

# 2020

TCFD REPORT



SUSTAINABLE GOLD

CELEBRATING OUR 70TH ANNIVERSARY



■ Beet on tailings

## ABOUT THIS REPORT

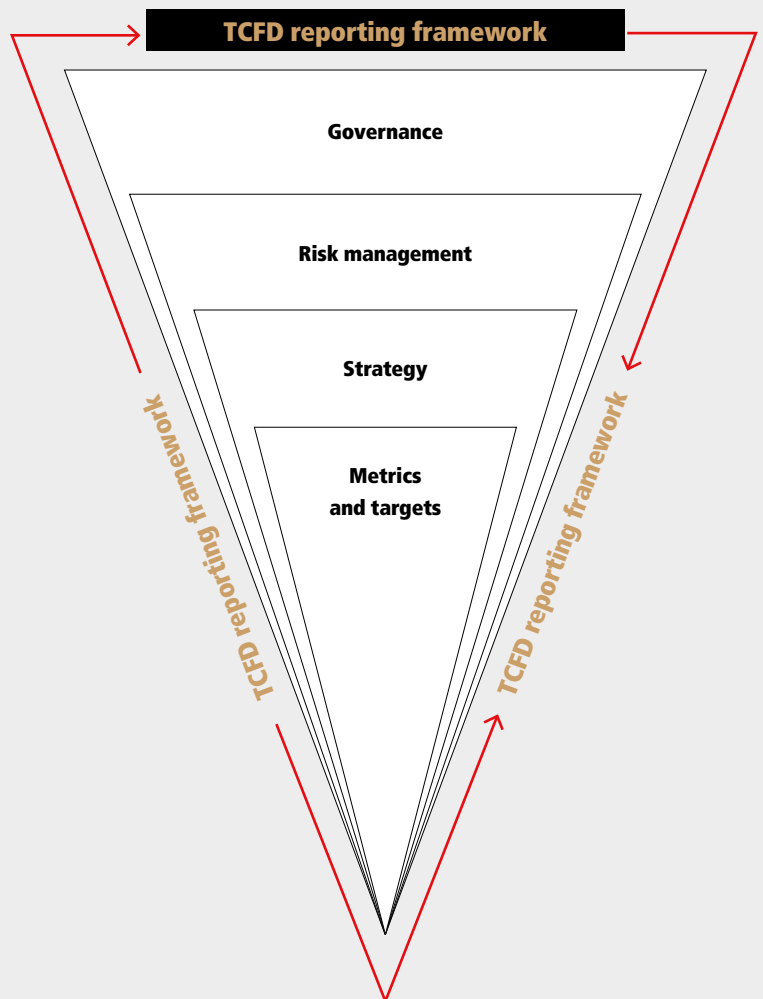
### Aligning our reporting to ensure greater integration of climate-related issues in our annual reporting

Harmony Gold Mining Company Limited (Harmony) has taken the strategic decision to align its annual reporting process with best practice in terms of global climate reporting. Therefore, we are embarking on a process to structure our annual reporting on climate change in accordance with the **Task Force for Climate-related Financial Disclosure** (TCFD) requirements. The TCFD voluntary guidelines provide for strategic, comparable and reliable disclosure of climate-related information, which companies commit to publish at least once a year.

This is our inaugural climate change report compiled in line with the recommendations of the TCFD requirements. It is released as a companion to our Integrated Annual Report 2020. Previously, we submitted annual reports to the CDP Climate Change and CDP Water, formerly the Carbon Disclosure Project, an undertaking that first began in 2007.

This change in our reporting has been made to improve our risk management processes and to more clearly articulate the likely financial impact of climate change on the company's balance sheet and income statement in the short, medium and long term.

We have focused on the four key areas as defined by the TCFD for this year's report as we progress in integrating the TCFD requirements into our existing reporting structures. The scope of information covered in the report covers all of our underground and surface operations and processing plants in South Africa and Papua New Guinea.



## OUR 2020 SET OF REPORTS INCLUDES:



These reports together with other supporting documents are available online at [www.har.co.za](http://www.har.co.za). Other additional information can be found at [www.harmony.co.za](http://www.harmony.co.za).

### OTHER REPORTS

#### Form 20-F

Annual report filed with the United States Securities and Exchange Commission, in compliance with the listing requirements of the New York Stock Exchange

#### Global Reporting Initiative Content Index

An index of the indicators reported in terms of the Global Reporting Initiative

**ESG:** Environmental, social and governance



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### FEEDBACK

We welcome your feedback on these reports. Should you have any comments or suggestions on this report, contact our investor relations team at: [HarmonyIR@harmony.co.za](mailto:HarmonyIR@harmony.co.za)

**Note:** All photographs used in this report were taken before the Covid-19 pandemic and do not reflect Harmony's standard operating procedure that was implemented as a result of the pandemic.

# OUR BUSINESS

Harmony, a gold and copper mining and exploration company, operates in South Africa and Papua New Guinea, one of the world's premier new gold-copper regions.

With 70 years in the industry, Harmony is an experienced emerging market gold miner and the largest gold producer in South Africa by volume. We are also a significant operator of gold tailings retreatment facilities.



**Market capitalisation**  
as at 30 June 2020

**R43.3 billion**  
(US\$2.5 billion)

Headquartered in Randfontein, South Africa, Harmony has its primary listing on the Johannesburg Stock Exchange (HAR). It also has an American Depositary Receipt programme that is listed on the New York Stock Exchange (HMY). At 30 June 2020, our market capitalisation was R43.3 billion (US\$2.5 billion) (30 June 2019: R17.1 billion; US\$1.2 billion).

## CORPORATE PROFILE

### OUR PURPOSE

To be a global, **sustainable gold producer**, with a large copper footprint, creating shared value for all stakeholders

### OUR MISSION

To create value by operating safely and sustainably and by growing our margins

### OUR IMPACT

At Harmony, we understand that our activities and the conduct of our business impacts the lives of the people we employ, the communities that surround our mines and the environment.

This impact has economic and social implications for our stakeholders and for the countries in which we operate. In line with our purpose, we strive to ensure that, on balance, our contribution is positive and that, once mining ceases, our legacy is enduring.

## SHAREHOLDERS

Our largest shareholder is African Rainbow Minerals Limited (ARM) which has a stake of 12.38% in Harmony. Our remaining shareholders are geographically diverse and include some of the largest fund managers globally. The largest shareholder base is in the United States, followed by South Africa and then the United Kingdom.

## WHERE WE OPERATE



### South Africa

Production:

**~1.1Moz (87%)**

Located on the Witwatersrand Basin and the Kraaipan Greenstone Belt, our South African operations accounted for 62% of group Mineral Resources (gold and gold equivalent ounces) and 48% of group Mineral Reserves at year end

#### UNDERGROUND

**West Rand:** Doornkop / Kusasaletu

**Klerksdorp goldfield:** Moab Khotsong

**Free State\*:** Tshepong operations / Bambanani / Target 1 / Joel / Masimong

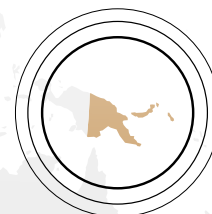
#### SURFACE

**North West:** Kalgold

**Free State:** Surface sources\*\*

\* Closure is currently underway at Unisel, where stoping activities are scaling down

\*\* Includes the Tswelopele Beneficiation Operation (Proprietary) Limited in which Harmony has a holding of 75%



### Papua New Guinea

Production:

**~157 000oz (13%)**

Located on the New Guinea Mobile Belt, in the Morobe Province, our Papua New Guinea operation accounted for 38% of group Mineral Resources (gold and gold equivalent ounces) and 52% of group Mineral Reserves at year end

**Hidden Valley** (open-pit gold and silver mine)

**Wafi-Golpu** (copper-gold joint operation – 50%)

**Multiple exploration areas**

## OUR VALUES



No matter the circumstances, safety is our main priority



We are all accountable for delivering on our commitments



Achievement is core to our success



We are all connected as one team



We uphold honesty in all our business dealings and communicate openly with stakeholders

# CHIEF EXECUTIVE OFFICER'S STATEMENT



*Over many years Harmony has prioritised the objective of making our operations far more energy efficient so as to reduce our consumption of fossil-fuel generated energy and, thereby, to limit our emission of greenhouse gases.*

## PETER STEENKAMP

Chief executive officer

In a world characterised by increasing uncertainty it has become abundantly clear that what is needed most is transparency, particularly on issues that have the most bearing on the sustainability of mankind, namely economic continuity, environmental management, effective healthcare and governance structures that allow organisations to make integrated decisions.

The year 2020 has proven to be the most dramatic and challenging year in living memory. The world as a whole has faced an almost unprecedented series of intertwined crises ranging from a health pandemic, to heightened geopolitical uncertainties, extreme market volatility and deepening socio-economic inequality. Amongst this series of harrowing crises, global warming-induced climate change remained the defining challenge facing the sustainability of mankind. If nothing else, the various Covid-19 lockdowns that were imposed during the course of 2020 served to focus the spotlight more determinedly on climate change and the impact business and society at large have on the environment.

It is in this context that Harmony is publishing its inaugural Task Force on Climate-Related Financial Disclosure (TCFD) report. The TCFD has proven to be one of the most consistent and reliable climate-related financial risk disclosure processes through which companies are able to share this information with stakeholders. We are cognisant of the fact that making more transparent and reliable information available to our stakeholders facilitates a far greater, more holistic understanding of our business. It also underpins our objective of responsible stewardship. In this era of increased stakeholder engagement and shareholder and societal activism, such access to information, as well as voluntary disclosures, are vital if we are to retain our social licence to operate.

While transparency has been a strong motivating factor, what has been most significant to us as a company in undertaking this TCFD disclosure process, is the ability to define all climate change-related risks and opportunities and the financial implications thereof that could impact our business over the short term and long term. It is only through this understanding that we can aim to remain resilient and sustainable. Moreover, we are cognisant that ESG factors are becoming increasingly central in the decision of investors and financial institutions when deliberating investments, particularly in industries such as mining. By disclosing our climate-related financial risks through the TCFD process, we hope to offer our investor stakeholders a more balanced and accurate assessment of our long-term business.

## UNDERSTANDING HARMONY'S RELATIONSHIP WITH CLIMATE CHANGE

As a mining business, predominantly focused on the extraction of ore from deep-level mines, Harmony is fully aware that our activities have a material impact on the surrounding environment and the communities with whom we share this environment. Our most material impact, at least that which will have the most lingering effect, is the emission of greenhouse gases (GHGs), which is a significant contributing factor to global warming. Our greenhouse gas emissions are primarily the product of the electricity we consume in mining and gold processing of the gold. This is particularly true of our operations in South Africa, which rely on electricity generated from coal-fired power stations.

Over many years Harmony has prioritised the objective of making our operations far more energy efficient so as to reduce our consumption of fossil-fuel generated energy and, thereby, to limit our emission of greenhouse gases. More recently, we have cemented our commitment to a more carbon-neutral future with the strategic decision to build our own solar plant, which will provide 30MW of renewable energy to our operations in the Free State Province of South Africa.

While our priority focus in the short to medium term is certainly on how to continue using resources in a responsible manner and on reducing our carbon footprint, looking further into the future, the more serious concern is what impacts climate change will have on our business.

The most obvious is the physical risk, particularly in terms of how extreme weather events and natural resource shortages will impact our operational capabilities. Having conducted scenario analyses, we have determined that water is the primary medium through which we will feel the physical effects of climate change. Second to that is the increase in temperatures, which could affect the underground ambient temperatures, particularly of our deeper-level operations. While not a direct physical threat to our operations, land degradation could have a significant effect on the ability to cultivate food for our host communities.

Harmony will also be increasingly exposed to transition risks which arise from society's response to climate change. Apart from societal and shareholder activism on the issue of climate change, these transition risks will relate to changes in technologies and markets, which could increase business costs and undermine the long-term viability of operating deep-level mines.

**“As a responsible corporate citizen, Harmony’s objective is to serve as a responsible steward of natural resources and the environment in the areas in which we operate.”**

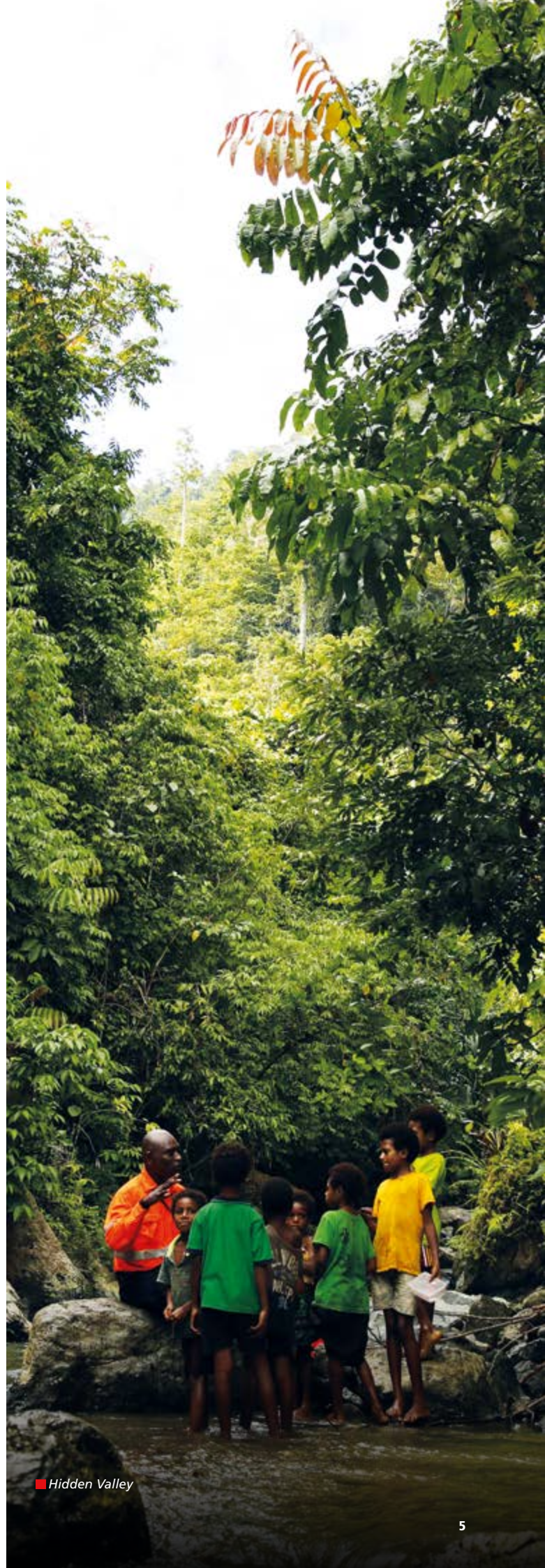
However, the factor that will certainly have the most significant impact of business costs is increasing regulations and policy changes around carbon emissions aimed at disincentivising non-renewable energy consumption. This is already becoming a feature of the South African business sector with the recent promulgation of the Carbon Tax Act.

Given this context, Harmony has undertaken, and continues to undertake, robust business planning that takes into consideration the following risks: energy generation and supply, water availability, shifts in rainfall patterns, higher temperatures, and changing legislative landscapes pertaining to carbon emissions management. All of this business planning is underpinned by the ideal of excellence in environmental performance. And, as executives, we are measured on the progress we make.

### **OUR MISSION FOR THE FUTURE**

As a responsible corporate citizen, Harmony’s objective is to serve as a responsible steward of natural resources and the environment in the areas in which we operate. Not only is this a moral imperative, it also makes good business sense: mitigating our environmental impact not only reduces operating costs and our exposure to risk, it also assists our long-term objective of leaving a positive post-mining legacy. Participation in the TCFD process is one established mechanism through which we can achieve this long-term objective.

**Peter Steenkamp**  
Chief executive officer  
23 October 2020



■ Hidden Valley



# KEY MILESTONES IN HARMONY'S ENVIRONMENTAL JOURNEY

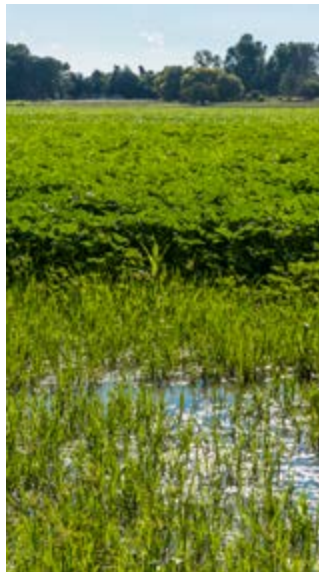
**2007**

- The first report to the Carbon Disclosure Project is submitted and our journey on carbon disclosure reporting begins



**2010**

- Harmony's energy efficiency and climate change policy is adopted, which still remains in effect



**2014**

- The water management strategy is implemented, focusing on water conservation, improving water efficiencies and ensuring its effective management
- Harmony receives top honours for our carbon disclosure reporting



**2017**

- The environmental policy is adopted which commits Harmony to minimising, mitigating and remediating the harmful effects of our operations on the environment throughout our lifecycle
- Harmony is recognised for environmental leadership in climate and water management



**2020**

- The inaugural TCFD report is published



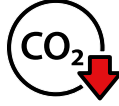


# OUR ENVIRONMENTAL MANAGEMENT PROGRESS

Since 2010, Harmony has been proactively positioning itself to address climate change. The company has taken significant strides to lower its emissions and manage energy and water use across its various operations. This has been achieved through the following:



**A top-down business intent to manage and address climate related risks**



**Recognising opportunities related to operational efficiencies and greenhouse gas emission reduction and water use optimisation**



**Move towards, and continuous drive of mining ore with lower energy requirements**

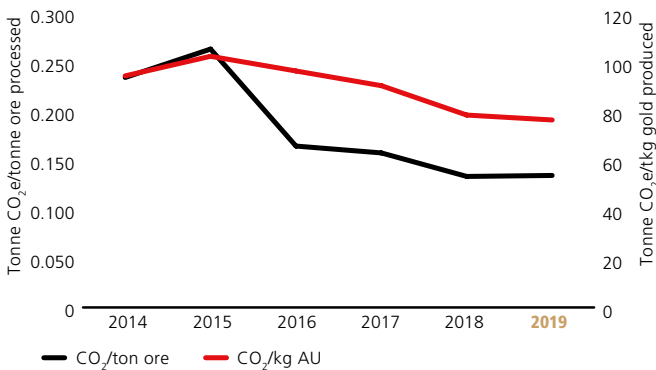


**Dedicated climate adaptation programmes in both South Africa and Papua New Guinea such as biogas energy production, solar energy programmes and agricultural projects in South Africa and Papua New Guinea**

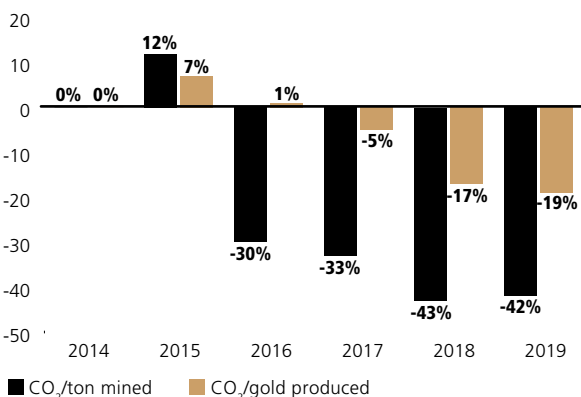
As a result of these efforts, as well as considering lower-emission mining technologies and practices where possible, our emission intensity has decreased substantially over time, and continues to do so.

We have shown a 43% decrease in emissions intensity per tonne of ore mined and a 17% decrease in emission intensity per tonne of gold produced, both against a 2014 baseline. This continuing trend of decreasing emission intensities illustrates our commitment to climate change mitigation. It is also a testament to the company-wide integration and resilience of our Energy and Climate Change Strategy to affect energy use and greenhouse gas emission reductions. The 2019 figures now include Harmony's Moab Khotsoeng asset.

**HARMONY EMISSIONS INTENSITY (CO<sub>2</sub>/kg AU)**



**HARMONY EMISSIONS INTENSITY**



## Innovation leader

Harmony's bioenergy project produces biogas from biomass cultivated on mining impacted land, using water from the tailings storage facility to irrigate the crops. This land cannot be used for food production, due to the contamination of the land with heavy metals from mining. The project forms part of Harmony's rehabilitation strategy and effectively links mine rehabilitation with alternative energy solutions. The biogas industry is still in its infancy in South Africa and a project such as this could contribute significantly to the renewable energy learning curve, enabling growth in the sector.

## Supporting low carbon transitions

Harmony recognises that global markets are increasingly looking to transition to a low carbon economy and technologies. The low-carbon economy and climate change responsiveness develop continually. Renewable energy technologies are thus becoming more sought after. Copper is a new energy metal and an essential component of current renewable energy technologies, including wind and solar energy. Harmony appreciates the significant role of copper in driving low-carbon technologies such as photovoltaic installations and electric vehicles.

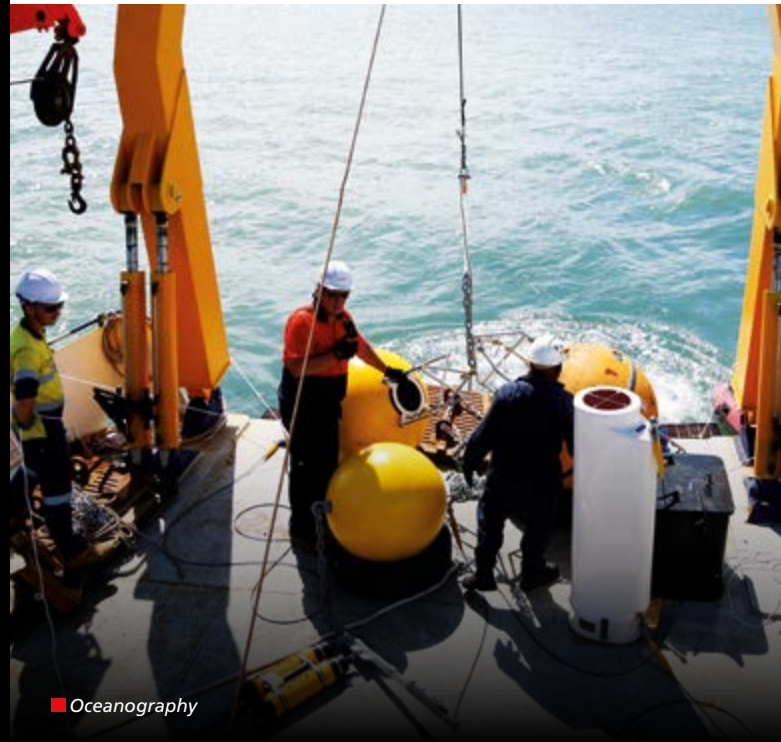
Harmony has positioned itself to meet this growing demand and support low carbon transitions by investing in its Papua New Guinea portfolio, specifically the Wafi-Golpu project which is a major copper-gold asset. Papua New Guinea is one of the world's premier new copper-gold regions and Harmony has a significant copper-gold mineral resource portfolio in the country. Harmony's Papua New Guinea portfolio positions us favourably to supply a growing low carbon market. In addition, Harmony has re-invested in the Hidden Valley mine, also in Papua New Guinea, to further expand our strategic portfolio in the country.

In South Africa, the acquisition of the deep-level Mponeng mine and Mine Waste Solutions, a surface tailings retreatment operation, will impact our climate change performance. As a surface operation, Mine Waste Solutions will be less energy intensive and will help to offset the energy intensity of Mponeng. In addition, we hold a very scarce and strategic resource through the Margaret Water Company and Covalent, which we acquired in 2018 and which give access to a substantial underground water resource. This resource could be used should climate change impact weather patterns and lead to periods of drought. Post-mining water management plans are in place and underground water could potentially contribute to the local water supply resource once mining in the area has ceased.

# OUR APPROACH

The board recognises the group's commitment to responsible corporate citizenship. The board is also responsible for appointing the chief executive officer, on the recommendation of the board's nomination committee.

## GOVERNANCE



**“Harmony monitors its climate change risks and opportunities at both a company-level and an asset-level, as part of its multi-disciplinary process.”**

Harmony has embedded its recognition of climate change and commitments to climate change mitigation and adaptation into its business strategy and decision making. As such Harmony's board has oversight of all climate-related issues.

Harmony's social and ethics committee – a board-level committee – has the highest level of strategic oversight regarding climate change within the group. The committee is guided by the relevant environmental legislation applicable to the countries in which we operate, the Paris Agreement the countries' nationally determined contributions, as well as the UN Sustainable Development Goals. One of the primary purposes of the social and ethics committee is to ensure the responsible environmental management of the group's operations. The committee thus provides the strategic direction for Harmony's response to climate change.

The social and ethics committee is also responsible for the setting (and overseeing the achievement of) group-level greenhouse gas emission reduction targets. Through this committee, climate-related matters are managed by a top-down approach with strategies, policies and

targets related to environmental and climate change being managed pro-actively from board-level. This results in more informed, integrated decisions and actions, both in terms of climate mitigation and adaptation.

The social and ethics committee is supported by:

- Harmony's board of directors (who approves Harmony's climate change policy and strategy)
- The chief executive officer (who “owns” Harmony's climate change policy and strategy)
- The Executive: Sustainable Development (who is responsible for the execution of Harmony's climate change policy and strategy)

The board recognises the group's commitment to responsible corporate citizenship. The board is also responsible for appointing the chief executive officer, on the recommendation of the board's nomination committee. The chief executive officer is in turn responsible for leading implementation and execution of the board-approved strategy, policy and operational planning, and serves as a link between the board and executive management. The chief executive officer is held accountable for all decisions adopted and reports to the board.

The group chief executive officer's leadership role ultimately entails being responsible for all day-to-day management decisions and for implementing the company's long and short-term plans. As such, management of climate change impacts, environmental and social stewardship, resource efficiency and emission reduction are included in the chief executive officer's operational responsibilities.

The executive: sustainable development is responsible for the operational assessment of climate management across the group and the subsequent implementation of Harmony's climate change policy and strategy. It is also responsible for chairing Harmony's environmental rehabilitation trust funds and is a trustee of Harmony's social trust fund.



# OUR CLIMATE CHANGE COMMITMENTS

## HARMONY'S ENERGY EFFICIENCY AND CLIMATE CHANGE POLICY

Harmony has predominantly deep level underground operations; they are energy intensive and consequently a contributor to greenhouse gases and climate change. Recognising our contribution to greenhouse gases, Harmony is committed to take action to reduce its carbon footprint through behavioural changes and technological advancements. Harmony, a global mining company, will work with government, stakeholders and the industry to assist in combating this global challenge.

The objectives of this policy are to improve energy efficiency, reduce consumption, optimise capital investment in energy efficiency projects, reduce environmental effects and greenhouse gas emissions, conserve natural resources and reduce Harmony's carbon footprint.

### Policy guidelines

- Establishing Harmony's carbon footprint emanating from the mining and processing activities
- Optimising electrical energy and carbon resource consumption and therefore efficiency within the operations whilst identifying opportunities for improving the energy mix in the group
- Improving energy efficiency by continuously establishing and implementing effective energy management programmes that support the mining operations while providing a safe and healthy work environment
- Promote the efficient use of renewable and non-renewable carbon resources
- Reduce greenhouse gas emissions, measure progress and report results
- Develop appropriate responses to climate change by way of adaptation and mitigation
- Encourage continuous energy conservation by employees in their work and personal activities
- Engage Government in developing policies and strategies to address energy efficiency and greenhouse gas reduction

## ENERGY EFFICIENCY AND CLIMATE CHANGE STRATEGY

- Harmony will give effect to the Energy Efficiency and Climate Change Policy through the following:
- Establishing Harmony's carbon footprint emanating from the current and future mining and processing activities. It is essential that we enhance our understanding of the sources, scope and extent of greenhouse gas emissions associated with our exploration, mining and processing activities:
  - We will establish the carbon footprint for Harmony
  - We will remain committed to disclosure in terms of the Carbon Disclosure Project
  - We will continuously improve our public reporting of our emission profile and actions to mitigate and manage emissions

- Optimising electrical energy and carbon resource efficiency within the operations whilst identifying opportunities for improving the energy mix in the group:
  - We will conduct energy efficiency baseline audits per operation
  - We will explore opportunities to participate in demand side management programmes inclusive of operational and equipment efficiency improvement projects
  - We will identify strategic alliances to secure green funds as well as clean development mechanism revenue to generate capital for infrastructure efficiency enhancement projects
- Improving energy efficiency by continuously establishing and implementing effective energy management programmes that support the mining operations while providing a safe and healthy work environment:
  - We will develop measurement and metering infrastructure to enable end-user energy metering
  - Establish energy management teams per operations
  - Establish management reporting and management controls
- Promote the efficient use of renewable and non-renewable carbon resources. Harmony's deep level underground operations are huge consumers of electricity and the challenge for the company is to innovate our processes and technologies so that we may continue our business with a reduction in greenhouse gases:
  - Investigate and facilitate large scale renewable energy projects
  - Identify and implement energy recovery projects
  - Where necessary, the operations would develop site-based action plans targeting energy and greenhouse gas reduction
- Reduce greenhouse gas emissions, measure progress and report results:
  - Setting and achieving progressive targets to reduce energy consumption and greenhouse gas emissions both as a group and within individual operations
- Develop appropriate responses to climate change by way of adaptation and mitigation
  - Considering the physical impact of a changing climate as part of our normal planning process and having appropriate contingency plan
- Encourage continuous energy conservation by employees, suppliers and contractors in their work and personal activities
  - We will initiate information, awareness and incentive campaigns to obtain stakeholder participation
- Engage Government in developing policies and strategies to address energy efficiency and greenhouse gas reduction
  - Engage government in developing broad-based (geographically and inter-industry) market mechanisms that increase flexibility and reduce the cost of abating greenhouse gas emissions

June 2010

# RISK MANAGEMENT

Climate change-related risks can be either physical or transitional where physical risks relate to a change in natural environmental conditions due to climate change.

Transitional risks relate to the indirect impacts of climate change on markets, policies and technologies. Ambitious action to limit climate change to below 2°C (in accordance with the Paris Agreement) would likely increase transitional risks whilst reducing physical risks globally. Conversely, limited action to reduce greenhouse gas emissions would limit key transition risks (such as technology, market, policy and regulatory changes), but would result in accelerating climate change and associated physical risks. This dynamic, combined with uncertainty around the global response to climate change, requires Harmony to understand and plan for transitional and physical risks across a range of future climate change scenarios.

Harmony monitors its climate change risks and opportunities at both a company-level and an asset-level, as part of its multi-disciplinary process. At Harmony, risk awareness is a standard agenda item at the board's audit and risk committee meetings. This committee's role in the risk management processes is multi-dimensional. Risks that have been raised at this level include Harmony's dependency on Eskom (South Africa's energy utility) which generates the majority of its electricity by burning fossil fuels, accessibility of electricity and continuity of supply, and carbon tax liabilities. These risks are managed most effectively through frequent engagements between management and the board, as well as between the company and stakeholders. Quarterly meetings are held between the executive committee and the audit and risk committee, where they discuss possible risks and changes in the importance and mitigation of the risks. The risk management process reflects Harmony's integrated approach to business and strategic developments.

**“All Harmony’s projects undergo a robust assessment project- and country-related risk profiles.”**



Climate change presents numerous risks and opportunities to Harmony, and thus plays a key role in the risk identification process. Climate change will affect future costs, infrastructure requirements, operations and operating conditions, host communities, and Harmony's supply chain.

Material climate-related risks, which could result in substantive financial impacts, include:

- Safety, considering aspects such as increasing ambient temperatures and flash flooding
- Regulatory changes, such as South Africa's newly introduced carbon tax regulations and the Climate Change (Management) Act of 19 of 2015
- Major infrastructure incidents, such as those caused by flash flooding

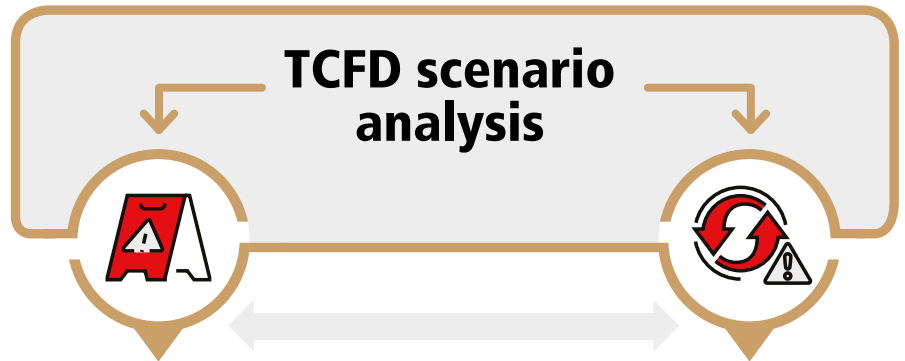
A substantive financial impact is defined as approximately R10 million which equates to an average loss of one day of production at a typical Harmony operation.

Harmony regularly identifies and assesses the risks and opportunities faced by the company as a result of climate change. Additionally, Harmony adheres to the ISO 14 001, ISO 31 000 and ISO 50 000 standards which enable the company to identify and manage risks appropriately. This includes climate-related risks such as water availability; flash flooding; and the impact of elevated ambient temperatures on cooling requirements.

In addition, Harmony has conducted a climate change scenario analysis, informed by the TCFD guidelines, which enables the company to navigate the most likely scenarios which might play out as a result of climate change. The approach applied in the scenario analysis considered five main steps to determine the financial impacts climate change scenarios may have on Harmony's business. The five steps are summarised below.



Inputs in this process included physical parameters such as acute and chronic climatic conditions as well as transitional parameters such as national laws and policies as well as market and technology changes. The results of the scenario analyses are incorporated into Harmony's risk management processes which utilises both quantitative and qualitative analytical choices. The following scenarios were developed in order to determine what impact climate change will have on Harmony's operations:



### Physical risk scenarios

### Transitional risk scenarios

#### High mitigation scenario

- Based on Intergovernmental Panel on Climate Change's Representative Concentration Pathways (RCP) 2.6 scenario
- GHGs mitigated to stabilise the global average temperature increase below 2°C

#### Current policies scenario

- The impact of laws, policies and measures that are currently enshrined in legislation as from mid-2017

#### Nationally determined contribution scenario

- Based on Intergovernmental Panel on Climate Change's Representative Concentration Pathways 4.5 scenario
- Average global temperature increase of more than 4°C

#### Current policies scenario

- Forward looking scenario based on laws and policies that are revised to be more ambitious in line with a 1.5°C goal.

#### Unmitigated scenario

- Based on Climate Change's Representative Concentration Pathways 8.5 scenario
- Average global temperature increase of more than 4°C



■ Target

# CLIMATE CHANGE RISK AND VULNERABILITIES

While our priority focus in the short to medium term is certainly on how to continue using resources in a responsible manner and on reducing our carbon footprint, looking further into the future, the more serious concern is what impacts climate change will have on our business.

## KEY RISKS



**“Harmony monitors its climate change risks and opportunities at both a company-level and an asset-level, as part of its multi-disciplinary process.”**

Within the context of the scenarios outlined, the following three key risks associated with climate change have been identified:

- **Physical risks**

From a physical risk perspective, Harmony may be impacted by interruptions of water supply, infrastructure damages and supply chain interruptions as a result of floods and droughts, and potential interruptions in the supply of electricity. Interruptions in operations as a result of these impacts can have detrimental consequences for Harmony’s business operations and pose risks in terms of its labour force, both in South Africa and in Papua New Guinea.

Regarding Harmony’s labour force and communities, a number of risks may present itself. Firstly, impacts such as extreme storms or landslides as well as increasing temperature pose major health risks to Harmony’s labour force. Secondly, as Harmony employs a small percentage of migrant labourers from especially climate vulnerable countries such as Mozambique, Swaziland and Lesotho, it is important to consider the impacts of climate change on labour-sending areas. Climate impacts in these countries could result in large-scale migration of people to familial breadwinners in and around Harmony’s host communities.

- **Transitional risks**

The transitional impacts of climate change lie in three key areas. The first is the regulatory environment. In this respect, this analysis is based on commitments countries made under the Paris Agreement. The second area of impact is with respect to general market behaviour and technological changes. This is particularly important with respect to the future developments in the energy market. The third key risk is linked to Harmony's reputation and its social response to climate change.

- **Financial risks**

A detailed financial analysis was prepared as part of the climate change scenario analysis in relation to both chronic and acute physical risks as well as transitional risks that affect Harmony. This analysis will now form part of further strategic and climate change planning going forward.

The scenario analysis showed that Harmony is well placed to be able to transition to a low carbon economy given its gold and copper reserves. The most significant positive impact on the company's business is likely to arise from the use of gold as a hedge against geo-political uncertainty, followed by the use of copper and silver in the renewable energy and automotive markets.

In the transition to a clean energy future, the world will require as much copper in the next 25 years as was produced in the last five millennia. To meet this demand and cap global warming at 1.5°C, global production of nearly every base metal (including copper, aluminium, magnesium, nickel, and lead) is expected to increase by 225%–250% in the next 30 years. But as demand accelerates, the mining industry's role in climate change threatens to grow at an even greater pace, as the energy inputs needed to meet the increasing demand surges. In other words, mining companies must strive to increase their material output while decreasing their carbon-based energy inputs. However, Harmony's unique position as a supplier of metals to facilitate a transition to a low-carbon economy provides it with a unique opportunity to increase its revenues and implement actions to increase the company's resilience to climate change.

### MAXIMISING EXISTING TECHNOLOGY TO MODEL CLIMATE SCENARIO IMPACTS

In addition to the risks and opportunities outlined above, Harmony makes use of Industry 4.0 technologies such as digital twinning, simulation, and data analytics, to unpack climate related risks as well as improve operational efficiencies. Digital twinning technologies are used to replicate mining systems on computers and mobile devices. Deep level mining models of ventilation, water, compressed air and refrigeration enable integrated simulation which inform efficiency processes.

Harmony has simulated temperature increases as per the Representative Concentration Pathway (RCP) 8.5 and RCP 2.6 scenarios which further informs our decision making. Harmony used Process Toolbox and digital twinning simulations of Kusasaletu, Tshepong operations, Phakisa, Moab Khotso, Doornkop, Target 1, Bambanani, Masimong and Joel under a 2°C ambient temperature increase scenario. The simulations were used to simulate the additional cooling costs (capital and operating expenditure) required to combat the increase in underground ambient temperatures. This type of practical climate scenario modelling enables Harmony to identify and manage risks associated with climate change across our material issues.





■ Kusasaletu


# KEY RISKS CONTINUED

## FINANCIAL ANALYSIS OF KEY RISKS

As per the TCFD recommendations, the following table provides a summary of the key physical risks that Harmony face and how these translate into financial impacts.

Impact area	Physical risk	Impact description
<b>Expenditure</b> 	<b>Increased temperatures, rainfall changes and drought</b>	<p>Rising temperatures, prolonged droughts and reduced water availability are likely to increase the risk of water scarcity. Expenditures from a water price perspective are therefore likely to increase significantly.</p> <p>Harmony has increased their water recycling to become more water use efficient and reduce their dependence on local water supply sources, especially in South Africa. However, Harmony, in South Africa, would nevertheless be dependent on municipal water supply to a certain extent and in turn, related increase in expenditures and/or shortages in supply. Most of the areas in which Harmony operates experienced droughts or water shortages over the past three years. The risk of water rationing, and periodic cuts is likely to increase.</p> <p>In South Africa, a shortage of water supply poses a significant threat to the operational continuity of Harmony's mines, as well as to the profitability of the business (since stoppages lead to large financial implications). Water is essential to Harmony's operations. It is consumed in the development and growth of Harmony's assets and is used throughout all of the mining processes – from gold processing to dust suppressions and slurry transport. With the addition of the Moab Khotsong mine and the potential further assets, Harmony's water use might increase dramatically. Yet a drier and hotter climate results in increased water loss (evaporation). This is another factor that needs to be considered when considering the impacts of water stress on Harmony's mining operations for the next years to come.</p> <p>Harmony's value chain is also likely to be severely impacted by water scarcity as a result of rising temperatures, drought and changing rainfall patterns. This also applies to suppliers facing increased input costs and/or loss in revenue, possibly increasing the cost in supplied materials and in turn Harmony's expenditures.</p>
	<b>Increased temperatures</b>	<p>With rising temperatures, the cooling demands for equipment to prevent overheating will increase. In turn, electricity costs will rise.</p> <p>Rising temperatures increase the intensity and frequency of heat waves and wind speed. Higher temperatures also result in a greater number of people at risk of heat-related medical conditions as will be discussed below.</p> <p>Heat stress, in an operational context, has been shown to directly impact on labour productivity. Thus, with the anticipated changes in temperature, labour productivity is projected to decline, under a high emissions scenario.</p>
	<b>Drought</b>	<p>Drought conditions can negatively contribute to dust conditions. Harmony uses water to suppress dust. Water use and thus operating expenditures could increase. An increase in dusty conditions can also increase the cost of maintenance on diesel trucks, as the air filters will need to be replaced more frequently.</p> <p>Longer droughts, especially in combination with higher temperatures, would affect local and host communities. This could drive social unrest in these communities, with community members placing increasing pressure on the mine to supply basic services. This could affect Harmony's reputation and its social license to operate.</p>
<b>Assets and liabilities</b> 	<b>Increased temperatures, rainfall changes and drought</b>	<p>The need for spend on once-off investments (assets) such as technology for water infrastructure to reduce water loss, increase water storage and recycling capacities or technology that enables mining to be less dependent on water for its processes will increase in the long-term. Investments into more climate-resilient infrastructure may also be needed, especially in Papua New Guinea as a result of increased frequency and intensity of storms.</p> <p>Harmony is implementing a number of effective initiatives to consider water demand and pumping optimisation, leak management and water supply optimisation to address quick wins with regards to water conservation. These include the following:</p> <ul style="list-style-type: none"> <li>• Kusasalethu cooling car utilisation optimisation: cost savings</li> <li>• Kusasalethu water demand and pumping optimisation: cost savings</li> <li>• Masimong leak management: cost savings</li> <li>• Kusasalethu underground water supply and demand control</li> <li>• Tshepong decline water supply optimisation: cost savings</li> <li>• Target 1 water supply and demand optimisation</li> </ul> <p>The cost related to the initiatives was R7 million.</p> <p>Apart from additional spend on assets, these may be more exposed to the extreme climatic conditions and may need replacement.</p>



Impact area	Physical risk	Impact description
	<b>Increased temperatures and rainfall changes</b>	<p>Municipal electricity supply could be extremely impacted by climatic changes. Harmony is already considering the implementation of renewable energy alternatives to prevent power and subsequent business interruption. As temperatures and rainfall events become more extreme, investments into equipment that can withstand such extremes may also become necessary.</p> <p>Extreme rainfall increases the water level in tailings dams, which reduces their stability. The wall height of tailings storage facilities may need to be increased to prevent the failure of dam walls.</p> <p>At the Hidden Valley mine, there is a risk of substantive change to operations as a result of increased heavy downpours, landslides and severe storms which could result in production stoppages created by flooding.</p>
	<b>Drought</b>	<p>Drought conditions can negatively contribute to dust conditions. Harmony, however, uses water to suppress dust. There may be a need to invest in equipment/technology or natural alternatives that suppresses dust even when water is scarce or unavailable.</p>
<b>Revenue</b> 	<b>Increased temperatures, rainfall changes and drought</b>	<p>Rising temperatures, drought and reduced water availability are likely to increase the risk of water restrictions. The risk of periods without potable water available to Harmony will increase over time, interrupting operations and in turn decrease revenues. Flash flooding as result of high intensity rainfall, or stoppage of the Free State operations as a result of no water due to drought or constrained municipal supply could result in losses of up to R62million per day.</p> <p>Similarly, the competition for the resource water would increase considerably. With less water available, social and economic needs will need to be evaluated by government. The need for access to clean water to people for domestic use is placed before that of industry. This potentially exposes Harmony to limited amounts of water (primarily for processing) and threatening the sustainability of the operations. Although Harmony has increased its water recycling and invested in strategic water savings infrastructure, however the addition of new assets could impact planned water use. Business interruptions and loss of revenue as a result of increasing water supply risk is therefore highly likely.</p> <p>Damage to infrastructure as a result of equipment being exposed to climate extremes as well as more frequent interruptions in the supply of electricity (nationally and municipal) are equally affecting revenues.</p> <p>The need to potentially continue investing into equipment/technology (water saving, energy security), regular maintenance and repairs as well as costs associated with business interruptions from limited water availability increases and revenues for the pay-off period may be limited. However, the failure to invest to ensure continued operations under an increasingly extreme difficult operating environment could lead to a significantly loss of revenue, especially in the long-term. Harmony's South African operations are located in water-scarce areas and the operations in Papua New Guinea are indicated as being in areas with high water-related reputational risks. Thus, the company's total global revenue could be affected.</p> <p>Harmony's value chain is also likely to be severely impacted by water scarcity as a result of rising temperatures and changing rainfall patterns. Interruptions in the supply of goods and services will directly affect Harmony's ability to operate and generate revenues.</p>

Lezak et al, *Low-Carbon Metals for a Low-Carbon World: A New Energy Paradigm for Mines*, Rocky Mountain Institute, 2019, available at [https://rmi.org/wp-content/uploads/2019/12/Low-Carbon\\_Metals\\_for\\_a\\_Low-Carbon\\_World.pdf](https://rmi.org/wp-content/uploads/2019/12/Low-Carbon_Metals_for_a_Low-Carbon_World.pdf)

# KEY RISKS CONTINUED

From a transitional risk perspective, the following should be considered:



## REVENUE

**The world is seeing an increase in the stringency of climate related laws and policies.** As highlighted above, new technologies are needed to manage transitional risks such as changing laws and policies as demand grows for lower-carbon product alternatives. Overall, studies show that under a 2°C scenario, the transitional changes in the global metals and mining market could result in a reduction in cash flow of half a billion US dollars between 2018 and 2035. However, given the fact that Harmony's largest revenue stream is linked to the sale of gold and copper, Harmony is on the positive side of the spectrum due to the projected increase of demand for copper in low carbon technologies. Furthermore, as discussed above, the ability of gold to provide a stable investment platform amidst global changes secures the company's position in the global low-carbon transition.



## EXPENDITURE

**Changing laws and policies will also result in global carbon pricing mechanisms being strengthened in order to reach and improve nationally determined contribution targets.** The South African carbon tax is one such policy mechanism which will have an impact on Harmony's expenditure. Harmony's direct carbon tax liability is likely to range between R300 million and R500 million by 2030 under a high cost scenario .

In addition, cement, liquid fuels (predominantly diesel), and lime are key components of Harmony's upstream value chain. The production of all of these materials will be covered by the carbon tax and producers of such products will pass through the effects of their carbon tax liabilities on their downstream consumers, such as Harmony.

Additionally, the carbon tax will also have an impact on Harmony's electricity expenditure. In the first phase of the carbon tax (up to December 2022) there will be no pass-through on the electricity price as allowances have been made for Eskom to fully recover their carbon tax. However, from 2023, companies can expect a pass-through of the carbon tax on the electricity price.



## CAPITAL AND FINANCING

**Companies across the globe are preparing for a transition to a low carbon scenario.** Whether this scenario would be more aligned with the Current Policies Scenario – being the baseline of how global energy markets would evolve if governments make no changes to their existing policies and measures – or with the Below 2° degrees Paris Scenario, the market changes as a result of the transitional risks discussed above require research and development in order to navigate such risks. In order to navigate such climate change related risks, Harmony would have to invest capital in research and development and in new technologies and alternatives to ensure its competitiveness in the mining sector.

Harmony recognises that investors are becoming increasingly interested in the resilience of a business with regards to climate change. The manner in which a company manages the physical as well as the transitional risks affects the ability of the company to access capital and financing from potential investors. Harmony has a reputable track record with regards to identifying and managing its climate change risks, having submitted reports to the Carbon Disclosure Project on an annual basis since 2007. In order to remain within an adaptive space where access to capital and financing is possible, Harmony acknowledges the need to continue to identify and manage its climate change risks.



■ Bio-energy rehabilitation project

## STRATEGY

Sustainable development is covered by the fourth pillar of our strategy – responsible stewardship. As such, Harmony's business strategy is influenced by climate change based on physical as well as transitional parameters. These impacts are recognised as part of Harmony's business strategy and as such, provide a holistic lens through which to manage Harmony's key objectives.



### Keeping our people safe and healthy

Climate change effects, such as high temperatures and rainfall variability, emphasise the imperative of safety across all operations. Harmony deploys a number of strategic interventions to manage these risks including the heat tolerance initiatives and the Live Longer Safety campaign.



### Achieving our business objectives

Harmony continuously strives to reduce energy and water consumption and greenhouse gas emissions through targets and operational objectives. Harmony has thus launched the Operational Excellence Programme to improve the efficiency of its operations.



### Maintaining stability in our workforce

Harmony's business strategy focuses on operational excellence and low carbon asset investments to meet climate change goals. This enables Harmony to comply with socio-economic, political and regulatory changes in South Africa and Papua New Guinea.



### Maintaining our licence to operate

Harmony recognises that climate change impacts its workforce, both in host communities and labour-sending areas. Harmony's business strategy thus includes land rehabilitation efforts, aiming to build community resilience at the of life of mine.



### Managing our impacts

Harmony recognises its responsibility to migrate, manage and minimise any impacts on natural resources and the environment. As such Harmony's business strategy is informed by our aim to reduce energy use, our aim to reduce energy use, our carbon footprint, and freshwater consumption.

#### BUILDING RESILIENCE THROUGH INTEGRATION

Integrating our climate related risks into our business risks enables us to build business resilience. Harmony's five material issues are key to the business, and without recognising the impacts of climate change on these issues, we will not be able to manage and plan effectively for addressing these.

Harmony has developed, and adopted a company-wide water management strategy and energy efficiency and climate change strategy. These documents provide a consistent approach and operations baseline for the group. Both these strategies provide the minimum requirements, strategic goals and the overarching principles defined by Harmony to guide the group's resource management, conservation and reduction practices. These documents are available at <https://www.harmony.co.za/sustainability/environment>.



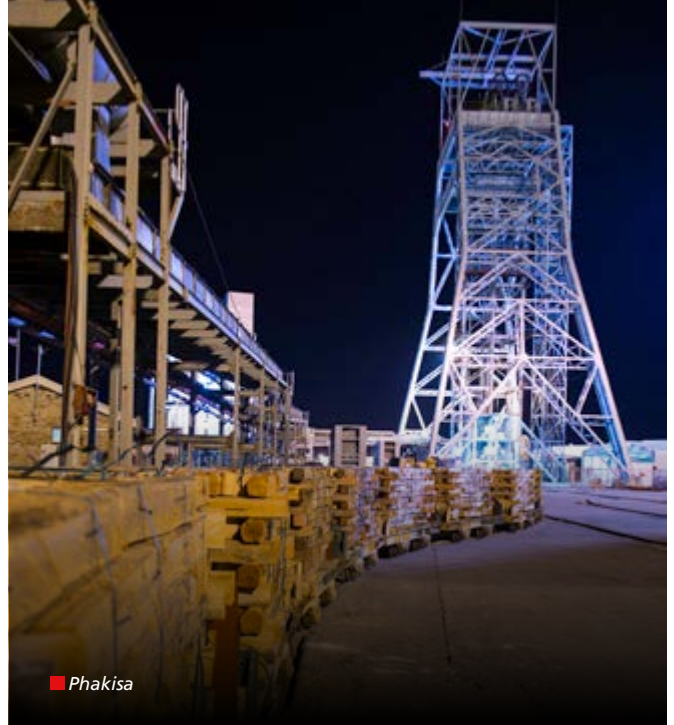
# MEASURING OUR PERFORMANCE

As per the scenario analysis, water and energy were key areas of risk associated with both physical and transitional climate change risks. As a result, Harmony is taking pro-active steps to manage these risks through various initiatives and the close monitoring of water and energy use across their operations.

Harmony monitors and reduces energy use and greenhouse gas emissions. In line with Harmony's short- and medium-term business strategy (for the next five years) to move towards an alternative energy supply mix, the company is actively reducing its grid-electricity consumption and greenhouse gas emissions with both year-on-year and multi-year targets. We are also finalising our application for a 30MW solar facility to substitute fossil consumption in Welkom.

Water management is optimised through water efficiency initiatives and recycling of fissure water for consumptive purposes reducing dependency and use on other natural water supplies.

**“To date we have implemented more than 200 energy-efficiency initiatives at our various operations.”**



## OPERATIONAL EXCELLENCE TO DRIVE RESOURCE EFFICIENCY AND EMISSION REDUCTION

Harmony's Operational Excellence programme aims to improve the efficiency of its operations by reducing costs (e.g. water and energy) while increasing production. Through this programme, Harmony has access to specialised Industry 4.0 tools and services. Some of the tools used in this regard include the following:

1. *Industrial internet of things and intelligent control technologies* are utilised to centralise energy and water-related information and allow systems to exchange information.
2. *Condition monitoring technologies* make it possible to monitor the condition of all the major equipment. Efficiencies of major energy equipment can now be calculated in real-time, and if found to be problematic, notifications are sent to the relevant personnel.

### Energy consumption

Energy consumption (000MWh)	FY20	FY19	FY18	FY17	FY16
South Africa	3 051	3 209	2 458	2 538	2 542
Papua New Guinea	146	<sup>2</sup> 131	<sup>3</sup> 90	90	55
<b>Total</b>	<b>3 197</b>	<b><sup>1</sup> 3 340</b>	<b>2 548</b>	<b>2 628</b>	<b>2 597</b>
Consumption intensity (MWh/tonne treated)	<b>0.12</b>	0.12	0.11	0.14	0.13

<sup>1</sup> Increase in energy consumption driven by Harmony's acquisition of Moab Khotsong

<sup>2</sup> Includes Papua New Guinea diesel consumption used to produce electricity (13 900MWh)

<sup>3</sup> Although full year production included, the plant did stand for planned shutdown

In South Africa, Harmony consumes electricity from the national power utility, Eskom, which is mainly dependent on coal-fired power stations. Given this fact, together with the cost of electricity, the unreliability of supply and the emission of greenhouse gas caused by the burning of fossil fuels, Harmony has prioritised the implementation of energy efficiency strategies for many years. While these factors mostly affect our South African operations, we are equally mindful of conserving energy at our other operation Hidden Valley, in Papua New Guinea.

To date we have implemented more than 200 energy-efficiency initiatives at our various operations, which has yielded savings of an estimated R450 million. In FY19 and FY20, we implemented 23 projects, which resulted in annual savings of R54.79 million. At the time of writing there were a further seven projects under investigation which could facilitate an estimated savings per year of an additional R36.55 million.

## CARBON EMISSIONS

### Group carbon emissions

	FY20	FY19	FY18	FY17	FY16	FY15
<b>Scope 1 emissions breakdown by source</b>						
<b>CO<sub>2</sub>e tonnes</b>						
Diesel	122 683	129 675	128 505	108 306	53 278	64 244
Explosives	2 412	2 294	2 135	1 953	1 838	1 748
Petrol	1 108	1 143	844	784	777	909
<b>Total</b>	<b>126 203</b>	<b>133 112</b>	<b>131 484</b>	<b>111 043</b>	<b>55 893</b>	<b>66 901</b>
<b>% breakdown</b>						
Diesel	97.2	97.4	97.7	97.5	95.3	96
Explosives	1.9	1.7	1.6	1.8	3.3	3
Petrol	0.9	0.9	0.7	0.7	1.4	1
<b>Total</b>	<b>100.0</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Total emissions - scope 1, 2 and 3</b>						
<b>CO<sub>2</sub>e tonnes</b>						
Scope 1	126 203	133 112	131 484	111 043	55 893	66 901
Scope 2	3 315 672	*3 192 750	2 442 256	2 512 565	2 580 600	2 686 401
Scope 3	570 235	532 704	439 551	445 033	615 456	686 233
<b>Total</b>	<b>4 012 110</b>	<b>3 858 566</b>	<b>3 013 291</b>	<b>3 068 641</b>	<b>3 251 949</b>	<b>3 493 535</b>
<b>% breakdown</b>						
Scope 1	3%	3	4	4	2	2
Scope 2	83%	*83	81	82	79	78
Scope 3	14%	14	15	14	19	20
<b>Total</b>	<b>100%</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

### Group carbon emissions intensity

	FY20	FY19	FY18	FY17	FY16	FY15
<b>Scope 1 emissions intensity by source</b>						
<b>CO<sub>2</sub>e tonnes/tonne treated</b>						
Diesel	0.005	0.005	0.0057	0.0055	0.0029	0.0036
Explosives	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Petrol	0.00004	0.00004	0.00004	0.00004	0.0001	0.0001
<b>Total scope 1, 2 and 3 emissions (CO<sub>2</sub>e tonnes/ tonne treated)</b>						
Scope 1	0.0050	0.0051	0.0061	0.0057	0.0031	0.004
Scope 2	0.1304	*0.1229	0.109	0.1295	0.1428	0.149
Scope 3	0.0224	0.0205	0.0196	0.0229	0.034	0.038
<b>Total</b>	<b>0.1578</b>	<b>0.1485</b>	<b>0.1347</b>	<b>0.1581</b>	<b>0.1799</b>	<b>0.191</b>

\* The inclusion of Moab Khotsonq for the full year – presents opportunities for operating efficiencies

# KEY RISKS CONTINUED

## WATER

### Water consumption

Water consumption (000m <sup>3</sup> )	FY20	FY19	FY18	FY17	FY16
Water used for primary activities	19 692	23 158	15 473	18 125	15 083
Potable water from external sources	14 576	15 933	12 646	12 468	13 854
Non-potable water from external sources	5 115	7 225	2 827	2 563	1 229
Water recycled in process	54 959	48 512	40 435	41 112	38 821
Water consumption intensity (000m <sup>3</sup> /t treated)	0.77	0.89	0.69	0.93	0.80

Harmony has integrated a thorough understanding of water management and water risks across its operational spectrum. We have integrated water into our long-term business objectives, our business strategy as well as our financial planning. As such Harmony's commitment to responsibly managing water is driven from an executive level and has evolved from a strategy into practical and relevant actions across the group. This process is achieved through Harmony's Water Strategy.

Harmony adopts a company-wide water management strategy which provides a consistent approach and operations baseline for use across the group. This document clearly sets out Harmony's objectives related to water conservation, efficient water use and the necessities surrounding water in the context of its host communities. In particular this includes:

- Integrating water management and efficiencies
- Acknowledging water in respect climate change
- Water management at mine closure
- Recognising water as critical resource for local communities

Harmony recognises an opportunity to reduce its operating costs through recycling its water. Harmony's water strategy supports the shift towards self-generation and zero discharge of water, to encourage the group's water conservation and demand management objectives. Harmony prioritises the conservation of potable water, especially considering the current and future impact of drought in South Africa.

As such, Harmony has adopted a group-wide campaign to re-use process water and reduce their dependency on groundwater. To do this, Harmony set long-term targets to reduce the water used for primary activities by 7% and increase water recycled by 6%, by FY22. In order to achieve these targets, various water conservation initiatives are implemented.

Harmony has constructed two water treatment plants that assist in continuing to secure water for operations, whilst also reducing water consumption and assisting with water conservation initiatives. Harmony built a third water treatment plant in FY19 which can treat 2.8ML of water per day resulting in R3.2 million in savings of water bills per year. In total, the three water treatment plants save Harmony approximately R5.6 million per year.



■ Water treatment plant – Doornkop

# FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements within the meaning of the safe harbor provided by Section 21E of the Exchange Act and Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), with respect to our financial condition, results of operations, business strategies, operating efficiencies, competitive positions, growth opportunities for existing services, plans and objectives of management, markets for stock and other matters.

These forward-looking statements, including, among others, those relating to our future business prospects, revenues, and the potential benefit of acquisitions (including statements regarding growth and cost savings) wherever they may occur in this report and the exhibits to this report, are necessarily estimates reflecting the best judgment of our senior management and involve a number of risks and uncertainties that could cause actual results to differ materially from those suggested by the forward-looking statements. As a consequence, these forward-looking statements should be considered in light of various important factors, including those set forth in this report. Important factors that could cause actual results to differ materially from estimates or projections contained in the forward-looking statements include, without limitation:

- Overall economic and business conditions in South Africa, Papua New Guinea, Australia and elsewhere (including as a result of the coronavirus disease ("Covid-19") pandemic)
- Estimates of future earnings, and the sensitivity of earnings to gold and other metals prices
- Estimates of future gold and other metals production and sales
- Estimates of future cash costs
- Estimates of future cash flows, and the sensitivity of cash flows to gold and other metals prices
- Estimates of provision for silicosis settlement and the spread of other contagious diseases, such as Covid-19
- Estimates of future tax liabilities under the Carbon Tax Act (South Africa)
- Statements regarding future debt repayments
- Estimates of future capital expenditures
- The success of our business strategy, exploration and development activities and other initiatives
- Future financial position, plans, strategies, objectives, capital expenditures, projected costs and anticipated cost savings and financing plans
- Estimates of reserves statements regarding future exploration results and the replacement of reserves
- The ability to achieve anticipated efficiencies and other cost savings in connection with past and future acquisitions, as well as at existing operations
- Fluctuations in the market price of gold
- The occurrence of hazards associated with underground and surface gold mining
- The occurrence of labour disruptions related to industrial action or health and safety incidents
- Power cost increases as well as power stoppages, fluctuations and usage constraints
- Supply chain shortages and increases in the prices of production imports and the availability, terms and deployment of capital
- Our ability to hire and retain senior management, sufficiently technically-skilled employees, as well as our ability to achieve sufficient representation of historically disadvantaged persons in management positions
- Our ability to comply with requirements that we operate in a sustainable manner and provide benefits to affected communities
- Potential liabilities related to occupational health diseases
- Changes in government regulation and the political environment, particularly tax and royalties, mining rights, health, safety, environmental regulation and business ownership including any interpretation thereof; court decisions affecting the mining industry, including, without limitation, regarding the interpretation of mining rights
- Our ability to protect our information technology and communication systems and the personal data we retain
- Risks related to the failure of internal controls
- The outcome of pending or future litigation or regulatory proceedings
- Fluctuations in exchange rates and currency devaluations and other macroeconomic monetary policies
- The adequacy of the Group's insurance coverage
- Any further downgrade of South Africa's credit rating
- Socio-economic or political instability in South Africa, Papua New Guinea and other countries in which we operate

For a more detailed discussion of such risks and other factors (such as availability of credit or other sources of financing), see the Company's latest Integrated Report and Form 20-F which is on file with the Securities and Exchange Commission, as well as the Company's other Securities and Exchange Commission filings. The Company undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events, except as required by law. The foregoing factors and others described under "Risk Factors" should not be construed as exhaustive. The forward-looking financial information has not been reviewed and reported on by the Company's auditors.

## COMPETENT PERSON'S STATEMENT

The information in this presentation that relates to Mineral Resources or Ore Reserves has been extracted from our Reserves and Resources statement published on 15 September 2020. Harmony confirms that it is not aware of any new information or data that materially affects the information included in the statement, in the case of Mineral Resources or Mineral Reserves, that all material assumptions and technical parameters underpinning the estimates in the original release continue to apply and have not materially changed. Harmony confirms that the form and context in which the competent person's findings are presented have not been materially modified from the original release.

# CONTACT DETAILS

## HARMONY GOLD MINING COMPANY LIMITED

Harmony Gold Mining Company Limited was incorporated and registered as a public company in South Africa on 25 August 1950

Registration number: 1950/038232/06

### Corporate office

Randfontein Office Park  
PO Box 2, Randfontein 1760, South Africa  
Corner Main Reef Road and Ward Avenue,  
Randfontein, 1759, South Africa

Telephone: +27 11 411 2000

Website: [www.harmony.co.za](http://www.harmony.co.za)

## DIRECTORS

PT Motsepe\* (chairman)

JM Motlaba\* (deputy chairman)

M Msimang\*^ (lead independent director)

PW Steenkamp\*\* (chief executive officer)

BP Lekubo\*\* (financial director)

HE Mashego\*\* (executive director)

JA Chissano\*#^

FFT De Buck\*^

Dr DSS Lushaba\*^

HG Motau\*^

KT Nondumo\*^

VP Pillay\*^

GR Sibiyi\*^

JL Wetton\*^

AJ Wilkens\*

\* Non-executive

\*\* Executive

^ Independent

# Mozambican

## INVESTOR RELATIONS

E-mail: [HarmonyIR@harmony.co.za](mailto:HarmonyIR@harmony.co.za)

Telephone: +27 11 411 2314 or +27 82 759 1775

Website: [www.harmony.co.za](http://www.harmony.co.za)

## GROUP COMPANY SECRETARY

**Shela Mohatla**

E-mail: [companysecretariat@harmony.co.za](mailto:companysecretariat@harmony.co.za)

## TRANSFER SECRETARIES

**Link Market Services South Africa (Proprietary) Limited**

(Registration number 2000/007239/07)

13th Floor, Rennie House, Ameshoff Street, Braamfontein  
Johannesburg, South Africa

PO Box 4844, Johannesburg, 2000, South Africa

E-mail: [info@linkmarketservices.co.za](mailto:info@linkmarketservices.co.za)

Telephone: +27 861 546 572 (South Africa)

Fax: +27 86 674 2450

## ADR\* DEPOSITARY

**Deutsche Bank Trust Company Americas**

**c/o American Stock Transfer and Trust Company**

Operations Centre, 6201 15th Avenue, Brooklyn,  
NY11219, United States

E-mail queries: [db@astfinancial.com](mailto:db@astfinancial.com)

Toll free (within US): +1-886-249-2593

Int: +1-718-921-8137

Fax: +1-718-921-8334

\*ADR: American Depositary Receipts

## SPONSOR

**JP Morgan Equities South Africa (Proprietary) Ltd**

1 Fricker Road, corner Hurlingham Road, Illovo  
Johannesburg, 2196, South Africa

Private Bag X9936, Sandton, 2146, South Africa

Telephone: +27 11 507 0300

Fax: +27 11 507 0503

## TRADING SYMBOLS

JSE: HAR

NYSE: HMY

ISIN: ZAE 000015228