



Sustainability is good for business

International Fresh Produce Association & United Fresh NZ Inc.

Eze Cancina, 15 November 2023



TOITŪ
E N V I R O C A R E

Our agenda

About Toitū Envirocare

Context

Understanding greenhouse gas emissions

Responsibilities and opportunities

How we can help

A case study from Mr Apple

Q&A





What we are here to do

OUR PURPOSE

Help organisations shift
their impact on the
climate and environment
from negative to positive,
at pace.



Manaaki Whenua
Landcare Research

TOITŪ

E N V I R O C A R E

Certified



Corporation

JAS-ANZ



WWW.JAS-ANZ.ORG/REGISTER



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION



Sustainable
Business
Network



wbcscd Global Network Partner



ON A MISSION TO REDUCE
EMISSIONS IN NEW ZEALAND



Achilles



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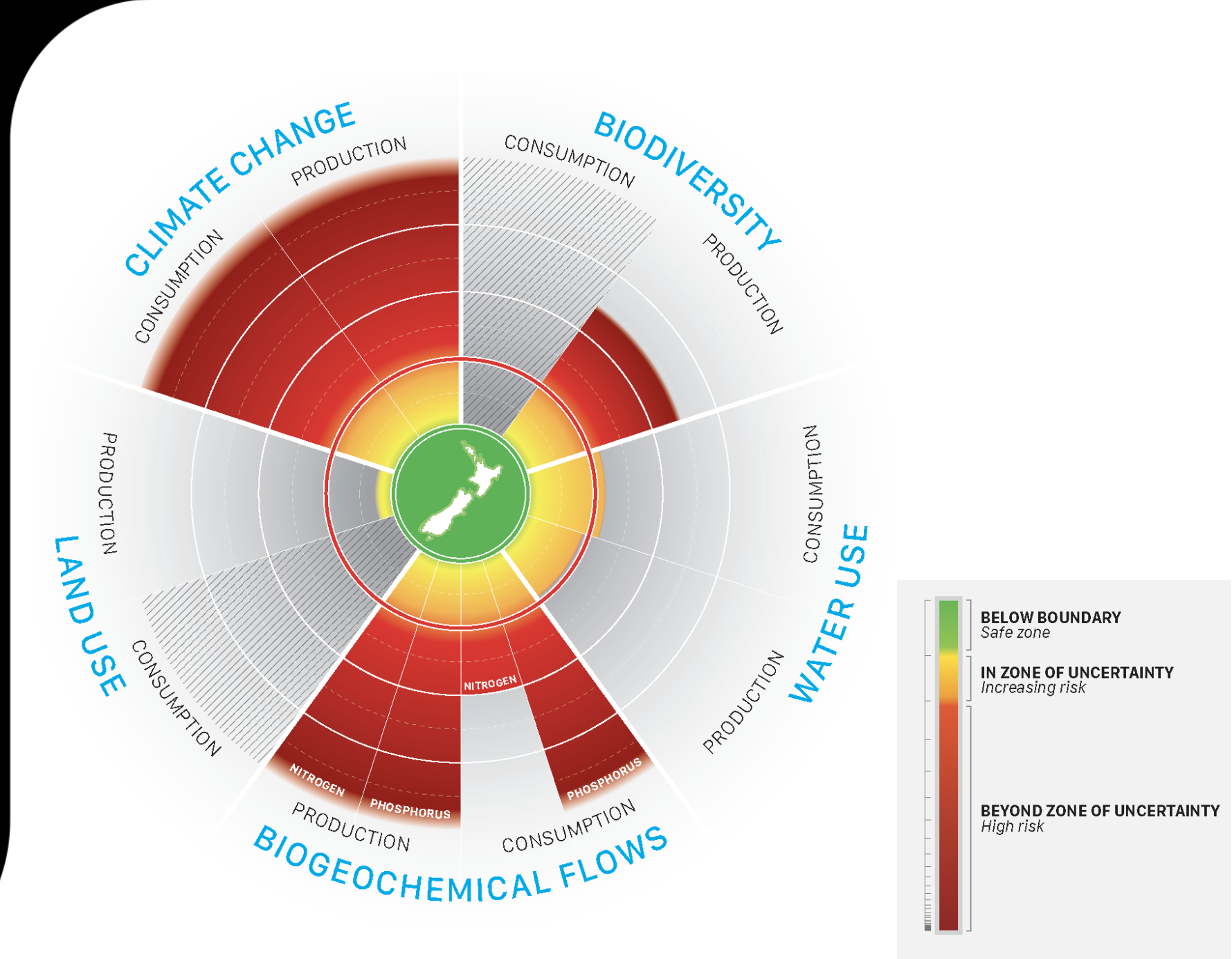
Our Members



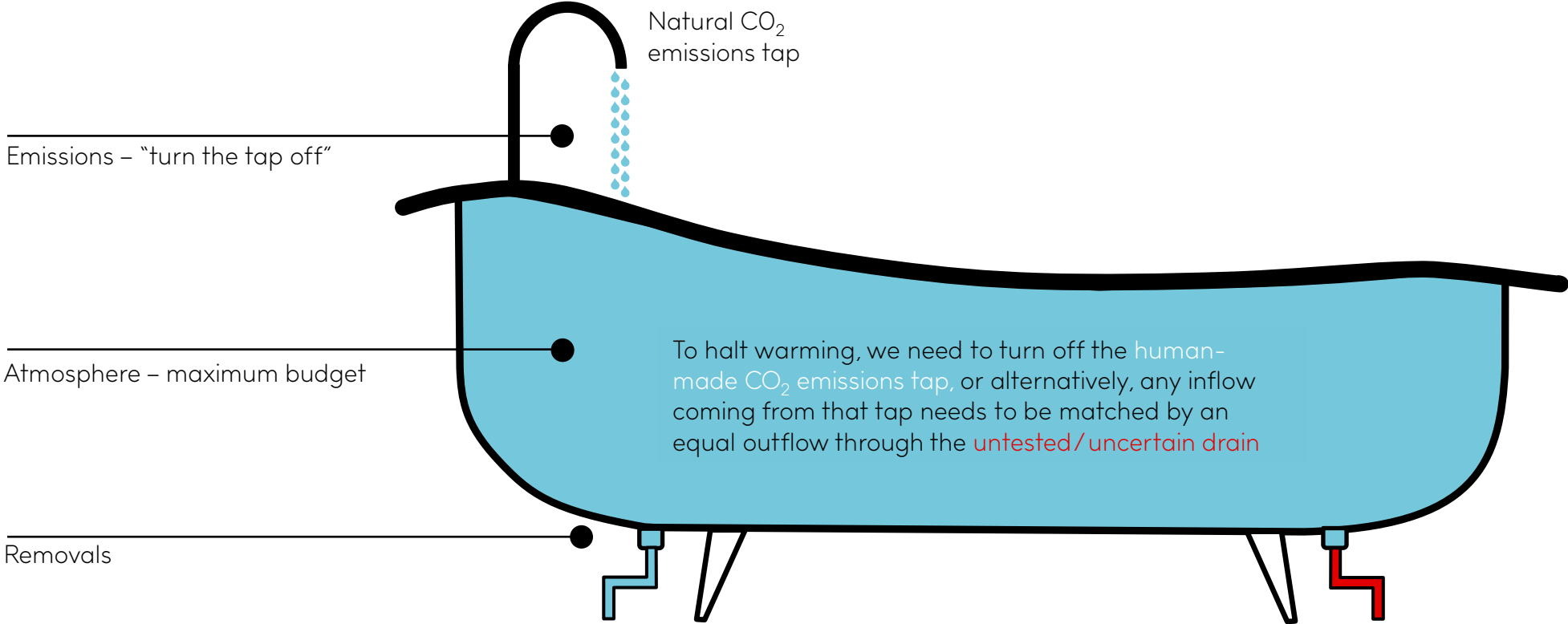
A photograph of a narrow, gravelly path winding through a dense, moss-covered forest. The trees and ground are heavily laden with bright green moss, creating a lush, textured environment. The path leads from the foreground into the distance, disappearing into the thick canopy. The lighting is soft and diffused, highlighting the vibrant green of the moss against the darker tones of the forest. The text "The context" is centered in the middle of the image in a clean, white, sans-serif font.

The context

Planetary Boundaries - New Zealand Aotearoa



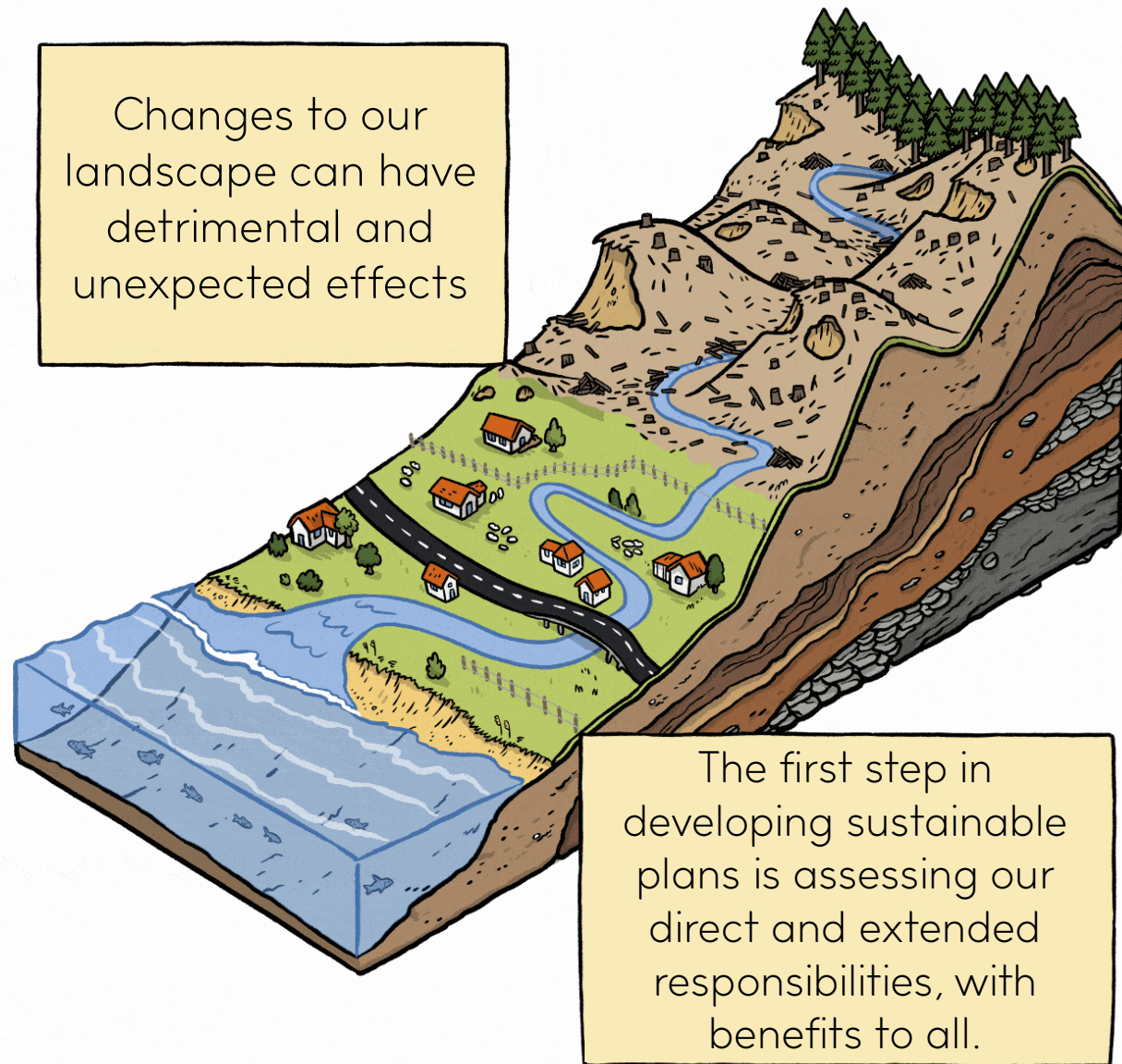
Earth's atmosphere is like a bathtub filling up with Greenhouse Gas emissions



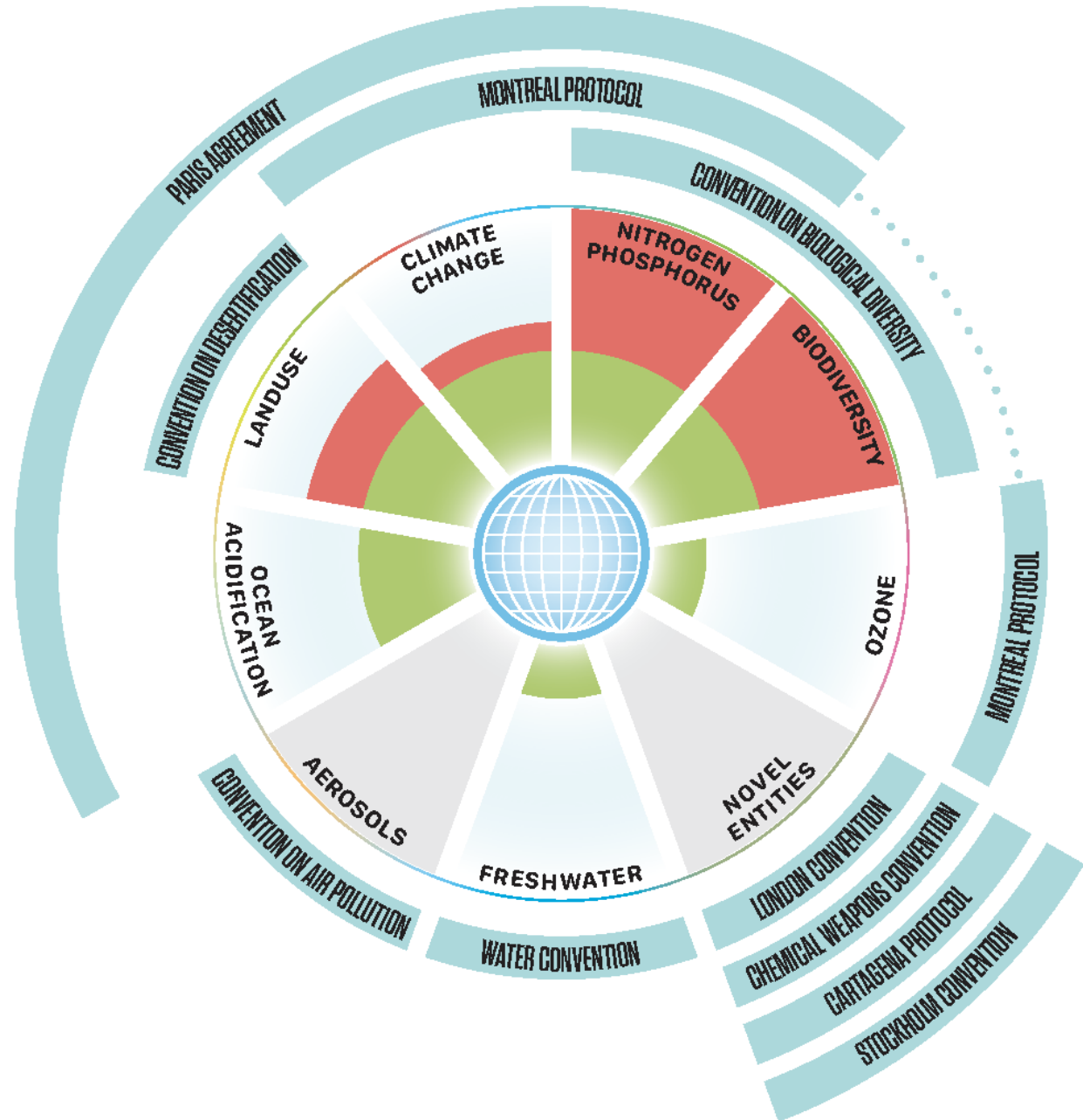
Today's working drain:
Natural land and ocean carbon sinks

Untested and uncertain drain:
Engineered and 'natural negative' emissions

A snapshot of our impact on land



New Zealand's Commitments to Global Action

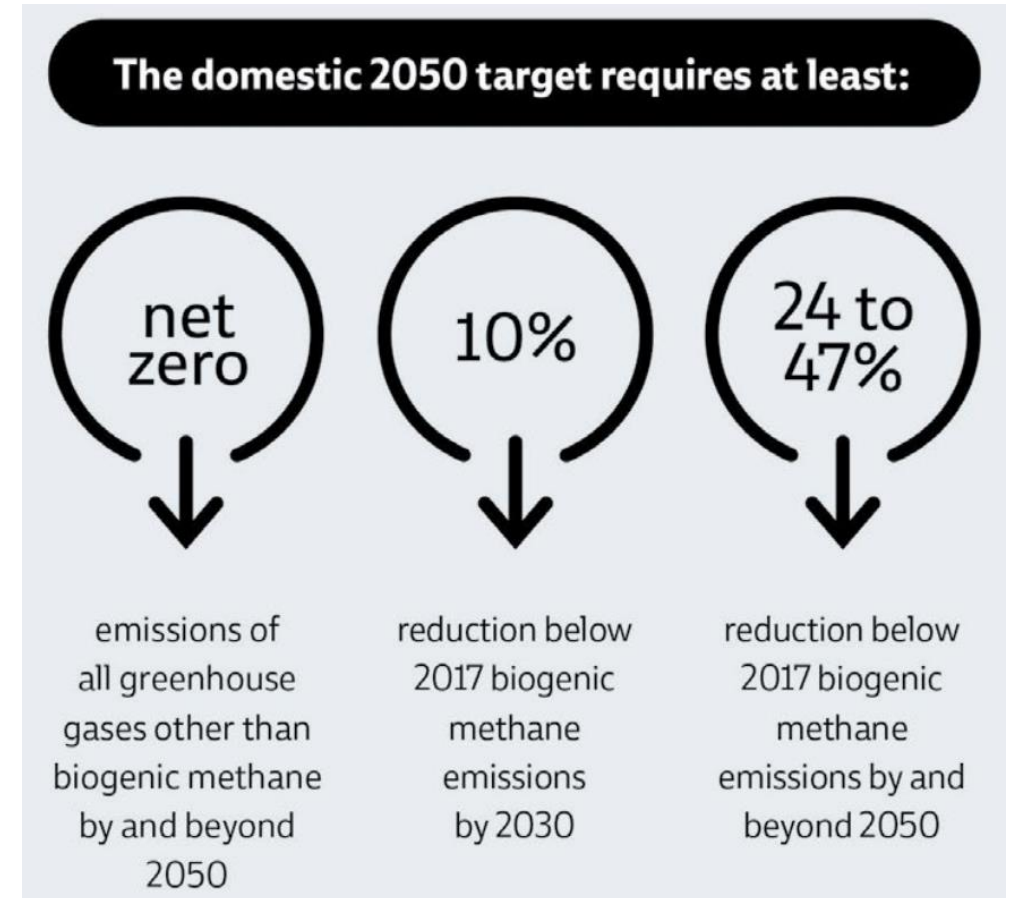


New Zealand's commitment to a net zero future is embedded in law

Climate Change Response (Zero Carbon) Amendment Act passed in 2019:

- Set domestic targets
- Emissions reduction plan and national adaptation plan
- Created independent Climate Change Commission

Target for greenhouse gas reductions over the next 14 years as part of a programme to achieve net-zero emissions by 2050 is set



So, what's the bigger picture?

Sustainable Finance

International and
domestic compliance
and reporting
requirements

Business groups
CLC/SBC

Supply chain
influence

Wholesalers/Retailers/ Export
Regulations

Investor and trade
partner pressure

Consumer
expectations

There are still significant perceived challenges in terms of how NZ consumers view businesses



NETT % Agree

66%



The way businesses talk about their social and environmental commitments is confusing

66%



If I heard about a company being irresponsible or unethical, I'd stop buying their products or using their services

69%



I don't think businesses are doing enough to reduce their environmental impact

63%



Businesses act in conflict to what they say or advertise

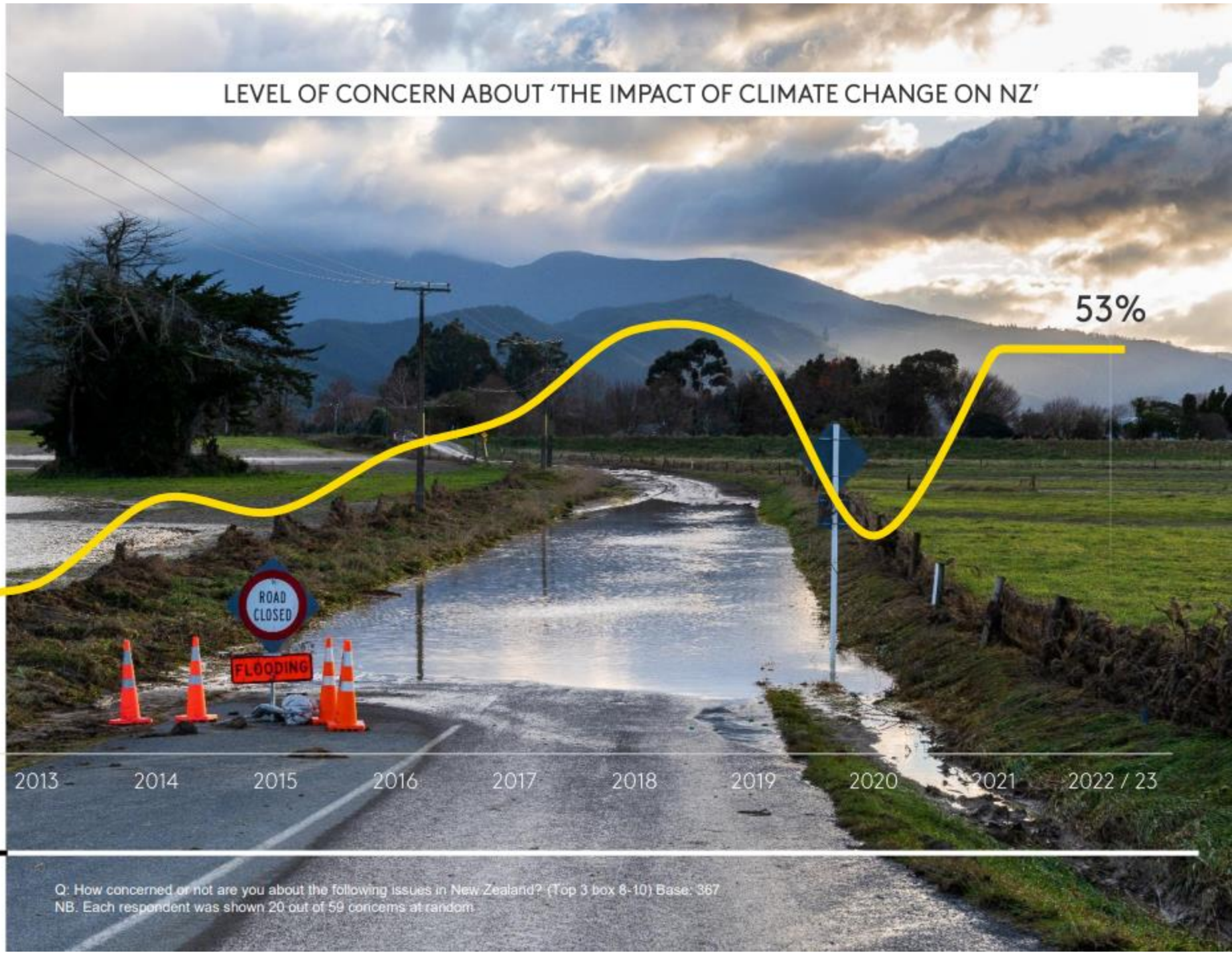
Similarly, concern about the impact of climate change on NZ has also maintained it's rebound after the initial shock of the pandemic

31%

LEVEL OF CONCERN ABOUT 'THE IMPACT OF CLIMATE CHANGE ON NZ'

53%

2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 / 23



Climate Context

Which three boundaries are we transgressing?

- A Climate Change, Biogeochemical Flows and Biodiversity
- B Climate Change, Land Use and Ozone Depletion
- C Climate Change, Biodiversity and Waste



Climate Context

Why should we consider our environmental impacts?

- A Our customers ask for it
- B Gain easier access to international markets
- C Mitigate risk on future legislation and compliance
- E Develop a resilient business
- D All of the above and more

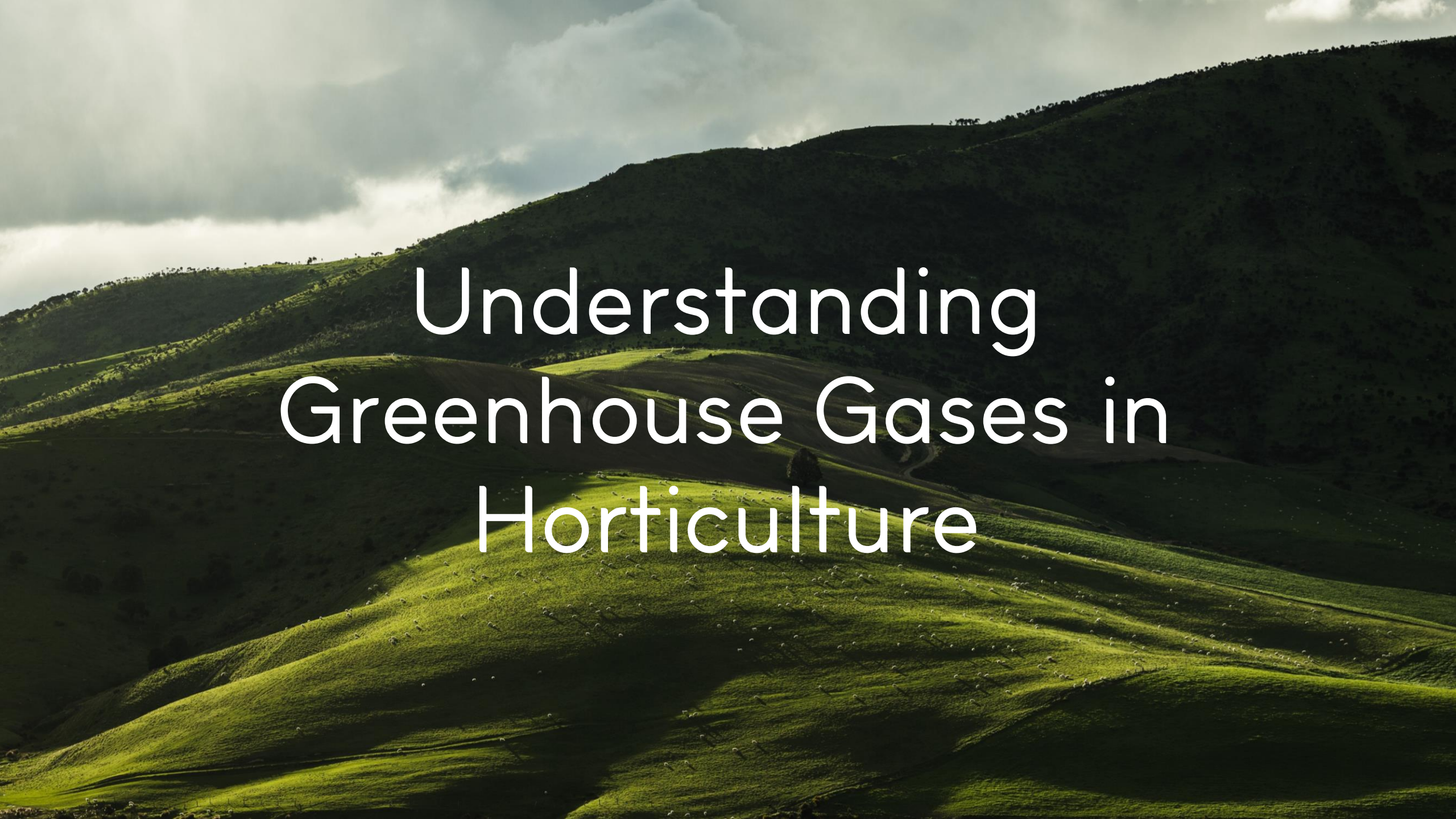


Climate Context

Which international agreement has NZ committed to as part of reducing its carbon emissions?

- A The Greenhouse Gas Protocol
- B The Paris Agreement
- C Science-Based Target Initiative





Understanding Greenhouse Gases in Horticulture

Key terms

- + **Greenhouse Gas (GHG):** Gases that absorb and emit radiant energy (warming our planet), such as carbon dioxide, methane, nitrous oxide and others.
- + **Carbon Emissions:** Carbon is a greenhouse gas that is commonly used as shorthand for the full range of greenhouse gases (GHG).
- + **Carbon Footprint:** The total measurement of an organisation, product, service, place, or individual emissions produced and expressed in CO₂.
- + **Carbon Accounting:** How carbon emissions are measured and verified and include key terms like GHG and Scopes.



The Greenhouse Effect

Some solar radiation is reflected by the Earth and the atmosphere.

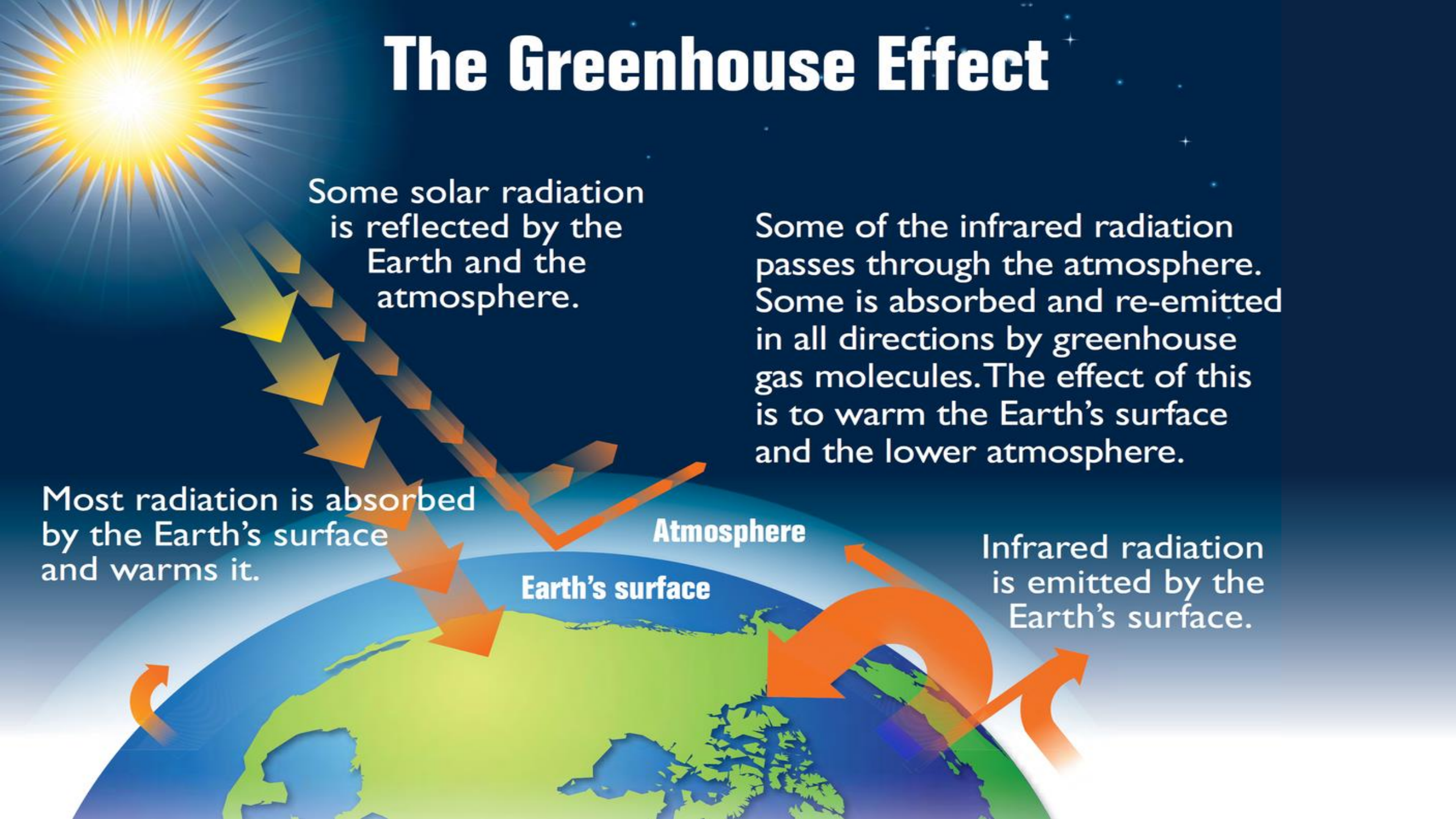
Some of the infrared radiation passes through the atmosphere. Some is absorbed and re-emitted in all directions by greenhouse gas molecules. The effect of this is to warm the Earth's surface and the lower atmosphere.

Most radiation is absorbed by the Earth's surface and warms it.

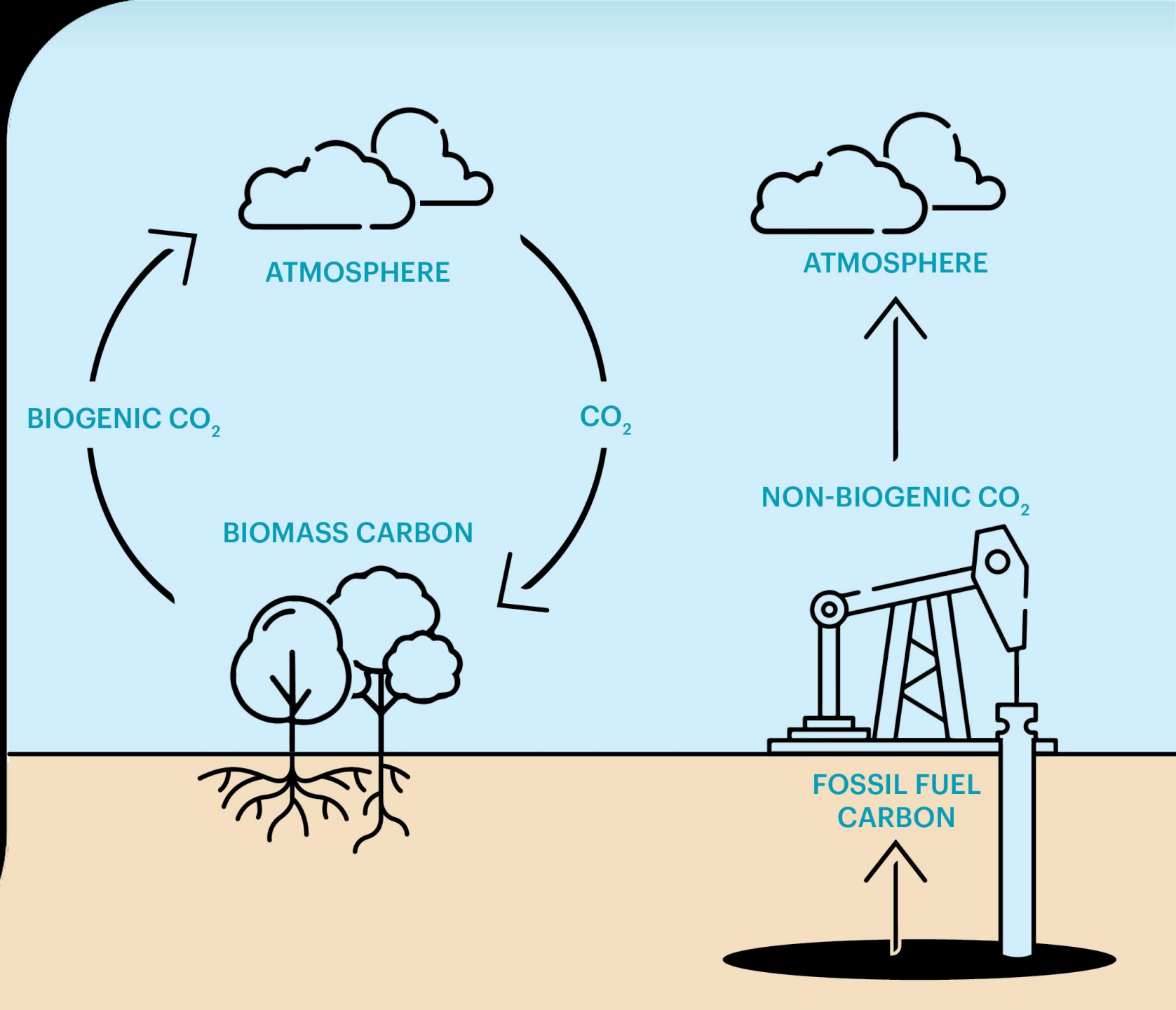
Infrared radiation is emitted by the Earth's surface.

Atmosphere

Earth's surface



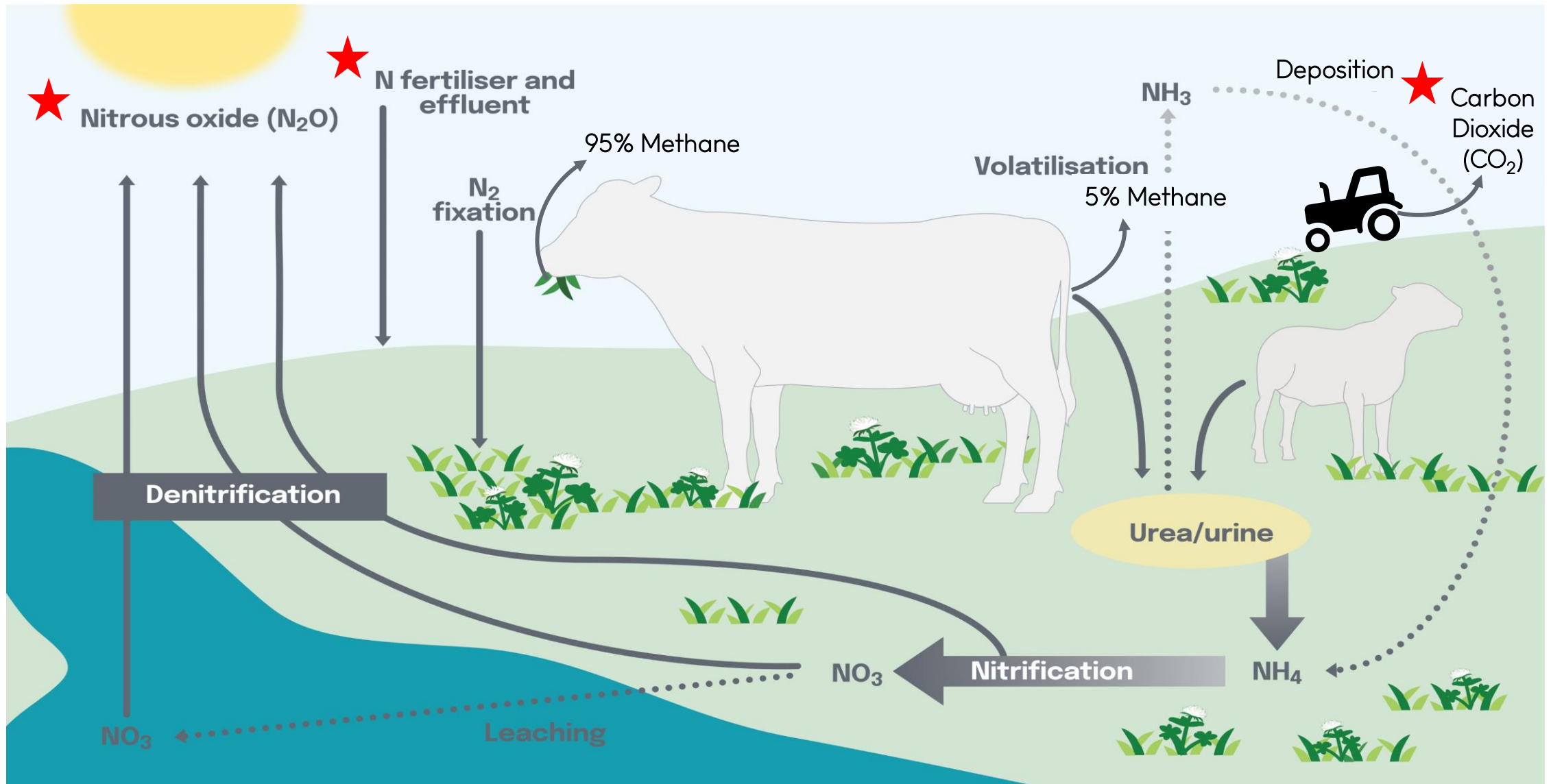
Short Biogenic Cycle vs. Long Carbon Cycle



Greenhouse Gas Types

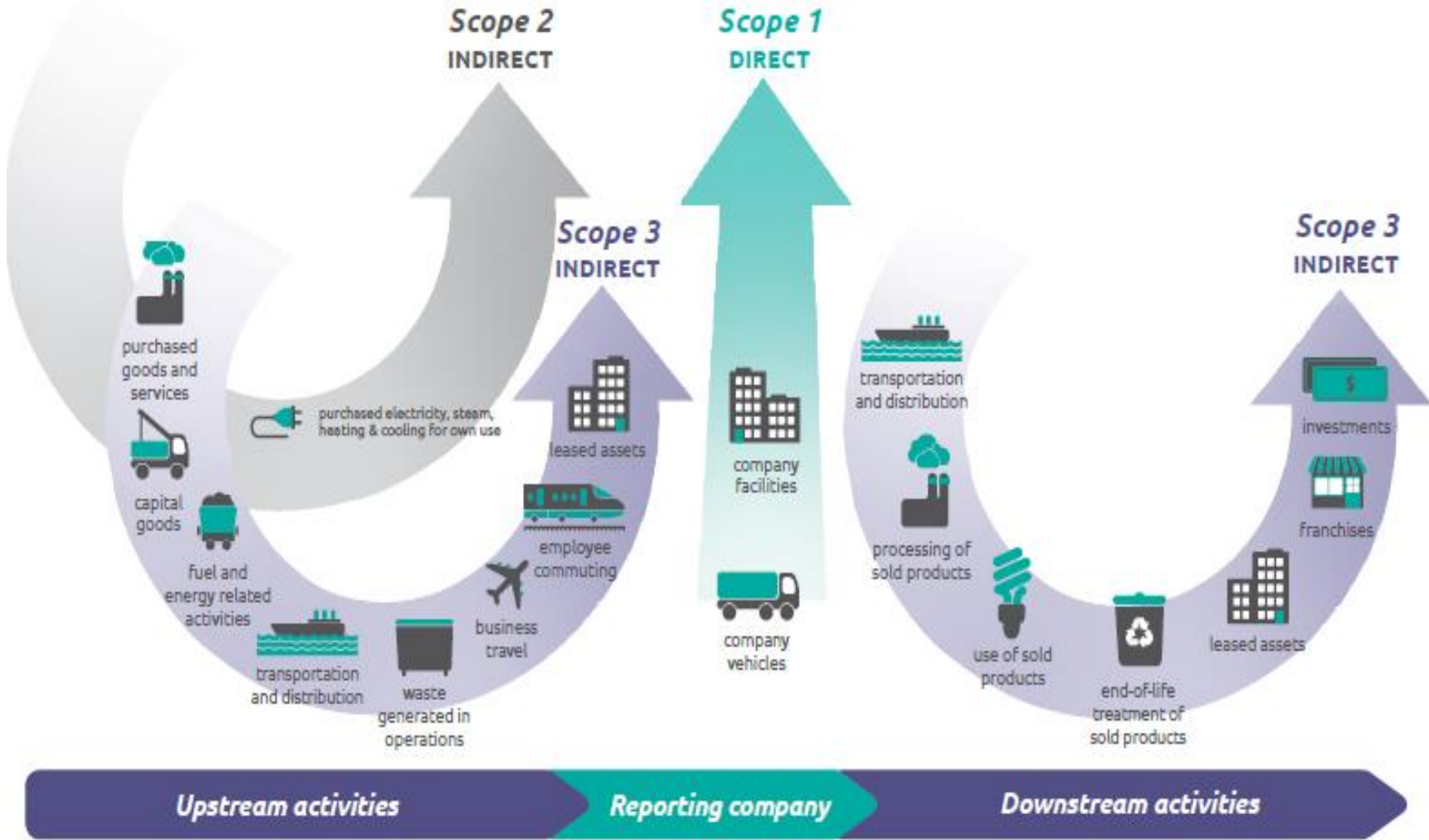
Greenhouse Gas	% of NZ's Agricultural Emissions	Atmospheric Lifespan	Origins
Carbon dioxide (CO ₂) Global Warming Potential: 1	< 5%	Hundreds - Thousands of Years 50% - Plant and Ocean short term 50% - Rock formation and chemical weathering long term	Burning of fossil fuels and natural processes. Examples: tractors, fermentation processes
Methane (CH ₄) Global Warming Potential: 28-36	71%	Decades	Anaerobic microbial processes Example: Enteric fermentation, compost
Nitrous oxide (N ₂ O) Global Warming Potential: 298	21%	Over a century	Burning fossil fuels, microbial processes Examples: added Nitrogen-based synthetic fertilisers, cover crops, livestock urine

Agricultural Sources of Greenhouse Gasses

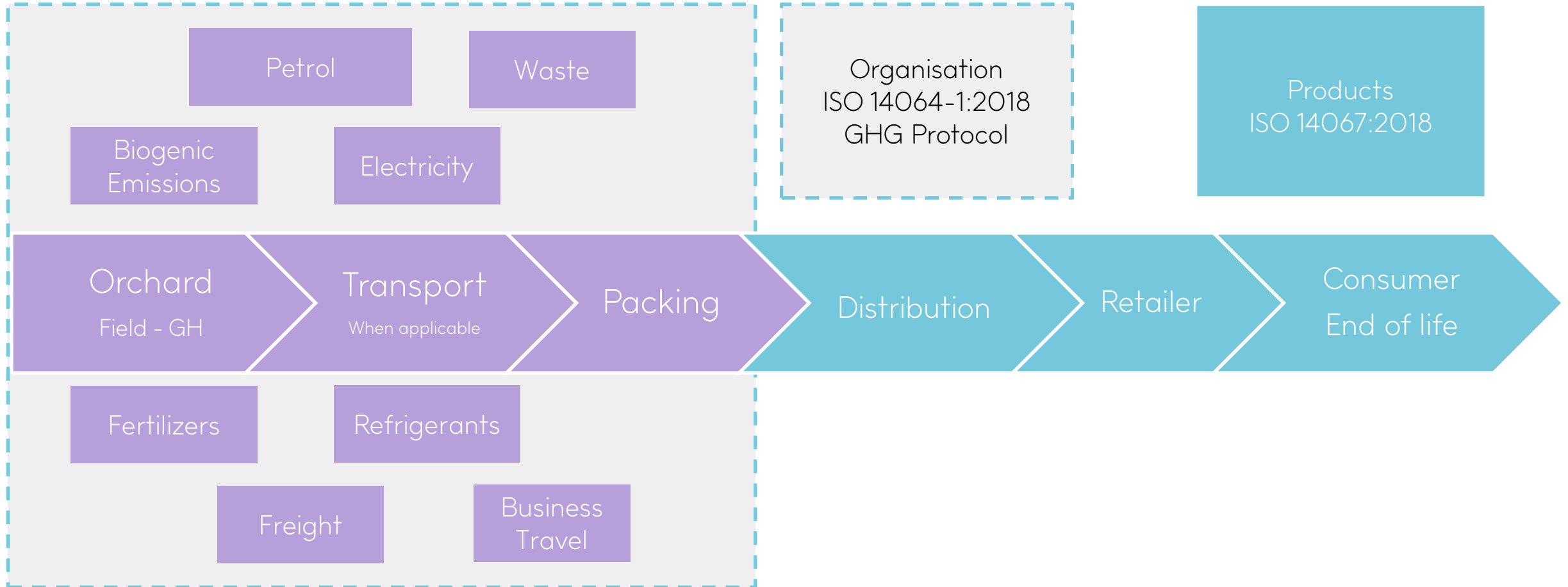


★ Horticultural Sources

GHG Protocol Standard



Horticulture: Product vs Organisation



Greenhouse Gas in Horticulture

What is the difference between GHG and carbon emissions?

- A GHG emissions are more eco-friendly
- B Carbon emissions are only from fossil fuels
- C They are used synonymously



Greenhouse Gas in Horticulture

Which of these activities is not considered part of the short carbon cycle?

- A A person harvesting wood
- B A person or animal breathing
- C A plant photosynthesizing



Greenhouse Gas in Horticulture

Which of these is not sequestering carbon?

- A Trees
- B Wetlands
- C Solar panels

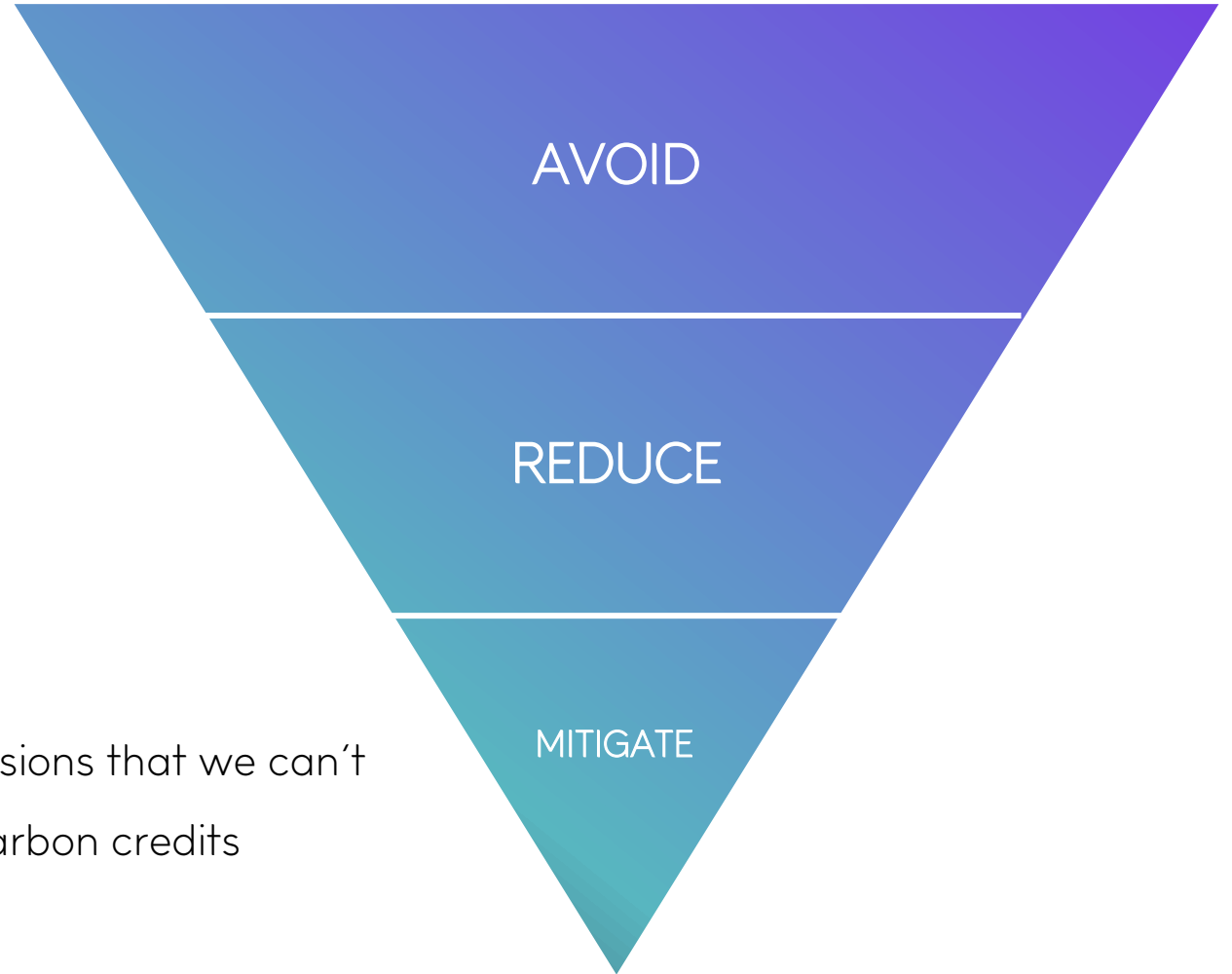


Mitigation Hierarchy

AVOID avoid creating negative impact where possible.

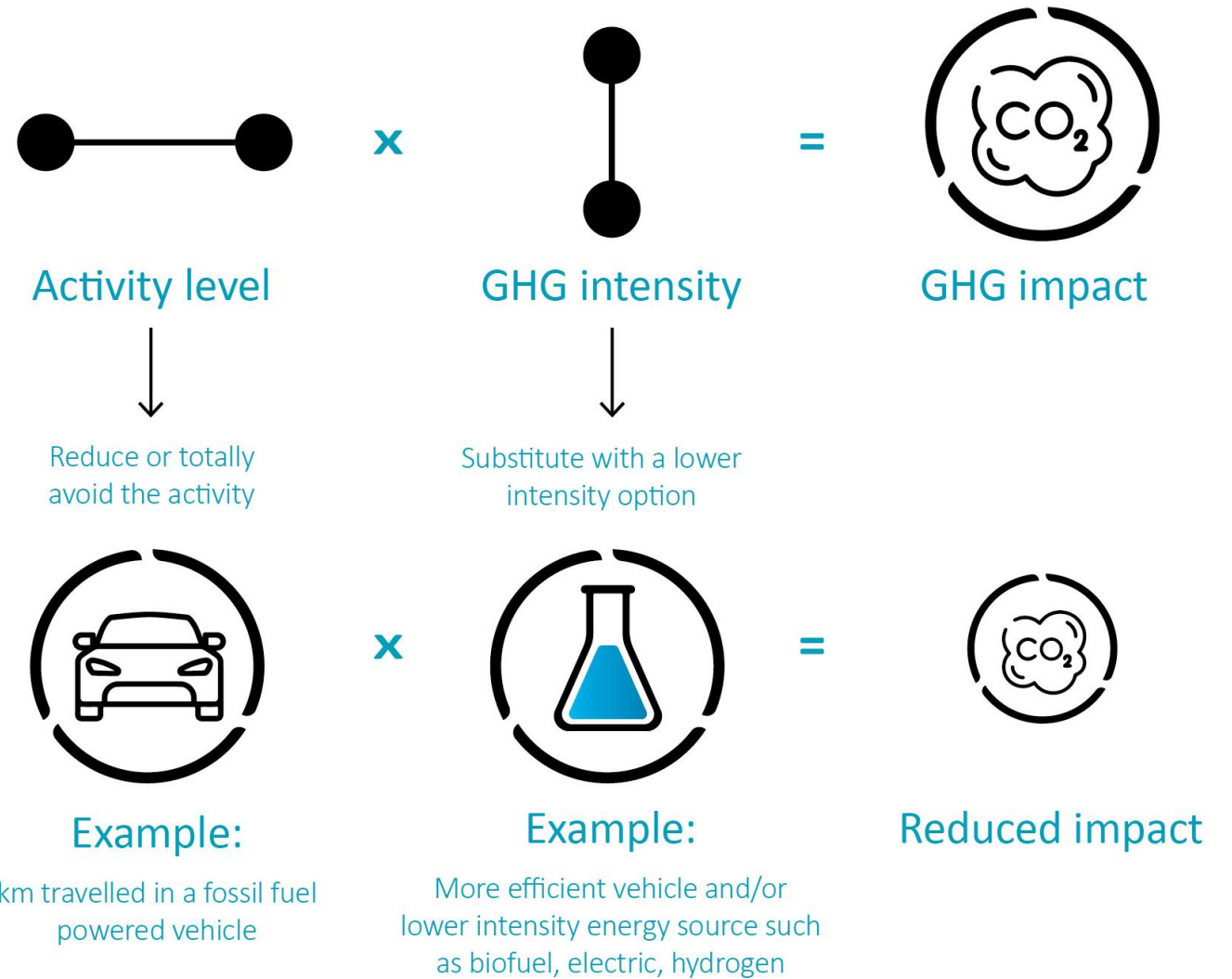
REDUCE our impact and emission creation

MITIGATE and compensate for hard to abate emissions that we can't avoid through the purchase and cancellation of carbon credits



Key levers for reducing emissions

Reducing emissions can be done by either decreasing the activity level, or the greenhouse gas (GHG) emissions intensity, or both.



How an Environmental Management System works

PLAN: Identify your environmental risks & legal compliance



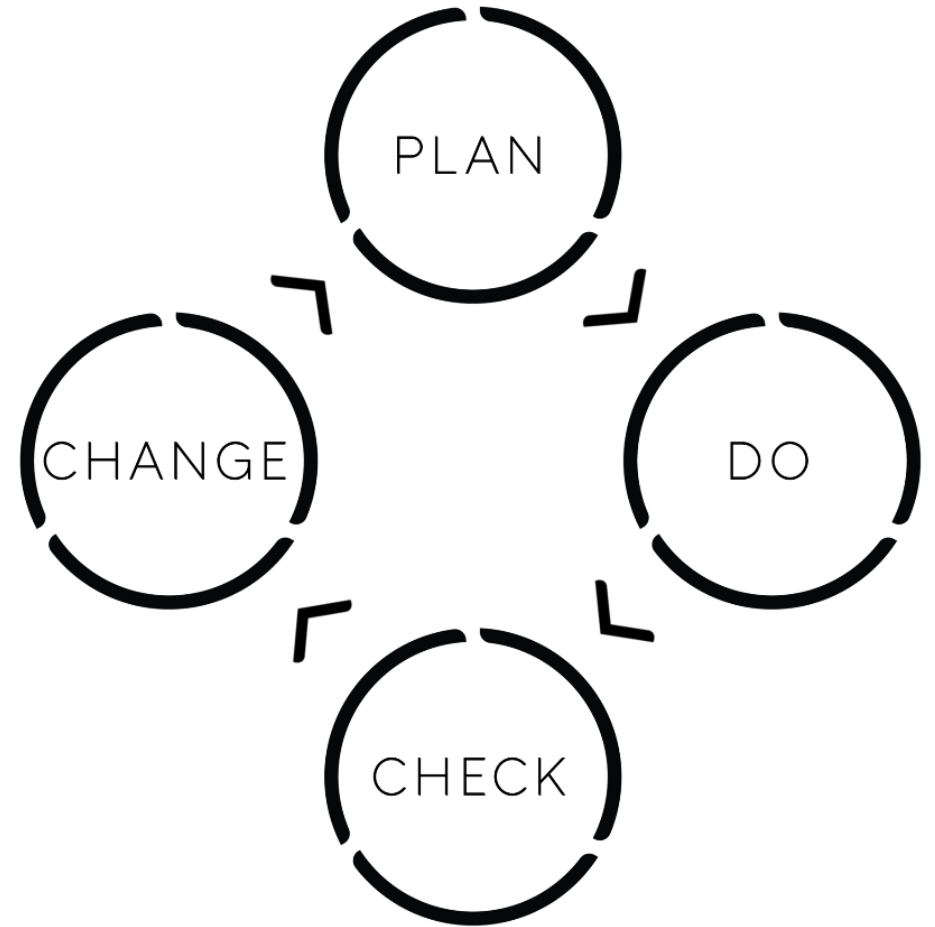
DO: Manage the risks to prevent and minimise impacts



CHECK: Check whether you are managing the risks effectively



CHANGE: Review & make changes where necessary to your EMS



Implementation Plan - Method

- + We modularise how to implement an EMS based on your H&S programme and guide you through this process using a mentored approach.
- + We will run fortnightly meetings where we introduce the work to be done in the coming fortnight and review the previous work done.
- + Overall, we will start by covering local and national legislation, tailoring the solution for your sector.
- + We will support you in assessing new projects and carrying them out.



Benefits of having an Environmental Management System



Improve compliance



Assess risks & opportunities in your supply chain



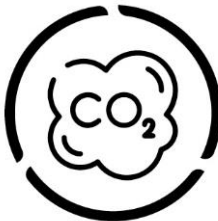
Make the most of all available resources & reduce waste



Minimize environmental risks & impacts



Reduce energy costs



Assessing and reducing your carbon footprint



Achieve your sustainability goals



Improve corporate image, performance & profit

Opportunities in your backyard

Tree Cluster Development and Wetland Restoration

BIODIVERSITY

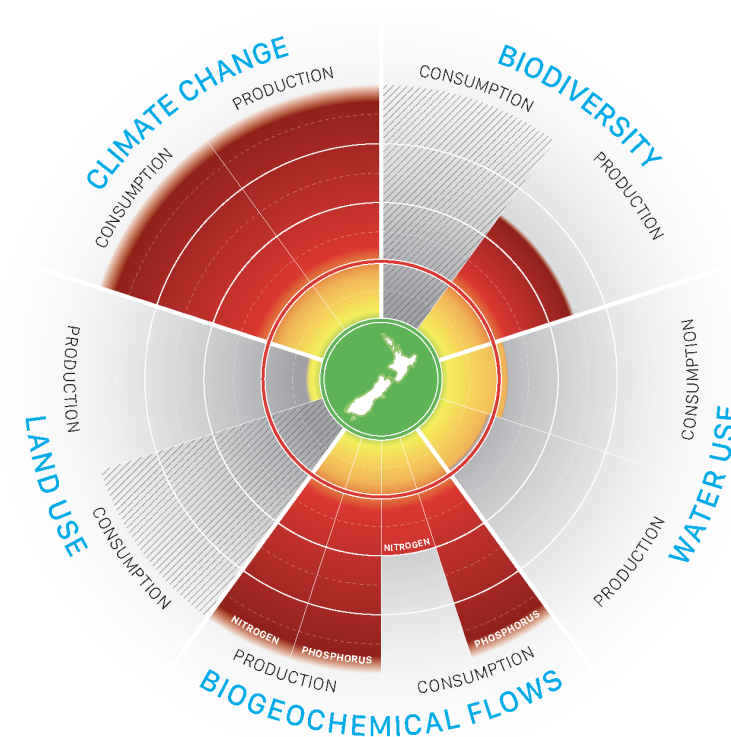
- + Increase biodiversity
- + Increase pollination
- + Decrease fire risk
- + Create biodiversity corridors

LAND & WATER PROTECTION

- + Reduce erosion
- + Clean and retain water
- + Flood mitigation
- + Wind protection

CLIMATE CHANGE

- + Increase biomass and soil carbon sinks
- + Mitigate greenhouse gas emissions



Opportunities in your backyard

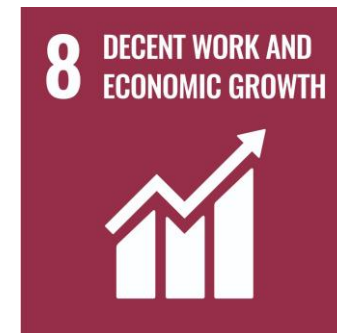
Tree Cluster Development and Wetland Restoration

BUSINESS OPPORTUNITIES

- + Provide shelter and fodder for animals
- + Maintain or enhance overall productivity
- + Increase the resilience of farm systems

SOCIAL

- + Enhance Kaitiakitanga
- + Improve visual appearance
- + Support surrounding communities



Opportunities and Responsibilities

Which of the three mitigation hierarch tiers has the highest impact?

- A Avoid
- B Reduce
- C Mitigate



Opportunities and Responsibilities

You can reduce your GHG emissions by

- A Reducing the GHG emissions intensity of activities
- B Reducing GHG emitting activity levels
- C Offsetting GHG emissions
- D Reducing both the activity and the GHG emissions intensity



Opportunities and Responsibilities

Which of these actions have a positive outcome for the environment and your business?

- A Reducing my energy consumption
- B Reducing the amount I drive my petrol car
- C Making the most of my current resources
- D Restoring local wetlands and planting trees on my
- E Choosing the right supplies for my land
- F All of the above



Toitū Enviromark Programmes



- + Assess legal obligations and activities that must be controlled under your EMS.
- + Guidance to meet any applicable health, safety and environmental legislation (e.g.RMA and Waste Minimisation).



- + Develop a comprehensive plan to help achieve your environmental goals.
- + Measuring your impact so that can be better managed.



- + Setting up internal systems to ensure that your plans and policies are followed.
- + Setting up documentation and locking in outcomes even if staff change.

Toitū Carbon Programmes



Your organisation is **actively measuring emissions** using **actual and verified data** in line with international standards (ISO 14064) and has **committed to reducing** in line with Toitū's programme requirements.



One step further your organisation has recognised its shorter-term unavoidable emissions and is **compensating** for them annually by **offsetting with carbon credits**; contributing to projects that encourage and accelerate **decarbonisation** activities locally or globally.

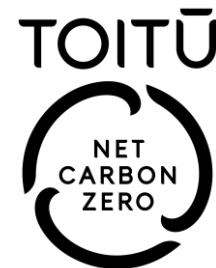
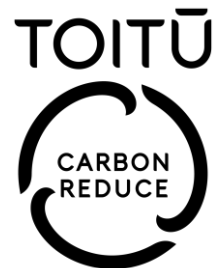


Focussed on having a **positive impact**, through the combination of reducing emissions, engaging with your value chain to **accelerate decarbonisation**, compensating above neutrality, and contributing to broader **social and environmental outcomes**.



Carbon footprint types

- Organisation: operations only
- Product: entire lifecycle – cradle to gate/grave
- Supply chain: supplier data verification
- Special Projects: bespoke projects





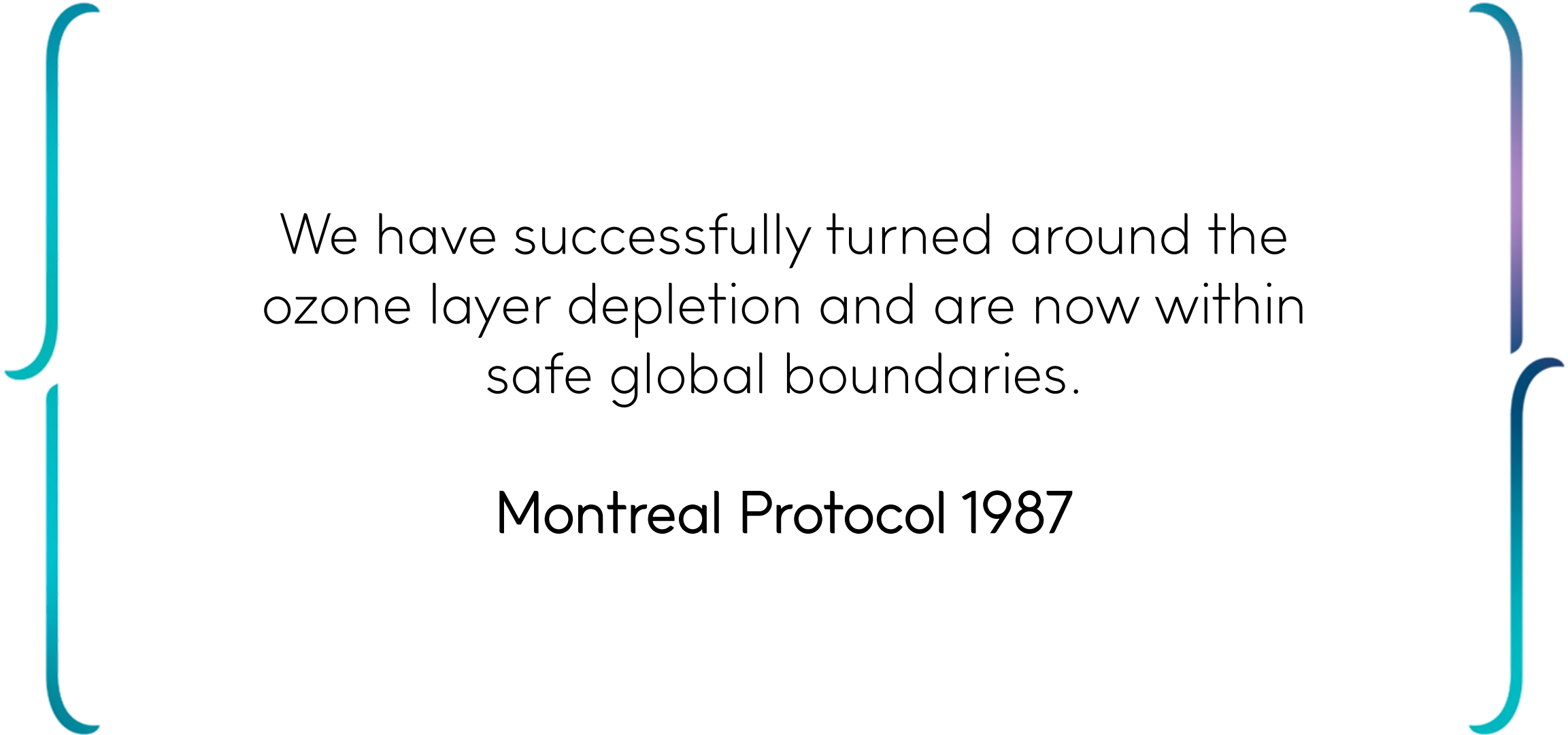
MrAPPLE ^{NZ}



“The topic of GHG emissions is becoming more important in the external market, so we decided to be prepared and start working on our emissions beforehand. We’re often asked about the sustainability work we do; for which the Toitū certification is a key part of our credentials. It also differentiates us from others, both in New Zealand and internationally.

If you’re unsure where to start, be mindful, as any delay could make your journey longer. Begin by partnering up with others.”

Ben McLeod, Global Sales & Marketing Manager

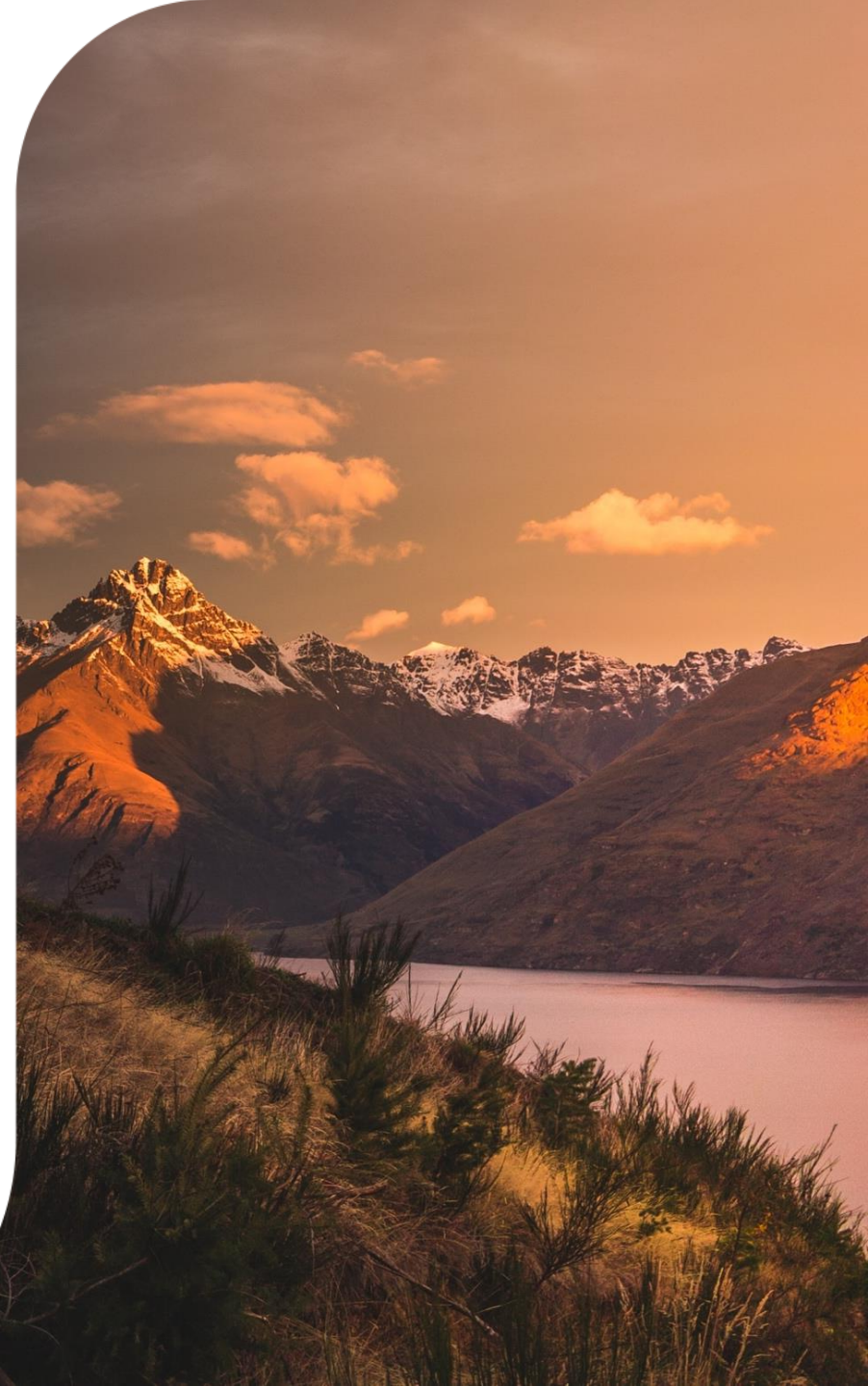


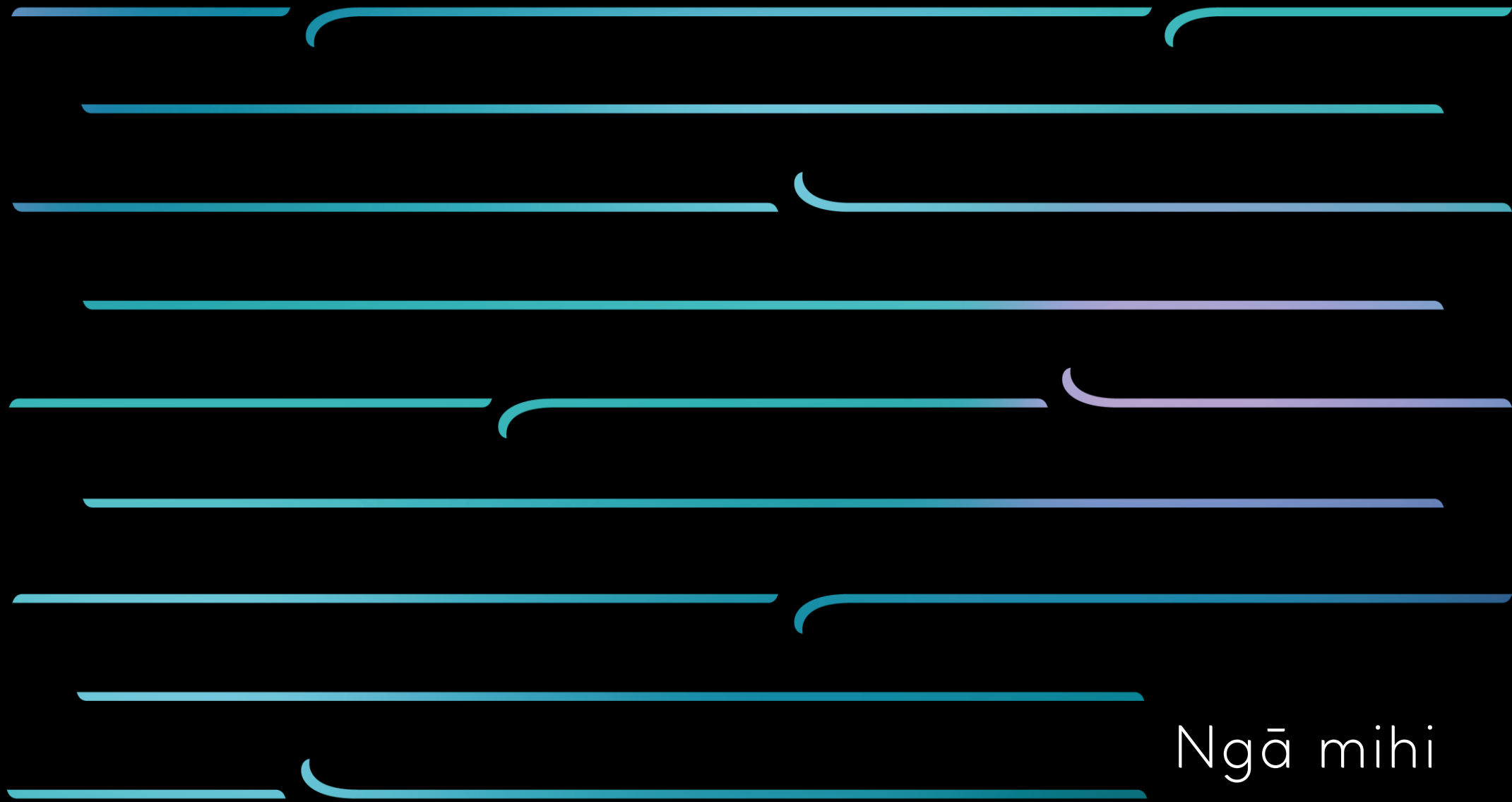
We have successfully turned around the ozone layer depletion and are now within safe global boundaries.

Montreal Protocol 1987

Next steps

- Develop a list of your activities and asses their significance
- Start measuring your emissions
- Review your H&S system as a source to identify risks
- Engage with your value chain (Suppliers and customers)
- Contact our experts to answer your questions and begin your climate journey





Ngā mihi