# Sustainability and why it matters for business

October 2025



#### **Foundations: the Carbon Context**

#### What does a tonne of carbon look like?

$$509_{m3} = 15 \times 20 \text{ ft}$$

AND 2721 F

Shipping containers

or

$$430L =$$

Petrol

(volume)

2,200km

driving distance (assuming 5.1L / 100km)

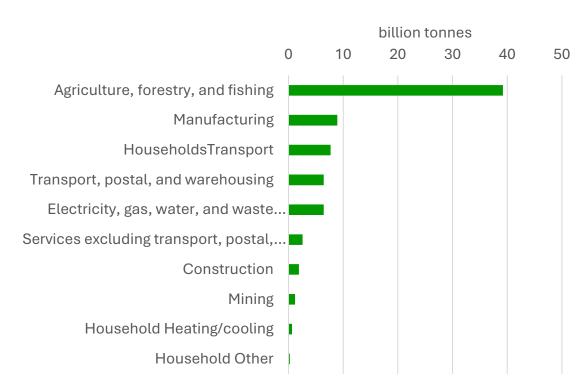




### New Zealand's environmental footprint

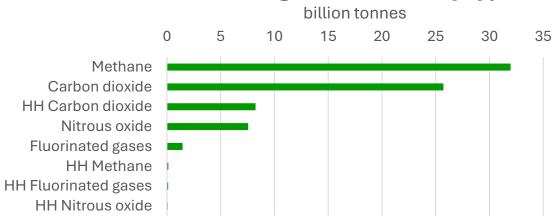
Agriculture, Forestry and fishing make up the majority of our emissions

Greenhouse gas emissions by industry and household sector

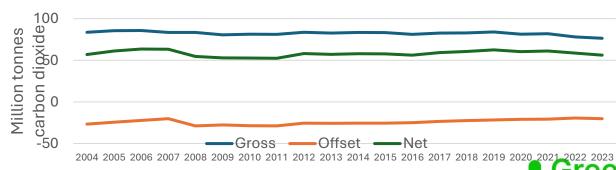


Methane is the largest greenhouse gas type

Greenhouse gas emissions by type

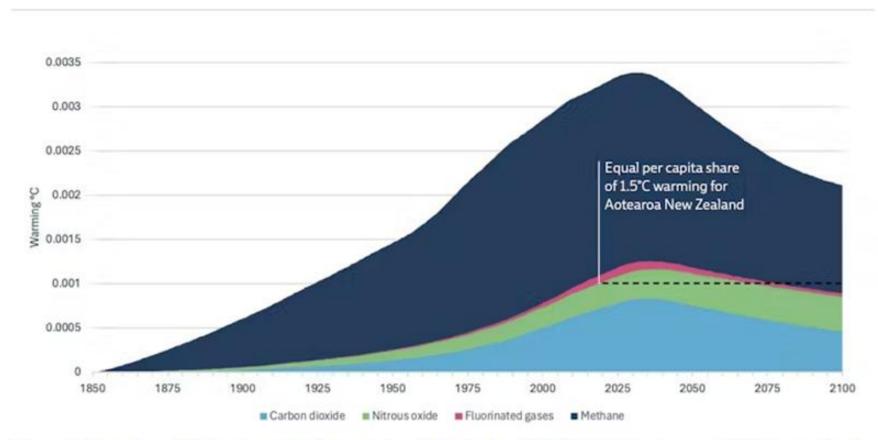


CO<sub>2</sub> balance over time



### NZ contribution to global warming

New Zealand makes a small contribution to the overall global warming from emissions, but it is high on a per capita basis





This graph shows the contribution to warming from emissions in New Zealand (1850–2100) under the current 2050 target. Climate Change Commission, CC BY-SA

### **New Zealand Carbon Inventory**

Not all carbon sources and sequestration activities are counted in international reporting and targets

**Actual** Targets

| Year                     | 2005    | 2006    | 2023    | 2030          | 2030          |
|--------------------------|---------|---------|---------|---------------|---------------|
| Gross Emissions          | 85,545  | 82,647  | 76,416  |               |               |
| Biogenic Emissions       |         | 30,346  | 29,529  | 27,311 (-10%) | 23,063 (-24%) |
| Other Emissions Recorded |         | 52,301  | 46,887  |               |               |
| Emission recovery        | -24,363 | -23,510 | -20,197 |               |               |
| Net Other Emissions      |         | 28,791  | 26,690  |               | Zero          |
| Net Emissions            | 61,182  | 59,137  | 56,219  | 23,063        |               |

Not reported in NZ Green house Inventory estimates

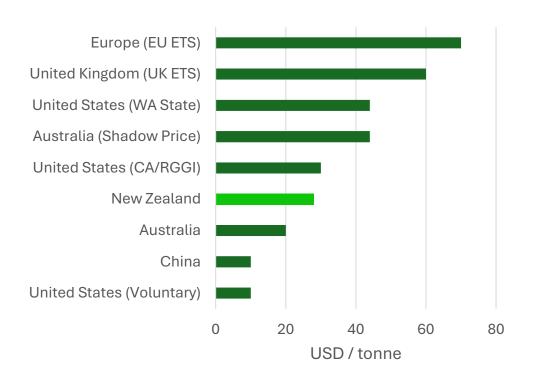
| Natural sequestration (native forestry and blue carbon) | -12,800       |
|---|---------------|
| Imports and export transportation                       | 5,000 – 9,400 |
| Territorial sea   | -1,475        |
| NZ economic zone sea                                    | -35,436       |



### Carbon credit pricing

The current price of 1 tonne carbon credit in New Zealand is \$49 – this has collapsed from a high of \$70 earlier this year, and is low relative to other regions

#### Carbon price by region



#### **Key drivers by region**

- NZ: ETS unstable oversupply, failed auctions, shifting policies.
- Australia: Low spot price, higher shadow price used.
- USA: Prices vary fragmented, voluntary markets.
- **EU/UK:** High, stable prices strong regulations.



### Terminology – scope 1, 2 and 3

# What Are Scope 1, 2, and 3 Carbon Emissions?

#### Scope 1

DIRECT



- Mobile Combustion
- Stationary
   Combustion
- Fugitive Emissions
- Process Emissions
- Agricultural Emissions

#### Scope 2

INDIRECT





- Purchased Electricity
- Purchased Steam
- Purchased Heating
- Purchased Cooling

#### Scope 3

INDIRECT







#### **Upstream Emissions**

- Purchased Goods and Services
- Business Travel
- Transportation and Distribution
- Waste Generated in Operations
- Employee
   Commuting

#### **Downstream Emissions**

- Transportation and Distribution
- Use of Sold Products
- End-of-Life
   Treatment
- Investments
- Leased Assets and Franchises



### Measurements & tools

### Different measurement protocols exist

focus for Green Metrics

| Framework | Primary      | Scope   | Verification      | Key Focus                |
|-----------|--------------|---------|-------------------|--------------------------|
|           | Audience     |         |                   |                          |
| IFRS S2   | Investors    | 1, 2, 3 | Subject to audit  | Disclosure and           |
|           | Corporate    |         |                   | Transparency             |
| ISO 14064 | Regulators   | 1, 2, 3 | Voluntary to      | Company measurement,     |
|           | Companies    |         | independent Audit | projects, products and   |
|           | Customers    |         |                   | services                 |
| B Corp    | Customers    | 1, 2, 3 | Independent Audit | Company Measurement      |
|           | Stakeholders |         |                   |                          |
| SBTI      | Companies    | 1, 2, 3 | Target validation | Science – aligned target |
|           | Investors    |         |                   | setting                  |



### Various reporting tools are available

We have tried them all out and recommend <u>Sumday</u> because of it's connectivity, and ability to cover activity and spend. The platforms are yet to reach maturity but are in development constantly

| Solution                                     | Green<br>Halo | Carbon<br>Trail | Sumday                     | Cogo          | Trace  | Toitū    | Climate<br>Action<br>Toolbox | Excel          |
|--|---------------|-----------------|----------------------------|---------------|--------|----------|------------------------------|----------------|
| GreenMetrics score out of 10                 | 6             | 6               | 8                          | 5             | 5      | 4        | 4                            | Not<br>Recomme |
| Scope  | All           | All             | All                        | All           | All    | 1 & 2    | 1 & 2                        | nded           |
| Activity and Spend                           | All           | All             | All                        | Spend<br>Only | Spend? | Activity | Activity                     |                |
| Integration (with accounting / ERP software) | No            | Xero            | Xero and<br>more in<br>dev | Xero          | Xero   | None     | None                         |                |

Sumday is free for year ended March 2026 if you are on Xero



### Why it matters for business?

### Why It Matters for Business

- Climate change is real, witness weather extremes this year
- Sustainability is more than just compliance "box ticking"
- "Slow walking" is not going to make it
- There are financial returns from sustainability actions and investments
- Access to green finance on favourable terms
- There are strategic benefits for sustainability strategies



#### Pressures and challenges

#### Time to start now

#### External pressures

- Regulatory landscape Zero carbon targets
- Market and consumer expectations
- Financial & investment trends
- Global trade engagements
- Policy shifts and uncertainty

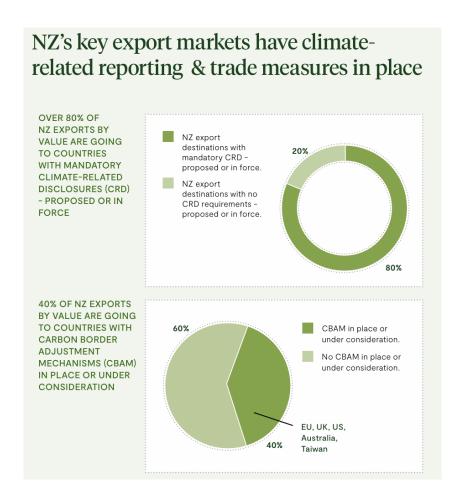
#### Internal challenges

- Initiating carbon measurement
- Navigating complex regulations ISO 14064
- Assessing ROI on sustainability
- Resource constraints and priorities
- Fear of public scrutiny



### Our key markets will start demanding this

Even if New Zealand regulation does not demand it, our main export markets require reporting



- Only a limited number of New Zealand companies are directly regulated.
- But supply chain expectations and shifting consumer preferences will indirectly impact a wide range of businesses - from large corporates to smaller SMEs in supply chains.



### Supplier Sustainability Codes of Conduct

Some large New Zealand companies and government agencies are introducing Sustainability Codes of Conduct for their suppliers

#### Requirements

- Measure and reduce greenhouse gas emissions
- Use energy, water, and materials efficiently
- Minimise waste and prevent pollution
- Source raw materials responsibly
- Comply with environmental laws
- Disclose environmental data and demonstrate continuous improvement in sustainability practices























### Practical actions that you can take

### Practical sustainability action plan

How to start tackling supplier pressures & emissions without getting overwhelmed

**1**Acknowledge the pressure

Do a quick carbon snapshot

Identify top emission areas

Quick wins first

**5**Map supplier risks

**6**Assign internal ownership

**7**Build an action roadmap

8
Communicate internally & externally

**9**Review and tailor

10
Be audit ready (optional)



### Typical actions: product based business

(e.g. Manufacturing, Construction, FMCG)

| Action                       | Туре                   | Emissions<br>Scope | Expected<br>ROI | Capex<br>Required | Notes  |
|------------------------------|------------------------|--------------------|-----------------|-------------------|--|
| Conduct Energy<br>Audit      | Quick Win              | Scope 1 & 2        | High            | No                | Identifies immediate energy-saving opportunities.      |
| Implement LED Lighting       | Quick Win              | Scope 2            | High            | Yes (Low)         | Reduces electricity consumption; quick payback.        |
| Optimize Logistics<br>Routes | Operational<br>Outcome | Scope 3            | Medium          | No                | Decreases fuel usage and delivery times.               |
| Switch to Electric Forklifts | Investment<br>Project  | Scope 1            | Medium          | Yes (Medium)      | Lowers on-site emissions; may qualify for subsidies.   |
| Install Solar Panels         | Investment<br>Project  | Scope 2            | Medium          | Yes (High)        | Long-term energy savings; potential for grid feedback. |

#### Notes:

- **Emissions Scope**: Refers to the Greenhouse Gas Protocol scopes.
- Expected ROI: Qualitative estimate based on typical outcomes; actual ROI may vary.
- Capex required: Indicates if capital expenditure is needed and the relative scale.



### Typical actions: service-based business

(e.g. Manufacturing, Construction, FMCG)

| Action                          | Туре                   | Emissions<br>Scope | Expected<br>ROI | Capex<br>Required | Notes  |
|---------------------------------|------------------------|--------------------|-----------------|-------------------|--|
| Promote Remote<br>Work          | Quick Win              | Scope 3            | High            | No                | Reduces commuting emissions and office energy use. |
| Adopt Cloud-<br>Based Solutions | Operational<br>Outcome | Scope 2            | Medium          | Yes (Low)         | Enhances efficiency; may reduce hardware needs.    |
| Transition to Electric Vehicles | Investment<br>Project  | Scope 1            | Medium          | Yes (High)        | Cuts fuel costs; aligns with sustainability goals. |

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## Wrap up

### The Green Metrics approach

We make carbon action practical, financially smart, and achievable for business

- Carbon Footprint Assessments From quick snapshots to ISO-auditable reports
- **☑ Tailored Reporting** Compliance-ready and business-relevant
- **Emissions Forecasting** Integrated into financial planning
- Financial Evaluation What's the ROI of carbon reduction projects?
- Green Loan Applications Helping businesses secure favorable finance
- Carbon Credits & Offsets Evaluating smart carbon reduction strategies



#### **Considerations**

- 1. Have any of your customers or corporate clients started asking you for sustainability information or codes of conduct
- 2. What's one quick win your business could implement in the next 30 days to reduce emissions or improve sustainability?
- 3. Who in your business is currently responsible for sustainability—and does that person have the time and authority to drive change?
- 4. What's the biggest barrier stopping your business from taking the next step—data, cost, time, or something else?
- 5. What would a "carbon-smart" version of your business look like in 3 years—and what's the first step to get there?



#### How You Can Help

**Curious? Let's chat** – No obligation.

Know a business that needs help with carbon accounting? Let's connect.



Let's explore how we can work together.

Thank you!

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