



Opportunities to reduce risk by mainstreaming climate change in mining

Author: Philippa Burmeister, SRK South Africa
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Introduction

Climate change remains a critical risk to a wide variety of sectors. To address the concerns many international protocols and agreements have been established to manage climate change and set internationally binding emission reduction targets. The policies and targets are continually being reviewed in line with the latest technical input, but the intent remains to reduce greenhouse gas (GHG) emissions and mitigate the impacts of climate change through adaptation.

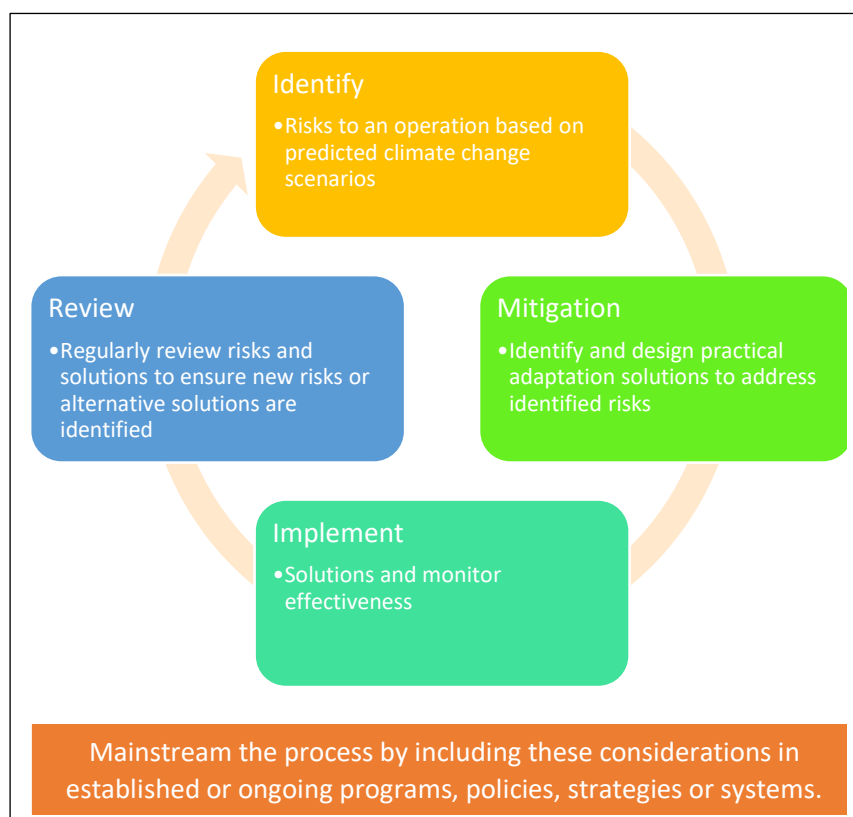


Figure 1: Climate Change Mitigation Process

Financial Considerations

The International Finance Corporation (IFC) as a member of the World Bank Group are taking bold steps to address climate change concerns by guiding their investments to address climate change and ensure environmental and social sustainability of projects. In 2018, the World Bank committed to reducing Scope 1 (generated by the operations) and Scope 2 (emissions from purchased energy) carbon emissions by 20% for investments which are under the IFC's operational control and 28% for the entire World Bank Group by 2026. This commitment will be achieved through the quantification and management of GHG emissions from their business operations and purchasing carbon offsets.

SRK Innovation

SRK has recognised the need to develop tools to benchmark and monitor climate change impact. Carbon foot printing, impact assessment and mitigation require extensive data collection and validation to ensure that GHG emissions are correctly calculated and reported.

SRK makes use of data collection platforms such as Survey123 to facilitate the capture of data. Excel workbooks have been developed to automate and streamline the calculation and validation process and Power BI has been used to present results. Automating stages within the carbon foot printing process, such as calculation and reporting by means of Excel and Power BI, allows data to be efficiently analysed to draw conclusions and insights.

The use of the tools must be customised to the specific project requirements. These innovations, however, greatly assist decision making by quantifying the impacts of alternatives.

Risk and Vulnerability

While it is important to understand and manage GHG emissions and therefore contribution to climate change impacts, it is equally important to recognize the impact climate change will have on continued operation. Climate change will lead to less predictable and more variable temperatures and rainfall and more frequent and severe extreme weather. Climate change risks need to be identified and adaptation strategies developed to ensure the sustainability of operations and that they do not pose an unacceptable risk to host communities.

Mainstreaming Climate Change into All Aspects of Mining

The development of adaptation strategies, however, cannot be done in isolation. Rather, the identification of risks and the development of adaptation strategies needs to form part of all project phases from design to day to day operations. This ensures that adaptation strategies are identified by those who have the practical experience to develop feasible solutions and will be responsible for the implementation.

About the Author:

Philippa Burmeister

Principal Scientist (Air Quality and Climate Change)

Philippa has been involved in integrated environmental management for the past 19 years. Philippa partners with business to identify and execute innovative environmental governance solutions to strategic resource challenges. More recently she has specialised in Air Quality and Climate Change management focusing on how specifically air quality and climate change considerations can be integrated into business operations to make them more efficient, lower impacts and ensure the business is resilient to climatic changes.