



GREENHOUSE GAS EMISSIONS

INVENTORY REPORT

For the year ended 31 March 2024

OVERVIEW

In 2020, Zespri announced a set of targets for reducing greenhouse gas (GHG) emissions across its supply chain. These are:

We will work with our partners to be climate positive by 2035, achieving two key targets along the way.

- *Zespri corporate will be carbon neutral by 2025*
- *We will support our global supply chain to become carbon positive to retailers by 2030.*

This document provides a summary of Zespri's GHG emissions inventory for the financial year ended 31 March 2024 (FY24). It has been prepared in accordance with the ISO 14064-1: 2018 Greenhouse gases – organisational quantification and reporting standard, sections 6.2 (Selection of quantification approach) and 6.3 (Calculation of GHG Emissions and Removals).

A Limited Assurance opinion has been provided by KPMG over the GHG emissions reported in this document.

ORGANISATIONAL BOUNDARIES

To determine the organisational boundaries of its GHG emissions reporting, Zespri applies a financial control consolidation approach, as defined by the ISO 14064-1 Standard. This approach was selected as it aligns with the organisational boundaries in place for Zespri's financial accounting.

Zespri Group Limited is the ultimate holding company for the Zespri Group of companies. All subsidiaries are wholly owned by Zespri interests and have been included in Zespri's organisational GHG reporting boundary.

The Group's subsidiaries are involved in exporting, importing, selling, marketing, investing, researching, and management of New Zealand grown and Non-New Zealand-grown kiwifruit.

A list of Zespri Group subsidiaries is provided in Appendix 2. As at 31 March 2024, Zespri had a total of 28 global office facilities under its financial control (appendix 1).

EXCLUSIONS

The Kiwifruit Breeding Centre is a joint venture operation between Plant & Food Research and Zespri. Zespri has a 50% participating interest in this jointly controlled operation.

The GHG emissions associated with Kiwifruit Breeding Centre's operations have been measured for the FY23 reporting year and are less than 1% of total corporate emissions. On this basis we exclude KBC emissions for FY24 in line with our materiality threshold of 5% of total reported emissions.

REPORTING BOUNDARIES

As per the reporting Standard, Zespri's emissions are divided into direct and indirect emissions sources.

Direct emissions (category 1) originate from Zespri owned or controlled sources, and include emissions associated with fuel used in Zespri's company vehicles.

Indirect emissions, which include category 2 emissions from imported energy (such as electricity), and category 3 emissions from transportation, are generated as a result of Zespri's activities yet occur at sources owned or controlled by another entity.

The GHG emissions sources reported by Zespri are further defined in the following sections as either Zespri corporate or Industry emissions.





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BASE YEAR & CHANGES TO HISTORIC DATA

Zespri's base year for tracking progress against its climate change targets and milestones is the financial year ended 31 March 2020 (FY20). Zespri will recalculate its historic reported emissions if any changes occur that have a cumulative impact of 10% or more on Zespri's corporate or industry emissions inventories. The types of changes that may have a significant impact on Zespri's reported emissions and trigger the need for a emissions recalculation include: structural changes in

reporting or organisational boundaries, changes in calculation methodology, emissions factors changes, or the discovery of a significant error, or a number of cumulative errors, that are collectively significant.

Any changes less than 10% are assessed on a case-by-case basis, and may be updated at Zespri's discretion, especially if it would otherwise compromise the consistency and relevance of the reported GHG information.

ZESPRI CORPORATE

Zespri's corporate emissions are defined as the direct and indirect emissions associated with Zespri's immediate business activities (table 1). The first milestone of Zespri's carbon mitigation target is for the corporate operation to be carbon neutral by 2025. This includes Zespri's category 1, 2 and 3 emissions.

		Carbon Emissions (t CO ₂ -e)				
Scope	Emission Source	2023/24	2022/23	2021/22	2020/21	2019/20
Scope 1	Vehicle fuel	400	300	200	100	300
Scope 2	Office electricity (location based)	200	300	300	300	300
	Office electricity (market based)*	200	200	300	300	300
Scope 3	Air Travel	4,000	4,100	500	300	7,800
	Taxis & staff mileage	100	100	100	100	200
Total Zespri Corporate emissions		4,700	4,700	1,100	800	8,600

Table 1. Zespri Corporate Emissions

**For the FY23 and FY24 reporting periods, Zespri used 100 percent renewable, Toitū climate-positive certified electricity, generated from wind, hydro, and solar at our Mount Maunganui head office. To account for this, the total Zespri corporate emissions includes the market-based figure for office electricity, rather than the location-based figure.*

In FY24 Zespri's corporate emissions remained consistent at ~45% below our FY20 pre-covid baseline. There was a decrease in emissions from air travel and an increase in emissions from transport fuel.

For air travel, there was a 1% decrease in the km travelled by air. Annual increases in vehicle fuel usage were noted in both New Zealand and Europe in FY24.

Zespri's office electricity emissions remain consistent at ~200 tonnes of carbon. Zespri's Mount Maunganui head office continues to be supplied with 100 percent renewable, Toitū climate positive certified electricity, generated from wind, hydro and solar, as presented separately as market and location-based emissions (Table 1).



INDUSTRY EMISSIONS

Zespri's industry carbon mitigation milestone is to be carbon positive to its retailers by 2030. Industry emissions are defined as the indirect emission sources associated with Zespri's supply chain operations from orchard to consumer.

In 2019, Zespri measured the cradle-to-grave emissions of its NZ fruit using the PAS2050 product life-cycle methodology.

Zespri's total supply chain emissions account for ~2kg of CO₂-e emissions per kg of fruit consumed. For further details, refer to www.zespri.com/en-NZ/sustainability-carbon-footprint.

SHIPPING EMISSIONS

Shipping is Zespri's most material reported supply chain emissions source, and a key focus for achieving Zespri's emission reduction targets. Zespri ships kiwifruit from New Zealand via both Zespri chartered shipping vessels, and shared container shipping services.

The reported emissions include both outbound (laden) and inbound (ballast) shipping legs and relate primarily to the fuel combusted to power the shipping vessels.

In 2023/24, Zespri's shipping emissions from New Zealand-sourced fruit reduced by 13 percent compared to the previous year (see Table 2). While this is predominantly due to a reduction in total trays shipped, the carbon efficiency measures (t CO₂-e per TE and kg of Fruit) have also contributed, improving by three percent compared to the previous year.

This was due to our focus on optimisation, including initiatives such as a change in shipping mode split between charter and container vessels, ongoing improvements to charter vessel utilisation, and a reduction in backhaul emissions due to more import cargo coming into New Zealand in Zespri's charter ships.

Industry Emission source	Unit	2023/24	2022/23	2021/22	2020/21	2019/20
Shipping	t CO ₂ -e	333,900	384,300	443,800	374,300	315,900
	kg CO ₂ -e per kg of fruit shipped	0.7	0.7	0.7	0.7	0.6
	kg CO ₂ -e per Tray of Equivalent (TE)	2.3	2.3	2.5	2.3	2.1

Table 2. Zespri shipping emissions from New Zealand sourced fruit.



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DATA COLLECTION & QUANTIFICATION

The table below provides details on the calculation methods, data sources, assumptions and estimates, and emission factors applied to each emission source in quantifying the greenhouse gas emissions reported by Zespri.

Scope	Emission source	Calculation method	Data Sources	Assumptions and estimates	Emission factor reference
Corporate emissions					
Scope 1	Vehicle fuel	Emissions generated by company vehicle fleet (petrol and diesel internal combustion engines).	Fuel-based method.	<ul style="list-style-type: none"> Purchased fuel records stored in Zespri financial accounting system. Average location-based fuel costs have been applied to total invoice spend where units (L) of fuel purchased is unavailable. Petrol is used as default fuel type if not otherwise specified. 	<ul style="list-style-type: none"> New Zealand Ministry for the Environment, 2023.
Scope 2	Office electricity	Emissions from purchased grid electricity consumed at office locations under Zespri's financial control.	Location-based method: emissions based on the average emissions intensity of electricity in the grid region where each facility is located. Market-based method: emissions based on relevant contractual instruments for purchasing electricity from low-carbon sources.	<ul style="list-style-type: none"> Invoices from electricity retailers stored in Zespri financial accounting system. Supplier Certificate of Climate Positive Energy. Average kWh usage per meters squared of office floor area is applied at Zespri office locations where actual kWh usage data is unavailable. 	<ul style="list-style-type: none"> New Zealand Ministry for the Environment, 2023. International Energy Agency (IEA), 2022. New Zealand Energy Certificate System, 2022.
Scope 3	Air travel	Emissions generated by Zespri employees using Aeroplanes for work related travel.	Distance-based method.	<ul style="list-style-type: none"> Air travel booking records provided by Zespri travel management suppliers. Average distance (p.km) per spend (NZD) has been applied to relevant supplier invoices where detailed flight data is unavailable. Where seat class is not identified, relevant average passenger emission factors are applied. 	<ul style="list-style-type: none"> New Zealand Ministry for the Environment, 2023.
	Staff mileage	Emissions generated by Zespri employees using privately owned vehicles for work-related travel.	Distance-based method.	<ul style="list-style-type: none"> Employee expense claims stored in Zespri financial accounting system. n/a 	<ul style="list-style-type: none"> New Zealand Ministry for the Environment, 2023.
	Taxis	Emissions generated by Zespri employees using taxis for work-related travel.	Spend-based method.	<ul style="list-style-type: none"> Employee expense claims stored in Zespri financial accounting system. n/a 	<ul style="list-style-type: none"> New Zealand Ministry for the Environment, 2023.
Industry emissions					
Scope 3	Shipping	Emissions generated from exporting New Zealand sourced fruit via Zespri chartered shipping vessels, and shared container shipping services.	Fuel-based method, including outbound (laden) and inbound (ballast) shipping legs.	<ul style="list-style-type: none"> Zespri shipping information management systems. Supplier shipping route distances and transit times. Supplier vessel capacity and fuel consumption rates. Ballast leg fuel consumption rates have been applied to account for the greenhouse gas emissions associated with empty containers and charter vessels being repositioned to NZ for the purposes of exporting kiwifruit. 	<ul style="list-style-type: none"> International Maritime Organisation, 2020. Smart Freight Center GLEC Framework for Logistics Emissions Methodologies, 2019.

ZESPRI GREENHOUSE GAS EMISSIONS INVENTORY REPORT APPENDIX

Appendix 1. Zespri office locations as at 31 March 2024

Country	Office Location(s)
Belgium	Zeebrugge, Antwerp
China	Shanghai, Beijing, Chengdu, Guangzhou
France	Paris, Dax
Italy	Bologna, Aprilia, Milano, Cisterna
Germany	Hamburg
Japan	Tokyo, Kobe, Fukuoka
New Zealand	Mt Maunganui, Te Puke, Katikati, Cessna Place
Singapore	Singapore
South Korea	Seoul, Jeju
Spain	Madrid
Taiwan	Taipei
Malaysia	Kuala Lumpur
Vietnam	Ho Chi Minh
United States of America	California

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Appendix 2 – Zespri Group Companies included in organisational GHG reporting boundaries as at 31 March 2024

Company	Incorporated
Zespri Group Limited	New Zealand
Zespri International Limited	New Zealand
Zespri New Zealand Limited	New Zealand
Zespri International (Asia) Limited	New Zealand
Zespri International Trading Limited	New Zealand
Zespri Global Supply Holding Company	New Zealand
Zespri Innovation Company Limited	New Zealand
Zespri International (Australia) Pty Limited	Australia
Zespri International (Europe) N.V.	Belgium
Zespri Service Centre N.V.	Belgium
Zespri International (Switzerland) AG	Switzerland
Zespri International Nordic AB	Sweden
Zespri International (United Kingdom)	England
Zespri International Germany GmbH	Germany
Zespri International France E.U.R.L.	France
Zespri Fresh Produce France S.A.R.L.	France
Zespri International Iberica SL	Spain
Zespri International Italy S.r.l.	Italy
Zespri Fresh Produce Italy S.r.l.	Italy
Zespri International (Japan)	Japan
Zespri Fresh Produce (Japan) K.K.	Japan
Zespri International (Korea) Co. Limited	South Korea
Zespri Fresh Produce (Korea) Co. Limited	South Korea
Zespri International (Singapore) Pte Limited	Singapore
Zespri International (India) Pvt Ltd	India
Zespri International (Vietnam) Company	Vietnam
Zespri International (Malaysia) SDN BHD	Malaysia
Zespri Fruit (Shanghai) Co Limited	China
Zespri Fruit Industry (Shanghai) Co. Limited	China
Zespri Fruit Consultoria (Brasil) Ltda	Brazil
NZ Kiwi Holdings Inc.	United States



Independent Limited Assurance Report to Zespri Group Limited (the 'Group')

Conclusion

Our limited assurance conclusion has been formed on the basis of the matters outlined in this report.

Based on our limited assurance engagement, which is not a reasonable assurance engagement or an audit, nothing has come to our attention that would lead us to believe that, in all material respects, the greenhouse gas emissions from the Group's Industry Shipping Emissions from New Zealand sourced fruit and the Corporate greenhouse gas emissions have not, in all material respects, been prepared in accordance with the basis of preparation on pages 1 - 6 included in the attached Greenhouse Gas Emissions Inventory Report for the period 1 April 2023 to 31 March 2024

Information subject to assurance

We have performed an engagement to provide limited assurance in relation to the greenhouse gas emissions from the Group's Industry Shipping Emissions from New Zealand sourced fruit and the Corporate greenhouse gas emissions included within the attached Greenhouse Gas Emissions Inventory Report for the period 1 April 2023 to 31 March 2024.

Criteria

The criteria used as the basis of reporting is the internally developed basis of preparation on pages 1 – 5 in the attached Greenhouse Gas Emissions Inventory Report. As a result, this report may not be suitable for another purpose.

Standards we followed

We conducted our limited assurance engagement in accordance with International Standard on Assurance Engagements (New Zealand) 3000 (Revised) *Assurance Engagements other than audits or reviews of historical financial information* (Standards). We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion. In accordance with the Standards, we have:

- assessed the suitability of the circumstances of the Group's use of the criteria as the basis for preparation of the information subject to assurance;
- used our professional judgement to plan and perform the engagement to obtain limited assurance that the information subject to assurance is free from material misstatement, whether due to fraud or error;

- considered relevant internal controls when designing our assurance procedures, however we do not express a conclusion on the effectiveness of these controls; and
- ensured that the engagement team possess the appropriate knowledge, skills and professional competencies.

How to interpret limited assurance and material misstatement

In a limited assurance engagement, the assurance practitioner performs procedures, primarily consisting of discussion and enquiries of management and others within the entity, as appropriate, and observation and walk-throughs, and evaluates the evidence obtained. The procedures selected depend on our judgement, including identifying areas where the risk of material misstatement with the criteria is likely to arise.

The procedures performed in a limited assurance engagement vary in nature and timing from and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Misstatements, including omissions, within the information subject to assurance is considered material if, individually or in the aggregate, it could reasonably be expected to influence the relevant decisions of the intended users taken on the basis of the information subject to assurance.

Use of this assurance report

Our report is made solely for the Group. Our assurance work has been undertaken so that we might state to the Group those matters we are required to state to them in the assurance report and for no other purpose.

Our report is released to the intended users on the basis that it shall not be copied, referred to or disclosed, in whole or in part, without our prior written consent.

Our report should not be regarded as suitable to be used or relied on by anyone other than the Group for any purpose or in any context. Any other party who obtains access to our report or a copy thereof and chooses to rely on our report (or any part thereof) will do so at its own risk.

To the fullest extent permitted by law, none of KPMG, any entities directly or indirectly controlled by KPMG, or any of their respective members or employees accept or assume any responsibility and deny all liability to any one other than the Group for our work, for this independent limited assurance report, and/or for the conclusions we have reached.

Our opinion is not modified in respect of this matter.

Management's responsibility for the subject matter

Management of the Group are responsible for the preparation of the subject matters in accordance with the criteria, which management have determined to meet the needs of the directors. This responsibility includes such internal control as the management determine is necessary to enable the preparation of the subject matter that is free from material misstatement whether due to fraud or error.

Our responsibility

Our responsibility is to express a limited assurance conclusion to the Group on whether anything has come to our attention that would lead us to believe that, in all material respects, the subject matter has not been prepared in accordance with the criteria for the period 1 April 2023 to 31 March 2024.

Our independence and quality control

We have complied with the independence and other ethical requirements of Professional and Ethical Standard 1 International Code of Ethics for Assurance Practitioners (including International Independence Standards) (New Zealand) issued by the New Zealand Auditing and Assurance Standards Board, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Professional and Ethical Standard 3, which requires the firm to design, implement and operate a system of quality control including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our firm has also provided other services to the Group in relation to the audit of the statutory financial statements, other assurance services, agreed upon procedure engagements, taxation advisory and compliance services. Subject to certain restrictions, partners and employees of our firm may also deal with the Group on normal terms within the ordinary course of trading activities of the business of the Group. These matters have not impaired our independence as assurance providers of the Group for this engagement. The firm has no other relationship with, or interest in, the Group.



KPMG
Auckland
21 June 2024