

For the year ended 31 December 2023





# **About this report**

#### Reporting entity

This is T&G Global's first Climate-related Disclosure (CRD) report for the period of 1 January 2023 to 31 December 2023 and includes T&G Global Limited and its subsidiaries (together T&G). It accompanies T&G's 2023 Annual Report for the same period which contains detailed information on business and financial performance and can be found here: www.tandg.global/investors/reporting

#### **Basis of preparation**

The disclosures in this report comply with the Aotearoa New Zealand Climate Standards (NZCS) and T&G has adopted all first-year reporting provisions provided and detailed under NZCS.

#### Date published

This report was published on 29 February 2024.

#### Reasonable care and forward-looking statements

While there are forward-looking statements made in this report, the climate-related statements and metrics contained here should not be considered any sort of prediction or forecast of performance outcomes, financial or otherwise. These statements are subject to both known and unknown risks, uncertainties and other factors, many of which lie outside T&G's control. T&G has prepared this information with due care and attention, and this report is based on assumptions about T&G's current business and our future strategies, as well as the environment our business operates in, both now and in the future. The identified climate-related risks and opportunities may not eventuate, and if they do, the actual impacts may differ materially from what is provided in this report.



Producing healthy fresh produce for consumers around the world is our core business and has been for generations. How well we succeed depends on how well we work with the natural resources available to us.

Understanding this reality has enabled and also inspired us. From the way we plant and nurture crops to the development of new varieties and crop types, we aim to work in partnership with the natural world to ensure that the produce our consumers buy and eat is in peak condition, physically and nutritionally.

Our purpose is simple—grow healthier futures. Achieving this is less simple. The climate is changing and being close to the land and the seasons, we're acutely aware of this change and its implications. No one could witness the devastation caused by extreme weather and deny this reality. That's why, for many years, we have been taking steps to build a resilient, sustainable and financially strong business, not only for today but for the benefit of future generations.

Understanding the implications of a changing climate is enabling us to assess, prepare and respond so that we can mitigate the risks and make the most of the opportunities. This year we tested our strategy and business model against three possible future climate scenarios. This work will not only guide our actions, but also assist our stakeholders to make informed decisions.

While we are new to climate-related reporting, we are not new to climate understanding or action. Guided by our materiality assessment and risks and opportunities, our Kaitiakitanga

sustainability framework has climate action as a key focus area, centered on emissions reduction, adaptation and building capability.

#### **Emissions reductions**

T&G's greenhouse gas (GHG) emissions reduction targets are aligned to our ultimate parent company BayWa AG's targets, which were set in 2018.

Since setting these targets, we have reduced our absolute scope 1 and 2 emissions by 34.1% (using the market-based approach), against a 2017 base year.

As part of our commitment to mitigating our GHG emissions, together with our majority shareholder BayWa Global Produce, we are working to set new scope 1 and 2 targets, as well as establish scope 3 targets, aligned to 1.5°C. These targets will be against a base year of 2021, as noted in last year's Annual Report. We expect this target setting process to be concluded in 2024.

We are now co-developing emissions reduction plans with each of our business units, including the 2023 introduction

of an internal carbon price which has helped fund the installation of thermal screens in our glasshouses in Tūākau, Auckland, as profiled on page 56 in our 2023 Annual Report. In the future, we will use our knowledge and experience to help support growers and suppliers to reduce their emissions.

#### Adaptation

Horticulture involves nature, nurture and knowledge. Science, experience and decades of understanding of everything from soil types to plant genetics have always enabled our business to evolve and it's this continuous process of adopting and adapting that we're now applying to managing climate-related risks and opportunities.

One example is the release of the new heat-tolerant apple variety, which is branded as Tutti™, through our collaboration with the Hot Climate Partnership.

Our VentureFruit® business is the strategic commercialisation partner for the Hot Climate Programme.

VentureFruit® brings together our global expertise in genetics, cultivar development, commercialisation and extensive networks to develop high value apple, pear, berry and grape cultivars, including those which can be grown in different geographies and climates.

Another adaptation example is the adoption of the 2D planting model for our apple orchard redevelopments and new plantings, which includes hail protection on some orchards. The 2D structure allows for a safer working environment by utilising technologies such as picking platforms, automated sprayers and mowers, and specialised defoliators. It also allows

for future adaptation such as driverless electric tractors and robotic harvesters.

This year's extensive climate scenario analysis work will inform future adaptation plans to capitalise on the opportunities and prevent or reduce the impacts of identified risks.

#### Building capability

Across T&G, we are also developing a deeper understanding of climate change and the risks and opportunities it presents, with the priority this year being our leadership, growing and finance teams. With this knowledge, our people are better equipped and empowered to plan

for the future, make informed decisions and identify opportunities to continually improve our operations and processes in support of mitigation and adaptation. Enhancements have also been made to our data collection and reporting capabilities to ensure we accurately track our progress.

This Climate-related Disclosure under the new Aotearoa New Zealand Climate Standard outlines how we are improving our governance processes, transitioning our business strategy, expanding our risk management practices, and tracking key metrics related to our climate change response.

Gareth Edgecombe

Chief Executive Officer

Carol Campbell

Carre Carell

Independent Director; Chair of the

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Benedikt Mangold

Chair T&G Global; Chair of the Sustainability Committee



Growing healthier futures

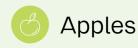
The world's leading premium fresh produce company

T&G's story began over 125 years ago as Turners and Growers, and today we help grow healthier futures for people around the world. As a part of the BayWa Global Produce family, we are located in 13 countries and our team of 1,600 people grow fresh produce, partner with over 800 growers, and market and sell fruit and vegetables to customers and consumers in over 60 countries.

We do this guided by kaitiakitanga – treating the land, people, produce, resources and community with the greatest of respect and care.

#### Our business model

T&G is a vertically integrated fresh produce business. Our operations include:



Born from over a century of knowledge, partnerships and hard mahi, our vertically integrated apples business spans each step of the value chain from genetics, growing, post-harvest, through to in-market marketing and sales.

Our efficient end-to-end supply chain ensures consumers and customers around the world can access our high quality, premium apples 365 days of the year. Our apples portfolio consists of three premium intellectual property-protected brands, Envy™, JAZZ™ and Joli™, and these are grown under license by specially selected growers in both hemispheres. This is complemented by a wide portfolio of other varieties and brands including Royal Gala, Pacific Queen™ and Pacific Rose™.

In Aotearoa New Zealand, T&G has extensive own growing and post-harvest operations in Hawke's Bay, and partners with over 100 independent growers in Hawke's Bay, Tairāwhiti Gisborne, Nelson and Otago.



T&G Fresh is one of Aotearoa New Zealand's most-established growers. It grows berries, citrus and tomatoes, and partners with over 700 growers to provide kiwis with delicious, healthy fresh fruit and vegetables. T&G Fresh works closely with retailers, in-home meal kit providers and foodservice providers, and operates a network of 11 market and distribution centres. To supplement local supply, T&G Fresh imports fresh produce which can't be grown locally or to cover seasonal gaps in local production. It also manages our Australian and Pacific Islands operations.



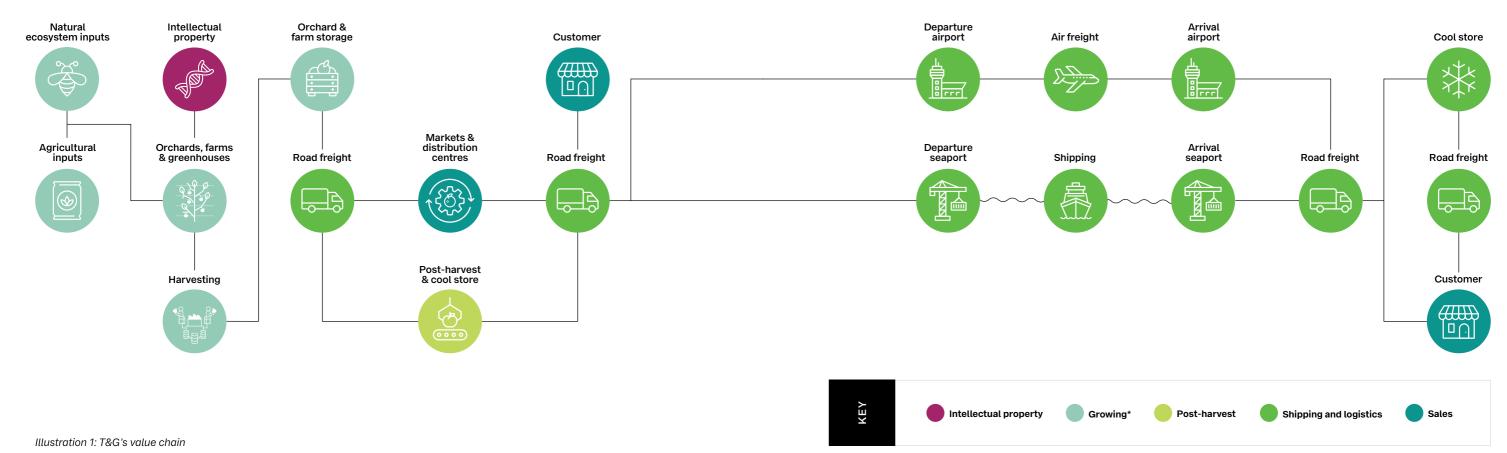
VentureFruit® is T&G's global genetics and variety management business which collaborates with breeders, research partners, growers, and sales and marketing organisations around the world to bring new, high value and superior quality fruit to markets and consumers globally.

The expertise and success of VentureFruit® in cultivar development and commercialisation services has been honed over the last 25 years and is demonstrated through strong consumer orientated brands, including the Envy™, JAZZ™, Pacific Rose™ and Pacific Queen™ apple brands.



Beyond T&G's apples and T&G Fresh business, we also have an International Trading business where our team source fresh produce, including cherries, avocados and stone fruit from the Americas and Europe for sale in Asia, Australia and the Americas.

T&G is listed on the New Zealand Stock Exchange and our majority shareholder is BayWa Global Produce, with 73.99% of shares. Further information about T&G, including our Aotearoa New Zealand and global footprint, can be found in our 2023 Annual Report and on our website www.tandg.global/investors/reporting.



<sup>\*</sup>Includes supply and procurement of produce; there are no exclusions from the value chain.

# Our strategy



# Grow great brands

- Best genetics in apples and berries
- Unique varieties and brands loved by consumers
- World-class in growing and post-harvest, with global partners maximising our intellectual property



Win in key global markets

- Unlock markets selected for premium and potential
- Close to customers with capability in-market
- Most efficient end-to-end supply chain



Lead Aotearoa New Zealand's fresh produce future

- · Win in chosen categories
- Offer the best channels to market
- Build long-term relationships

Illustration 2: T&G's strategy



## Our approach to climate governance

T&G recognises that strong corporate governance is essential in protecting and strengthening the interests of the Company, its shareholders and stakeholders, and in creating long-term sustainable value.

#### T&G's climate-related risk and opportunity management model

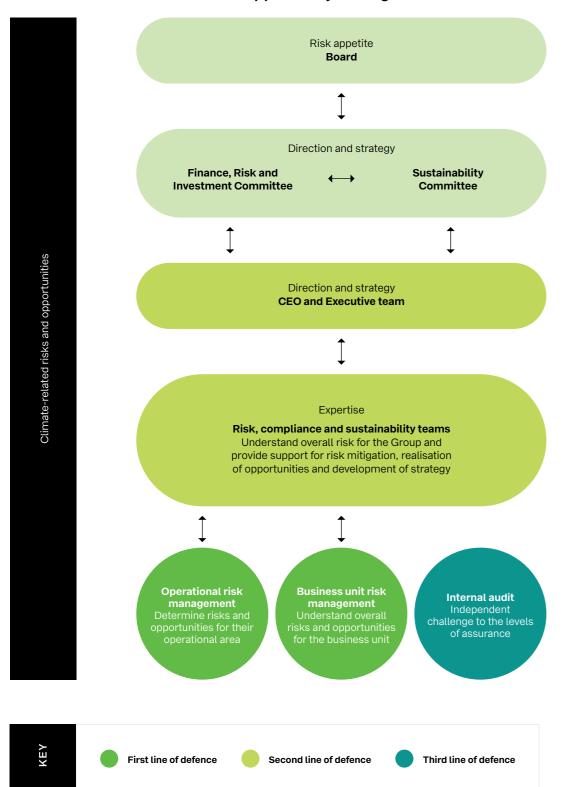


Illustration 3: T&G's climate-related risk and opportunity management model

#### The role of the Board

T&G's Board sets the Company's purpose and overall strategic direction, and has oversight of our risk management strategy, framework, policies and risk appetite, including those related to climate change. The members of the Board are detailed on pages 66–67 of the 2023 Annual Report and on our website www.tandg.global/our-story/our-team. Accountability for ensuring that T&G's climate-related matters

are recognised, assessed and monitored, sits with the Board. Two Board-level committees support the Board with this responsibility, the Sustainability Committee (SC) and the Finance, Risk and Investment Committee (FRIC), and both operate under a Board approved charter<sup>1</sup>.

# Sustainability Committee (SC)

Established in 2023, the SC comprises three Directors, including one Independent Director. It oversees T&G's sustainability framework and climate strategy, targets, scenarios and the annual allocation of internal carbon price funds, before recommending them to the Board for approval. Once approved, it monitors performance against them. The SC oversees climate-related risks and opportunities, as well as the Company's sustainability and Climate-related Disclosures, before recommending them to FRIC for review and tabling with the Board for approval.

#### Finance, Risk and Investment Committee (FRIC)

The FRIC comprises three Directors, including two Independent Directors. It ensures that management has established procedures and processes to identify, escalate, manage and monitor primary business and climate-related risks and opportunities according to its Risk Management Policy. It also reviews T&G's annual corporate disclosures, including its Annual Report and Climate-related Disclosure, before recommending them to the Board for approval.

Table 1: Board sub-Committee responsibilities

The SC and FRIC draw upon climate-related expertise from the Executive team, internal subject matter experts and external advisors to provide specialist advice regarding changing regulatory requirements and to provide appropriate oversight of climate-related risks and opportunities.

Both Committees meet at least three times a year to review management's progress against goals and targets

for addressing climate-related risks and opportunities. Proceedings are reported to the Board. Additional reporting to the Committees and Board is undertaken as required, such as updates on strategic climate-related initiatives.

From a remuneration perspective, whilst our incentive plans are linked to both company and individual performance, we do not explicitly link them to climate-related outcomes.

<sup>1.</sup> For more detail on our Board and Committee charters, please see the Corporate Governance section on our website: www.tandg.global/investors/corporate-governance

# Directors' climate capabilities and understanding

T&G's Board is actively expanding its climate-related knowledge through information, capability and skills-building sessions. The Board accesses expertise from both within T&G and from external industry experts. In addition, some of the Directors are members of Chapter Zero, a global network of directors committed to taking action on climate change. A skills and experience matrix for Directors is on page 71 of the 2023 Annual Report.

#### The role of the Executive Team

The Board assigns the day-to-day management of climate-related risks and opportunities to the Executive team.

T&G's Executive team has oversight of the Company's Kaitiakitanga sustainability framework, including our climate action strategy and related targets, climate-related reporting and regulatory compliance.

They are responsible for ensuring the Company is identifying, assessing, monitoring and managing climate-related risks and opportunities. From this, the Executive team ensures this is embedded into business strategy and implementation, risk management, financial planning and capital allocation processes.

Each SC meeting is attended by the Chief Executive Officer, Chief Financial Officer, Head of Corporate Affairs and Director People and Culture, and the Committee is provided an update on the Company's Kaitiakitanga framework, including its climate action plan and progress against climate targets.

All FRIC meetings are attended by the Chief Executive Officer and Chief Financial Officer, with other Executive members attending as required. The Committee is provided with annual updates of climate-related risks and opportunities.

T&G's Chief Executive Officer updates the Board at each Board Meeting on key aspects of the Company's strategy.

The members of the Executive team are outlined on our website www.tandg. global/our-story/our-team and in our 2023 Annual Report.

An outline of T&G's climate-related risk and opportunity management model, including key climate-related responsibilities, is provided in Illustration 3.



## **Strategy**

Everything T&G does is guided by its purpose to grow healthier futures – healthier futures for our stakeholders, as well as the land and the world's natural resources. Building a strong and thriving climate-resilient business through decarbonisation and adaptation is inherently part of this.

T&G's strategy, as detailed in the About T&G section, is structured to create short, medium and long-term value through the commercialisation of premium plant genetics, the growing, licensing and sourcing of fresh produce, and the marketing, sale and distribution of it.

## Climate scenario analysis process

In 2023, T&G, supported by Aurecon Limited, an Asia Pacific design, engineering and advisory company, conducted robust qualitative analysis to develop its climate scenarios and help identify climate-related risks and opportunities over the short, medium and long-term.

The outcomes of this process are being used to help inform the long-term direction and continual evolution of the Company's strategy, as well as test its resilience. At a high level, the process T&G followed is:

A governance group was established, including five Executive members and guided by Aurecon.

Over 30 T&G team members from across our global value chain, together with a representative from The New Zealand Institute for Plant & Food Research, were brought together to form a working group.

Using The Aotearoa Circle's Agriculture Sector Climate Change Scenarios<sup>2</sup> as a basis, a series of workshops were held with the working group to:

- Agree upon T&G's value chain and key value drivers.
- Define and develop T&G's three scenarios and supporting narratives for plausible socio-economic, technological, environmental and political futures.
- Discuss and identify the potential physical and transitional risks and opportunities, under each of the three scenarios.

This was done by exploring:

- What physical and transitional risks and opportunities would be plausible for T&G's business model?
- When would they materialise, where in the value chain might they occur, and how specifically in T&G's industry context might they take place?

Three scenarios were developed for temperature increases of 1.5°C, 2.9°C and 4.8°C.

The scenarios and respective risks and opportunities were reviewed and refined by the Executive team and the SC, with the latter recommending them to the Board for review and approval.

#### T&G's climate scenarios

	Scenario 1 Orderly decarbonisation	Scenario 2 Regional rivalry	Scenario 3 Hothouse
SSP/RCP combination used	SSP1 RCP1.9 & 2.6	SSP3 RCP4.5	SSP5 RCP8.5
Warming level	1.5°C³ warming by 2100⁴	2.9°C warming by 2100 <sup>4</sup>	4.8°C warming by 2100 <sup>4</sup>
Description	Smooth, globally coordinated transition to a net zero emissions economy	Resurgent nationalism, deglobalisation and trade barriers alongside weak climate action until 2030, followed by a rapid, disrupted transition to a low-emissions world	A future with a lack of climate policies and a focus on adaptation instead of mitigation. There are significant physical climate change impacts and warming
Plausibility for T&G	Chosen to reflect a plausible future in which T&G has to rapidly decarbonise and transition its operations	Selected as it poses high levels of disruption to international trade that would affect T&G's business model	Elected due to the high level of physical impact that would manifest in T&G's growing operations

Table 2: T&G's climate scenarios

### Rationale for these scenarios

In selecting its three scenarios, T&G has been guided by the requirements of the NZCS and The Aotearoa Circle's Agriculture Sector Climate Change Scenarios.

In developing its sector scenarios, The Aotearoa Circle brought together the diversity of the agriculture sector to collaborate, share knowledge, science and insights, and inform the outcome. T&G participated as a member of the Technical Expert Group.

T&G's first scenario, orderly decarbonisation (1.5°C), and third scenario, hothouse (4.8°C), align with both the mandated NZCS scenarios as well as The Aotearoa Circle sector scenarios.

Our second scenario, regional rivalry (2.9°C), differs from the sector scenarios. It was selected as we consider regional rivalry (SSP3, RCP4.5) to be the more comprehensive challenge for

our business, given the aspects of deglobalisation, increased national food security and the subsequent effects on consumer preferences and market size. We selected RCP4.5 because:

- Of the availability of RCP4.5 data relative to RCP6.0 data (currently, there is very little data for RCP6.0 downscaled to regions in Aotearoa New Zealand).
- It is commonly adopted by other reporting entities, allowing for easier comparison of Climate-related Disclosures.
- It was used in The Aotearoa Circle's sector scenarios, allowing consistency in the translation of sector-to-company specific scenarios.

No further scenarios have been undertaken.

<sup>2.</sup> The Aotearoa Circle is a voluntary initiative which brings together leaders from the public and private sectors to commit to priority actions that will restore Aotearoa's natural capital for future generations. In 2022 and 2023 it developed the Agriculture Sector Climate Change Scenarios, which can be found at www.theaotearoacircle.nz/s/April-2023\_Aotearoa-Circle-Agri-Adaptation-Climate-Scenarios.pdf

<sup>3.</sup> Average global temperature rise for RCP1.9, in alignment with NZCS

<sup>4.</sup> Rise in average global temperatures in the 2081-2100 period relative to the preindustrial baseline (1850-1900)

#### T&G's scenario narratives

# Scenario 1: Orderly decarbonisation

In the near-term, the world shifts purposefully toward valuing planetary health, biodiversity and human wellbeing, with governments and institutions collaborating effectively at all levels in pursuit of these goals and net zero emissions.

Environmentally friendly technologies are developed, and uptake of renewable energy increases. There is rapid decarbonisation of the transport network. However, this results in increases to import/export costs and increases in time to market, for example due to slower moving ships. Globally, sustainable purchasing and consumption habits are enhanced, resulting in increased amounts of produce sourced regionally and scrutiny in overseas markets of food shipped over great distances from places like Aotearoa New Zealand. The effects of climate change are increasingly evident in the second half of the century, with significant impacts to the horticulture

sector, especially in terms of wind and flood damage to horticulture infrastructure. This creates difficulty accessing climate-related insurance products for growers. In tandem, the use of new horticultural technologies, advancements in sustainable fertilisers and regenerative horticulture techniques rapidly emerge, and forests and native plantings are also enhanced. At a wider level, the agriculture sector meets 2050 net zero goals through activities such as these, driven by the recognition that decarbonisation impacts its social license to operate.

# Tutti™ apples, image courtesy of IRTA

#### T&G's scenario narratives

# Scenario 2: Regional rivalry

Off the back of COVID-19 and regional conflicts, there is a resurgence of nationalism in the near future. This leads to trade barriers, rivalry and nation-serving behaviours.

Globalism deteriorates, and there are increased constraints on international trade and technology transfer, resulting in nations prioritising food and resource security. Food stockpiling means consumer preferences shift to less perishable and preserved produce options. Governments increase attention and scrutiny for the local food sector, with an emphasis on maximising yields, whatever it takes. These shifts have multiple knock-on effects. Exporters face reputational risks and consumers increasingly support domestic, Aotearoa New Zealand-made. Also, sustainability and biodiversity outcomes are de-prioritised, with net zero commitments deferred until 2035, when policies are enacted with costly transition implications. With the focus on growing food, there are

increases in deforestation, biodiversity loss, and negative impacts on ecosystem services, for example pollinators. Climaterelated chronic impacts and extreme events accelerate beyond 2050, with increases in issues of water scarcity and water rights conflicts internationally, further exacerbating food security issues. Increases in drought and severity, fire and severe weather, have adverse impacts on growers. This creates increased challenges for accessing insurance and finance, and the failure of smaller grower businesses who are unable to adapt and transition their businesses. With an increasing need to shore up food security, there is widespread international social acceptance of genetic technologies, such as new breeding techniques and genetic modification.



#### T&G's scenario narratives

# Scenario 3: Hothouse

The world continues with business as usual for the coming decades. Globally, an economic and social development focus built on fossil-fuel intensive growth yields little climate regulation.

However, companies with tangata whenua owners or business partners remain committed to demonstrating sustainability. Climate change impacts intensify and increases, especially after 2050. There is extreme heat which causes blackouts, fatalities, worker heat stress and food supply shortages. As a result, produce demand increases, with a two-tier market emerging: high-priced sustainable options and low-priced conventional choices for the mass market. The severity and frequency of ex-tropical cyclones, flooding, drought and fire increases in Aotearoa New Zealand, which creates catastrophic growing damage, significant losses and supply chain disruptions. The horticulture industry shifts to indoor growing, cultivating new regions with intensifying land competition, and increased acceptance

and use of genetic technologies to evolve plants with climate-resistant properties. In this context, grower climate adaptation difficulties result in stranded assets, increased market concentration, costly and challenging technological innovation, and the need for increased government support. Obtaining insurance is increasingly difficult, and growers face financial liabilities and the need to self-insure. Globally, water stress and competition, and energy and food instability cause poverty and political instability. To counteract this, global markets are increasingly integrated, trade policy supported and international shipping and logistics diversified to thwart weather disruptions. There is a post-climate disaster focus on adaptation, technology, infrastructure and systems change.



#### **Limitations of scenarios**

Climate scenarios give a useful glimpse at what the impacts might be. They are created with assumptions and projections based on the best information available at the time they are produced. However, climate and many other assumptions inherent to these scenarios may not ultimately reflect the complex evolution and interaction of global systems and factors. They are inherently uncertain and not meant to provide a complete or certain view of the future. These limitations should be noted when reading this report.

# Building increased resilience into the business model, strategy and capital deployment

As a horticultural business, T&G is heavily reliant on natural capital and the climate to grow and source frest fruit and vegetables.

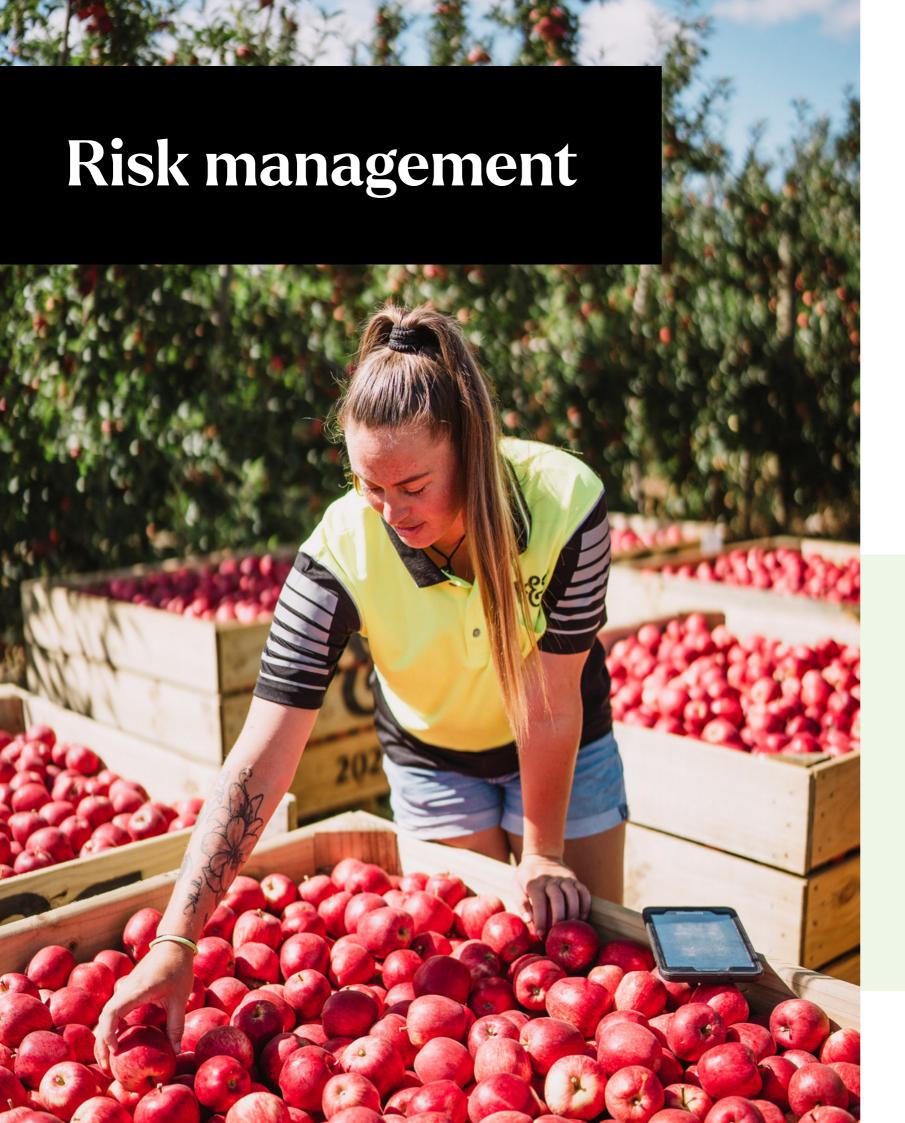
While our sector is at the forefront of the impacts of a changing climate – as experienced this year with heavy rains, flooding and Cyclone Gabrielle (please see pages 14–17 of the 2023 Annual Report for a case study on the impact of the cyclone and T&G's response) – T&G is positioned well to realise future opportunities that a changing climate presents. This is illustrated through the likes of our dual hemisphere, multi-country sourcing strategy, and our new plant variety commercialisation activities and partnerships, such as the Hot Climate Partnership which is commercialising new apple and pear varieties specifically created for hot and warming climates

Annually, the Board reviews its three-year business and financial plan and targets, taking into consideration internal and externa factors. This process informs the strategic initiatives the Company pursues each year.

As part of this process, climate-related risks and opportunities have influenced and shaped our long-term direction, strategy and capital spend. In 2023, as part of the maturing of our climate change knowledge and expertise, we undertook a strengthened and extensive process to update our climate-related risks and opportunities and enhance our risk and opportunities register. Our financial processes will continue to be expanded to proactively and explicitly ensure that climate is considered in, amongst other areas, capital allocation and leases.

Management's current planned actions to maximise resilience in our strategy and business model for our material risks and opportunities are detailed in Tables 4–5, and in the year ahead we will continue to adapt our strategy and set key metrics and targets to manage climate-related risks and opportunities.

Protecting Te Taiao is central to what we do and our purpose. We will continue to build increased resilience into our business by adapting and responding to the physical and transitional risks and opportunities a changing climate presents, while reducing our impact on our natural resources. This will help ensure we are well positioned to thrive in a low carbon future for the benefit of future generations.



# Integration of climate-related risks with overall risk management

T&G manages risks with the Three Lines of Defence Model (see Illustration 3), which highlights the importance of segregation of roles and responsibilities across governance, management and day-to-day operations, while also highlighting relationships between the different areas.

The Board sets and monitors T&G's Risk Appetite captured in the Risk Appetite Statement, which expresses T&G's position to pursue, retain or take on risks. The Risk Appetite is reflected in business policies which are regularly reviewed and approved by the Board.

T&G's Risk Management Policy is available on the Company's website www.tandg.global/investors/ corporate-governance, and together with T&G's Risk and Compliance Framework, provides an overarching framework for assessing, monitoring and managing risks, including climate-related risks. The T&G Risk Management Framework assists in the identification of strategic, project, climate-related and operational risks, and supports the delivery of T&G's business objectives and strategy within T&G's Risk Appetite. It comprises the following:

- Risk assessment through identification, analysis and evaluation by using the T&G Risk Matrix (see Appendix 3) defining T&G's risk tolerance from low to extreme.
- Residual risk analysis and treatment with an assessment to be made to either accept, reduce, transfer or eliminate the risk.

- Monitoring and review of risks, mitigation and controls to determine the ongoing validity of the assumptions made.
- Communication and consultation with internal and external stakeholders, including regular reporting to the Executive team, the Finance, Risk and Investment Committee, the Sustainability Committee and the Board.
- Escalation of risks to the Executive team, Board sub-Committees and the Board via T&G's risk escalation process outlined in Appendix 2.

Climate-related risks are integrated into the T&G risk management process through the Three Lines of Defence Model, Risk Appetite Statement and T&G Risk Matrix.

# Scenarios and time horizons for risk and opportunity assessment

In 2023, T&G conducted its first climate scenario analysis to develop three plausible scenarios which describe how the future may develop, each supported by a set of assumptions. These scenarios are not predictions of the future, they are hypothetical outcomes which challenge our understanding and help us build further resilience into our

strategy and business model. This analysis looked at the next 50 years (2073) which aligns with the lifetime of T&G's assets and Aotearoa New Zealand's regulatory aspirations for net zero by 2050.

The wider scenarios examined however extend to 2100 (see Strategy section for further discussion).

T&G defines the time horizons to assess climate-related risks and opportunities in accordance with the United Nations' Intergovernmental Panel on Climate Change (IPCC), National Institute of Water and Atmospheric Research (NIWA), External Reporting Board (XRB) and ISO14091 (ISO 202). These are outlined in Table 3.

#### Time horizons

#### Short-term

1–3 years (this aligns to business planning and capital allocation processes)

#### Medium-term

3–10 years (this aligns to internal business planning as well as global climate change ambitions under the Paris Agreement 2030)

#### Long-term

10–50 years (this aligns to apple orchard growing cycles of 25 years, the life span of major assets and mid/end century time horizons used by both IPCC and NIWA).

Table 3: T&G's time horizons, used to identify and assess climate-related risks and opportunities



# Identifying and assessing climate-related risks and opportunities

T&G's climate-related risks and opportunities are grouped by value drivers aligned with T&G's business model and value chain. No part of T&G's value chain has been excluded from the analysis. T&G's value drivers are:



Intellectual property



Post-harvest



Growing

T&G owned or leased orchards



Shipping and logistics



# Supply and category procurement

Independent growers and sourced produce



Sales

# T&G's process to assess climate-related risks and opportunities

To identify and assess climate-related risks, T&G follows this five-stage process. Opportunities are assessed through the same process where appropriate.





Stage 1: Identification Identification of new and review of existing climate-related transitional and physical risks and opportunities through annual workshops which include:

- Participants and subject matter experts from across the business, representing each of the T&G value drivers.
- Risk and climate change experts where needed.
- The capture of the impacts and hazards of risks, as well as opportunities, to value drivers.



Stage 2: Analysis Risks are analysed against climate change scenarios and time horizons using the T&G Risk Matrix (see Appendix 3), and our climate-related risk screening tool. Opportunities are analysed for each value driver and scenario to determine the benefit for the business.



Stage 3: Evaluation For each risk, the effectiveness of existing controls is determined, as well as the need for any changes. Opportunities are ranked to determine the priority for the creation of action plans by the business.

Evaluation is supplemented with climate-related events which have had or could have an impact on T&G's assets and potential strategy.



Stage 4: Residual risk analysis and treatment Assessment of the controls and treatment. The residual risk is based on the controls put in place for managing risks. For each residual risk, an assessment is made to either:

- Accept the risk and make a conscious decision to not take any action.
- Accept the risk but take some actions to lessen or minimise its likelihood or impact.
- Transfer the risk (in whole or in part) to another individual or organisation (e.g., through insurance) where possible.
- Eliminate the risk by ceasing to perform the activity causing it.



Risk escalation is dependent on the residual risk rating (refer Appendix 2 for details of the escalation). Opportunities are escalated depending on their prioritisation.

Priority opportunities are advised by the business to the Executive team to agree, determine funding and support the development of action plans for implementation. These are then escalated to the Finance, Risk and Investment Committee, Sustainability Committee and Board for approval.

Illustration 4: T&G's process to assess climate-related risks and opportunities

## Monitoring and review

Regular monitoring and review of risks and opportunities, mitigations and controls is undertaken to detect changes and determine the ongoing validity of assumptions made, including:

- Climate-related events and actual or potential impact on T&G
- · Climate change scenario modelling
- Monitoring and analysis of available climate-related reporting
- · Monitoring of key risk indicators
- · Monitoring of opportunity action plans and realisation
- Internal audits
- External audits

Climate-related risks and opportunities, controls, action plans and owners are documented and monitored in T&G's risk management system. All climate-related risks and opportunities are reviewed at least annually by stakeholders within T&G, with support from consultants and industry experts as required.

Climate-related reporting requirements, supporting documentation and any changes to regulations are captured in T&G's risk management system and monitored on an ongoing basis.

Climate-related risks and opportunities are managed, reported and escalated separately to other risks and are captured in a specific climate-change risk and opportunity register in T&G's Risk Management system.



# Material climate-related risks and opportunities

In defining physical and transitional risks and opportunities, T&G has used the Aotearoa New Zealand Climate Standard 1 Climate-related Disclosures (NZ CS 1) definition, which is:

#### Physical risks:

Risks related to the physical impacts of climate change. Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events. They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns, such as sea level rise.

#### Transitional risks:

Risks related to the transition to a low-emissions, climate-resilient global and domestic economy, such as policy, legal, technology, market and reputation changes associated with the mitigation and adaptation requirements relating to climate change.

#### Opportunities:

The potentially positive climate-related outcomes for an entity. Efforts to mitigate and adapt to climate change can produce opportunities for entities, such as through resource efficiency and cost savings, the adoption and utilisation of low-emissions energy sources, the development of new products and services, and building resilience along the value chain.

T&G's identified material climate-related risks and opportunities, including time horizons and management actions, are detailed in Tables 4–5.



# T&G's material climate-related risks

Risk	Туре	Value driver	Current impacts	Current strategies	Current regions affected	Anticipated impacts	Future regions Based on projected 2°C of global warming	Future strategies	Rating for each	h sce	
Damage to T&G operations due to increasing intensity and frequency of severe weather events	Physical	<ul><li> Growing</li><li> Post-harvest</li></ul>	<ul> <li>Orchards are vulnerable to hail</li> <li>Timely harvesting of fruit and fruit quality is impacted by heavy rain</li> <li>Localised impact to Hawke's Bay due to Cyclone Gabrielle<sup>5</sup>. Impact on growing operations and assets associated with these operations</li> </ul>	<ul> <li>Protection structures e.g. hail nets, covered cropping, tunnels, fertigation</li> <li>Optimised drainage and irrigation systems</li> <li>Ensuring the optimal insurance programme is in place</li> <li>Diversification of growing regions across Aotearoa New Zealand</li> <li>Maintaining partnerships with industry post-harvest operators to ensure business continuity</li> </ul>	Aotearoa New Zealand	Potential for impact on growing operations and associated assets in all growing regions	Aotearoa New Zealand and Australia	<ul> <li>Explore further diversification of growing regions based on quantitative data</li> <li>Optimise stop bank protections</li> <li>Further investment, where practical, in hail nets, tunnels and optimised irrigation systems</li> <li>Explore further insurance coverage options</li> </ul>	Short Medium Long	•	• •
Decline in land suitability for growing existing crop categories due to increasing average temperatures leading to changes in produce supply	Physical	<ul> <li>Growing</li> <li>Supply and category procurement</li> </ul>	<ul> <li>Increased pests and diseases restricting market access</li> <li>Reduced apple yield due to sunburn</li> </ul>	T&G's VentureFruit® business is working with Plant & Food Research, IRTA and Fruit Futur as the commercialisation partner of the Hot Climate Partnership to develop and commercialise a new category of fruit which thrives in hot climates. Tutti™, the world's first specifically bred hot climate tolerant apple variety was launched in February 2023, and more are in the pipeline     Targeted programme for pests and diseases, including collaboration with industry bodies to enable optimal pest and disease strategies     Diversification of growing regions for T&G and independent supply	Aotearoa New Zealand	Growing regions are potentially less suitable for optimal production and/or crop categories	Global	<ul> <li>Explore further diversification of growing regions for T&amp;G and independent supply</li> <li>Continue to form and/or strengthen partnerships to identify and commercialise varieties which are bred for hot and warming climates</li> </ul>	Short Medium Long	•	• •
Significant increases in the cost of doing business due to the convergence of climate-related cost increases in glasshouse growing, transport and financial services procurement	Physical and transitional	<ul><li> Growing</li><li> Post-harvest</li><li> Shipping and logistics</li><li> Sales</li></ul>	Reduction in procurement volumes of fresh produce     Increased investment in procurement of financial services     Financial investment in asset enhancement and energy efficient alternatives     Increased due diligence in the selection of long-term assets	<ul> <li>Harness unique plant varieties, build strong consumer brands and high-quality markets</li> <li>Closely monitor cost drivers and explore options to further optimise T&amp;G's cost structure</li> <li>Long-term partnerships to support T&amp;G's business model and strategy to ensure cost efficiencies and supply certainty</li> <li>Collaboration with industry bodies to enable optimal pest and disease strategies</li> <li>Investment in energy saving initiatives</li> <li>Investigation of low-emission transport options</li> </ul>	Aotearoa New Zealand	Challenges to the financial performance of existing business models	Global	Maintain and further develop long-term partnerships to support T&G's strategy to ensure cost efficiencies and supply certainty     Further explore opportunities for automation of processes across the organisation     Develop less capital-intensive business models     Continued investment in energy saving and low emission solutions	Short Medium Long	•	• •

Table 4: T&G's material climate-related risks

Low risk Medium risk High risk

<sup>5.</sup> Based on T&G's analysis to-date, Cyclone Gabrielle was a 1-in-70 year event

# T&G's material climate-related opportunities

The below opportunities manifest globally and are not restricted to one geographic region.

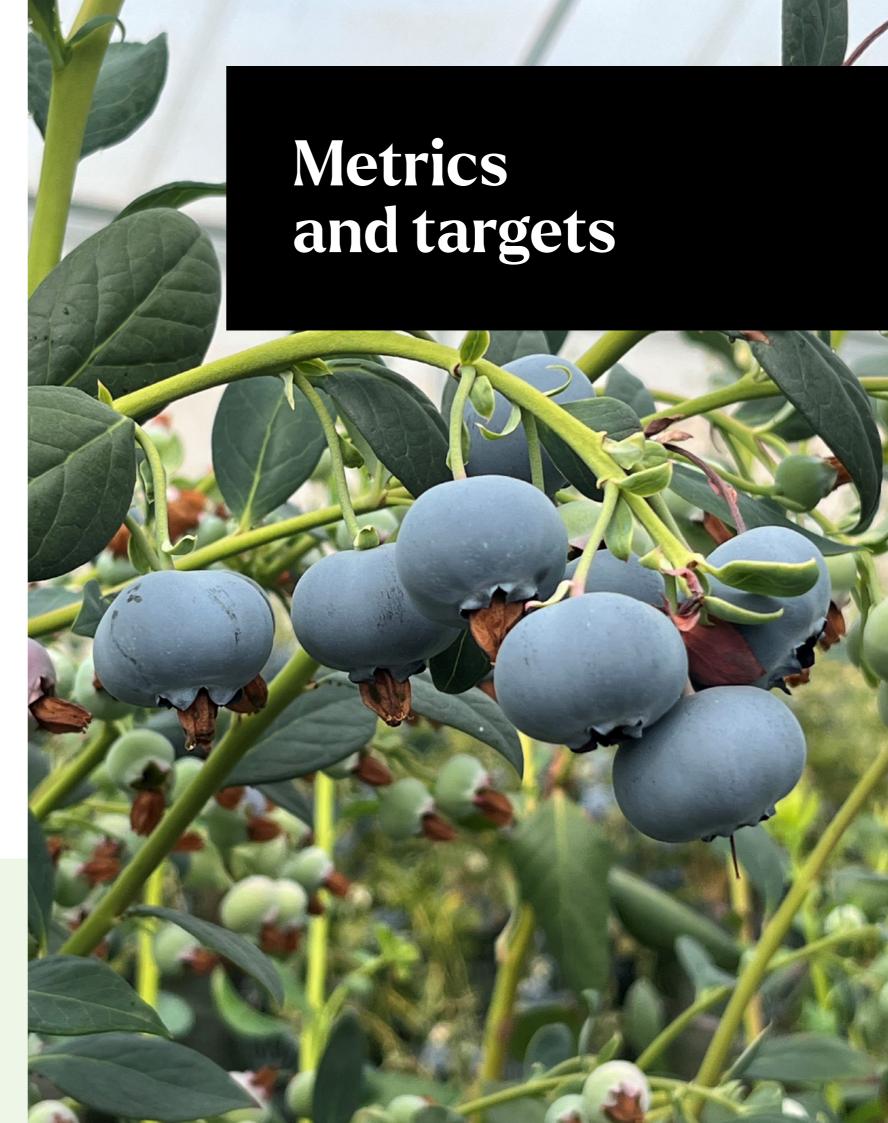
Opportunity	Туре	Value driver	Future strategies	Rating over time for each scenario			
					1	2	3
	Crowing			Short	•		
New growing areas will become available, both locally and in-  Physical Physical category  Growing  Supply and category		<ul> <li>Explore the diversification of growing regions for T&amp;G and independent supply</li> </ul>	Medium	•	•	•	
market	procureme	procurement		Long	•	•	•
More growers and			Further invest in partnerships, research	Short	•		•
climate-tolerant, pest and	Physical and transitional	property	and the commercialisation of new plant varieties which are highly resilient to a changing climate	Medium	•		•
compatible varieties				Long	•		•

Table 5: T&G's material climate-related opportunities



As T&G is adopting the first time provisions it has not established metrics for climate-related risks and opportunities nor determined the financial impact. Therefore, the amount or percentage of assets or business activities vulnerable to climate-related risks and opportunities can not be quantified. The methodology and metrics for quantifying T&G's exposure to climate-related risks and opportunities is currently under development. This disclosure will be made in our 2024 Climate-related Disclosure.





# Greenhouse gas reporting standards and methods

T&G is committed to using internationally accepted and practised standards when accounting for its GHG emissions. The Company prepares an annual GHG Inventory Report for its scope 1 and 2 emissions. It follows best practice protocols and standards in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004).

The emissions metric tracked is tonnes of  $\mathrm{CO}_2$  equivalent ( $\mathrm{tCO}_2$ e). There are currently no other industry-based metrics relevant for T&G's industry but the Company is engaging with relevant industry bodies and monitoring peers.

Emissions data is calculated annually, in line with T&G's financial year (1 January – 31 December). It is collated and tracked throughout the period by the Company's sustainability team, including information from third-party suppliers and internal records. See Appendix 1 for more information on GHG inventory methods, operational boundaries and exclusions.

All emissions calculations are managed and completed within BraveGen, T&G's carbon management software system.

As part of the BayWa Group, T&G prepares its emissions information using the internationally accepted Greenhouse Gas Protocol. Emission factors are sourced based on geographic regions from the following sources:

- The New Zealand Government's Ministry for the Environment
- The United Kingdom's Department for Environment, Food & Rural Affairs (DEFRA)
- United States Environmental Protection Agency
- Singapore's Energy Market Authority
- Australia's Department of Climate Change,
   Energy, the Environment and Water

- The German Association of the Automotive Industry (VDA)
- The IPCC's fifth assessment report (AR5) provides global warming potentials (GWP)

Emission factors were not located for the following countries: Belgium, Chile, China, Fiji, France, Japan, Peru, Thailand and Vietnam. Therefore, to align with our ultimate parent company BayWa AG's approach, a combination of DEFRA and VDA emission factors were used for entities with operations in these geographical locations. Likewise, this approach was also applied when relevant emission factors cannot be sourced from the above bullet pointed list.

The Group has obtained limited assurance over its scope 1 and 2 GHG emissions as reported in the Group's GHG Inventory Report for 2021, 2022 and 2023. Assurance was provided by Deloitte Limited in accordance with International Standard on Assurance Engagement (New Zealand) 3410 (Revised): Assurance Engagements on Greenhouse Gas Statements ('ISAE (NZ) 3410') issued by the New Zealand Auditing and Assurance Standards Board ('NZAuASB'). Assurance has not been provided over information contained in this Climate-related Disclosure report.

## Organisational boundaries and exclusions

Organisational boundaries determine the parameters for GHG reporting and ensure consistency when determining which factors to include. Aligned with our ultimate parent company, BayWa AG, we apply the financial control consolidation approach which ensures we focus on emissions that are within our financial control and influence.

A table outlining the entities in our consolidated group and those excluded from our organisational boundary due to limited visibility as joint-venture operations is detailed in Appendix 1.

#### Scope 1: Direct GHG emissions

Scope 1 includes GHG emissions from sources that are owned or controlled by T&G. This includes fuel combusted in vehicles owned or leased by T&G, stationary combustion of fuel for heating, and any fugitive emissions of refrigerants.

Excluded are emissions from use of backup diesel generators in Aotearoa

New Zealand, refrigerant leaks from our heavy truck fleet, and fertiliser use in T&G owned growing operations. These categories have been excluded due to difficulties obtaining reliable data for the reporting period and are estimated to make up < 1% of T&G's scope 1 inventory.

#### Scope 2: Indirect GHG emissions

Scope 2 includes indirect emissions from the generation of electricity purchased by T&G. Purchased electricity is measured by the installation control point (ICP), with some sites having multiple ICPs. Excluded is electricity from sites where the electricity is included within rent payments, which is estimated to make up < 1% of T&G's scope 2 inventory.

#### Scope 2: Renewable electricity certificates

Together with our ultimate parent company BayWa AG, in 2020 we achieved our first climate objective of sourcing 100% of electricity from renewable energies. In 2023, we've continued to deliver on this.

For our Aotearoa New Zealand sites, we've purchased renewable energy certificates (RECs) from Meridian Energy, under its certified renewable electricity scheme.

For our international sites, we will purchase RECs through our ultimate parent company, BayWa AG, using a broker agency. These RECs will be purchased to cover T&G's international electricity consumption for the period from 1 January 2023 to 31 December 2023, with redemption of certificates subsequently taking place. This has resulted in zero emissions being reported from our scope 2 activities, using the market-based approach.

Table 6: Scope 1 and 2 emission sources

# Targets and emissions reductions

T&G recognises the importance of mitigating our GHG emissions and adapting and transitioning to a changing climate.

As part of this, we are working to set new emissions reduction targets that limit warming to 1.5°C, in line with the Paris Agreement.

Throughout 2023, we, together with our majority shareholder, BayWa Global Produce, have been working For clarity and completeness, comparative emissions through this process and we expect to have new climate data is set out on page 35 to enable trend analysis targets for scopes 1, 2 and 3 approved and in place in against both 2017 and 2021.

the first half of 2024. Our new climate targets will have a 2021 base year.

Until then, our existing climate targets are detailed below. These targets are aligned to our ultimate parent company BayWa AG's targets, which were set in 2018. Results for 2023 are reported against a 2017 historic

Target	Base year	Metric	Timeframe	Performance	Commentary
By 2020, procure certified renewable electricity at 100% of T&G sites	2017	RECs	By 2020	Delivered in 2020	T&G delivered this target in 2020 through the purchase of RECs, and has continued to purchase RECs through to 2023.
By 2025, reduce scope 1 and 2 GHG emissions by 22%, against a 2017 base year	2017	tCO <sub>2</sub> e	By 2025	34.1% reduction from 2017	T&G has reduced its absolute scope 1 and 2 emissions by 34.1% to 27,905.3 tCO <sub>2</sub> e in 2023, against its 2017 base year of 42,336.9 tCO <sub>2</sub> e (applying a market-based approach).

Table 7: T&G's climate targets and progress

#### Offsets

T&G's focus is on directly reducing our GHG emissions from within our value chain before considering the potential use of third-party offsets.

Given currently available national solutions, we do have some challenges abating our remaining scope 1 emissions (derived from diesel and petrol for freight movements, and natural gas for glasshouses), and as such, a provision is provided in our Sustainability Linked Loan to permit an agreed percentage of offsets, if required. Should thirdparty offsets be purchased, we will do this in line with our ultimate parent company, BayWa AG's guidelines.

No offsets have been used by T&G in this reporting period.

## Our GHG emissions and performance against targets

Emissions category	2017 unassured	2021 assured	2022 assured	2023 assured	% change 2023 vs. 2017
Scope 1	33,229.53	32,520.75	27,502.45	27,905.25	-16.02%
Diesel	14,159.57	12,878.42	12,052.58	11,385.70	-19.59%
Heating oil	2,852.35*	3,462.53	2,896.94	2,896.84	1.56%
LPG	709.91	328.57	385.07	536.46	-24.43%
Natural gas	13,507.50	12,165.50	11,000.56	10,573.79	-21.72%
Petrol	845.02	717.99	649.36	658.97	-22.02%
Propane	-	-	-	5.40	0.00%
Refrigerant leakage	1,155.18	2,967.73	517.94	1,848.09	59.98%
Scope 2 (market-based)	9,107.36**	-	-	-	-100.00%
Electricity consumption (location-based)	9,107.36**	6,032.70	6,748.70	4,182.49	-54.08%
Electricity consumption (market-based)	9,107.36**	-	-	-	-100.00%
Total scope 1 and 2 (market-based)	42,336.89**	32,520.75	27,502.45	27,905.25	-34.09%

Figures stated in table may not add up due to rounding of decimals. All figures are CO<sub>2</sub>e.

Table 8: T&G's 2023 GHG emissions inventory and performance

Notes on data:

\*In T&G's 2021 Annual Report there was an error in the 2017 heating oil figure, with it incorrectly stated

as 2,582.35 tCO<sub>2</sub>e.

\*\*In T&G's 2021 Annual Report, our 2017 scope 2 figures were inaccurately reported. This was restated in our 2022 Annual Report.

## **GHG** intensity metric

T&G does not use a GHG intensity metric in its management of GHGs throughout the business.

# T&G exposure to climate-related risks and opportunities and our performance indicators and targets

As T&G is adopting the first time provisions it has not established metrics for climate-related risks and opportunities nor determined the financial impact. Therefore, the amount or percentage of assets or business activities vulnerable to climate-related risks and opportunities can not be quantified. The methodology and metrics for quantifying T&G's exposure to climate-related risks and opportunities is currently under development. This disclosure will be made in our 2024 Climate-related Disclosure.

The outcomes from the climate-related risks and opportunities assessment completed in 2023 will inform T&G's work in undertaking related target development in 2024, and the creation of key performance indicators to track progress against the targets that are set.

## Capital deployment and internal carbon price

Across the BayWa Group, an internal carbon price has been set which applies a cost to each tonne of  $CO_2$ e emitted. This price helps inform operating plans, investment spend and the direction of funds into decarbonisation solutions and avoidance measures. The price is set by our ultimate parent company, BayWa AG, at  $\leq 50/\text{tCO}_2$ e (~NZ\$88/tCO<sub>2</sub>e). Each BayWa entity is required to have the financial means to fund its internal carbon price through its capital expenditure.

In 2023, with the support of the New Zealand Government's Investment in Decarbonising Industry Fund (GIDI), T&G used its internal carbon price funds to invest in thermal screens for our glasshouses in  $T\bar{u}akau$ , Auckland. Once operational, we expect to see an approximate 29% reduction in annual emissions from this site. This equates to a 5% reduction in T&G's 2023 carbon footprint of 27,905 tCO $_{o}e$ . Further financial details of this cannot be disclosed due to commercial sensitivities.

Given the internal carbon price is a new mechanism and the first recipient initiatives have not yet been fully installed and commissioned, there is no comparative information available for this disclosure period.



# Appendix 1: GHG inventory methods, operational boundaries and exclusions

Table 9: Organisational boundaries and exclusions (reviewed annually)

Companies	Country	Legal structure and partners	Economic interest held by T&G Global	Financial control	Emissions included within inventory	Comment
Allen Blair Properties Limited	New Zealand	Associated/affiliated company	33%	No	No	Excluded from inventory under the financial control approach.
David Oppenheimer & Company	United States	Associated/ affiliated company	39.4%	No	No	Subsidiary of Grandview Brokerage. Excluded from inventory under the financial control approach.
David Oppenheimer Transport Inc.	United States	Associated/ affiliated company	5.9%	No	No	Subsidiary of Grandview Brokerage. Excluded from inventory under the financial control approach.
Delica (Shanghai) Fruit Trading Company Ltd	China	Group companies/ subsidiaries	100%	Yes	Yes	-
Delica Australia Pty Limited	Australia	Group companies/ subsidiaries	100%	Yes	Yes	-
Delica Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	N/A	Holding entity.
Delica North America Inc	United States	Group companies/ subsidiaries	50%	Yes	Yes	-
ENZAFRUIT New Zealand (Continent) NV	Belgium	Group companies/ subsidiaries	100%	Yes	Yes	-
ENZAFRUIT New Zealand International Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	Yes	-
ENZAFRUIT Peru	Peru	Group companies/ subsidiaries	100%	Yes	Yes	-
ENZAFRUIT Products Inc	United States	Group companies/ subsidiaries	100%	Yes	Yes	Included in 2023, due to an increase in headcount. Electricity emissions estimated using BayWa AG methodology.
ENZASunrising (Holdings) Limited	China	Group companies/ subsidiaries	67%	Yes	N/A	Holding entity.
Fairgrow Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	N/A	Inactive.
Freshmax NZ Ltd	New Zealand	Group companies/ subsidiaries	100%	Yes	N/A	Emissions managed and captured through Turners & Growers Fresh Limited.
Fruit Distributors Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	N/A	Inactive.
Fruitmark Pty Limited	Australia	Group companies/ subsidiaries	100%	Yes	N/A	Company is managed and emissions captured through Delica Australia Pty Limited.
Grandview Brokerage	United States	Associated/ affiliated company	39.4%	No	N/A	Excluded from inventory under the financial control approach.
Kerifresh Growers Trust 2018	New Zealand	Group companies/ subsidiaries	69%	Yes	N/A	Inactive.
T&G Apples Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	N/A	Inactive. To become operational in 2024.
T&G Berries Australia Pty Ltd	Australia	Group companies/ subsidiaries	85%	Yes	Yes	Included for the first time in 2023, new entity.
T&G CarSol Asia PTE. Ltd.	Singapore	Group companies/ subsidiaries	50%	Yes	N/A	Company is managed through Turners & Growers New Zealand Limited and ENZAFRUIT Peru and emissions captured under these locations.
T&G Chile SpA	Chile	Group companies/ subsidiaries	100%	Yes	Yes	-
T&G Europe SAS	France	Group companies/ subsidiaries	100%	Yes	Yes	Only electricity emissions, estimated using BayWa AG methodology.
T&G Fresh Produce PTE. Ltd.	Singapore	Group companies/ subsidiaries	100%	Yes	Yes	-
T&G Fruitmark HK Limited	China	Group companies/ subsidiaries	100%	Yes	N/A	Inactive.
T&G Global Limited	New Zealand	Parent company	100%	Yes	Yes	
T&G Global Vietnam Company Limited	Vietnam	Group companies/ subsidiaries	100%	Yes	Yes	Included in 2023, due to an increase in headcount. Only electricity emissions.

Companies	Country	Legal structure and partners	Economic interest held by T&G Global	Financial control	Emissions included within inventory	Comment
T&G Insurance Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	N/A	Company is managed and emissions captured through Turners & Growers New Zealand Limited.
T&G Japan Limited	Japan	Group companies/ subsidiaries	100%	Yes	Yes	Only electricity emissions, estimated using BayWa AG methodology.
T&G Kiwifruit Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	N/A	Inactive.
T&G Orchard Services Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	N/A	Company is managed and emissions captured through ENZAFRUIT New Zealand International Limited.
T&G Processed Foods Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	N/A	Inactive.
T&G South East Asia Ltd	Thailand	Group companies/ subsidiaries	100%	Yes	Yes	-
T&G Vizzarri Farms Pty Ltd	Australia	Group companies/ subsidiaries	50%	Yes	Yes	Joint venture operation with limited visibility of emissions data. Only electricity emissions, estimated using BayWa AG methodology.
Taipa Water Supply Limited	New Zealand	Group companies/ subsidiaries	65%	Yes	Yes	Included in 2023, water rights entity. Only electricity emissions from the pump-shed.
Turners & Growers (Fiji) Limited	Fiji	Group companies/ subsidiaries	70%	Yes	Yes	-
Turners & Growers Fresh Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	Yes	-
Turners & Growers New Zealand Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	Yes	Included in 2023, emissions previously accounted for under T&G Global.
Unearthed Produce Limited	New Zealand	Group companies/ subsidiaries	51%	Yes	Yes	Included in 2023, emissions previously accounted for under Turners & Growers Fresh Limited.
Venturefruit Australia PTY Limited	Australia	Group companies/ subsidiaries	100%	Yes	N/A	Company is managed and emissions captured through Turners & Growers New Zealand Limited.
Venturefruit Global Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	Yes	Included in 2023, emissions previously accounted for under Turners & Growers New Zealand Limited.
Venturefruit International Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	N/A	Company is managed and emissions captured through Turners & Growers New Zealand Limited.
Venturefruit NZ Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	N/A	Company is managed and emissions captured through Turners & Growers New Zealand Limited.
Venturefruit SA Limited	New Zealand	Group companies/ subsidiaries	100%	Yes	N/A	Company is managed and emissions captured through Turners & Growers New Zealand Limited.
Venturefruit USA Inc.	United States	Group companies/ subsidiaries	100%	Yes	N/A	Company is managed and emissions captured through Turners & Growers New Zealand Limited.
Wawata General Partner	New Zealand	Non-incorporated joint venture	50%	Yes	No	Joint venture operation with limited visibility of emissions data. No data collected for 2023 and likely minor contribution to overall emissions.
Worldwide Fruit Limited	Great Britain	Group companies/ subsidiaries	50%	Yes	Yes	-

# Appendix 1: GHG inventory methods, operational boundaries and exclusions (continued)

Table 10: Summary of emissions source inclusions

	Category	GHG emissions source	Data source	Methods
	Diesel	Trucks, passenger cars, forklifts, tractors, farm equipment and a boiler	Supplier, international sites	Aotearoa New Zealand data is obtained from monthly fuel card records, invoices, statements and reports.  International data is obtained from fuel card records, invoices and fuel tank meter readings. Where volume data has not been recorded, emissions are either calculated using mileage data, or volume is estimated from credit card records and the local average fuel price.
	Petrol	Passenger cars, trucks and farm/orchard equipment	Supplier, international sites	Aotearoa New Zealand data is obtained from monthly fuel card records, invoices, statements and reports.  International data is obtained from fuel card records or invoices. Where volume data has not been recorded, emissions are either calculated using mileage data, or volume is estimated from credit card records and the local average fuel price.
Scope 1	Heating oil	Used for heating in glasshouses and offices	Supplier, international sites	Aotearoa New Zealand data is obtained from supplier invoices from a single supplier.  Data for the Belgium office is obtained from meter readings and supplied in a report.
	LPG	Forklifts, glasshouse, and heating and cooking in RSE accommodation	Supplier	Monthly statement/report from supplier.
	Propane	Glasshouse (used interchangeably with LPG)	Supplier	Monthly statement/report from supplier.
	Natural gas	Glasshouses and office buildings	Supplier, international sites	Aotearoa New Zealand data is a monthly statement/report from supplier.  United Kingdom data is from monthly supplier invoices.
	Fugitive emissions	Refrigerant top ups/ leakage for chillers and cool stores and in owned and leased buildings	Supplier, international sites	Data is obtained from suppliers and verified through invoices/job sheets.
Scope 2	Electricity	Electricity consumed at owned or leased sites	Supplier, international sites	Most Aotearoa New Zealand data is obtained from a monthly statement/report from our key supplier. Where an alternative supplier is used at a site, data has been obtained from monthly invoices.  International entities either obtain actual data from invoices, or where applicable, estimate the kWh consumed based on BayWa AG methodology. Therein, where an entity consists of only office locations and should electricity consumption be difficult to obtain, if the headcount in the office is less than six employees, the electricity consumption is estimated at a rate of 1,480kWh per annum, per FTE. This is a change in methodology, where previously T&G has excluded entities with headcounts of less than 10 employees from the GHG inventory.

# Appendix 2: Risk escalation process

Residual risk rating	Escalation	Reporting and monitoring
	<ul> <li>Escalation to the Board with an immediate action plan required</li> <li>Chief Executive manages risk, with consideration to be given to include independent advice to provide assurance that the steps taken are necessary and sufficient</li> </ul>	<ul> <li>Direct monitoring by the Board</li> <li>Monthly reports to the Board</li> </ul>
	<ul> <li>Escalation to the relevant sub-Committee (FRIC or SC)</li> <li>Chief Executive manages risk with an action plan required, and additional controls to be implemented</li> </ul>	<ul> <li>Reporting to the relevant sub-Committee at each meeting</li> <li>Reporting to the Board twice a year</li> </ul>
	<ul> <li>Risk acceptable within existing control environment</li> <li>Risk is managed by management, and reviewed annually</li> </ul>	Annual Risk Register Review by the Executive team
	<ul> <li>Risk acceptable within existing control environment</li> <li>Risk is managed by management, and reviewed annually</li> </ul>	Annual Risk Register Review by the Executive team

# Appendix 3: Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost certain					
Likely					
Possible					
Unlikely					
Rare					

Low risk Medium risk High risk Extreme risk
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# Appendix 4: Glossary

Aotearoa	New Zealand's Māori name.
IPCC	The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body responsible for advancing scientific knowledge about climate change.
Kaitiakitanga	Means guardianship, stewardship, trustee. It is also the concept T&G uses for the name of our sustainability framework.
Mahi	Means to work, accomplish, make.
RCP	Adopted by the IPCC, Representation Concentration Pathways (RCP) are models which illustrate future possible greenhouse gas emission scenarios/trajectories.
SSP	Adopted by the IPCC, Shared Socio-economic Pathways (SSPs) are projections which describe alternative futures of socio-economic development in the absence of climate policy intervention. They include a wide range of drivers, including gross domestic product, population size, urbanisation and human and technological development. There are five SSPs. When SSP and RCP-based climate projections are combined, it provides a useful integrated picture of potential climate impact.
Tangata whenua	Describes Māori people of a particular area, people born of the whenua (land).
Te Taiao	Is the natural environment that contains and surrounds us. It includes the soil and land (whenua), water (wai), climate (āhuarangi) and all living beings (koiora). It refers to the interconnectedness of people and nature.



Building 1, Level 1, Central Park 660 Great South Road, Ellerslie Auckland 1051, Aotearoa New Zealand +64 9 573 8700 info@tandg.global



