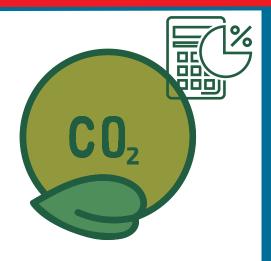
# WHAT IS A CARBON CALCULATOR

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### What is a Carbon Calculator?

It is a tool that is used to estimate the amount of CO<sub>2</sub> emissions and other noxious gases that are released into the atmosphere as a result of a particular activity or an organisation's operations.

The calculator uses data and algorithms to quantify the environmental impact of factors such as Energy Usage, Consumption Habits, Travel and Infrastructure.

#### **Carbon Calculation Considerations**

A carbon calculator takes into consideration a range of factors that contribute to greenhouse gas emissions. These factors can vary depending on whether the calculator is designed for individuals, businesses, or specific activities.



Mining Activity Considerations:

- 1. Energy Consumption
- 2. Transportation
- 3. Fuel Consumption
- 4. Infrastructure
- 5. Waste Generation and Disposal
- 6. Fugitive Gas Emission
- 7. Water Usage
- 8. Offsets and Mitigation Efforts
- 9. Location and Regional Factors
- 10. Travel and Commuting



Reasons to use a Carbon Calculator:

- 1. Environmental Awareness and Responsibility
- 2. Setting Reduction Goals
- 3. Tracking Progress
- 4. Informed Decision-making
- 5. Risk Management
- 6. Accurate Emissions Calculation for compliance and reporting purposes

#### **Direct and Indirect Emissions**

Direct and indirect emissions are two categories used in a carbon calculator to differentiate between emissions that occur as a direct result of an activity and those that are associated with the broader supply chain or supporting infrastructure of that activity.

## **Direct Emissions (Scope 1):**

These are emissions that occur from sources that are owned or directly controlled by the entity being assessed.

Indirect Emissions (Scope 2):
These are emissions associated
with the generation of the
electricity, heat, or steam that a
company or individual procures
and consumes.

## **Indirect Emissions (Scope 3):**

These are a broader category of indirect emissions that occur along the entire supply chain or lifecycle of products or services used by a company or individual.



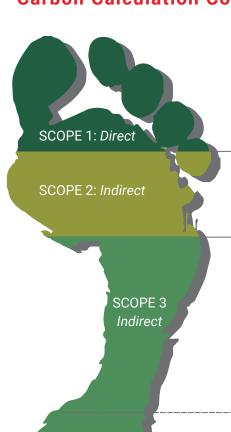
## CONSIDERATIONS

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A carbon footprint refers to the total amount of greenhouse gases, carbon dioxide  $(CO_2)$ , and other noxious gases that are emitted directly or indirectly by an individual, organisation, event, product, or activity over its life cycle, expressed tonne  $CO_2$  equivalent.

### Carbon Calculation Considerations based on Direct and Indirect emissions



SCOPE 3

Indirect

Reporting Company



Company facilities

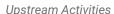


Company vehicles

**Upstream Activities** 



Related to purchased electricity, steam, heating and cooling





Purchased goods & services



Capital goods



Fuel and energy related



Transport and distribute



Generated waste (Operations)



Business travel



Employee commute



Leased assets

Downstream Activities



Transport and distribute



Processing products



Product usage



End-of-life treatment



Leased assets



Francises



Investment



## VBKOM'S CARBON CALCULATOR

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VBKOM developed a carbon calculator tailored to estimate emissions from mining activities for any mining commodity. VBKOM's calculator is built to account for Scope 1, Scope 2, Category 9 under Scope 3, and can accommodate any other relevant categories.

SCOPE 1 SCOPE 2 SCOPE 3 Direct Indirect Indirect

**Direct** emissions from sources controlled or owned by an organisation

Primarily associated with combustion of fossil fuels,

- Mobile combustion (transportations & equipment)
- · Non-combustible emissions (Fugitive emissions)

Indirect emissions that physically occur at a facility but accounted for by another

Accounts for emissions from power generation

Primarily associated with purchased energy use, namely:

- Electricity
- Steam
- Heating or cooling

Indirect emissions that occur in the upstream or downstream activities of an organisation

Primarily associated 9x categories:

- 1. Purchased goods & services
- 2. Capital Goods
- 3. Fuel & Energy activities
- 4. Upstream transportation
- 5. Waste generation
- 6. Business travel
- 7. Employee commuting
- 8. Upstream leased assets
- 9. Downstream transportation
- 10. Processing sold products
- 11. Use of sold products
- 12. End-of-life treatment
- 13. Downstream leased assets
- 14. Franchises
- 15. Investments

# Unearth the opportunities by partnering with VBKOM.

Sources:

https://www.globenewswire.com/ https://www.iea.org/

https://ghgprotocol.org/

