

DEMISTIFYING CARBON

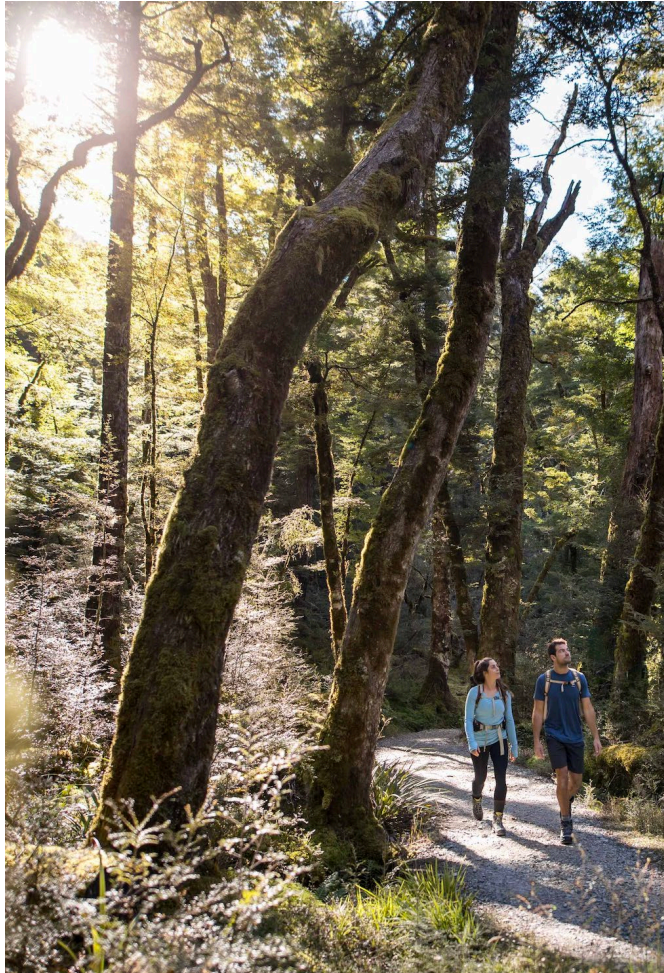
 Wānaka


Queenstown
NEW ZEALAND

AGENDA

1. What Is Carbon?
2. Why Carbon Matters: Climate Change
3. Carbon Footprint In Tourism - District Picture
4. Measuring Your Carbon Footprint
5. Carbon Counting Organisations
6. Cogo Carbon Measurement Tool
7. Strategies To Reduce Carbon Emissions In Tourism
8. Q&A

CARBON TERMINOLOGY



Carbon footprint: total amount of greenhouse gases emitted directly or indirectly by an individual, organisation, event, or product.

Spend-based carbon emissions: an estimate of greenhouse gas emissions based on how much money an organisation spends on goods and services. It's one of the two main methods of carbon accounting, along with activity-based.

Activity-based carbon emissions: a method of calculating an organization's carbon footprint by tracking and measuring specific activities, such as electricity use or vehicle miles driven..

Carbon reduction: refers to actions taken to directly reduce/lower the amount of greenhouse gases produced by individual activities or organisational operations. This could involve altering manufacturing processes, improving energy efficiency, switching to renewable energy sources, or modifying business practices to emit fewer greenhouse gases.

Decarbonisation: eliminate the use of fossil fuels and rapidly cut greenhouse gas emissions.

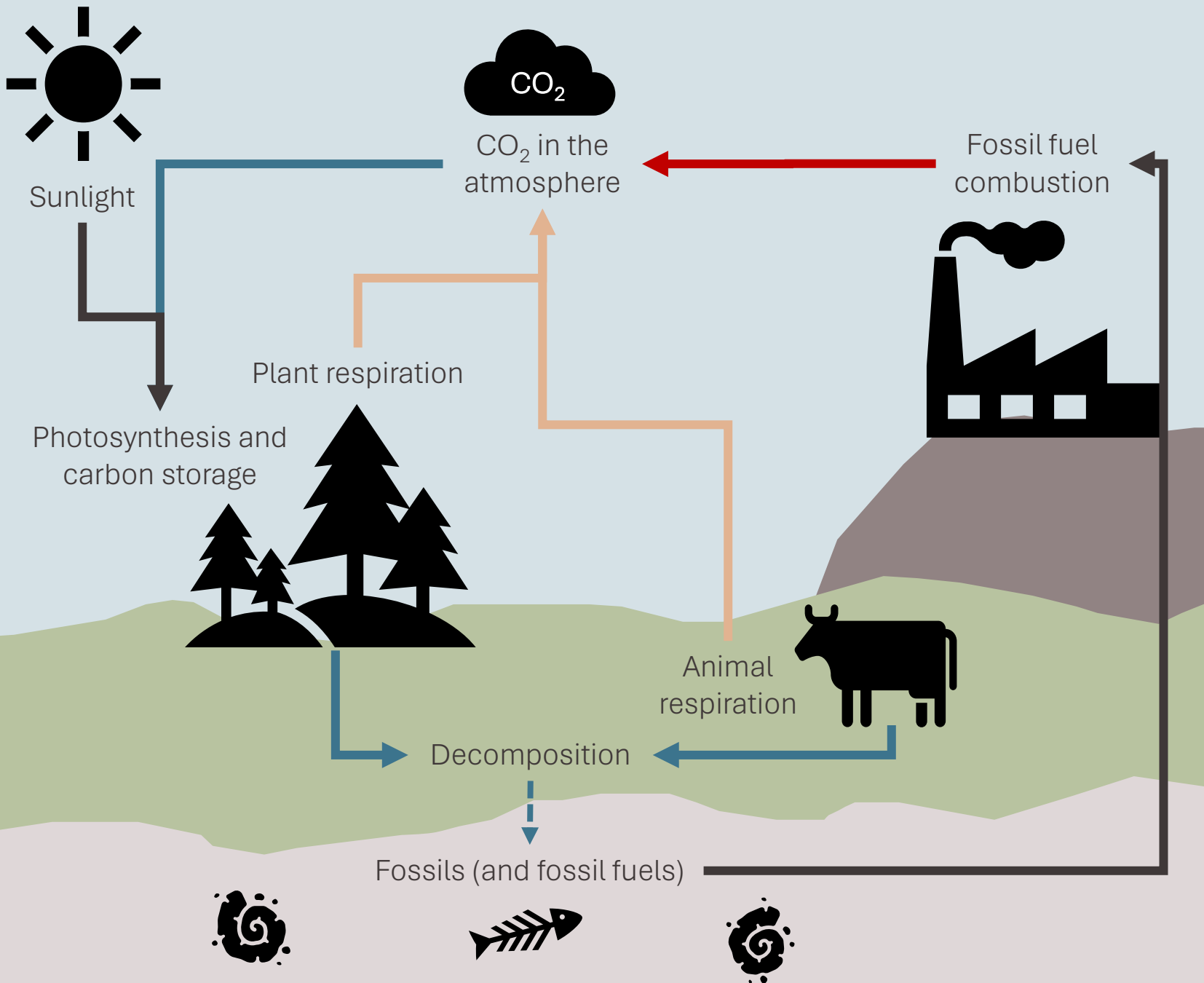
Carbon neutrality: achieving a balance between the amount of carbon emitted and the amount removed from the atmosphere.

Carbon offsetting: compensating for carbon emissions by investing in projects that reduce or capture an equivalent amount of carbon elsewhere.

Carbon capture/ sequestration: the process of capturing and storing carbon dioxide from the atmosphere in natural ecosystems or geological formations.

tCO₂e : stands for tonnes of carbon dioxide equivalent. It's a standard unit used to measure greenhouse gas emissions.

Emissions profile: is a comprehensive overview of all greenhouse gas emissions associated with a specific area, company, or sector, outlining the sources of emissions and their magnitudes



WHAT IS CARBON?

Carbon is a fundamental chemical element found in all living organisms and many inorganic materials. It is essential for life.

- How is Carbon Stored in the Earth?
- How do Fossil fuels impact the Carbon Cycle?

REGULATORY ENVIRONMENT

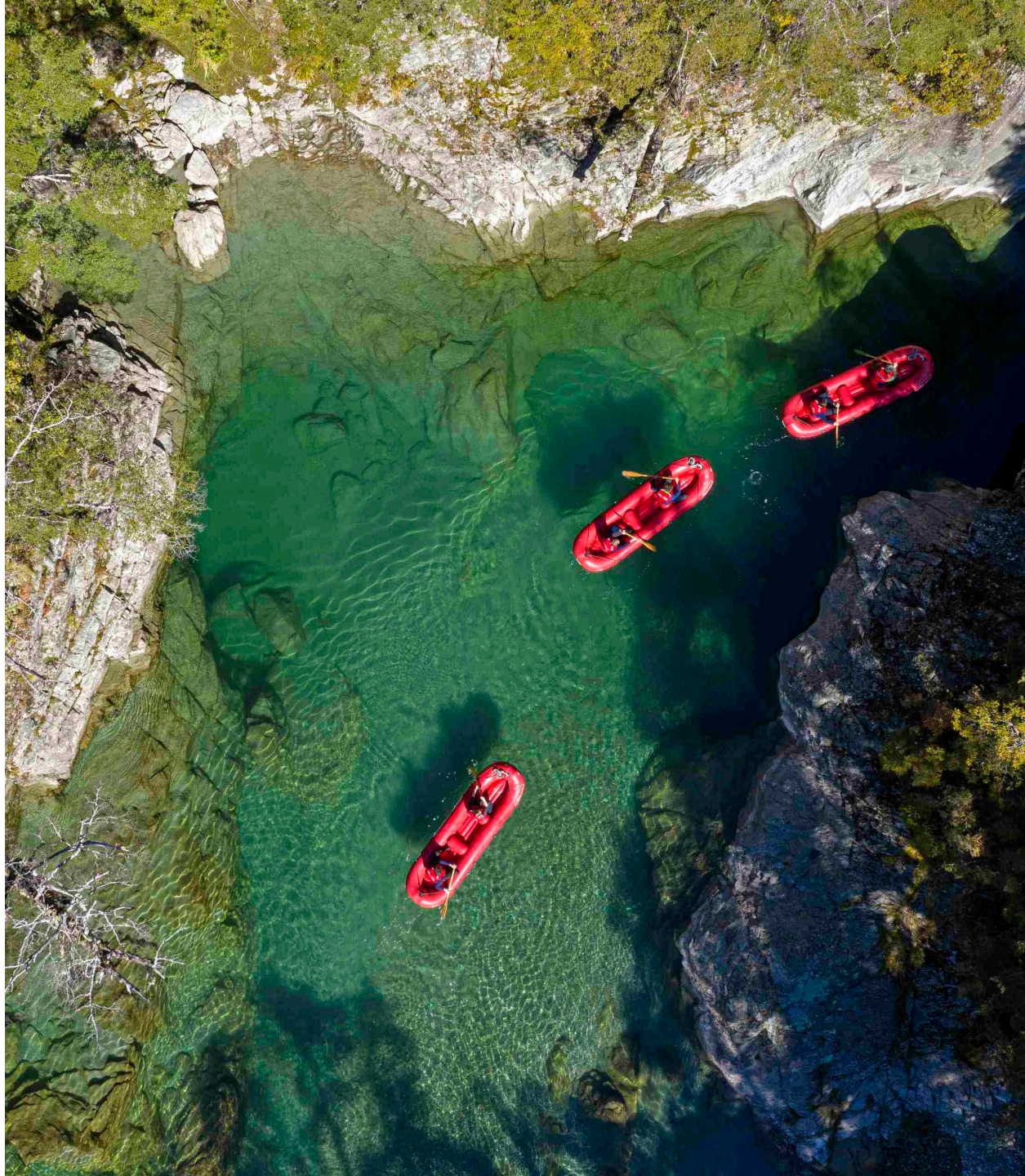
A photograph of an outdoor market stall. In the foreground, a man in a green shirt and a woman in a black top and light-colored pants are talking. Behind them, several other people are browsing at a stall under a white canopy. The stall has a sign that says 'LAKES DISTRICT MUSEUM' and 'COPPER Art Locally Handmade'. The background features large, leafy trees and a white building with a balcony.

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

- Compliance with the NZ government's requirement for climate-related disclosures.
- Large corporates who must currently report on CRD's have to include their supplier's emissions by 2025.
- Transparent reporting on greenhouse gas emissions, energy use, and climate risks enhances trust and credibility among stakeholders, insurers, visitors etc.
- Regulation has already hit the building sector - all new builds have to report on greenhouse gas emissions.
- Staying ahead of the regulatory curve, through voluntary carbon counting or climate-related disclosures, can provide businesses with a competitive advantage as environmental laws become more stringent.
- Carbon credits/taxes are likely in the future.

OPERATIONAL EFFICIENCY AND COST REDUCTION

- Implementing energy-efficient technologies, electrification, and waste reduction practices can lower operational costs.
- Sustainable practices often lead to more efficient use of resources, which can reduce overhead costs over time.
- Environmental data can assist in decision-making processes, such as investment in new technologies or shifts in operational strategies to improve environmental performance.
- Increasingly, investors and insurers are looking at environmental performance as a criterion for their decisions.
- Enhanced environmental reporting can also boost a company's rating in environmental, social, and governance (ESG) criteria, which are becoming crucial for attracting global investors and partnerships.



CARBON FOOTPRINT IN TOURISM

TRANSPORT



Transportation is a major source of carbon emissions in the tourism industry, primarily due to the reliance on fossil fuels. Aviation, for example, is one of the most carbon-intensive modes of travel, significantly contributing to the industry's greenhouse gas emissions. Similarly, cars, buses, and boats that use petrol or diesel combust these fuels, releasing carbon dioxide directly into the atmosphere.

WASTE



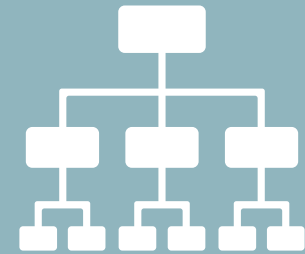
Waste generation in tourism—contributes indirectly to carbon emissions through the decomposition of organic materials, which produces methane, a potent greenhouse gas. Moreover, the processes involved in waste management, like transportation and landfill operations, also emit carbon dioxide, further increasing the carbon footprint of tourism-related waste.

ENERGY



Energy consumption is central to the operations of tourism businesses, where it is used for heating, cooling, lighting, and more. When this energy is sourced from fossil fuels, significant amounts of carbon dioxide are released into the atmosphere. As tourism often demands high levels of energy use, it becomes a significant contributor to the sector's carbon emissions.

SUPPLY CHAIN



The supply chain in tourism encompasses all the goods and services that go into delivering tourist experiences. Each step of the supply chain involves the emission of greenhouse gases, particularly if the materials are sourced from distant locations requiring long-distance transport. Additionally, manufacturing processes and the logistics involved in moving goods from producers to consumers are often energy-intensive and carbon-heavy.

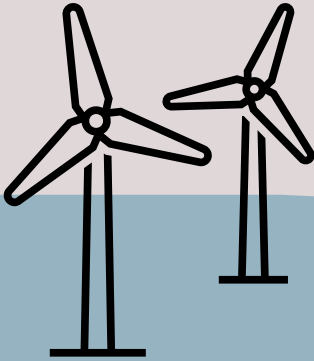
Definition of Carbon Footprint: The total amount of GHGs emitted directly or indirectly by a person, organisation, event, or product.

MEASURING YOUR BUSINESS CARBON FOOTPRINT

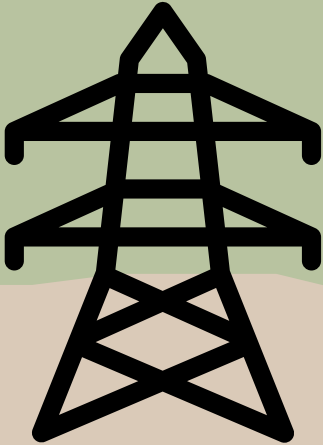
Scope 1



Scope 2



Scope 3



CARBON COUNTING ORGANISATIONS

THERE ARE A RANGE OF CARBON MEASUREMENT ORGANISATIONS THAT ARE AVAILABLE TO SUPPORT BUSINESSES IN MEASUREMENT. FROM SPEND-BASED, TO ACTIVITY-BASED MEASUREMENT.

Spend-based measurement:

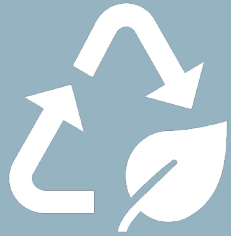
- Carbon Trail

Activity-based measurement:

- Toitu Envirocare
- Ekos
- Environmental Accounting Services



STARTING POINT TO REDUCE CARBON



ENERGY EFFICIENCY

Review where your energy comes from. Switch to renewable energy sources where possible, this will improve energy efficiency in operations and reducing costs in the longer term.



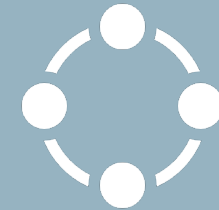
TRANSPORTATION

Review transportation operations and opt for sustainable transportation where possible. This could include changing to electric vehicles, ride sharing, reducing transport required within your business.



WASTE REDUCTION

Complete a waste audit of your business and see how you can reduce waste to landfill. This might be through implementing composting, reviewing recycling processes, reviewing supply chain and mitigating waste from the source.



CARBON COUNTING

Start counting with the Cogo tool to gain an estimate of your businesses carbon footprint, and where you can work to directly reduce those emissions.