



B2GOLD CLIMATE STRATEGY REPORT

FEBRUARY 2022



CAUTIONARY STATEMENT

The B2Gold Corp. (“B2Gold” or the “Company”) Climate Strategy Report has been finalized as of February 17, 2022 and contains certain “forward-looking information” and “forward-looking statements” (collectively “forward-looking statements”) within the meaning of applicable Canadian and United States securities legislation, including projections; outlook; guidance; forecasts; estimates; and other statements regarding future or estimated financial and operational performance events, gold production and sales, revenues and cash flows, capital and operating costs, including projected cash operating costs and all-in sustaining costs, and budgets; statements regarding the impact of the COVID-19 pandemic on B2Gold’s operations, including any restrictions or suspensions with respect to our operations; the impact of COVID-19 on the Company’s workforce, suppliers and other essential resources and what effect those impacts, if they occur, would have on our business, our planned capital and exploration expenditures; future or estimated mine life, metal price assumptions, ore grades or sources, and ore processing; statements regarding anticipated exploration, drilling, development, construction, permitting and other activities or achievements of B2Gold; and including, without limitation: the significant steps B2Gold is taking to address climate change risks to maintain the resilience of our business and across our operations, the set of actions as part of B2Gold’s Climate Strategy to move the Company towards net zero operation, at Otjikoto and Fekola, the estimated emissions of the heavy fuel oil generators, the projected reduction in fuel consumption and GHGs as a result of the solar plants; statements regarding our plans, programs and anticipated future achievements relating to audits, sustainable development (including the United Nations Sustainable Development Goals), climate change, the environment, the ecosystem, conservation and biodiversity strategies and measures, reclamation, mine rehabilitation and closure planning, water and water management, waste and tailings management, reporting practices and systems and internal systems and practices. All statements in this presentation that address events or developments that we expect to occur in the future are forward-looking statements. Forward-looking statements are statements that are not historical facts and are generally, although not always, identified by words such as “expect”, “plan”, “anticipate”, “project”, “target”, “potential”, “schedule”, “forecast”, “budget”, “estimate”, “intend” or “believe” and similar expressions or their negative connotations, or that events or conditions “will”, “would”, “may”, “could”, “should” or “might” occur.

Forward-looking statements necessarily involve assumptions, risks and uncertainties, certain of which are beyond B2Gold’s control, including risks associated with or related to: the duration and extent of the COVID-19 pandemic, the effectiveness of preventative measures and contingency plans put in place by the Company to respond to the COVID-19 pandemic, including, but not limited to, social distancing, a non-essential travel ban, business continuity plans, and efforts to mitigate supply chain disruptions; the volatility of metal prices and B2Gold’s common shares; changes in tax laws; the dangers inherent in exploration, development and mining activities; the uncertainty of reserve and resource estimates; not achieving production, cost or other estimates; actual production, development plans and costs differing materially from the estimates in B2Gold’s feasibility studies; the ability to obtain and maintain any necessary permits, consents or authorizations required for mining activities; environmental regulations or hazards and compliance with complex regulations associated with mining activities; climate change and climate change regulations; the ability to replace mineral reserves and identify acquisition opportunities; the unknown liabilities of companies acquired by B2Gold; the ability to successfully integrate new acquisitions; fluctuations in exchange rates; the availability of financing; financing and debt activities, including potential restrictions imposed on B2Gold’s operations as a result thereof and the ability to generate sufficient cash flows; operations in foreign and developing countries and the compliance with foreign laws, including those associated with operations in Mali, Namibia, the Philippines and Colombia and including risks related to changes in foreign laws and changing policies related to mining and local ownership requirements or resource nationalization generally; remote operations and the availability of adequate infrastructure; fluctuations in price and availability of energy and other inputs necessary for mining operations; shortages or cost increases in necessary equipment, supplies and labour; regulatory, political and country risks, including local instability or acts of terrorism and the effects thereof; the reliance upon contractors, third parties and joint venture partners; the lack of sole decision-making authority related to Filminera Resources Corporation, which owns the Masbate Gold Project; challenges to title or surface rights; the dependence on key personnel and the ability to attract and retain skilled personnel; the risk of an uninsurable

or uninsured loss; adverse climate and weather conditions; litigation risk; competition with other mining companies; community support for B2Gold's operations, including risks related to strikes and the halting of such operations from time to time; conflicts with small-scale miners; failures of information systems or information security threats; the final outcome of the audit by the Philippines Department of Environment and Natural Resources in relation to the Masbate Gold Project; the ability to maintain adequate internal controls over financial reporting as required by law, including Section 404 of the Sarbanes-Oxley Act; compliance with anti-corruption laws, and sanctions or other similar measures; social media and B2Gold's reputation; risks affecting Calibre having an impact on the value of the Company's investment in Calibre, and potential dilution of our equity interest in Calibre; as well as other factors identified and as described in more detail under the heading "Risk Factors" in B2Gold's most recent Annual Information Form, the Company's current Form 40-F Annual Report and B2Gold's other filings with Canadian securities regulators and the U.S. Securities and Exchange Commission (the "SEC"), which may be viewed at www.sedar.com and www.sec.gov, respectively (the "Websites"). The list is not exhaustive of the factors that may affect the Company's forward-looking statements. There can be no assurance that such statements will prove to be accurate, and actual results, performance or achievements could differ materially from those expressed in, or implied by, these forward-looking statements. Accordingly, no assurance can be given that any events anticipated by the forward-looking statements will transpire or occur, or if any of them do, what benefits or liabilities B2Gold will derive therefrom. The Company's forward-looking statements reflect current expectations regarding future events and operating performance and speak only as of the date hereof, and the Company does not assume any obligation to update forward-looking statements if circumstances or management's beliefs, expectations or opinions should change other than as required by applicable law. The Company's forward-looking statements are based on the applicable assumptions and factors management considers reasonable as of the date hereof, based on the information available to management at such time. These assumptions and factors include, but are not limited to, assumptions and factors related to the Company's ability to carry on current and future operations, including development and exploration activities; the timing, extent, duration and economic viability of such operations, including any mineral resources or reserves identified thereby; the accuracy and reliability of estimates, projections, forecasts, studies and assessments; the Company's ability to meet or achieve estimates, projections and forecasts; the availability and cost of inputs; the price and market for outputs, including gold; the timely receipt of necessary approvals or permits; the ability to meet current and future obligations; the ability to obtain timely financing on reasonable terms when required; the current and future social, economic and political conditions; and other assumptions and factors generally associated with the mining industry. For the reasons set forth above, undue reliance should not be placed on forward-looking statements.

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FOREWORD FROM THE COO

I am pleased to present this publication of B2Gold's Climate Strategy Report, our inaugural report on climate-related risks, opportunities and strategic planning. B2Gold is fully committed to providing our stakeholders with the necessary information to make informed decisions regarding our environmental, social and governance (ESG) risk management and performance, which we have reported in our Responsible Mining Report annually since 2016. This Report expands our climate-related disclosure and aims to help our stakeholders understand how we are managing climate-related risk, not only as a sustainability issue but also how we are working to include climate management as a part of our business strategy and planning process. The Report was prepared in alignment with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

B2Gold recognizes that climate change is one of the critical global challenges of our time, with wide-ranging impacts on our planet, our society and on our business. Mitigating the impacts of climate change – and meeting the global goal to limit warming to well below 2°Celsius – requires all sectors to take meaningful action to provide and implement solutions. As outlined in this Report, B2Gold is taking significant steps to address climate change risks to maintain the resilience of our business and across our operations, as our operating environment (both physical and societal) changes.

A key aspect of our resilience is our global Climate Strategy, presented in detail within this Report. Our Climate Strategy focuses on assessing and mitigating our physical and transitional climate-related risks across our operations, assessing and reducing our carbon footprint, setting emissions reduction targets informed by science, and keeping our stakeholders informed of our performance of our Strategy through up to date external disclosure.

In 2021, we achieved significant milestones against this Climate Strategy. We formed a corporate Climate Risk Management Committee to update and execute the Strategy. Each of our operations appointed Climate Champions to communicate and lead the implementation of operations-related requirements of our Strategy. In July, we completed a significant investment in renewable energy production, when our Fekola solar plant reached full production capacity. The Fekola solar plant is one of the largest off-grid hybrid solar/heavy fuel oil plants in the world and in 2021 eliminated approximately 31,500 tonnes of CO_{2e} emissions from being released to the atmosphere. We completed a comprehensive Climate Risk Assessment of B2Gold's key physical and transition risks; the results of this work to date are summarized in this Report. In support of efforts of national jurisdictions to mandate disclosure of climate-related matters, in 2022, we provided a positive response to the Canadian Securities Administrators consultation on Proposed National Instrument 51-107.

We believe that our Climate Strategy will best position our Company and our stakeholders to continue to thrive as society transitions to a low-carbon economy, nonetheless, we recognize that the road to combatting climate change is long, uncertain, and involves many challenges. We are committed to this journey and will continue to build on our strong foundation while adapting our business and playing our part.



Bill Lytle

Senior Vice President, Operations & Chief Operating Officer

INTRODUCTION

About this Report

This Climate Strategy Report (Report) constitutes B2Gold Corp.'s (B2Gold or the Company) inaugural report on our progress to align with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). This Report outlines our climate risk management strategy, governance, risk management approach and prioritized risks, and performance data. A glossary of acronyms used throughout this Report is in [Appendix A](#).

As this is B2Gold's first report against the TCFD recommendations, we acknowledge that opportunities exist in meeting all recommendations. B2Gold continues to improve our climate management approach and disclosure (building upon our previous climate disclosure included in our annual Responsible Mining Report and Annual Information Form) and we anticipate inclusion of additional relevant data within our routine financial filings. A TCFD Content Index is available in Appendix B.

In this Climate Strategy Report, we follow the reporting scope of our annual Responsible Mining Report (RMR), focusing on our three operating mines (Fekola Mine in Mali, Otjikoto Mine in Namibia, and Masbate Gold Project in the Philippines). Data presented in this Report covers 2020 and 2021, unless otherwise stated.

About B2Gold

B2Gold is a low-cost international senior gold producer committed to responsible mining practices, headquartered in Vancouver, Canada. Founded in 2007, B2Gold has operating gold mines in Mali, Namibia, and the Philippines, and a portfolio of development and exploration projects in various countries including Colombia, Finland, and Uzbekistan.

As a responsible mining company, B2Gold is committed to developing resources in a way that is protective of people, respectful of human rights and cultural heritage, creates socio-economic development, and mitigates environmental and biodiversity impacts. Our management approach is to work within social, economic, and environmental contexts in a way that delivers positive and sustainable outcomes for our business and for all our stakeholders.

Our approach and commitment are reflected across the Company starting with our Board of Directors and its Health, Safety, Environment, Social and Security (HSESS) Committee Charter, alongside our policies on Social Responsibility and Human Rights, Occupational Health and Safety, and Environment and Biodiversity.

CLIMATE RISK MANAGEMENT STRATEGY

B2Gold recognizes that environmental and social responsibility are critical aspects of effectively operating our business. We are in the process of integrating climate risk considerations into our high-level strategic and day-to-day business decision-making, including business strategy and financial planning. We remain committed to maintaining the high governance and transparency standards we have established, and we recognize the importance of having an integrated approach to managing climate risks at our operations.

We are members of the World Gold Council and are currently in the process of implementing their Responsible Gold Mining Principles (RGMPs). RGMP *Principle 10.3: Combating Climate Change*, indicates support for ‘the objectives of global climate accords through avoidance, reduction or mitigation of carbon emissions’, along with working towards climate resilience in operations and nearby communities where relevant.

Our strategy for contributing to global climate change action contains the following objectives:

Identify and understand our climate risks (physical and transitional) and incorporate mitigation measures to make the Company more resilient as society transitions to a low-carbon society.

Establish and report progress against science informed emissions reductions targets, including maintaining an **updated GHG emissions inventory** (Scope 1, 2 and 3 emissions).

Evaluate and implement changes to our energy and fuel sources to **increase the proportion of renewable energy** used in our operations.

Continuously **improve our disclosure** on our climate risk management performance, to align with the TCFD recommendations. Since 2016, B2Gold has reported annually on climate risk management in our Responsible Mining Report. This Climate Strategy Report constitutes the Company’s inaugural report supporting our alignment with the recommendations of the TCFD.

Policies and Standards

In 2021, B2Gold updated our Environmental and Biodiversity Policy to acknowledge that human activities contribute to climate change and to detail our commitments to climate action. In 2022, we will update our Air Quality Management Performance Standard to include the management of greenhouse gas emissions.



Implementation Phases

B2Gold has developed a set of actions as part of our Climate Strategy to move the Company towards net zero operation. There are three phases of planned action:

Phase 1 – Evaluate and Implement (2021 – 2022)

- Develop the climate scenario process including assessment of the business/financial implications of identified potential material risks and resilience of strategy;
- Expand GHG emissions inventories, including Scope 2 and 3;
- Conduct studies and pilot initiatives for increased energy efficiency and renewable energy sources;
- Establish and publish GHG emissions reductions targets informed by science; and,
- Continue to support development of sector-level guidance on climate (and wider sustainability issues).

Phase 2 – Reduce and Scale (2023 - 2030)

- Continue to scale and implement energy efficiency measures;
- Evaluate pathways to decarbonize electricity production and mine fleet, focusing on renewable energy, alternative fuels, electric mining and other emerging technologies;
- Engage supply chain regarding climate risk management; and,
- Ensure climate risk performance is embedded in Executive compensation.

Phase 3 – Net Zero (2030 onwards)

- Move towards Net Zero operation.

We will continue to review and update our Climate Strategy and actions on a regular basis, to ensure we are capturing changing practices and requirements.



GOVERNANCE

Climate risk management is embedded at all levels of B2Gold, from the Board of Directors (Board) to our site general managers.

Board

The Board maintains oversight of climate-related and other sustainability issues in B2Gold through its HSESS Committee. Responsibility for climate-related issues is explicitly acknowledged within the HSESS Committee Charter, including oversight of climate strategy. The HSESS Committee meets quarterly with B2Gold's Chief Operating Officer (COO) and representatives of the Sustainability Department to review current and emerging sustainability issues, to evaluate performance and risk management, and to evaluate and update policies and procedures.

Corporate Management

At a corporate management level, climate issues and the associated climate strategy are overseen by our Senior Management Team. B2Gold's Director of Sustainability leads the Sustainability Department and is responsible for the day-to-day implementation of the Company's climate strategy and action plan and provides regular updates to the Senior Management Team.

In 2021, at the Board's request, B2Gold established a corporate Climate Risk Management Committee (Climate Committee), comprised of representatives from Operations and Sustainability departments with review and support from finance and risk management senior staff as required. The purpose of the Climate Committee is to identify climate-related risks, opportunities, and priorities across B2Gold and to ensure that opportunities to reduce GHG emissions are identified and achieved. The Climate Committee meets on an as-needed basis, but no less than quarterly. Climate risks and opportunities are identified through standard risk management processes and integrated into the enterprise risk management system. The Sustainability Department is responsible for communicating climate risks to the Senior Management Team and HSESS Committee, and for working with the site operational teams to implement climate risk management actions as identified by the Climate Committee.

Relevant climate risks are presented each quarter to the HSESS Committee. In addition, they are publicly disclosed in our annual Responsible Mining Report, available on B2Gold's website (www.b2gold.com), and climate-specific disclosure such as this inaugural Climate Strategy Report.

Site

At our operations, the General Manager has overall site accountability for ensuring that actions identified by the corporate Climate Committee are implemented. In 2021, B2Gold appointed Climate Champions at each operation. The role of the Climate Champions is to advocate for B2Gold's Climate Strategy and ensure that actions are tracked, actioned, and closed out.

Our climate risk management is presented below in Figure 1.

Figure 1. B2Gold Climate Risk Management



Remuneration

In 2021, our short-term incentive scorecard (which applies to all named executive officers including the CEO) was amended to include the addition of a standalone ESG category whose weighting is 20% of the overall scorecard. The scorecard includes safety, environmental, and social elements alongside an objective of meeting greenhouse gas reduction targets as they are implemented going forward.

RISK MANAGEMENT

A forward-looking assessment of climate-related risk and opportunity is a fundamental element of our Climate Strategy and the TCFD process. This embeds climate-related issues into our business, however, it also presents well-recognized challenges, such as dealing with timescales that are longer than usual business planning cycles and uncertainties in many areas, including emissions pathways and policy responses. Accordingly, scenario analysis is acknowledged as an important tool in the TCFD recommendations; both for assessing potential business implications of climate-related risk and opportunities and for communicating to our stakeholders how we are managing and responding to these risks and opportunities.

Scenario Analysis

B2Gold has adopted an iterative approach to climate-related scenario analysis, drawing on both external and internal expertise, to consider both transitional and physical climate risks. This allows for internationally accepted practice to be built on, enabling it to be fit-for-purpose for the B2Gold context. To date, two steps (Steps 1 and 2 below) have been completed:

Step 1

In the first Step, B2Gold engaged external experts in mid-2020 to support the production of climate-related site risk profiles. This work considered operating conditions, local infrastructure, key processes, material and energy inputs, timelines, and local climate data. The likelihood of ‘worst case’ climate-related risk events resulting from the RCP8.5 scenario¹ was then determined for each mine region (using Coordinated Regional Downscaling Experiment (CORDEX) data). Workshops were then held in November and December 2020, engaging key staff (with knowledge of the operations and surrounding communities) to explore the identified physical risks. In addition to physical risks, transition risks associated with shifting economic activities to those more aligned with a low-carbon economy were also considered in site-level discussions.

Step 2

The second Step then developed B2Gold-specific climate scenarios by taking the outputs (i.e., the site risk profiles) from Step 1 and evaluating them using the well-regarded Network for Greening the Financial System (NGFS) including NGFS Scenario Explorer². The scenarios were developed in November 2021 through an interactive workshop involving senior leaders from Operations, Sustainability, Finance, and Risk Management departments, and encompass a range of potential risks and opportunities that may be material, financially or otherwise, for B2Gold.

The scenario risk workshop utilized the NGFS scenario outputs, including both physical- and transition-related variables (such as projected carbon price) for B2Gold’s operational jurisdictions, and explored both 2030 and 2050 timescales³. The workshop and accompanying analysis drew on the Step 1 RCP8.5 outputs as a reference point for worst case physical impacts, as well as the timeseries projections from the NGFS to 2030 and 2050

¹ (IPCC. 2014. Fifth Assessment Report or AR5.) The IPCC report and related climate projections reference the two ‘bookend’ Representative Concentration Pathways (RCPs) RCP2.6 and RCP8.5, which present the range of potential future climates out to 2100, as currently understood.

² The NGFS Scenario Explorer is hosted by the International Institute for Applied Systems Analysis (IIASA). This was used in conjunction with the related Climate Impact Explorer.

³ Timescale reference used in this report: near term = present to 2025, medium term = to 2030, and long term = to 2050.

for trend analysis. The NGFS outputs were therefore seen as plausible near-term to medium-term baseline scenarios against which to view B2Gold operations.

The NGFS scenarios are divided into broad categories as described in Figure 2. These scenarios help organisations identify a range of plausible futures that include varying (both in time and scale) policy responses and social and climate impacts, against which to test the resilience of the business. The NGFS scenarios can then be supported by more detailed company-specific scenarios, providing a common reference point for showing how physical risks (climate impacts) and transition risks (climate policy and technology trends) could develop from the present day out to 2050 and beyond.

Figure 2. NGFS Scenario Categories

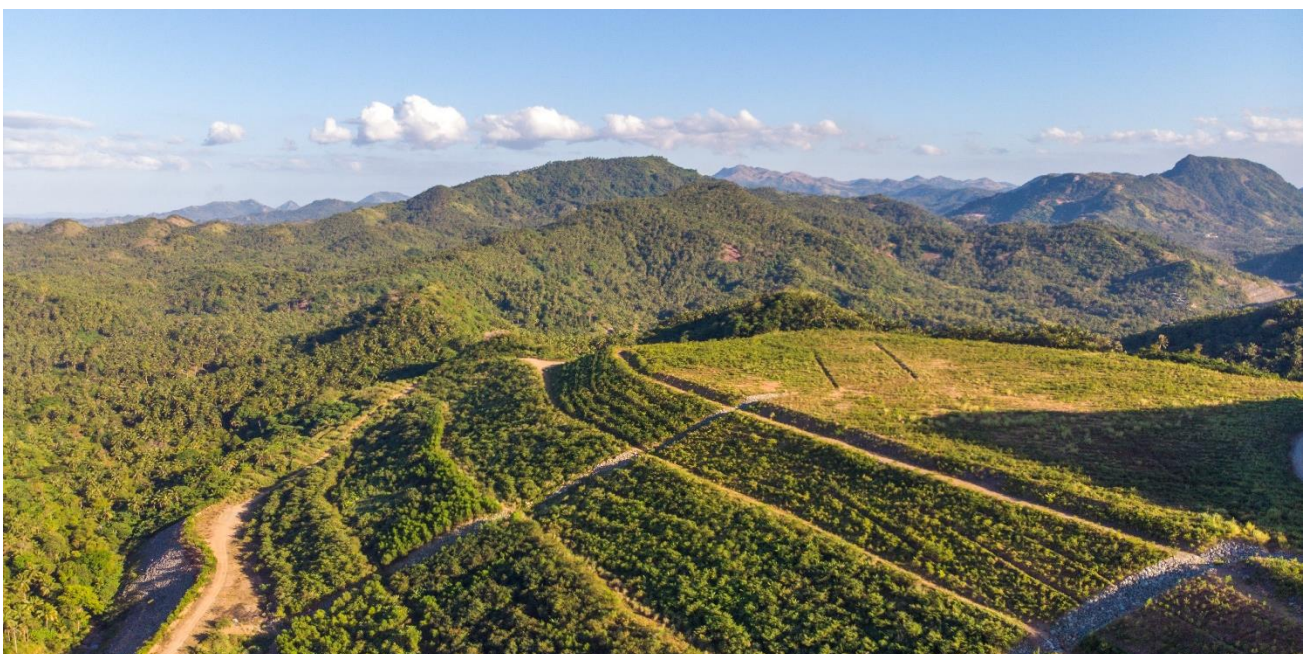
Orderly scenarios assume climate policies are introduced early and become gradually more stringent. Both physical and transition risks are relatively subdued.

Disorderly scenarios explore higher transition risk due to policies being delayed or divergent across countries and sectors. For example, carbon prices would have to increase abruptly after a period of delay.

Hothouse scenarios assume that some climate policies are implemented in some jurisdictions, but globally efforts are insufficient to halt significant global warming. The scenarios result in severe physical risk including irreversible impacts like sea-level rise.

Step 3

The third Step, to be completed in 2022, of our climate scenario analysis is to take the outputs from the directional scenario risk workshop and to more fully develop the potential financial and other relevant implications for B2Gold.



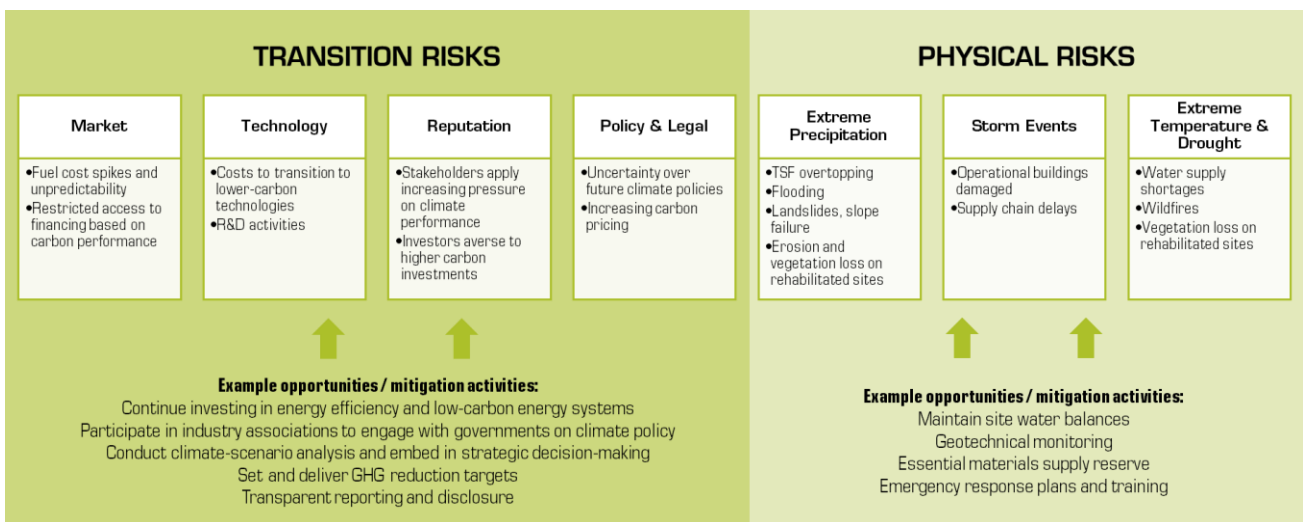
Preliminary Potential Future Financial Impacts

The potentially material future financial impacts identified in the first two Steps of the scenario analysis can be summarized into **Transition Risks** (those risks associated with transitioning to a low-carbon world, including risks related to the Market, Technology, our Reputation, and Policy and Legal) and **Physical Risks** (associated with the physical impacts of climate change).

- **Transition risks** tend to materialize earlier than physical risks, including the timing of policy actions that underpin them. Orderly scenarios allow for better strategic planning, whereas Disorderly scenarios are less predictable, introducing more uncertainty.
- **Physical risks** can be either acute or chronic. Physical risks also can vary significantly from one site or region to another. Extreme weather events such as storms would be typical acute risks with gradually increasing water stress an example of a chronic risk. Climate-related risks also present opportunities for organisations that are better able to respond strategically to the challenges they face.

An overview of transition and physical risks for B2Gold, as well as some example opportunities and mitigation activities are presented in Figure 4. Further details are provided below.

Figure 3. Transition and Physical Risks and Example Opportunities / Mitigation Activities



Market and Technology

Building on ESG trends that are already being observed, investors could favour low-carbon gold producers in the near to medium term. This would add greater emphasis on current efforts around operational energy efficiency and the introduction of low-carbon technology. These trends will likely be seen across all scenarios but more strongly in Orderly and Disorderly Scenarios (i.e., where transition risk dominates). On-site electricity generation and grid connections linked to ore processing were regarded as significant issues, as well as mine haulage arrangements and potential diesel alternatives. These trends would have implications, both positive and negative, for agile portfolio management. For example, through differing future forecasts of operating and capital expenses, which will vary in response to the specific climate-related characteristics of different operations and proposed projects. It was not anticipated that carbon capture technologies would play a significant role in the sector in the near to medium term.

Gold has acted as a financial ‘safe haven’ throughout history and may well do the same going forward, with the implication that in times of uncertainty, for example Disorderly transition scenarios, its price will remain

stable or rise. Nevertheless, the future price of gold is unpredictable at best and the possibility of future alternative low-carbon 'safe haven' investments (e.g., developments in cryptocurrencies) was considered.

Reputation

The pattern of growing interest in ESG issues was expected to continue across all scenarios, resulting in increasing sector scrutiny. Investors and other stakeholders are anticipated to have greater expectations around ESG disclosure, sector benchmarking, and alignment with the Paris Agreement, particularly in the Orderly transition scenarios where targets and associated policy elements are enacted early on.

B2Gold operates in a wide range of jurisdictions, typically where there are significant local ESG concerns linked to our social licence to operate. While recognizing existing management procedures are already in place to address such concerns, the increasing focus on the corporate response to climate-related concerns will add to the challenge for the business from the near term going forward.

Policy and Legal

Increasing expectations around legally mandated climate-related corporate disclosure were anticipated across all scenarios, more strongly in the transition risk dominated futures from 2025 onwards. Water scarcity and stress is also expected to be subject to greater legal and policy developments, reflecting competing demands from both domestic and commercial users and associated interventions from regulatory authorities (which could see reduced availability and/or increased prices).

Future carbon prices were seen as a key variable that could have direct financial impacts on the business in terms of capital and operational expenditure, but also extending along the supply chain affecting costs of fuel and other production consumables, spares and raw materials. The NGFS modelling showed country-specific projected carbon prices increasing for all scenarios except Hothouse, with prices increasing steadily from current levels in the Orderly scenarios and from 2030 onwards in delayed transition futures. While the projected carbon prices at current operational locations are lower than those anticipated, for example in North America, they will serve to inform future strategic planning.

Physical Risks

In the NGFS modelling, all scenarios showed a similar gradual increase in temperature and other measures away from the historical average up to 2030, after which they diverged with Hothouse scenarios showing greater temperature rises and changes in precipitation patterns. In essence, the physical risks to 2030 seem to be 'locked in' regardless of policy response. The earlier 2050 and 2100 RCP8.5 site projections complement the NGFS work, showing potential operational acute impacts associated with water management (e.g., site flooding or overtopping of Tailings Storage Facilities (TSF)). Major storm events such as typhoons could also result in both site, community, and supply chain disruption. High temperatures could see chronic impacts on vegetation cover in rehabilitated waste rock storage or tailings storage facilities. Prolonged local water stress and drought could also restrict access to process water for operations. It is accordingly envisaged existing risk issues may become more serious, and necessitate greater resources applied to site-specific adaptation and business interruption measures.

DATA AND METRICS - OUR PERFORMANCE

GHG Emissions

The key sources of direct GHG emissions at our operations are from the generation of electricity at operational sites to run our processing plants (crushing, grinding, leaching, electrowinning, and smelting) and the use of fuel to run mobile equipment.

We complete GHG emissions inventories for our Otjikoto, Masbate, and Fekola operations. In addition to calculating Scope 1 GHG emissions, we recently expanded our emissions inventories to include Scope 2 and 3 GHGs. Emissions were calculated internally using the GHG Protocol Corporate Accounting and Reporting Standard with the results being subject to scrutiny by a qualified external consultant:

- **Scope 1 (direct):** *Direct emissions from owned or controlled sources.* Our principal source of Scope 1 emissions is fuel consumption for site power generation and equipment/vehicle fleets.
- **Scope 2 (indirect):** *Indirect emissions from the generation of purchased electricity.* None of our mines purchased electricity from an outside source in 2020 and 2021 and therefore did not generate Scope 2 emissions. Scope 2 emissions included in our inventories are from regional offices in Windhoek, Manila, and Bamako. Our Otjikoto Mine in Namibia will connect to the national grid and generate Scope 2 emissions beginning in 2022.
- **Scope 3 (other indirect):** *Indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.* Sources of Scope 3 emissions included in our inventories are from the following upstream categories⁴:
 - Category 1: Purchased goods and services
 - Category 2: Capital goods
 - Category 3: Fuel- and energy-related activities
 - Category 4: Upstream transportation and distribution
 - Category 5: Waste managed by third-parties
 - Category 6: Business travel
 - Category 7: Employee commuting to/from sites
 - Category 8: Upstream leased vehicles and facilities

In 2021, our main sources of Scope 1 GHG emissions were power generation (54% of emissions) and mine fleets (equipment and vehicles, 43% of emissions). Our average consolidated Scope 1 and 2 GHG emissions intensity, estimated for Masbate, Fekola, and Otjikoto operations was 0.66 tonnes of carbon dioxide equivalent (CO₂e) per gold ounce produced. Our main sources of Scope 3 GHG emissions in 2021 were purchased goods and services, capital goods and fuel- and energy- related activities.

Tables 1 to 6 summarize our overall and site-specific GHG emissions and intensity measures.

⁴ Research conducted by the World Gold Council indicates that Scope 3 downstream emissions associated with the end-use of gold make up less than 1% of overall GHG emissions. *Source: WGC. 2019. Gold and Climate Change: Current and Future Impacts.*

Table 1. Consolidated Scope 1 and 2 GHG Emissions

GHG Emissions	Units	2019	2020	2021
Scope 1	thousand tonnes CO ₂ e	558	637	722
Scope 2	thousand tonnes CO ₂ e	nr	0.07	0.11
Scope 1+2 Emissions Intensity	tonnes CO₂e / gold ounce produced	0.66	0.64	0.73

NOTES

Consolidated emissions inventory and intensity includes Masbate, Otjikoto, and Fekola operations.

nr = not reported

Table 2. 2020 Scope 1 and 2 GHG Emissions by Site

GHG Emissions	Units	Otjikoto	Fekola	Masbate	Total
Total Scope 1+2	thousand tonnes CO₂e	133	280	223	637
Scope 1	thousand tonnes CO ₂ e	133	280	223 ⁽¹⁾	637
Scope 2	thousand tonnes CO ₂ e	0.04	0.04	0.0	0.07
Scope 1+2 GHG Emissions Intensity	tonnes CO₂e/gold ounce produced	0.79	0.45	1.09	0.64

NOTES

(1) Masbate scope 1 emissions include only fuel consumption related emissions. Additional Scope 1 emissions are estimated to be less than approximately 5% of the operation's total Scope 1 emissions.

Table 3. 2021 Scope 1 and 2 GHG Emissions by Site

GHG Emissions	Units	Otjikoto	Fekola	Masbate	Total
Total Scope 1+2	thousand tonnes CO₂e	130	342	250	722
Scope 1	thousand tonnes CO ₂ e	130	342	250 ⁽¹⁾	722
Scope 2	thousand tonnes CO ₂ e	0.05	0.04	0.01	0.11
Scope 1+2 GHG Emissions Intensity	tonnes CO₂e/gold ounce produced	0.66	0.60	1.12	0.73

NOTES

(1) Masbate scope 1 emissions include only fuel consumption related emissions. Additional Scope 1 emissions are estimated to be less than approximately 5% of the operation's total Scope 1 emissions.

Table 4. Otjikoto GHG Emissions

GHG Emissions	Units	2017	2018	2019	2020
Total Scope 1+2 Emissions	thousand tonnes CO₂e	119	120	133	133
<i>Scope 1 Emissions</i>	thousand tonnes CO ₂ e	119	120	133	133
<i>Scope 2 Emissions</i>	thousand tonnes CO ₂ e	nr	nr	nr	0.04

NOTES

nr = not reported

Table 5. 2020 Scope 3 Emissions by Category (thousand tonnes CO₂e)

GHG Emissions	Otjikoto	Fekola	Masbate	Total
Total Scope 3 Emissions	77	384	181	643
Category 1: Purchased goods and services	35	90	89	213
Category 2: Capital goods	5	173	33	210
Category 3: Fuel- and energy-related activities	33	70	56	159
Category 4: Upstream transportation and distribution	2	30	2	34
Category 5: Waste managed by third parties	0	1	0	1
Category 6: Business travel	1	3	1	4
Category 7: Employee commuting to/from sites	-	-	1	1
Category 8: Upstream leased vehicles and facilities	2	18	0	20

Table 6. 2021 Scope 3 Emissions by Category (thousand tonnes CO₂e)

GHG Emissions	Otjikoto	Fekola	Masbate	Total
Total Scope 3 Emissions	89	437	128	653
Category 1: Purchased goods and services	42	117	47	207
Category 2: Capital goods	11	184	14	209
Category 3: Fuel- and energy-related activities	32	85	62	180
Category 4: Upstream transportation and distribution	1	20	1	23
Category 5: Waste managed by third parties	0	1	0	1
Category 6: Business travel	0	3	1	4
Category 7: Employee commuting to/from sites	-	-	1	1
Category 8: Upstream leased vehicles and facilities	1	25	0	27

Energy Use

Our total energy consumption during 2021 was 9 million gigajoules (GJ). Our total electricity consumption increased from 2020 by 7% to 633 gigawatt hours (GWh) of electricity – all of which was site generated. We experienced a similar increase in our electricity intensity from 0.59 megawatt hours (MWh) per gold ounce produced in 2020 to 0.64 MWh per gold ounce produced in 2021.

B2Gold is proud to be an industry leader in the implementation of renewable energy solutions to actively manage our emissions. Our Otjikoto operation maintains a fully autonomous hybrid power plant (commissioned in 2018; consisting of 6 MW solar and 24 MW heavy fuel oil (HFO) components), which in 2021 generated 12.4 GWh of electricity from solar power, reduced HFO consumption by 2.8 million litres and eliminated over 8,600 tonnes of CO₂e emissions. The hybrid power plant has eliminated a total of approximately 34,000 tonnes of CO₂e emissions through the end of 2021. Following the success of the Otjikoto hybrid power plant, we commenced the construction of a similar hybrid power plant (consisting of 30 MW solar and 64 MW HFO and diesel components) at our Fekola operation in 2020, which reached full capacity in Q3 of 2021. The Fekola hybrid power plant is one of the largest off-grid facilities of its type in the world, and in 2021 it generated 47.2 GWh of electricity, reduced operations HFO fuel consumption by 10 million litres, and eliminated approximately 31,500 tonnes of CO₂e emissions (the solar plant came online at 75% capacity in March 2021 and at full capacity in July 2021).

With these investments in renewable energy technologies at our operations, our electricity from renewable sources has increased substantially in the last several years, from 2.2% of our total electricity consumption in 2020 to 9.4% in 2021. The amount of renewable energy we generate will increase further in 2022 following the first full year of operation of the Fekola hybrid power plant.

Tables 7, 8, and 9 summarize our energy and electricity data.

Table 7. Total Energy Consumption: Direct and Indirect (million gigajoules [GJ])

Energy Consumption	2019	2020	2021
Direct Energy	8.3	8.0	9.0
Indirect Energy	0.31	0.0	0.0
Total	8.6	8.0	9.0

Table 8. Energy Consumption by Source: Direct and Indirect (million gigajoules [GJ])

Energy Consumption	2019	2020	2021
Direct Energy Consumption by Source			
Non-Renewable	8.2	8.0	8.7
<i>Diesel fuel</i>	3.6	3.2	4.1
<i>Gasoline</i>	0	0	0
<i>HFO</i>	4.7	4.8	4.6
Renewable	0.05	0.05	0.21
Total Direct Energy Consumed	8.3	8.0	9.0
Indirect Energy Consumption by Source			
<i>Grid electricity from renewable sources</i>	0	0	0
<i>Grid electricity from non-renewable sources</i>	0.31	0	0
Total Grid Electricity (indirect energy generation)	0.31	0	0
Total Combined Direct and Indirect	8.6	8.0	9.0

Table 9. Electricity Consumption by Source

Type of Consumption	Units	2017	2018	2019	2020	2021
Total Electricity Consumption (= direct + indirect)	GWh	427	612	671	591	633
Direct Electricity Consumption (site-generated)	GWh	319	505	586	591	633
<i>Non-renewable</i>	GWh	319	494	573	578	573
<i>from HFO power</i>		319 ⁽¹⁾	494 ⁽¹⁾	543	547	532
<i>from diesel power</i>		nr	nr	30	31	41
<i>Renewable</i>	GWh	0	11	13	13	60
<i>from solar power</i>		0	11	13	13	60
Indirect Electricity Consumption (grid-generated)	GWh	108	107	86	0	0
<i>Non-renewable</i>	GWh	108	107	86	0	0
<i>Renewable</i>	GWh	0	0	0	0	0
Total Electricity Sourced from Renewables	%	0%	1.7%	2.0%	2.2%	9.4%
Total Electricity Intensity	MWh/thousand tonnes rock mined	4.42	4.52	4.88	4.55	4.45
	MWh/ounce produced	0.43	0.61	0.67	0.59	0.64

NOTES

(1) Data reported for 2017 and 2018 for HFO-sourced electricity generation also includes diesel-sourced back-up electricity generation.
nr = not reported

APPENDIX A: ACRONYMS

Acronym	Definition
AR5	Fifth Assessment Report
CO ₂ e	Carbon dioxide equivalent
ESG	Environmental, social, and governance
GHG	Greenhouse gas
GWh	Gigawatt hours
HFO	Heavy fuel oil
HSESS	Health, Safety, Environment, Social and Security
IPCC	Intergovernmental Panel on Climate Change
MW	Megawatt
NGFS	Network for Greening the Financial System
RGMP	Responsible Gold Mining Principles
RMR	Responsible Mining Report
RCP	Representative Concentration Pathways (from ICPP AR5)
TCFD	Task Force on Climate-related Financial Disclosures
WGC	World Gold Council

APPENDIX B: TCFD CONTENT INDEX

Disclosure	Location
GOVERNANCE	
a) Describe the board's oversight of climate-related risks and opportunities	Governance, Board , p.10
b) Describe management's role in assessing and managing climate-related risks and opportunities	Governance, Corporate Management , p.10
STRATEGY	
a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	Risk Management, Preliminary Potential Future Financial Impacts , pp.14-15
b) Describe the impact of climate related risks and opportunities on the organization's businesses, strategy, and financial planning	Climate Risk Management Strategy , pp.8-9 Risk Management, Preliminary Potential Future Financial Impacts , pp.14-15
c) Describe the resilience of the organization's strategy , taking into consideration different climate-related scenarios, including a 2°C or lower scenario	Climate Risk Management Strategy , pp.8-9 Risk Management, Scenario Analysis , pp.12-13
RISK MANAGEMENT	
a) Describe the organization's processes for identifying and assessing climate-related risks	Risk Management, Scenario Analysis , pp.12-13
b) Describe the organization's processes for managing climate-related risks	Climate Risk Management Strategy , pp.8-9
c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	Climate Risk Management Strategy , pp.8-9
METRICS AND TARGETS	
a) Disclose the metrics used to assess climate related risks and opportunities in line with its strategy and risk management process	Data and Metrics , pp.16-20
b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	Data and Metrics, GHG Emissions , pp.16-17
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	Climate Risk Management Strategy , pp.8-9