the remaining 20% is not adequate to cover import requirements for both operations and capital expenditure.

In addition, all respondents raised concerns with regards to high interest, shortages of domestic facilities and stability of the banking sector as key risks to the funding of the mining sector.

*Recommendation on foreign exchange management*



Source: Survey

**Indigenisation and Economic Empowerment**

All respondents expressed support for the view that indigenous Zimbabweans must be allowed to participate and benefit from the country’s natural resources.

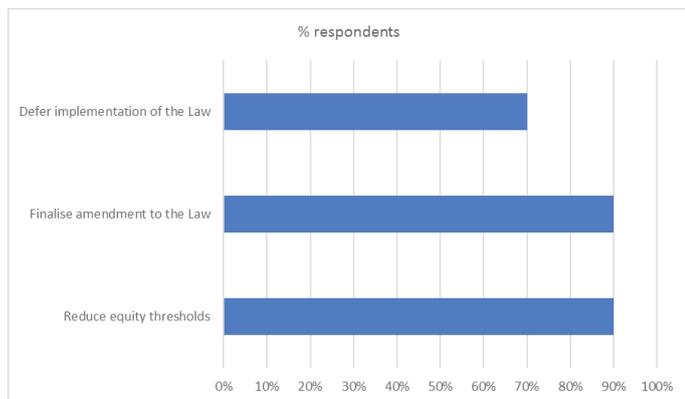
All respondents indicated that the new Government position on compliance with the Indigenisation Law (spending 75% of revenues locally) was a positive move and brought confidence in the sector, however, all respondents expressed concern over delays in amending the Law to align with the new policy position and also the application of the equity approach to new investments. About 90% of respondents were of the view that the equity thresholds should be reduced to realistic levels to allow capital inflows in the country.

*Recommendations*

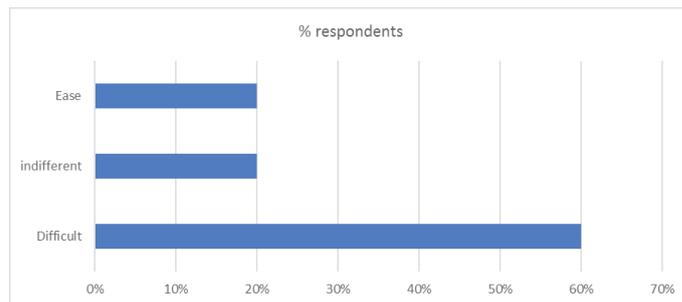
All respondents recommended the expeditious finalization of amending the Law to align with the new policy position, and that the new policy position should also be applied to new investments. Around 90% of respondents proposed reduction in equity thresholds, while the same number also recommended the deferment of the policy.



## Recommendation on Indigenisation



Source: Survey



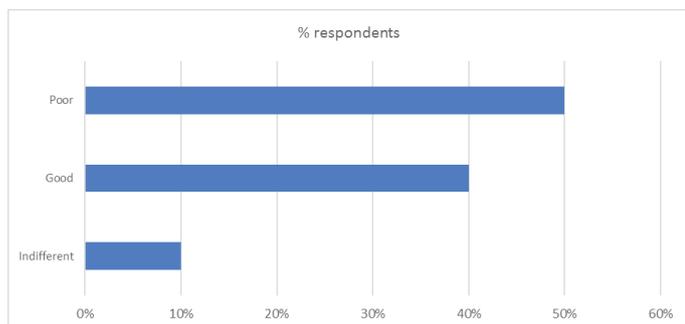
Source: Survey

### Ease to apply

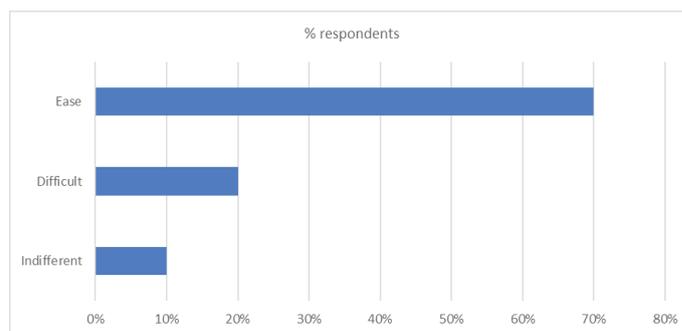
With regards easiness to apply, 70% of respondents indicated that the current system is difficult to apply, while 20% said it is ease and 10% were indifferent.

## Mining Policy and Legislation

50% of respondents indicated that the current Mining Policy environment is poor and not supportive of sustained growth and development of the sector.



Source: Survey



Source: Survey

### Recommendation on mining title administration

All respondents (100%) underscored the need for a computerized mining cadastre system to simplify title management and avoid overlapping titles.

## Mining Title Administration

In terms of title management, all respondents (100%) were of the view that the current title management system is old and is characterized by overlapping claims.

### Perception on the current mining title management system

#### Ease to understand

Survey findings show that 60% of the respondents indicated that the current system is difficult to understand, while 20% were of the view that it is ease, with the remaining 20% indifferent

## Minerals Development Policy (MDP)

All respondents (100%) bemoaned the absence of a comprehensive Minerals Development Policy, which should outline national aspirations in terms of extraction of minerals. The respondents, however, expressed awareness that Government is in the process of developing on and has had preliminary engagements with the mining industry.

### Recommendation on MDP

All respondents underscored the need to finalise on the MDP and implored Government to consider industry proposals to the Policy.

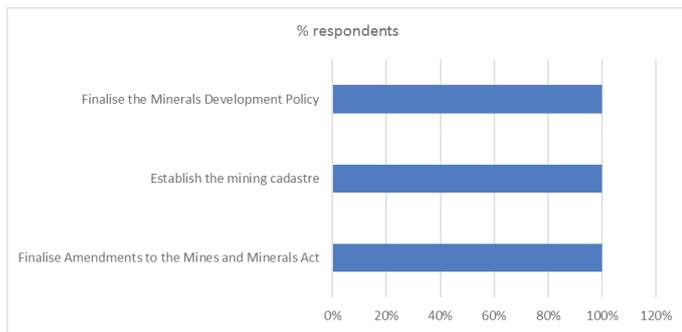
**Amendments to the Mines and Minerals Act**

All respondents (100%) felt that amendments to the Mines and Minerals Act have remained outstanding for a long time and that finalization of the amendments will bring sanity to the governance of the mining sector.

*Recommendation on amendments to the Mines and Minerals Act*

All respondents indicated that the finalization of the amendments should be taken as a matter of urgency.

*Recommendation on Legislative and Policy Matters*



Source: Survey

**Energy and Infrastructure**

All respondents raised concerns over poor power, rail and road infrastructure services which continue to undermine the performance of the mining sector.

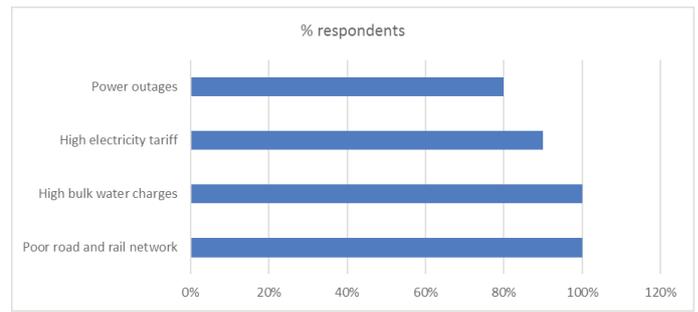
*Energy*

All respondents (100%) were of the view that power supply is erratic and resulting in output losses, while 90%, predominantly gold producers felt that the electricity tariff for gold at US\$12.8/ KWh is too high.

*Other infrastructure (road, rail and water)*

All respondents rated the quality, availability and efficiency of other infrastructure services as poor and undermining operations. All respondents (100%) were also of the view that the bulk water charges at US\$50/ mega litre was too high compared to other users of US\$6/ mega litre.

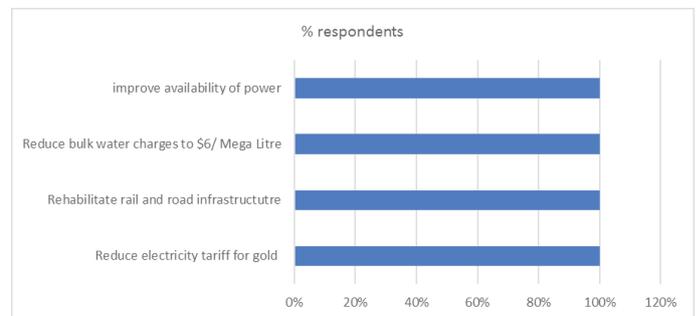
*Infrastructure bottlenecks*



Source: Survey

*Recommendation on Infrastructure*

All respondents recommended the following:



Source: Survey

**Labour Policy**

All respondents raised concerns over Zimbabwe’s labour market rigidities. 80% of respondents argued that current labour laws made it too expensive to re-trench even when retrenchment was the only way to save the business. 80% of respondents pointed out that NEC wage rates did not take into account economic fundamentals.

*Recommendation*

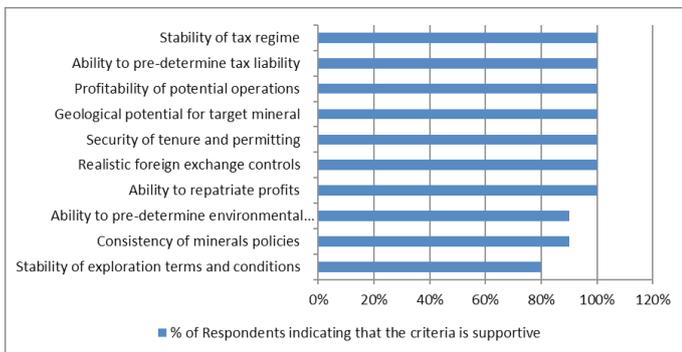
All respondents recommended for flexible labour laws that respond to the prevailing operating environment in the mining sector. In addition, respondents advocated for alignment of wages to productivity in the mining industry.

**Investment Policy**

Potential investors interviewed indicated the following as key attributes that affect their decisions when planning to invest in a particular mining jurisdiction.



### Decision criteria for potential investors



Source: Survey

Major concerns were raised in fiscal, profitability and environmental management issues as key risks to investment inflows. All respondents, however, acknowledged Government effort in trying to improve

the business environment through Doing Business Reforms under the Rapid Results Initiative spear-headed by the Office of President and Cabinet, and are of the view that the finalization of the reforms will go a long way in addressing investor concerns.

All investors also commended Government on the new policy position on compliance with Indigenisation and Economic Empowerment Law (spending 75% of revenues locally) as a welcome development.

### Recommendations

All investors recommended the adoption of an optimal fiscal regime for the mining sector with a view to guaranteeing investment inflows in the country. Investors also recommended the finalization of Doing Business Reforms and the enactment of Proposed Policy Changes on Indigenisation as important in attracting investment.

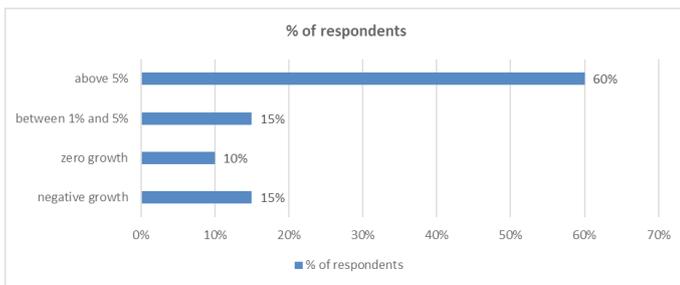
# Findings on Mining Industry Specific Issues

This section presents findings on the industry wide specific issues relating to the mining sector performance, challenges and prospects.

## 1.1. Mineral output performance

All key minerals recorded output increases in 2017, compared to 2016, with Survey findings showing that 60% of respondents increased output by more than 5%. To note, 15% of respondents, which were all gold producers, indicated that they recorded declines in output in 2017.

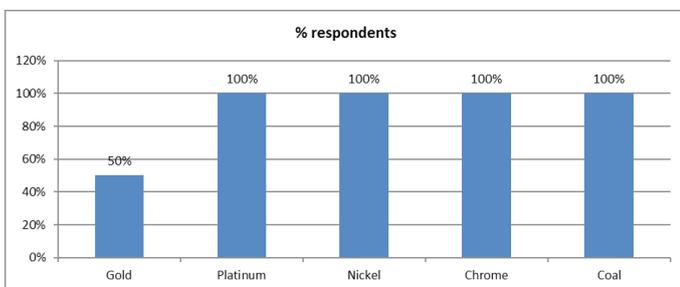
**Figure 7: Mineral output growth for 2017**



Source: Survey

In 2018, the mining sector is expected to record an output boom, with survey findings showing that 90% of respondents are planning to increase output by more than 10%.

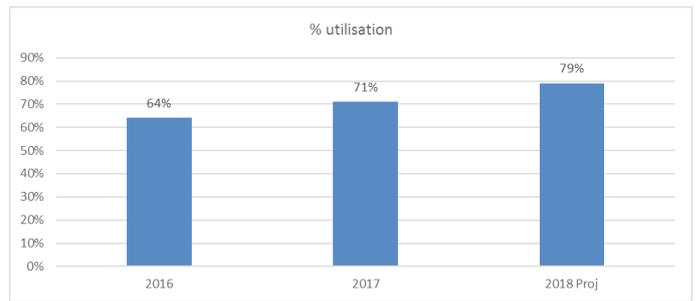
**Figure 8: % of respondents expecting output increases in 2017 by mineral category**



Source: Survey

## 1.2. Capacity Utilization

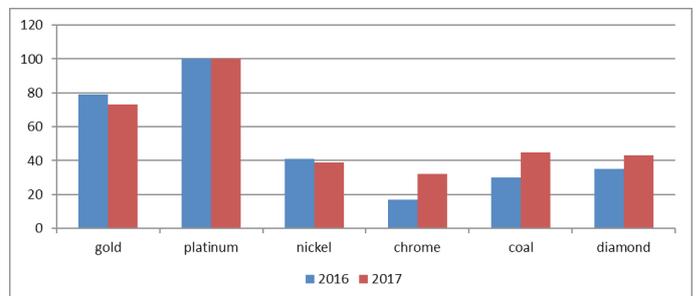
**Figure 9: % capacity utilisation for the mining sector**



Source: Survey

Average capacity utilization for the mining industry is at 71% in 2017, compared to 64% in 2016. The PGMs sector continues to operate at around 100% capacity utilization, while chrome (37% to 80%), diamond (58% to 70%), coal (26% to 50%) recorded significant utilization levels in 2017, compared to 2016. Declines in capacity utilization levels were recorded in respect of gold (79% - 73%) and nickel (41% - 39%).

**Figure 10: Average Capacity Utilisation for Selected Minerals (%)**



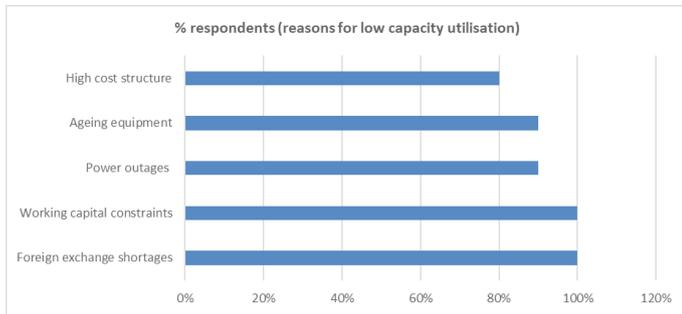
Source: Survey

## 1.3. Reasons for low capacity utilization

Survey findings reveal that respondents operating below full capacity mentioned capital shortages, high cost structure, obsolete equipment and power outages as the major constraints weighing down capacity utilization in the mining industry.



**Figure 11: Reasons for low capacity utilization**



Source: Survey

**1.4. Average grade for selected minerals**

The average grade for the mining industry declined across most minerals in 2017, compared to 2016.

**Table 2: Average ore grades**

	Gold	Diamond	Chrome	Nickel	Platinum
	Grade (g/t)	Grade (CPT)	Grade (Cr203)	Grade (%)	Grade (4E grades (g/t))
2017	2.3	7.6	48.9	1.89	3.4
2016	2.9	21.7	51.9	1.73	3.4

Source: Survey

**Production Costs**

Survey findings show that gold, nickel and diamond recorded declines in average production costs in 2017, compared to 2016, while chrome and PGMs’ production costs increased for the comparable periods.

**Table 3: Average cost by mineral category**

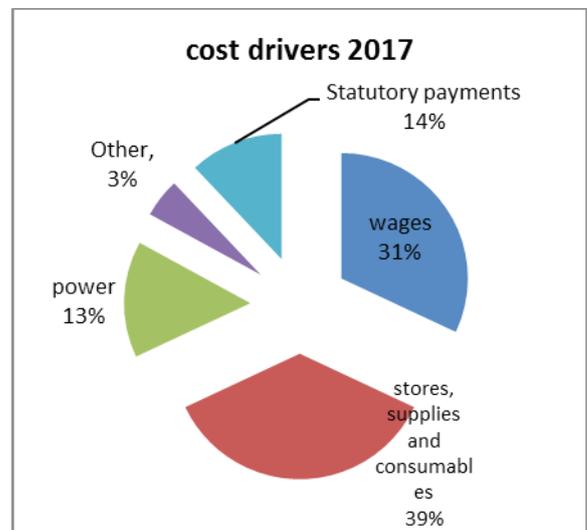
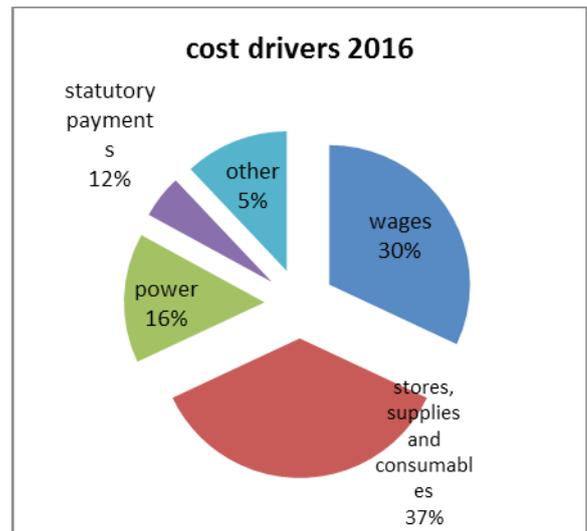
Mineral	2017	2016
Gold \$/Ounce	1 001	1 028
Nickel \$/tonne	5 567	5 631
Chrome US\$/lb Cr	0.88	0.86
PGMs \$/ ounce (cash operating cost - 4E)	688	695
Diamond US\$/ carat	25.0	45.3

Source: Survey

**1.5. Cost Drivers**

Survey findings show that labor (31%), supplies (39%), power (13%) and statutory payments (14%) accounted for an average 97% of total costs in 2017.

**Table 4: Cost drivers in mining (2016 - 2017)**



Source: survey

**1.6. Profitability**

Survey findings reveal that average profitability in the mining industry declined in 2017, with 30% of respondents having made losses in 2017, compared to 15% in 2016. Of the 30% who made losses in 2017, 70% had made profits in 2016.

**Table 5: Profitability for selected minerals**

	2016	2017

Mineral	price (\$)	All in unit cost (\$)	profit/(loss) \$	price (\$)	All-in unit cost (\$)	profit/(loss) \$
Platinum/ oz	981	1,197	-216	955	688	267
Nickel/ ton	9,348	6,818	2,530	10,163	5 567	4,596
Gold/ Oz	1,263	1,028	235	1,255	1 001	254

In the outlook, average profitability is expected to improve in 2018, with 90% of respondents indicating that they are projecting profits in 2018.

**1.7. Factors undermining Viability of the sector**

The following factors, ranked in order of severity, were cited as undermining viability in the sector in 2017.

**Table 6: Factors undermining viability**

Challenge	Rank
Foreign exchange shortages	1
Shortage and high cost capital	2
High procurement costs (including erratic supply)	3
Shortage and high cost of power	4
Low commodity prices	5
Suboptimal fiscal charges	6

Source: Survey

**Capital Requirements**

All respondents indicated that they faced difficulties in raising capital for both sustenance and ramp-up. However, the mining industry injected US\$211 million in 2017 for both sustenance and ramp-up. The industry requires around US\$392 million in 2018 to sustain operations.

**Table 7: 2017 Capital Requirements by mineral category**

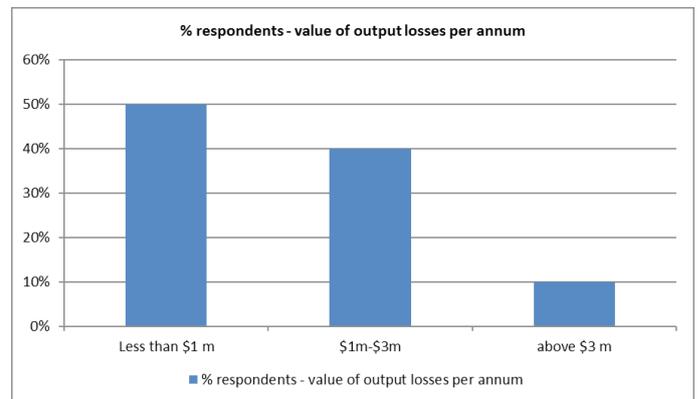
Mineral	2017	2018 Capital Requirements
Platinum	113,000,000	200,000,000
Gold	80,000,000	110,000,000
Coal	10,000,000	70,000,000
Chrome	4,500,000	20,770,000
Nickel	3,540,000	3,570,000
<b>Total</b>	<b>211,040,000</b>	<b>392,340,000</b>

Source: Survey

**1.7.1. Electricity and energy requirements**

All respondents indicated that power outages were negatively impacting on their operations resulting in output losses. In times of power outages, respondents indicated that they would use diesel powered generators which are expensive to run.

**Figure 12: Output losses per annum due to power outages**



Source: Survey

**Demand for electricity**

Demand for electricity is anticipated to increase to 2.2 million MWh in 2018, from 1.7 million MWh in 2017. The projected demand captures planned projects.

**Table 8: Demand for electricity (2017 - 2018)**

Scenario	Demand \MWh	
	2018 (requirements)	2017
<b>Total Demand</b>	2,200,000	1,700,000

Source: Survey



### *Cost of power*

All respondents were of the view that the current electricity tariff regime is expensive compared to other jurisdictions. All gold producers indicated that the current US\$12.8/KWh is too high and should be reduced to levels less than US\$7/KWh.

### **Labour issues**

#### *Total headcount*

The mining industry had slightly above 33,000 formally registered employees in 2017, almost the same number recorded in 2016. The figure excludes small and artisanal miners and other unregistered mining employees.

#### *Retrenchments in the Mining sector*

30% of respondents indicated that they retrenched during 2017, with all those that retrenched citing rationalization of costs as the reason for retrenching.

#### *Distribution of Employment*

From the surveyed companies, 99% were indigenous Zimbabweans. Of the 99% indigenous Zimbabweans, an average of 75% are from local communities, and around 7% are female.

Of the 60% respondents who reduced headcounts in 2016, 30% retrenched while for the

#### *Labor Productivity*

Survey findings show that 70% of respondents recorded increased labor productivity in 2017, compared to 2016, while 20% indicated that productivity was flat and 10% recorded declines in labor productivity for the comparable periods.

#### *Skills availability in the mining industry*

All respondents indicated that they managed to fill in all positions that went vacant during the year without any difficulties.

### *Trend in Wage Rates and Wage Bill*

70% of respondents indicated that they awarded the NEC minimum wage increase of 1.5% for 2017. All respondents were of the view that they will not afford wage increases in 2018 due to viability challenges in the mining industry.

### **Employee perspectives**

All employees interviewed, majority of which fall under NEC minimum wage are looking forward to improvements in their wage and conditions of service, notwithstanding their acknowledgement of the current viability challenges facing their employers.

80% of the respondents indicated that they would prefer to retain their jobs, even it means accepting a wage cut.

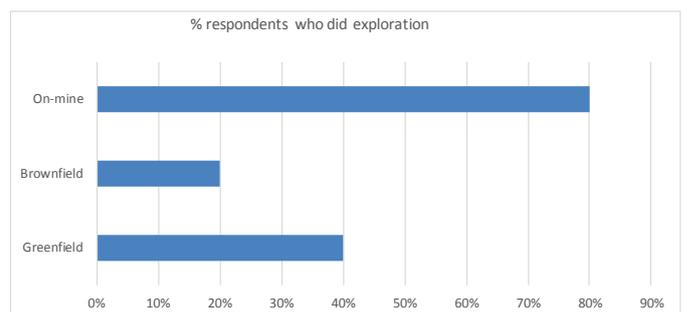
### **Measures to curtail costs in the mining sector**

All the surveyed mining houses adopted varying measures to curtail costs and improve viability:

- Labor rationalization (Stringent overtime control, recruitment freeze, multiskilling and negotiated wage reductions)
- Aggressive value chain optimization to reduce excessive use of consumables.
- Prize negotiations with suppliers
- Installation of energy meters to optimize on power costs
- Water supply management

## **1.8. Exploration and mine development**

### *Exploration Activities*



Survey findings show that 80% of respondents undertook exploration activities in 2017. Of the 80% who did exploration activities, 80% undertook on-mine exploration activities, while around 40% did greenfield exploration. About 20% of respondents did brownfield exploration activities. All respondents indicated that they will do exploration activities in the next 2 years.

**Project development**

Survey findings reveal that no new mine development was undertaken in 2017, however, 70% plan to undertake mine development in 2018.

**Expansion projects**

90% of respondents indicated that they spent on expansion projects in 2017. In 2018, all respondents have pipeline expansion projects.

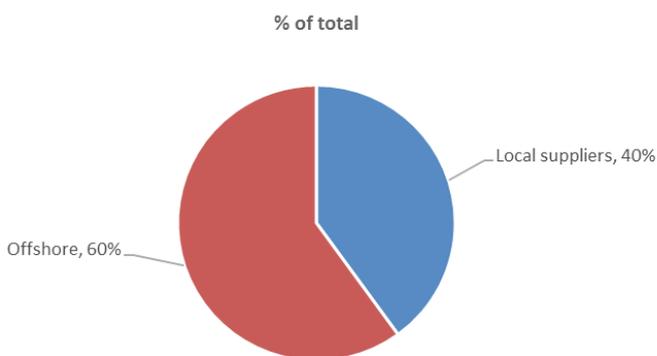
**Facilities under care and maintenance**

60% of respondents indicated that they had facilities under care and maintenance during 2017, with all citing viability challenges as reasons for placing them under care and maintenance.

**1.9. Linkages and Local Content Matters**

*Procurement of Capital Goods*

Survey findings revealed that around 60% of capital goods are procured offshore while the remainder is sourced from local suppliers.



Source: Survey

**Supplies and Consumables**

Survey findings reveal that 60% of mining inputs are procured locally, while the rest is procured offshore. Of the 60% manufactured locally, 16% were manufactured locally.

*Concerns around local suppliers*

- Uncompetitive prices
- Unreliable supply
- Poor quality compared to offshore suppliers
- No credit facilities
- Poor after sales service
- Few provide warranties

**Support for local suppliers**

About 70% of respondents indicated that they are providing support in to local suppliers through the following:

- Offtake arrangements;
- Support letters to access finance from banks;
- Technical expertise on product development to improve quality; and
- Long term consignment stock arrangements.

**1.10. Mineral Value Addition and Beneficiation**

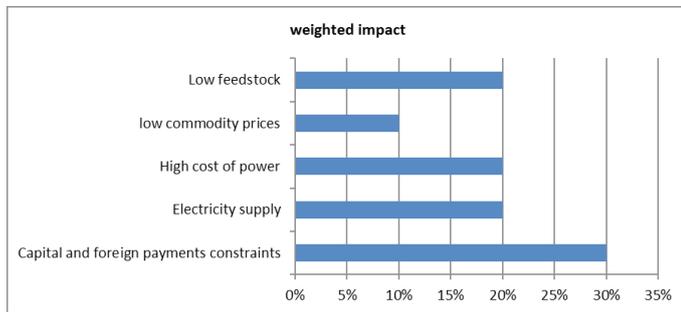
Survey findings show that 60% of respondents spent on beneficiation facilities in 2017, with two (2) projects having been commissioned in 2017, with 40% of respondents planning to spend on beneficiation projects in 2018.

**Challenges to Mineral Beneficiation**

Capital constraints, constraints in electricity supply, high cost of electricity, low feedstock and low commodity prices and foreign payments delays were cited as the major challenges in implementing beneficiation projects.



## Weighted impact on beneficiation



Source: Survey

### 1.11. Corporate social investments

Survey findings show that 60% of respondents had stand-alone CSI budgets ranging from 0.5% to 6% of total budgets in 2018. Expenditure on CSI projects were related to agriculture, (ranging from 3% to 11% of total CSI budget), health, (ranging from 1%, to 55% of total CSI Budgets), education, (ranging from 3%, to 100% of total CSI budgets), Community Share Ownership Trusts (ranging from 1%, to 100% of total CSI Budgets), infrastructure and (1%, to 100% of CSI Budgets).

#### CSI Budgets

#### Voluntary Community Social Investments (CSI)

Survey findings show that all respondents are involved in CSI projects/programmes which include;

#### Agriculture

- Assisting in provision of inputs
- Funding irrigation schemes (Gwakwe and Shashe)

#### Health

- Community health - construction and equipping of clinics
- Health facilities such as Mortuaries, clinics and medicines
- Provision of water to District Hospitals and Schools

#### Education

- Community education – building, refurbishment and equipping of schools
- Assisting vocational training centres (Guyu Vocation Centre work)

#### Community utilities and infrastructure

- Installation of boreholes
- Servicing of Roads

#### Sport

- Sponsorship of sporting activities including soccer teams (with 4 teams already in the Zimbabwe Premier League – Hwange, FC Platinum, How Mine, Ngezi Platinum)

#### Community Share Ownership Trusts

- Contributing to Community Share Ownership Trusts

**1.1. Safety, Health and Environment**

**1.1.1 Lost Time Injuries**

100% of the respondents recorded a decline in the total number of Lost Time Injuries compared to 2017.

**1.1.2 Fatal Accidents**

Survey findings show that only 1 fatal accident was recorded for the respondents. The fatal accident was caused by fall of ground.

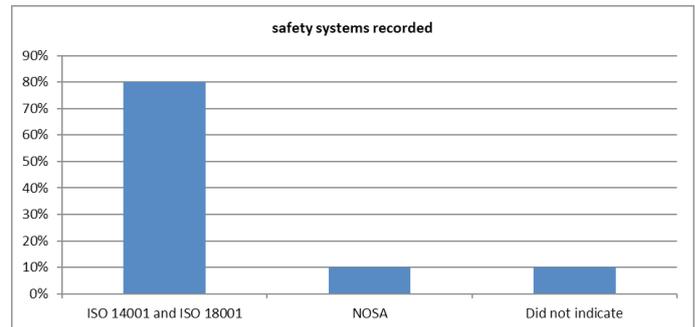
**1.1.3 Initiatives to improve occupational health, safety and environmental records**

The mining industry is undertaking many initiatives to improve the occupational health, safety and environmental record, which include, among others:

- Accreditation to international standards; and
- Home grown initiatives to motivate employees to improve on their safety performance

The findings show that all respondents were either implementing or moving towards the adoption of international SHE systems. About 80% of the respondents said they had acceded to EMS ISO 14001:2004 and OHAS 18001:2007 instruments and adapted the standards at their operations. About 10% of the respondents stated that they used NOSA integrated Five Star System to guide their SHE policies and practices. 10% of the respondents did not indicate the systems they were using.

**Figure 13: SHE standards or instruments**



Source: Survey



# Findings on the Mining Sector and the Economy

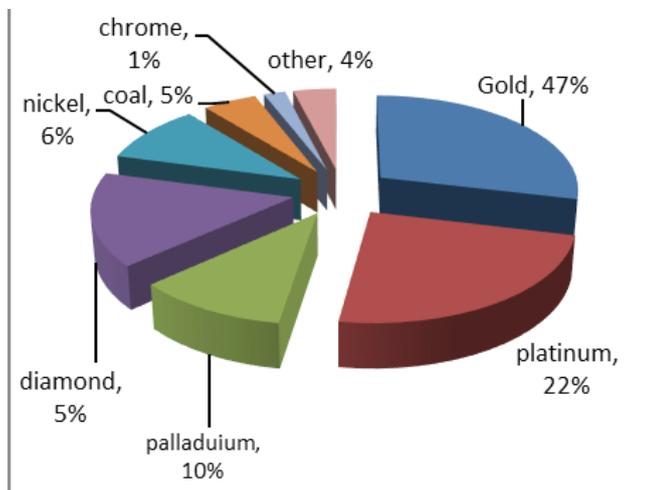
This section presents findings on macro-wide issue regarding the structure, contribution and significance of mining industry to the economy.

## 1.1 Structure of the Mining Sector

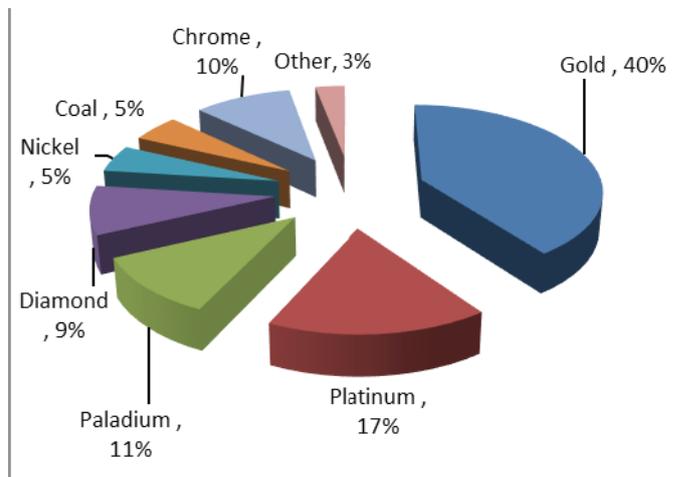
The mining sector has remained less diversified, with activities in the industry in Zimbabwe predominantly concentrated on six key mineral categories (gold, PGMs, diamond, nickel, chrome and coal) accounting for 97% of the value of minerals generated in 2017. This is notwithstanding the 40- plus mineral endowments in Zimbabwe.

**Figure 1: Distribution of Value by mineral category**

Share of mineral value in 2016



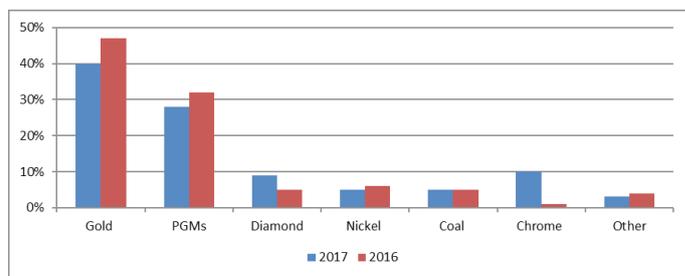
Share of mineral value in 2017



Source: RBZ, Chamber of Mines (2017)

Gold has remained the dominant mineral accounting for 40% of mineral value in 2017 (although its contribution declined from 47% in 2016), while the share of chrome and diamond in total mineral value increased over the comparable periods.

**Figure 2: Share of total value by mineral category (2016 and 2017)**



Source: Chamber of Mines, RBZ

## 1.2 Concentration ratio of the top minerals

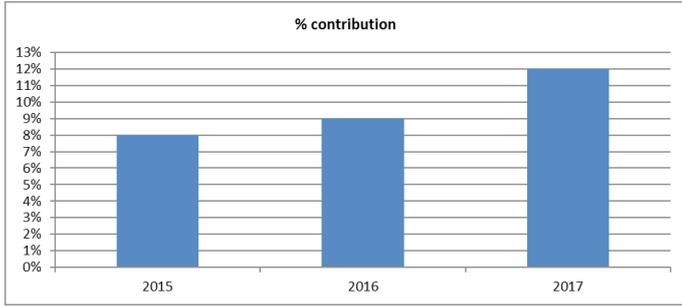
**Table 1: Concentration ratio**

	% contribution 2017	% contribution 2016
Top 5 mineral concentration ratio	92%	91%
Top 4 mineral concentration ratio	87%	85%
Top 3 mineral concentration ratio	77%	79%

Source: RBZ: Chamber of Mines

### 1.3 Contribution of Mining Output to National Income

**Figure 3: Mining Contribution to GDP**



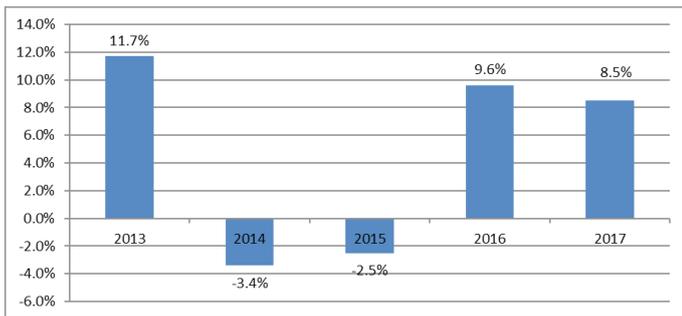
Source: ZimStat, MOF and Chamber of Mines

The direct contribution of mining to GDP increased from 9% in 2016, to 12% in 2017.

### 1.4 Mineral output growth

Mineral output is estimated to grow by 8.5% in 2017, compared to 9.6% in 2016

**Figure 4: Mineral Output Growth**

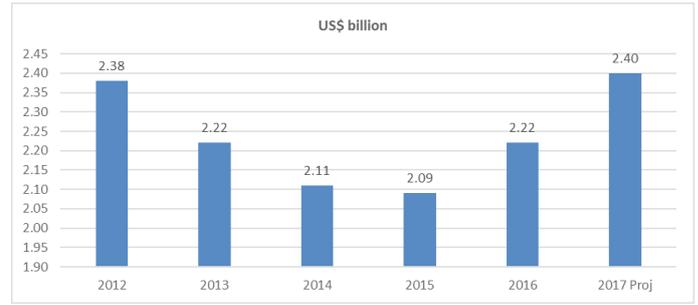


Source: Zimstats, Ministry of Finance

### 1.5 Contribution to National Exports

The contribution of mineral exports to total exports increased from 60% in 2016, to 69% in 2017.

**Figure 5: Mineral Exports**

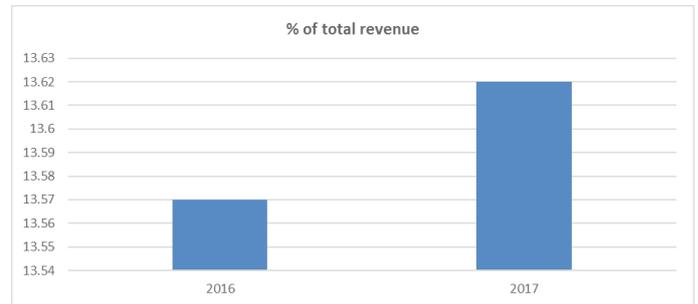


Source: RBZ, MMCZ, COMZ

### 1.6 Contribution to Fiscal Revenue

Survey findings show that the mining industry payments to Government and Government related institutions averaged 13.62%, of mineral revenue in 2017, compared to 13.57% in 2016. 40% of respondents revealed that they increased their contributions (proportion of government payments to total turnover) in 2017 compared to 2016, 40% remained at the same level, while 20% recorded declines for the comparable periods.

**Figure 6: Contribution to fiscal payments (% of total mineral revenue)**



Source: Survey



# Mineral Specific Findings

## Gold industry

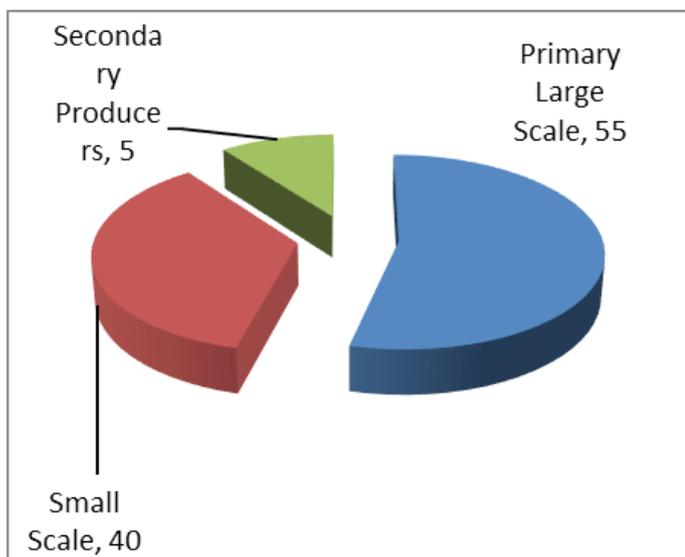
Gold remained one of the key minerals in Zimbabwe in 2017, accounting for 40% of mineral exports, down from 47% in 2016 (employing in excess of 25% of formal employment and over 300 000 involved in artisanal gold mining).

### Structure of the Gold Industry

For the first time in more than a decade, the country's small-scale producers' contribution to total gold output at 47% (up from 40% in 2016), surpassed that of large scale<sup>1</sup> gold producers, which accounted for 46%, down from 55% in 2016.

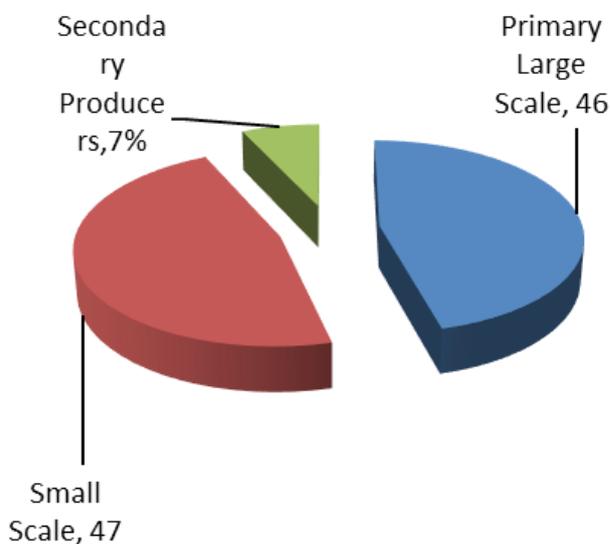
**Figure 31: Structure of the Gold Industry (%)**

2016



<sup>1</sup> Fidelity Printers and Refiners defines a large scale producer as a producer whose output, on average, exceeds 1 kg per month, while any producer with monthly output below 1 kg is considered small.

2017



Source: Fidelity Printers and Refineries, Chamber of Mines

### Exploration Activities in the Gold Industry

Survey findings show that 90% of the respondents in the gold industry did some exploration work in 2017. Of these, 30% did Greenfield exploration, while 40% and 30% did on-mine and brownfield, exploration respectively.

#### Exploration activities in the gold industry (2017)

Exploration activity	% of total	Stage of project (e.g. prefeasibility, feasibility, resource definition/drilling)
Greenfield	30%	Pre-feasibility
Brownfield	30%	Feasibility
On mine	40%	Feasibility and Resource Definition

Source: Survey

All respondents (100%) in the gold industry have plans to undertake exploration activities around their mines in the next 5 years, while 90% reported that they had plans to do Greenfield exploration in the next 5 years.

### Mine Development Projects

Survey findings revealed that all of the respondents in the gold industry did not embark on new mine development projects in 2017 due to lack of funds. In the outlook, all the respondents (100%) indicated

that they have plans to carry out new mine development projects over the next 5 years.

**New mine development projects in next 5 years**

Estimated cost	US\$270,000,000
Expected Commissioning Date	Between Sept 2018 and 2021
Estimated additional output	+330,000 Oz

Source: Survey

**Expansion projects**

Survey findings show that 80% of respondents in the gold industry spent on expansion projects in 2017, injecting in excess of US\$22 million. In 2018, all respondents (100%) expect to spend on expansion projects valued more than \$100 million, with incremental output ranging from 20%, to 100% for the respondents.

**Expenditure on expansion projects**

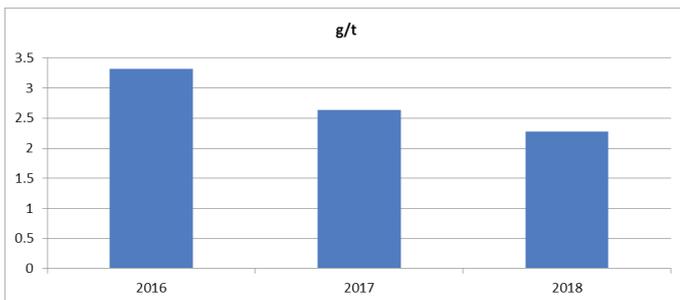
Year	2017	2018
Expenditure	+US\$22 million	+US\$100 million

Source: Survey

**Average Gold Ore Grades**

Survey findings reveal that the gold industry’s average ore grades were at 2.63g/t in 2017, compared to 3.7g/t in 2016. The highest ore grade was at 3.47g/t, while the lowest was 0.73g/t. The expected 2018 average ore grade is around 3.33g/t.

**Average ore grades**



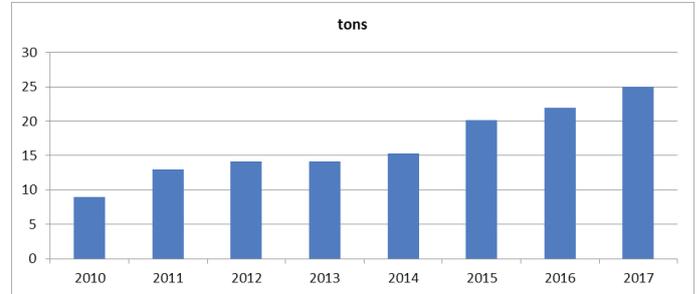
Source: Survey

**Performance of the Gold Industry**

**a) Gold Output**

Gold output is expected to increase to 25 tons in 2017, from 22.8 tons in 2016.

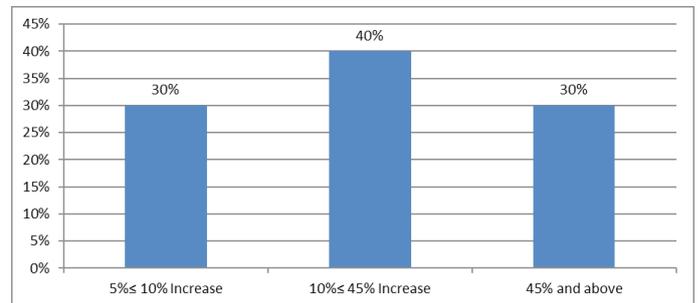
**Gold output (tons)**



Source: Chamber of Mines

Gold output is expected to increase in 2018 as all respondents indicated that they will ramp-up production in 2018, with one of the largest producers anticipating a 100% increase in output.

**Anticipated gold output increases**



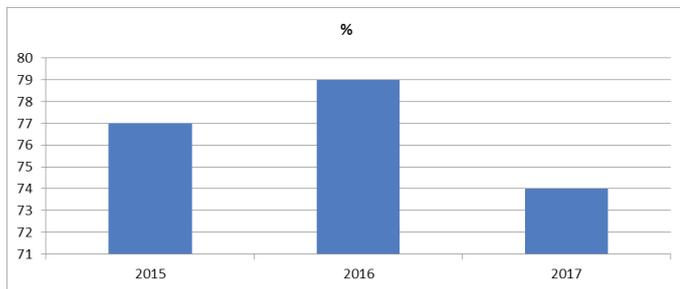
Source: Survey

**b) Capacity Utilization**

Survey findings revealed that weighted average capacity utilization in the gold industry is estimated at 74% in 2017, falling from 79% in 2016. Capacity utilization fell largely because, however, varied across mining houses, ranging from as low as 47%, to 100%.



**Figure 38: Average Capacity Utilization (%)**



Source: Survey

All respondents indicated that the decline in capacity utilisation was mainly due to foreign payments delays, coupled with high cost structure, ageing equipment and geological intrusions.

**c) Employment in the Gold Industry**

In 2017, the formal gold sector is estimated to have had a total head count of around 10,600, slightly higher than 10,500 in 2016. About 50% of respondents indicated that they increased their headcount in 2017, while the other 50% retrenched as a cost cutting measure and business optimization strategy.

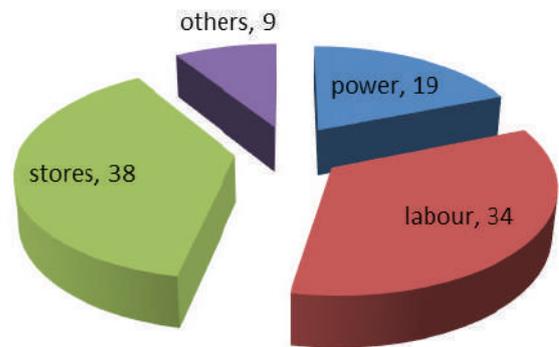
**d) Productivity of the Gold Sector**

Survey findings show that average productivity in the gold industry increased to 40 ounces per employee, from around 36 ounces per employee per year in 2016.

**Cost Drivers**

Survey findings show that on average labour (34%), power (19%) and supplies (29%) account for 91% of total cost per ounce of gold produced.

**Cost drivers in the gold industry**



Source: Survey

**Production Costs**

Survey findings show that average production costs in the gold industry decreased to US\$1 001/ ounce in 2017, from US\$1 032/ ounce in 2016. The highest cost producer was at US\$1 1133/ ounce, while the lowest cost producer was at US\$723/ ounce.

90% of respondents in the gold industry revealed that their all-in costs declined in 2017 on the back of various cost-cutting measures which include:

- Labour rationalization, multiskilling and avoiding unnecessary overtime;
- Negotiating with suppliers for price reductions; and
- Terminating commercial contractors.

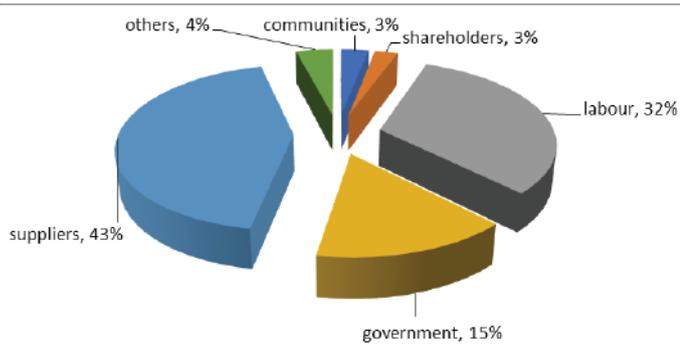
**e) Profitability of the Gold Sector**

Profitability in the gold industry improved in 2017 to around US\$254/ ounce, from US\$235/ ounce in 2016. About 70% of gold producers recorded profits in 2017, and in 2018, also 70% are projecting profits. All respondents indicated that the profits are being ploughed back into the businesses as a source of capital.

**f) Sharing the gold cake**

Survey findings show that of the gold revenues generated in 2016, labour (32%), Government (15%) and suppliers (43%) consumed 90% of total revenue.

**Distribution of gold revenues**

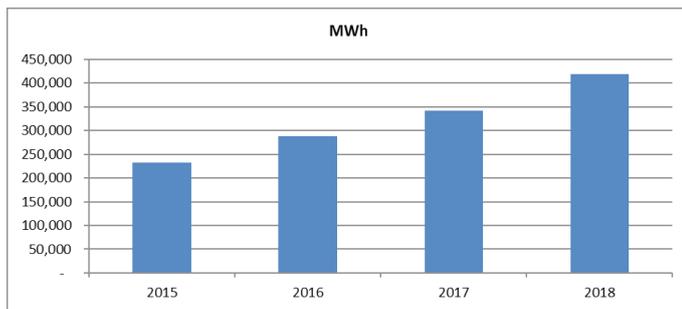


Source: Survey

**Energy and infrastructure**

Survey results show that energy consumption in the gold industry increased in 2017, compared to 2016, is expected to further increase in 2018 in line with planned projects.

**Electricity Consumption (MWh)**



Source: Survey

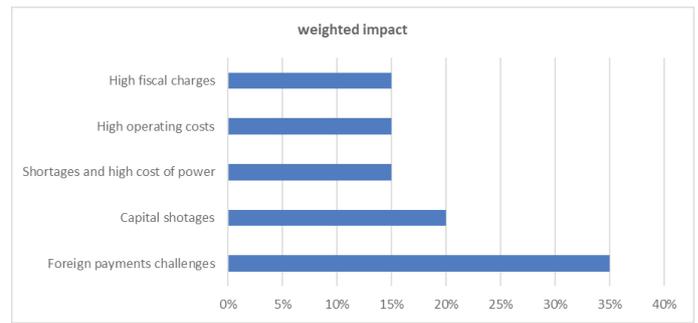
**Electricity supply and cost**

In terms of supply of power to the gold industry, all (100%) respondents indicated that they experienced some power disruptions in 2017 leading to significant output losses. With regards the tariff, all respondents (100%) also said that the tariff applicable to gold at US\$12.8/ KWh was too high and 80% recommended a tariff of US\$8/ KWh while the rest would want a lower tariff.

**Challenges in the Gold Industry**

Seven challenges common to all producers were identified and their weighting measured, with funding challenges having the biggest impact on the mining industry.

**Challenges in the gold sector**



Source: Survey

**Policy interventions for the gold industry**

Respondents in the gold industry identified the following policy interventions as key for achievement of their desired capitalization levels and output targets.

**Address foreign payments challenges**

All gold producers underscored the need to provide adequate foreign payments support for importation of critical raw materials for production and capital equipment for expanding operations. All respondents recommended the following:

- Request to allow gold producers up to 40% of proceeds into their nostro for importation of critical materials for production.
- Gold support price indexed to inflation for the portion received in local currency.

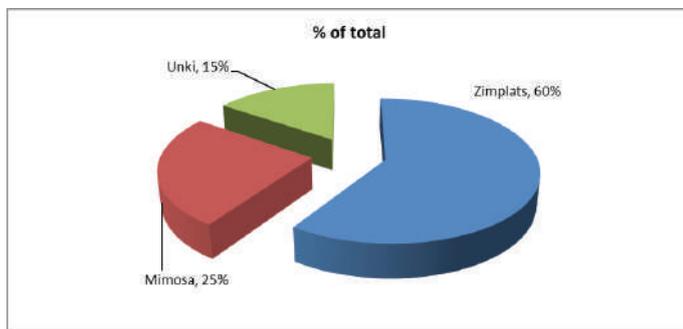
**Convergence of incentives and support for both small-scale and large-scale producers**

The respondents recommended that capitalisation support and incentives (reduced royalty and access to proceeds in foreign exchange) applicable to small scale producers should also be extended to large scale producers and the respondents cited the fact that both producers face the same market and price, while large scale producers have a relatively higher production cost compared to small scale producers.

# Platinum Group Metals (PGMs)

Survey findings show that there are three active producers in the PGMs sector and their contribution to total platinum output is as depicted below.

**Figure 44: Share of Platinum Output (2017)**



Source: Survey

## Exploration for PGMs

Survey results show that all respondents (100%) spent on exploration around their mines in 2017 with the projects at various stages of implementation. In the outlook, all the respondents (100%) also have plans to continue exploring around their respective mines in the next five years, however, no respondent indicated plans to conduct Greenfield exploration during the same horizon.

## Mine development projects in the PGMs sector

Survey findings show that only one player undertook mine development in 2017. Going forward, all respondents indicated that they have plans to carry out mine development projects over the next 5 years.

## Expansion projects in the PGMs sector

With regards to expansion projects, one respondent 2 respondents indicated that they spent on expansion projects in 2017, while all producers have plans to expand their operations in the next five years.

## 1.1.1. Performance of the PGMs industry

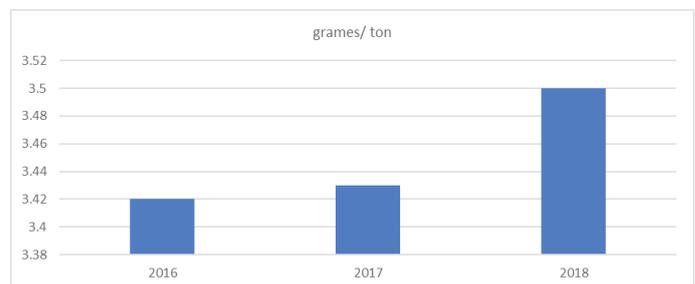
### a) Platinum output

Platinum output is expected to reach a peak of 16.2 tons in 2017, from 15,1 tons in 2016. In the outlook, platinum output is expected to increase as all producers (100%) are projecting output increases in 2017.

### b) Head grades

Survey findings reveal that the sector’s average 4E (platinum, palladium, rhodium and gold) head grade for 2017 was at 3.43 g/ ton, almost the same level recorded in 2016 of 3.42g/ ton. The grades are projected to increase to slightly increase to 3.5g/ton in 2018.

### Average 4E head grades



Source: Survey

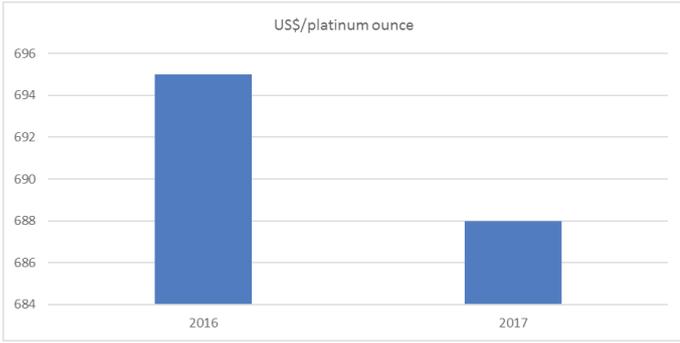
### c) Capacity utilisation in the PGMs sector

Survey results show that the PGMs sector operated at around (100%) capacity in 2017. This is the same situation from 2016 and the situation is likely to continue in the 2018.

### d) Production costs

Survey findings show that cash operating cost per platinum ounce declined from US\$695 in 2016, to US\$688 in 2017 as all producers continued to rationalise costs in 2016.

**Production cost/ ounce**



Source: Survey

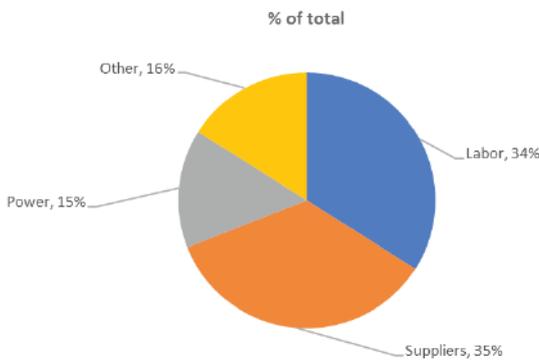
**e) Cost rationalization measures included:**

- Improving production efficiencies;
- Negotiated price reductions with suppliers;
- Capital expenditure prioritization and deferment;

**f) Cost Drivers in the PGMs Sector**

Labour (34%), supplies (35%), power (15%) accounted for 84% of total cost in the PGMs sector in 2017.

**Cost drivers**

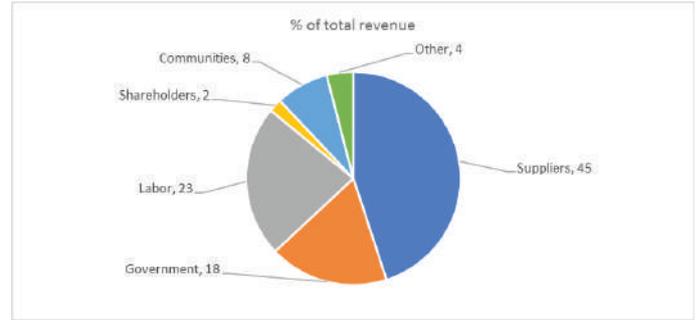


Source: Survey

**g) Sharing the platinum cake**

Suppliers (45%), labour (23%), Government (18%) consumed 86% of platinum revenues in 2017.

**Sharing the 2017 platinum cake**



Source: Survey

**h) Profitability in the PGMs Sector**

Survey findings show that profitability in the PGMs industry improved declined in 2017 to US\$267/ platinum ounce, compared to US\$286/ platinum ounce in 2016.

**i) Challenges in the platinum industry**

All the PGM producers cited the following major challenges which have been hindering their production performance directly and indirectly:

- Depressed metal prices
- Foreign payments challenges;
- Uncompetitive pricing by local suppliers;
- High power tariffs;
- Suboptimal fiscal regime;
- High operating costs.

**j) PGMs Beneficiation Projects**

In line with the platinum Producers plans to benefitiate the PGMs, all producers are currently working on beneficiation projects at various stages of implementation.

**Zimplats**

Zimplats currently produces a beneficiated converter matte after mining, concentrating, smelting and converting operations at its Ngezi and Selous operations. The converter matte is further refined at the Impala base metal and precious metal refinery in Springs South Africa.



Zimplats is currently refurbishing its base metal refinery (BMR) at its Selous Metallurgical Complex (SMC), and already it has to date spent US\$23.4 million out of the total project estimate cost of US\$131 million. Achievements to date include the following, and not limited to: Pre-feasibility study (PFS) completed; Bankable Feasibility Study (BFS) completed; Process and engineering designs completed; civils; and various main plant equipment have been manufactured and delivered to site. The implementation of the project is currently being dictated by the availability of funding.

#### *Unki Mine*

Unki mine is producing PGM concentrates that are exported to South Africa for further processing. Currently Unki is constructing a furnace to produce smelter matte with implementation of the project on track. As at 30 September 2017, overall weighted project progress was 65.9% and earmarked for commissioning in August 2018 as originally planned.

#### *Mimosa*

Having already concluded feasibility studies on a number of options for the construction of a smelter Mimosa is awaiting the approval of its Board to undertake the PGM beneficiation.

#### *Great Dyke Investments*

The project is currently under development with a total investment estimated at US\$4.3. By June 2016 the project had invested US\$53 million in the projects. The project envisages developing a mine and smelting facilities to final metal. To date, some of the structures that have been set up on site include a laboratory, core sample storage facility, sample preparation warehouse, construction camp and administrative building. An open pit mine has been constructed to draw bulk sample for metallurgical tests. Production is expected in 2019 with smelting facilities planned for the phase II which is expected in 3 years post 2019.

### **Capital requirements for the PGMs industry**

The PGMs industry requires around US\$200 million (both sustenance and ramp up) to optimise production in 2018.

### **Policy requirements for the PGMs industry**

Over and above mining industry policy requirements, survey findings show that all respondents indicated that the PGMs sector requires the following policy interventions:

- Remove the 15% beneficiation penalty;
- Introduce beneficiation incentives;
- Remove import duty on grinding media;
- Allow PGMs producers access to at least 50% of their proceeds to ensure adequate foreign exchange for current operations and beneficiation projects;
- Policy clarity on the proposed Kell Technology – allow PGMs producers to make commercial choices on beneficiation.

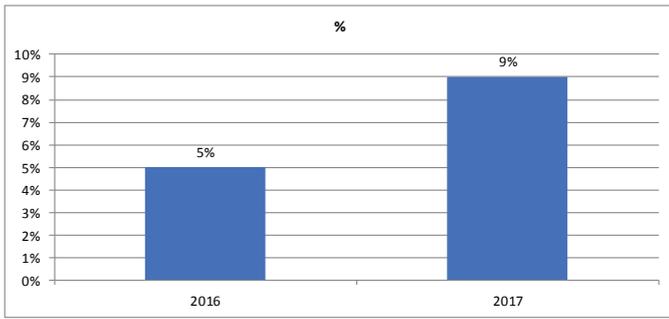
## **Diamond**

### **Structure of the Diamond Industry**

The diamond industry is comprised of two players, Zimbabwe Consolidated Diamond Mining Company and Murowa diamonds. Survey findings show that as ZCDC contributed 80% of diamond output in 2017, while Murowa produced the rest.

### **Contribution of diamond revenue to total mineral revenue**

The contribution of diamond to total mineral revenue increased from 5% in 2016, to 9% in 2017.



**Contribution of diamond to mineral revenue (2016 – 2017)**

Survey: RBZ, Chamber of Mines

**Capital requirements for the diamond industry**

Survey findings show that both producers injected funds into capital projects in 2017, valued at more than US\$120 million. In 2018, the diamond industry requires US\$130 million to implement planned projects and achieve the targeted output of 4 500 000 carats.

**Exploration for diamond**

Both producers reported that they did some exploration work in 2017. Both did on-mine exploration while one of the players also did greenfield exploration in 2017. In 2018, both diamond producers are planning to undertake exploration activities.

**Mine development**

One of the producers is planning to undertake mine development in 2018 valued at US\$61 million.

**Expansion Projects**

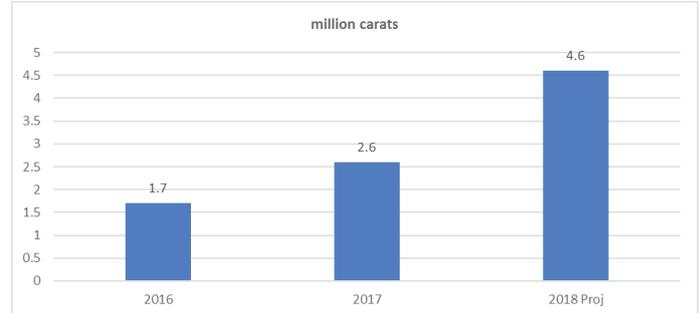
Survey findings show that both diamond producers spent on expansion projects in 2017, valued at more than US\$65 million. In 2018, both producers are planning to spend more than US\$100 million in expansion projects which culminates in more than 50% in diamond output.

**Diamond output**

Diamond output is expected at 2.6 million carats in 2017, and is projected at around 4.6 million carats

in 2018, as both producers indicated that they will ramp up production in 2018.

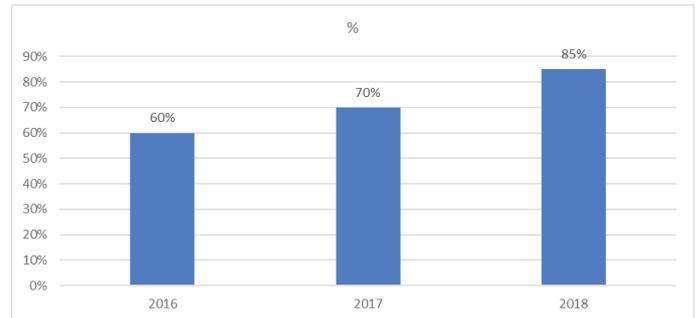
**Diamond output**



Source: Survey

**Capacity utilization**

Average capacity utilization in the diamond sector increased from 60% in 2016, to 70% in 2017. In 2018, average capacity utilization is projected to increase to 85%.



Source: Survey

The country’s sole primary coal producer reported that the company spent around US\$6m for expansion projects in 2017, and projected US\$48m in 2018

**Challenges in the diamond sector**

- Depletion of alluvial resources;
- Foreign payments challenges;
- High cost structure
- Funding challenges



# Chromium Sector

## Structure of the Chromium Industry

In 2017, the country's chromium industry comprised of primary and ferrochrome producers, both large-scale and small scale.

### Primary producers

Chrome production is dominated by two large scale producers which hold around 70% of producers have integrate operations, which cut across all key segments of the chrome value chain from production, smelting to casting to metal castings.

### Contribution of the chrome industry to mineral revenue

The chromium industry contributed 10% of mineral revenue, up from 1% in 2016.

### Exploration Activities

Survey findings show that there were exploration projects in the chrome sector in 2017. The largest chrome producer did greenfield and on-mine exploration activities in 2017 valued at US\$720 000. Both projects are both at resource definition. The largest producer also indicated that it will undertake both on-mine and greenfield exploration activities in the next five years.

### Capital requirements for the chromium industry

The chromium industry injected in excess of US\$5 million for capital projects in 2017, and is planning to spend in excess of US\$20 million in 2018 to increase production to 2 million tons, from 1.6 million tons in 2017.

### Mine development projects

While there were no major mine development projects in 2017, one of the producers is planning to spend on mine development in 2018, valued at US\$2.5 million.

### Expansion projects

The chromium industry spent in excess of US\$4.4 million in expansion projects in 2017. In 2018, expenditure on expansion projects is expected at more than US\$13 million.

### Capacity utilization

Average capacity utilization in the chromium industry is estimated at 80% in 2017, compared to 37% in 2017. In 2018, average capacity utilization is projected at 97%.

### Beneficiation in the chromium sector

Survey findings show that there are various beneficiation facilities in the chromium sector, with some having been placed under care and maintenance due to viability challenges. In 2017, the largest producer indicated that it ventured into an Alloy from Slag Tailing project valued at US\$500 000, which is expected to be commissioned in the first quarter of 2018.

### Facilities under care and maintenance

Survey findings show that a number of facilities in the chromium sector were placed under care and maintenance because of viability challenges.

### Production costs in the chromium sector

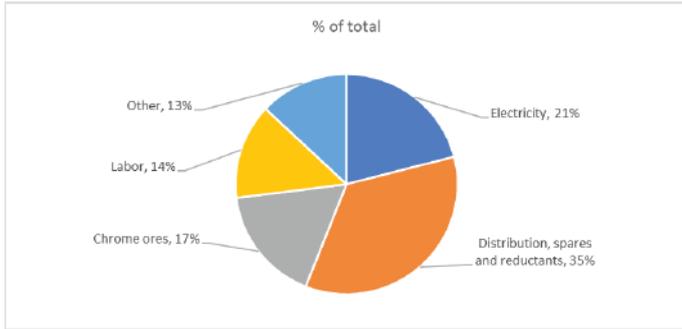
Survey findings show that production costs in the chromium sector increased from US\$86/ lb in 2016, to US\$88/ lb. Production costs are, however, expected to decline to US\$88 in 2018 due to cost rationalisation measures which include:

- Negotiated price reductions with suppliers;
- Negotiated reduced railage rates;
- Rationalisation on staff costs.

### Cost drivers in the chromium industry

Electricity (21%), feedstock (17%), labor (14%), and distribution and supplies (35%), constitute 87% of total cost in the chromium industry.

**Cost drivers in the chromium industry**



**Productivity in the chromium industry**

Productivity in the chromium industry increased in 2017 to 83 tons/ employee, compared to 67 tons per employee in 2016.

**Infrastructure issues in the chromium industry**

The chromium industry consumed in excess of 350 000 MWh of electricity in 2017, and requires around 400 000 MWh of electricity in 2018. The rail network system which is key for movement of chrome remained a key challenge in 2018.

**Challenges in the chromium sector**

The following challenges were identified by respondents as undermining the viability of the chromium sector.

- High power costs;
- Foreign payments challenges;
- Depressed chromium prices;
- Rail infrastructure bottlenecks;
- Distorted marketing arrangements for small scale producers;
- Inadequate exploration.

**Policy requirements for the chromium sector**

The following were identified by the chromium industry as key policy priorities.

- Reduction of power tariff in view of the huge demand for power in smelting;
- Allow chrome producers to access 50% of their proceeds to ensure importation of adequate materials for production;
- Refurbish the rail network system;
- Liberalise the marketing of chrome for small scale producers.

**Nickel**

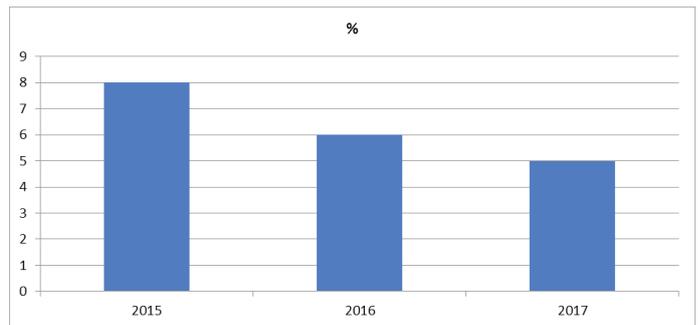
**Structure of the Nickel Industry**

As was the case for 2016, the nickel industry comprised of one integrated primary producer and three secondary producers all of which are PGM operators in 2018. The primary producer operates two mines, a smelter and a base metal refinery. One of the mines has been on care and maintenance since December 2008.

**Contribution of Nickel to Value of Mineral Output**

The contribution of Nickel revenue to the value of mineral output is at 5% in 2017, down from 6% in 2016.

**Contribution of nickel revenue to total mineral revenue (2015 – 2017)**



Source: RBZ, Chamber of Mines

**Exploration for nickel**

The primary producer undertook exploration on-mine exploration in 2017 valued at US\$600 000. The project is now at resource definition stage. The primary producer is planning to do on-mine exploration in 2018, and plans to undertake greenfield exploration in the next five years.

**Mine Development Projects**

There were no new mine development projects during 2017, and there are no plans to do so in the next five years.

**Expansion Projects**

The country’s sole primary nickel producer reported that the company spent around US\$643 634 and is planning to spend around US\$2.3 million on expansion.

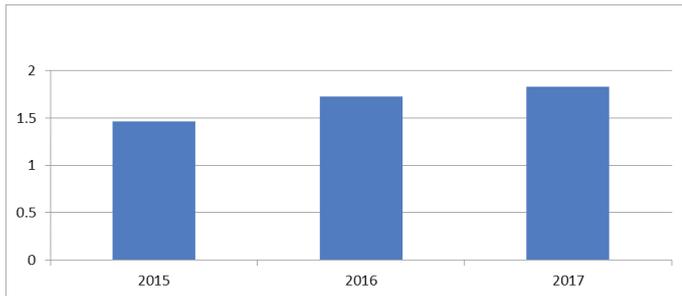


sion projects in 2018, which will result in a 40% increase in output.

### Average Ore Grades

Average ore grades in the nickel industry increased from 1.72% in 2016, to 1.89% in 2017.

### Average Ore Grades

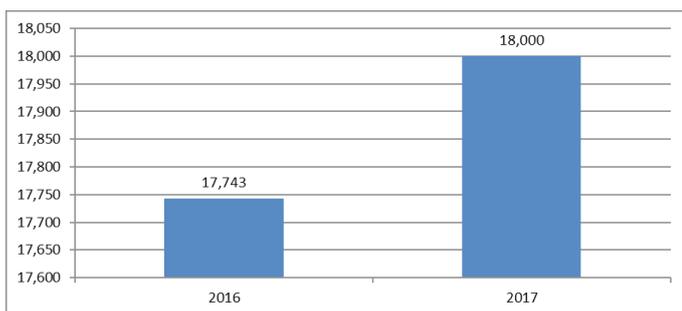


Source: Survey

### Nickel Output

Nickel output is expected at 18 000 tons in 2017, up from 17 743 tons in 2016, largely benefitting from increased PGMs activities. The primary producer is expected to record reduced output for the comparable periods as they adopt a strategy to run a low-cost model of extracting low tonnage with high nickel volumes.

### Nickel Output (tons)

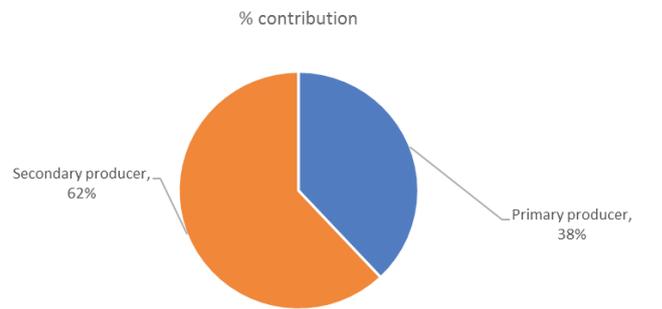


Source: Survey

### Distribution of Nickel Production

The contribution of the primary producer to total nickel output in 2017 was flat at around 38%, with the remainder having been contributed by secondary producers,

### Distribution of nickel output

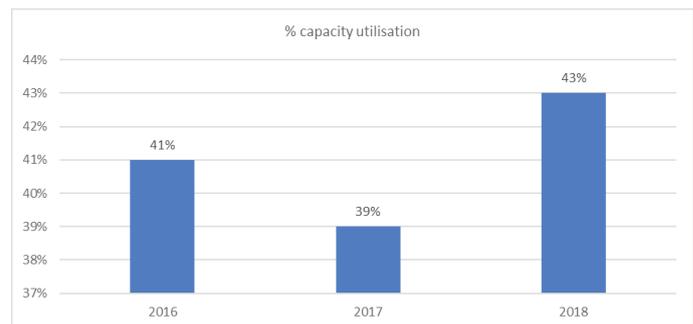


Source: Chamber of Mines

### Capacity Utilization in the Nickel Sector

Average capacity utilization in the nickel sector increased decreased from 55% in 2015, to 41% in 2016.

### Average Capacity Utilization

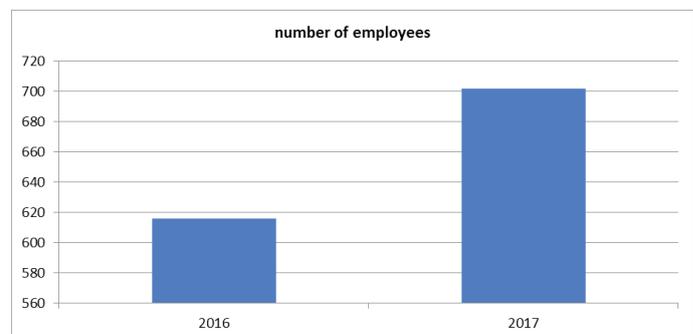


Source: Survey

### Employment in the Nickel Sector

The number of people employed in the nickel industry increased to 702 in 2017, from 616 in 2016.

### Employment in the nickel sector



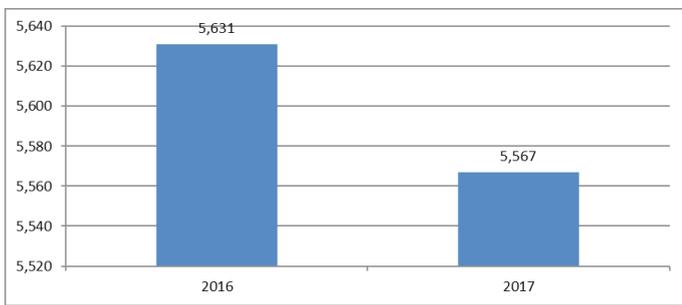
Source: Survey

**Production Costs**

The average all-in cost per ton of nickel declined in to US\$5 267/ ton in 2017, from US\$5 631/ ton in 2016, largely on account of the following cost cutting measures:

- Running of economic shift cycles to reduce power and labor costs;
- Reducing tramming distance to cut on fuel, time and maintenance costs

**Total Cost (US\$) / ton**

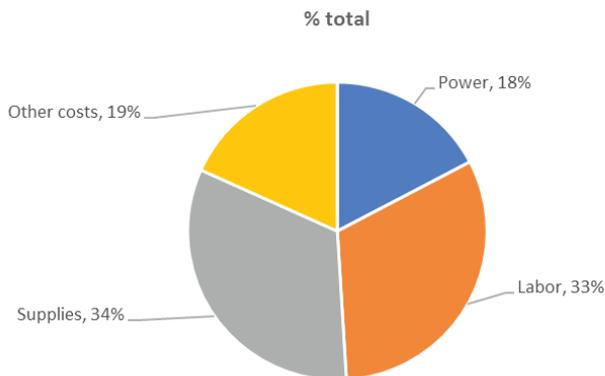


Source: Survey

**Cost Drivers in the Primary Nickel Sector**

Labor (33%), supplies (34%) and power (18%), constituted around 81% of total costs in the nickel sector in 2017.

**Cost Drivers by Category**

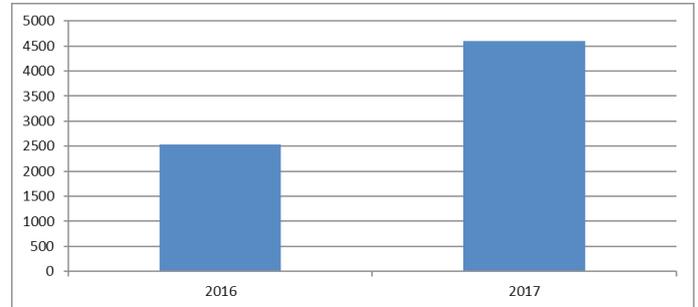


Source: Survey

**Profitability in Nickel**

Average profitability in the nickel sector increased 2017 to US\$4 596/ton, from US\$2 530/ ton in 2016.

**Profit / ton (US\$)**



Source: Survey

**Challenges in the Nickel Sector**

The key challenges undermining the performance of the nickel industry were given as follows:

- Funding constraints;
- High electricity tariffs; and
- Subdues LME nickel price.

**Value Addition and Beneficiation in the Nickel Industry**

The primary producer continued to spend on the smelter project in 2017, and the project is now at 83% completion stage.





