

Sustainability Report FY24



About this Report

Sanford Limited's FY24 Sustainability Report provides our stakeholders with a view of our sustainability performance, activities and outlook.

Sanford has, during FY24, reviewed our approaches for sustainability reporting to ensure that balance is maintained. The result is the creation of this report, which includes Sanford's first mandatory Climate-related Disclosure.

This report is available on Sanford's website sanford.co.nz/investors.

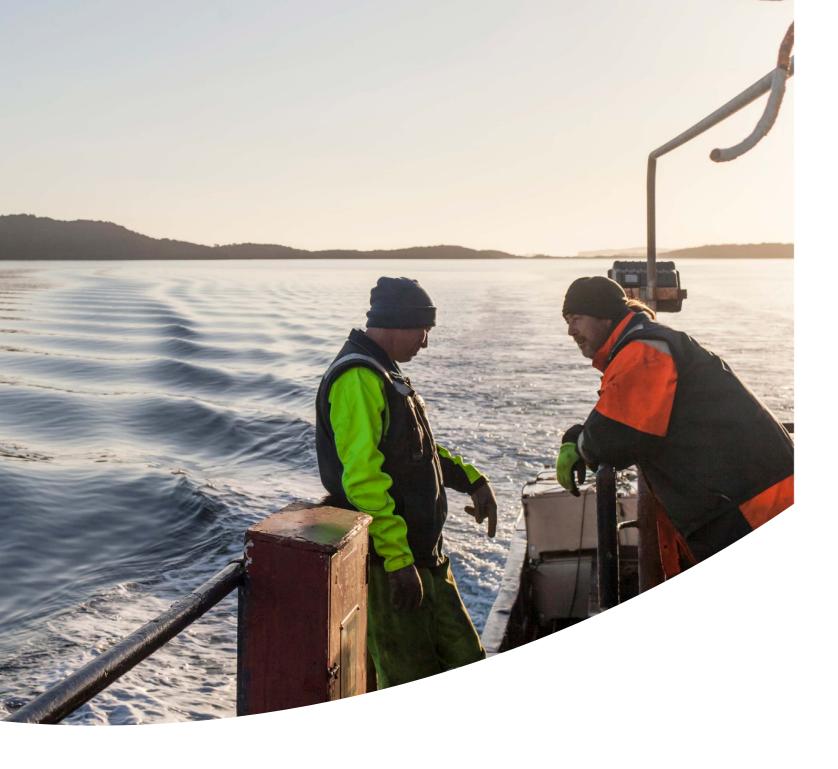
Period and Scope:

This report covers our sustainability performance and activities for the 12-month period from 01 October 2023 to 30 September 2024 (FY24), corresponding with Sanford Limited's financial year. This report focuses on the performance of Sanford Limited, operationally controlled entities and joint ventures and operations.

Readers are cautioned to review the disclaimer on page 12 of this report which applies to Sanford's climate-related disclosures and the broader content of this report.

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Sustainability at Sanford

We understand that our operations can have environmental, social and economic outcomes and that our business and operational decisions can influence those now and into the future. Sanford's first 'triple bottom line' sustainability report was issued in 2000 which measured our business performance in these areas being environmental, social and economic. Since then the scope of our sustainability reporting has evolved through sustainable development reports, integrated reports, the application of G4 Sustainability Frameworks and subsequently the Global Reporting Initiative (GRI) standards for the structured reporting of sustainability topics and integration of sustainability strategy within our overall business strategy.

FY24 marks an inflection point in this approach, as our business grapples with increasing external reporting demand and seeks to achieve the right balance of resource allocation to those reporting tasks and progress within our organisation. In this reporting year, we have chosen to channel our resources to material areas where the sustainability gains have the best chance of success. The outcome is for the Sustainability Report to be separated from our financial reporting, and includes our mandatory climate-related disclosures.



Sustainable Seafood

The term sustainable seafood, or sustainability, is used a lot in reference to the fishing and aquaculture sectors; it can mean different things to different people. At Sanford, we consider sustainable seafood to be seafood that is good for the planet, people and business.

At Sanford, we consider sustainable seafood to be seafood which is sourced from operations which:

- Are harvested or farmed in a manner that provides for today's needs while allowing species and associated species to reproduce in productive habitats and ecosystems
- Minimise harmful environmental impacts
- Assure good and fair working conditions for those involved
- Are managed and regulated appropriately as part of a well-functioning resource management regime.

Sustainability extends into many aspects of Sanford's business and across the domains of people, place and performance – aligning with the traditional sustainability pillars of environmental, social and economic. Sanford's sustainability framework is founded across those pillars and based on engagement work throughout the breadth of Sanford's stakeholder community to identify and prioritise the most important, or most material, topics relevant for our business and our stakeholders. Our sustainability framework (see next page) outlines those sustainability pillars, material topics, Sanford's future vision by material topic, key performance indicators (KPIs) per material topic and alignment with the United Nations' Sustainable Development Goals (UN SDG).

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Sanford's Sustainability Framework

Pillar	Performance and Operational Excellence Pursue excellence across all functions and operations to drive business success, increasing value and return for shareholders.			En Ec Striv the e	osystems osystems to demonstrate environment, maurce utilisation aford's footprint.	e safeguarding ximising	Col Aim t	e consumers of	omers, nes for Sanford's Sanford's produc n Sanford operate	cts, and the	
Material Topics and Focus Areas	Maximising productivity and \$/kg returns from the harvest.	Demonstrating responsible leadership – across ethics, conduct, transparency and governance.	Adapting practices to a changing climate.	Responsible risk management.		Environmental protection and ocean health.	Reducing operational emissions footprint.	Health, safety and wellbeing of Sanford's workforce.	Talent attraction, development and retention.	The food safety and quality of Sanford's products.	Relationships with community and iwi.
Vision	Execution of strategy to deliver better value outcomes, improved business margins and financial performance.	Being recognised as a business that governs with clearly defined values for the good of all stakeholders.	Deploying appropriate and measured responses to direct and indirect climate impacts across strategy, investment planning and operations.	Clear identification and prioritisation of risks, enabling the considered deployment of required mitigations to manage those risks to acceptable levels.	Fisheries' stocks from which Sanford's harvests continue to be maintained at levels which can sustain ongoing utilisation and ecosystem health.	Methods most likely to ensure and enable the protection of ocean health, water quality, sensitive habitats and threatened species.	of Scope 1	Workplaces that protect Sanford's people from the risk of harm and support their wellbeing through the use of initiatives, behaviours and cultures.	Workplace conditions and behaviours that support staff attraction, development and retention.	Leader in providing safe, high-quality marine-sourced products that deliver on customers' expectations.	Respected by local communities and iwi, with established and deep strategic relationships that create value for Sanford, its partners and the community.
Key Performance Metrics	Profitability and productivity by operational division.	Supplier code of conduct adoption.	Number of climate adaptation measures delivered.	Number of risks rated as 'extreme'. Risk mitigation and measurement deployment for high-rated risks.	no known sustainability issues.	Incidental by-catch of seabirds and marine mammals. Percentage of fully functional processing and support facility environmental permits.	Progress towards FY30 emissions target.	TRIFR* Incident investigations. Action plan closure.	Core people process completion.	Number of quality-related customer complaints.	Provision of targeted and meaningful support.
UN SDG	8 DESENT WORK AND ECONOMIC SKNOTTH				12 RESPONSI CONSUMP AND PROD	IUGTION	LIFE BELOW WATER		9 ADUSTRY, AND NA AND INFRASTRUCT	TON 13 CLIMATE RE 13 ACTION	
Alignment			17 PARTHERSHIPS FOR THE GOALS					7 PARTIMERSHIPS FOR THE GOALS			

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What Matters Most — Sanford's Material Topics

Sanford's Approach

We have evaluated, prioritised, responded to and reported on material topics in our annual report since 2014. We've re-engaged with stakeholders on materiality over a two- to four-yearly cycle, or when there is a significant shift within our external or internal operating environment. We last undertook detailed materiality engagement with our stakeholders during 2022.



Material Topics, Scope, Policies and Management

	Material Topic	Scope	Key Policies and Management
Performance and Operational Excellence	Maximising \$/kg of our harvest (profitability and productivity)	The economic productivity of our business, enhancing our ability to provide returns to shareholder investors, contribute towards local and regional economies and job creation, including our impact on the New Zealand economy.	Overall business strategy Board Charter; Audit, Finance and Risk Committee Charter
	Responsible leadership – ethical conduct, transparency, governance	Our leadership values, consideration of all stakeholders in decision-making, approach to business conduct, openness and ethics — within our business processes and dealings with others including our people, suppliers, customers, regulators, community groups and others.	 Company Constitution, Board Charter Sanford Code of Conduct Code of Ethical Behaviour Continuous Disclosure Policy Protected Disclosures (Whistleblower) Policy
	Adapting to a changing climate	Our business's response to the changes brought about as a result of climate change – across the physical environment, the fisheries, marine water and habitat quality, policy, markets, customers and consumers.	· Sustainability Policy · Overall business strategy
	Risk management	How we manage, mitigate, eliminate, control and accept risks across the value chain of our business — from our inwards materials, our farming, harvesting, catching, processing and storage operations to the customers, markets and end consumers who consume those products.	Risk management approach Audit, Finance and Risk Committee Charter
Place — Oceans, Environment, Ecosystems	Sustainable management of fish stocks	The direct impact of our operations on fish stocks and fishery biomass, inclusive of our position as fisheries quota owner to support the science-based sustainable management and utilisation of fishery resources.	Fisheries Compliance PolicySanford's policy against shark finningOperational practices implementation
	Environmental protection and ocean health	The positive and negative effects of our operations at land and sea on coastal and marine environments in terms of water quality, habitats, and threatened and protected species.	Sustainability Policy ISO14001 Environmental Management System
	Reducing carbon footprint and emissions	Our direct emissions footprint from those activities over which we have operational control, as well as our indirect emissions footprint, both upstream and downstream, within our value chain — and the potential impact of those collective emissions on climate change.	Sustainability Policy Emissions-reduction target
People, Customers, Community	Health, safety and wellbeing of our people	The health and safety of our employees, share fishers, contractors, and visitors to our sites and on our vessels. The wellbeing of our employees and share fishers.	 Health, Safety and Wellbeing Policy Health and safety management system deployment Wellbeing initiatives, assistance programmes People Safety and Health Committee Charter
	Talent attraction, development and retention	All Sanford's permanent and temporary employees and share fishers.	· Learning and Development Policy · Remuneration Policy
	Food safety and quality	All food products we sell, including fresh and frozen seafood, foodservice, wholesale, consumer and ingredients.	Food Safety and Quality Policy Food Safety System Certification (FSSC22000) Regulatory and internal audit systems
	Community and iwi relationships	Our relationships and collaborative approach with communities and iwi living close to our operational sites or activities; the effects of our activities on those communities including fishing, growing, processing, job creation, and support initiatives.	· Operational practices

Sustainability in Action

Food Safety and Quality

Food safety and maintaining high-quality standards are crucial for both our customers and our company. These elements are critical for safeguarding consumer health, enhancing customer satisfaction and building trust. Our commitment to delivering safe and reliable products is not just a regulatory requirement but also the cornerstone of our reputation and success. Quality management supports us to meet and exceed customer expectations, prevent issues before they arise and maintain the economic viability of our business.

As we review FY24, our Food Safety and Quality Department highlights several achievements that reflect Sanford's dedication to these essential principles. Ongoing efforts to enhance our quality management system have yielded positive results, emphasising our role in ensuring product safety and quality.

Since July 2020, our Food Safety and Quality Management System has undergone a significant transformation, moving from a reactive approach - primarily relying on testing and complaint management – to a proactive strategy. This has been instrumental in preventing issues before they arise and has resulted in yearly reductions in customer complaints, improving our performance in regulatory and certification audits. Contained within this reset from 2020, we continue to drive change by focusing on 'FAST, COLD, CLEAN +

There has been a substantial reduction in customer complaints in recent years. In FY21 we recorded 119 substantiated complaints. In FY23, we recorded 71 substantiated complaints. Through diligent quality management and proactive measures, we reduced this number to 50 substantiated complaints in FY24. This figure reflects a 30% decrease from last season and a 58% decrease from FY21 to FY24. This reduction highlights our emphasis on early detection and resolution of potential issues.



Quality Complaints Breakdown



		FY24	FY23			
	Wrong product	20%	9%			
	Labelling error	14%	9%			
	Foreign material	12%	12%			
	Packaging	12%	3%			
	Quality defects	10%	41%			
	Date coding error	8%	2%			
	Weight control	8%	4%			
	Other	4%	3%			
	Temperature abuse	4%	0%			
	Bone	4%	0%			
	Under-delivered	2%	7%			
	Parasites	2%	3%			
\bigcirc	Product grading error	0%	3%			
\bigcirc	Product missing	0%	4%			
Total	Total number of justified quality complaints 50					

Our commitment to continuous improvement is further reflected in our audit performance. This year, the number of key topics identified in the Ministry of Primary Industries Performancebased Verification audits was reduced from 37 in FY23 to 28 in FY24. This 24% decrease highlights our successful implementation of enhanced quality control processes, systems and our ability to address and resolve issues more efficiently without using extra resources.

We have also embraced new technologies such as INNOVA tablets to report quality inspections on a single platform. This has enabled us to zone in on defects and understand where improvements are required.

We navigated regulatory changes this year. Of note are:

- Allergen Declaration Transition: In February 2024, we transitioned to new allergen declaration requirements on our labels. This regulatory change was managed without any disruptions, and we have documented this transition in our Management of Change records.
- Food Safety System Certification (FSSC 22000), Version 6 Transition: We also successfully transitioned from FSSC Version 5.1 to Version 6. with the final changes implemented in April 2024. This transition involved key updates in labelling, food defence, food fraud mitigation, loss, waste activities and fostering a robust food safety and quality culture.

As we look ahead, we aim to continue to refine our processes, embrace new technologies and uphold the highest standards of quality and safety. Our goal is to further enhance our quality management system and drive customer satisfaction.

Sustainability in Action

Efficiency Approach to Reduce Carbon Emissions for Sanford's Fleet

Large-scale commercial fisheries operations are challenged when it comes to emissions reductions.

Accessing and undertaking fishing activities in deepwater locations requires large vessels, long voyages and significant quantities of energy. Battery technology is not ready as a replacement for liquid fuels for these uses. These vessels represent significant invested capital, have long lifespans, and have limited potential for transfer to alternative or renewable energy systems. Lags in technology development delays the fisheries sector's ability to transition to low carbon fuels at scale. As a result, Sanford's pathway to reduce emissions across our fleet is to initially focus on reducing fuel costs and emissions. One significant investment in this approach is an upgrade that has been implemented to the San Enterprise during dry-docking in August/September 2024.

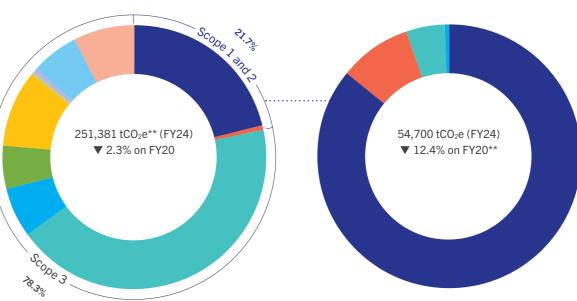
Efficiency upgrades being delivered for the San Enterprise include a new propeller and thrust nozzle design. Also, the electrical system

upgrades to provide for shore power connections (to run the ship's systems on mains-grid electricity rather than diesel generator when berthed at dock) create efficiencies. Sanford acknowledges the assistance of the Energy Efficiency and Conservation Authority (EECA) with those elements of the efficiency upgrades. Other associated fuel-efficiency upgrades being deployed are an auxiliary generator upgrade, replacing the primary fixed-speed-drive refrigeration compressor with a variable-speeddrive unit and economiser which will result in a reduction of over 30% in energy demand for the on-board refrigeration unit.

Sanford estimates the emissions-reduction potential from the propeller and nozzle upgrades alone to be around 500 tCO₂e each and every year that the San Enterprise is fishing.



Sanford's Whole Value Chain Emissions Profile – FY24 (Scopes 1, 2 and 3)*



(FY24)*

	Sanford's Whole Value Chain Emissions Profile	Emissions (tCO ₂ e)	% of Whole Value Chain Emissions
Scope 1	Direct emissions (includes fuel, refrigerants from owned assets)	53,346	21.2
Scope 2	Indirect emissions from electricity	1,354	0.5
Scope 3	Purchased goods and services	108,899	43.3
	 Capital goods 	15,838	6.3
	Fuel- and energy- related activities	13,210	5.3
	Upstream transportation and distribution (freight paid for by Sanford)	23,382	9.3
	Waste generated from operations	1,093	0.4
	Downstream transportation and distribution (freight of products paid by others)	1,403	0.6
	Use of sold products (e.g. further processing and cooking of seafood)	14,356	5.7
	End-of-life treatment of sold products	18,500	7.4

^{*} Operational Scope 1 and 2 emissions, as defined by the GHG Protocol

54,700 tCO ₂ e (FY24) ▼ 12.4% on FY20**	

Sanford's Operational Emissions Profile

	Emissions (tCO ₂ e)	%
Wildcatch	46,965	85.9
Mussels	4,966	9.0
Salmon	2,547	4.7
Other (head office, etc.)	222	0.4

^{*} Operational Scope 1 and 2 emissions, as defined by the GHG Protocol ** Reduction on recalculated baseline emissions excluding inshore contributions for like-for-like comparison, referenced on page 24

^{**} Tonnes of carbon dioxide equivalent

Climate-related Disclosure

Statement of Compliance

Sanford Limited (Sanford) is a climate-reporting entity under the Financial Markets Conduct Act 2013. This statement represents Sanford's first mandatory climate-related disclosure in compliance with the Aotearoa New Zealand Climate Standards (NZCS) issued by the External Reporting Board (XRB). Unless otherwise indicated, data, information and commentary relate to the financial year ended 30 September 2024 (FY24), and the reporting currency is the New Zealand Dollar (NZD).

In preparing this climate statement, Sanford has applied the following adoption provisions available under NZCS2:

- Adoption provisions 1 and 2: Current and anticipated financial impacts of climate-related risks and opportunities.
- Adoption Provision 3: Transition planning. As required by NZ CS2, a description of progress towards transition plan disclosure can be found within the strategy section of this statement.
- Adoption Provision 6: Comparative information for prior two reporting periods for each metric.
- Adoption Provision 7: Analysis of trends for each metric from previous reporting periods.

In reviewing this disclosure, readers are cautioned to consider the nature of changing environmental conditions along with the scale and nature of uncertainties in the science of understanding changes to the climate. Those climatic changes in turn lead to consequential changes within marine environments, and further consequential changes to biological and ecological processes occurring within that environment. The scale of the uncertainty in scientific understanding increases with each of the steps from physical climate forecasts to marine physical responses, and then again to the ensuing biological and ecological responses. Readers of this disclosure should consider those uncertainties when evaluating representations.

This report contains forward-looking statements including metrics, targets and statements of future intent. These statements necessarily involve assumptions, judgements, opinions, forecasts and projections of the environment in which Sanford will operate in the future, each of which is subject to levels of uncertainty. While Sanford has applied its expertise, industry knowledge and collective experience to arrive at the conclusions and disclosures contained within this statement, these statements are influenced by the uncertainty of the underlying assumptions, and scientific understanding of consequential and cumulative climate factors influencing marine environments and marine biological process. The forward-looking climate-related statements within this disclosure may therefore be less reliable than other statements within Sanford's other reporting. Sanford disclaims to the fullest extent possible any liability arising from the use of this report. Nothing in this report should be inferred to be capital growth, earnings, or any form of financial or legal guidance or advice.

This statement has been approved by the Board on behalf of Sanford Limited on 29 January 2025.

Sir Robert McLeod Chair

David Mair Managing Director

David W Mais

Please refer to page 30 for the Aotearoa New Zealand Climate Standards Climate-related Disclosure Reference Table.

1. Sanford and Climate Change

Climate change is shaping the world. It is influencing the oceans where the seafood we harvest grows, the markets we buy goods from and sell into, and the behaviours of our customers and consumers.

With long-standing harvesting and farming operations which are reliant on the natural world, Sanford has had to adapt its operations over time to the changing nature of the oceans and weather conditions – it's a part of the very nature of fishing and marine farming. However, Sanford now faces a further challenge of more wide-reaching accelerated change and unpredictability driven by climate change. We are focused on responding to those changes.

New Zealand seafood products, and their low emissions footprint relative to other animal proteins, ^{1,2,3} are well placed to be established as a low-carbon source of nutrition for the global community.

Many of our operations require 365 days per year of care, attention and attendance to ensure we make the most of the incumbent growing conditions and maintain the assets that allow us to safely and efficiently harvest and grow seafood. In doing so, Sanford's teams must deal with the changes in conditions that the weather and climate bring – our fishers and farmers have learnt over time to ensure that their primary operations are guided by the natural environment and its changing conditions. More recently, our teams have experienced more frequent and persistent surface-water-warming events that have led to algae blooms, more prevalent La Niña/El Niño events affecting growing conditions, more frequent rainfall-driven harvest closures for mussel farms, along with significant acute climatic events causing rainfall, flooding and slips which close roads and key supply routes.

While Sanford's teams experience, observe and adapt to weather and marine conditions and their impacts, forecasting longer-term climate induced potential changes quickly becomes increasingly complex within the biophysical marine domain. Forecasting fisheries- and aquaculture-related responses to climate change is challenged by the complexity of linked and nested systems. Changing atmospheric conditions have an impact on the oceans and seas through changes to wave conditions, surface-water temperatures, coastal and ocean currents, and ocean chemistry. Those varied oceanic conditions can lead to changes in marine primary production, as well as in the biological responses of fish, shellfish and other marine ecology. Scientific understanding of climate related effects across those nested systems (atmospheric > oceanic > marine ecological) is still evolving. Looking into the future, those systems test and challenge existing assumptions, knowledge and expertise.

The outcome means that when Sanford looks into future scenarios, as required under the climate-related disclosure regime, a significant level of uncertainty must be acknowledged and accepted – a level which might be greater than for many businesses in other sectors. Sanford considers the integration of climate change-related considerations into our business strategy as a vital and necessary step in ensuring that we are able to continue our 150+year heritage of providing beautiful seafood to New Zealand and the world into the future.

^{1.} mpi.govt.nz/dmsdocument/57172/direct

^{2.} mpi.govt.nz/dmsdocument/48526/direct

^{3.} deepwatergroup.org/the-carbon-footprint-of-nz-wild-caught-seafood/

2. Governance

Board Oversight

Sanford's Board of Directors is responsible for the oversight of risks and opportunities for Sanford, including those related to climate change. The Board maintains responsibility for overseeing climate change progress, and is provided with information on material climate-related matters at regular meetings via management reports. During FY23 and FY24, the following in-depth climate-related discussions were held with the Board:

- June 2023 Overview of climate science and potential effects on our marine environment; review of Sanford's emissions footprint and emissions-reduction target; distribution of Institute of Directors' Climate Governance survey.
- July 2023 Climate-related Disclosure (CRD) overview and requirements, outcomes of management's climate risk and opportunity prioritisation workshop, outcomes of management's future climate scenario analysis workshop, review of climate risk prioritisation processes and outcomes; decision that Sanford's governance forum for climate-related topics is to be the Board.
- November 2023 Review and approval of voluntary climate-related disclosures as part of Annual Report 2023.
- November 2024 Review of climate-related disclosure processes, revision to emissions-reduction target, review of climate-related risks and opportunities, and review of draft climate-related disclosure.
- January 2025 Confirmation of climate-related disclosure for issuance.

Skills and Competencies of the Governance Group in Relation to Climate Change

The Board reviews its performance, composition and structure on a regular basis and, with the support of the Nominations Committee, plans for changes in Board composition to ensure skills and experience are suitable to achieve the Board's strategic and functional purpose. This includes climate change skills and competencies.

Integration of Climate-related Risks and Opportunities into Strategy

Climate events have consistently been the number one priority risk for Sanford since 2016 when we first disclosed publicly our top 10 enterprise-level business risks. This prominence within our risk register means that climate-related risks and opportunities are considered by management and the Board in the development and execution of our business strategy. In setting our strategic direction and business planning, the Board considers regular updates on climate-related risks and opportunities from management reports (see diagram below). In turn, divisional leads provide regular updates to executives in relation to climate-related operational impacts. These channels have provided the foundation for climate risk management strategies to be built into our business strategy.

On an annual basis, the Board reviews business targets and ambition for the forthcoming year, along with progress against targets for the year prior, inclusive of targets relating to climate mitigation and climate adaptation (see Metrics and Targets section below). During FY24, the executive team and the Board had visibility of target progress indicators for the business, updated quarterly. Due to an internal emissions accounting system upgrade which took place during FY24, Scope 1 and 2 carbon emissions progress indicators were only available at year end. Climate performance metrics are not currently explicitly incorporated into our remuneration policies or incentives.

Management's Role in Assessing and Managing Climate-related Risks and Opportunities

The Board delegates to the Managing Director (MD) responsibility to manage the business to deliver on strategy. The MD (along with the executive team) thereby holds accountability for the inclusion and delivery of actions relating to climate change into risk management, business planning, business processes and capital allocation within the overall budgets and financial delegations set by the Board. The executive team is responsible for performing analyses and preparing annual reporting of climate-related risks and opportunities, along with the identification of associated metrics and targets. During December 2022, management co-ordinated in-depth climate risk workshops with a wide cross-functional team from within Sanford, together with future climate scenario analysis to highlight and review risks, opportunities and to stress-test our business model against those future climate potentials. Management has discretion, within the limits of approved budgets and delegated financial authority, to utilise external expertise to support those processes.

As part of ongoing operations, management tracks and monitors proxies for climate impact, such as water temperatures and dissolved oxygen concentrations in Big Glory Bay, Greenshell mussel condition in Pelorus Sound and other major growing areas, water quality parameters, rainfall runoff-generated harvest closures for marine farms, and catch rates for wild harvest species. This monitoring typically occurs monthly. Although monitoring and measurement of these parameters is currently performed as part of normal operations, these are yet to be collated into any specific 'climate impact' reporting metrics.

Board and Management Responsibilities in Relation to Climate-related Risks and Opportunities

Board

Sanford's Board

Sets strategic direction, reviews and approves strategic goals, operational plans and budgets. Reviews risk assessment policies and controls and establishes the appropriate levels of risk appetite, including those related to climate change. Sets risk management framework. Reviews, endorses and monitors progress against climate-related risks, metrics, targets and disclosure. In addition to reporting from the AFRC (see below), the Board receives updates at each meeting (about eight per year) on key sustainability and climate change issues and trends via management reports from the executive team. Reviews remuneration policies and incentive schemes.

Audit, Finance and Risk Committee (AFRC)

A committee of the Board established to assist the Board in fulfilling oversight responsibilities in relation to financial management and related reporting, including the review of overall systems for risk management across Sanford, including climate risk as appropriate.

Nominations Committee

A committee of the Board established to assist the Board in fulfilling oversight responsibilities in relation to Board composition and structure, including in relation to sustainability and climate-related expertise.

Executive

Managing Director and Executive Team

Manages the business to deliver on strategy. Applies the risk management framework. Accountability for including actions and commitments relating to climate change into risk management, business planning, budgeting and business processes. Identifies and monitors climate-related risks and opportunities and provides management reports on those risks and opportunities to the AFRC and Board. Divisional leads engage directly with executives on the operational impacts of climate-related risks and opportunities. Executive team allocates capital towards climate-related mitigation and responses within the overall budget set by the Board.

Promotes a positive risk awareness culture within the business. Monitors processes for risk reviews, and reports the same to the AFRC and Board as relevant.

Reviews monthly sustainability updates which include sections on climate change policy, regulation, trends, and operational impacts.

Organises, facilitates and leads climate scenario evaluation and climate-related risk and opportunity workshops. Engages third-party experts to assist when appropriate, such as audits, climate research and disclosure support.

General Managers

Responsible for ensuring that climate-related impacts and risks within each business unit are managed, monitored and escalated appropriately.

Implements and acts on risk mitigation strategies approved by the Board, MD and executive team.

Monitors emerging and developing risks, including those relating to climate. Manages risk reporting and monitoring of residual risk levels. Climate-related risks primarily overseen by the GM Sustainability with oversight of climate-related risks reported and monitored by the Group Risk Manager.

Manages the collection of data to support tracking of metrics internally or with external assistance. Tracks climaterelevant research, trends and regulation.

Operations

Operations

All Sanford's employees are empowered to be responsible for risk management. The Sanford Enterprise Risk Assessment Guide provides the structural guidance at the operational level around risk tolerance and notification levels using a scaled basis (very low or low rated events notified to supervisor/manager, medium-rated events notified to GMs and managers, high-rated events notified to executives and GMs, and extreme-level events notified to the MD, executive and Board).

3. Strategy

Our Business Strategy

Sanford's vision is to be New Zealand's seafood leader for quality, value and reputation. We are a vertically integrated seafood business with operations across wildcatch fisheries and aquaculture. Sanford harvests wild and farmed seafood, converts that seafood into desirable products and sends them through a supply chain to customers nationally and internationally. We last revised our business strategy during 2022. A description of that strategy can be found in the publicly accessible Sanford Annual Reports for FY22 and FY23. During FY24, Sanford commenced reviewing strategic priorities with a strong focus on improving cash flows and value outcomes.

Transition Planning

Sanford continues to work towards further development of our transition plan including its integration into the FY25 business strategy review. An emissions-reduction plan has been developed alongside our revised emissions-reduction target and is intended to be further developed during FY25.

Current Climate Impacts

Sanford's operational activities have been affected by the following climate-related impacts in FY24:

Current physical impacts

Acute and extreme weather impacts

4. sanford.co.nz/investors/reports-1/company-reports/

- Acute and extreme weather events impact Sanford's operations and can affect our ability to service
 our customers. Although not experienced in FY24, extreme events such as the flooding and rainfall
 in the Nelson-Marlborough region during August 2022 led to temporary run-off water-quality-related
 harvest closures for some marine farming areas and damage to marine farm infrastructure, combined
 with the temporary closure of key road networks used to transport goods, materials and staff to and
 from sites in the area.
- Climate-related events are also impacting our wildcatch harvesting operations with more extreme
 weather events in the Southern Ocean, reducing the available fishing days for scampi fishing vessels
 in areas surrounding the Auckland Islands.
- Changes in the Antarctic ice shelf are periodically increasing marine hazards, as well as changing seasonality for our toothfish operations.
- Flooding events have affected road connections along key supply routes for Sanford's materials and products.

Climate driven changes in water temperature, chemistry and quality

- A recent 'triple-dip' La Niña climatic pattern which persisted through 2020, 2021 and 2022 contributed towards marine physical process changes that act to reduce phytoplankton production and/or accelerate algae blooms in key aquaculture farming areas, thereby affecting mussel growth rates.
- Those same La Niña-related marine physical processes contributed to significant marine heatwave
 conditions being present in many coastal water bodies around New Zealand over the same 2020 to
 2022 time period, with corresponding effects on phytoplankton density and population structure as
 well as dissolved oxygen levels in upper surface-water layers. This contributed to a slight increase
 in salmon mortalities being experienced during FY22 at the Big Glory Bay salmon farm.
- These events, along with climate-related risk assessments, prompted further deployment of mitigation approaches during FY22, FY23 and FY24 at the Big Glory Bay salmon farm. This included deploying additional pens to reduce stocking densities, more intensive monitoring of harmful algal, and greater deployment of aeration and oxygenation equipment to improve fish health, welfare and resilience to stress factors aggravated by climate change.

Current transition impacts

- Our stakeholders desire for, and increasing regulation in support of, greater clarity and understanding
 of climate-related impacts on operations has resulted in Sanford's teams spending more time
 reviewing, investigating and improving adaptation tools for managing climate-related impacts.
- Sanford is an indirect participant in the New Zealand Emissions Trading Scheme (ETS). Fuel suppliers surrender ETS units on our behalf for fuel purchasing, directly impacting Sanford's cost base.
- Cost structures for some key inputs for our business units, in particular the cost of feed ingredients required for farmed salmon, are susceptible to variability as a consequence of climatic impacts even if specific core ingredient sources are not directly affected.

Looking Ahead — Scenario Analysis

Sanford undertook a climate scenario analysis exercise in 2022 of which the Board had oversight, to assist in forecasting climate-related risks and opportunities over the short, medium and long term, as well as to test the resilience of our business strategy and model. The initial scenario analysis process and 2024 review are described under the Climate Risk Treatment and Integration section below.

Three future climate scenarios were analysed, each of which represents an alternative potential future (limited warming within +2.0°C, warming >4.0°C, and a divergent net-zero scenario where warming is limited to 1.5°C through the deployment of strict and disordered policy approaches). Selection of those scenarios was made to (a) ensure consistency of scenario approach across the New Zealand seafood sector, and (b) add the divergent net-zero scenario, as it represents quite a different potential future not captured within the Aotearoa Circle scenarios, one in which a strong and divergent policy approach is used to successfully deliver emissions reductions. Sanford did not undertake its own specific modelling in the development of those scenarios.

The boundary for the scenario analysis was at Sanford Group level, inclusive of all entities and subsidiaries. The assessment accounted for direct operations as well as those within our direct value chain (one step removed from Sanford), and upstream and downstream such as direct suppliers, partners and customers. Time horizons relevant for the analysis were discussed and agreed on by participants during the initial workshop in light of our business processes and strategy-setting practices.

Time horizons utilised for the scenario analysis and associated climate risk and opportunity materiality were:

Time interval		Years	Relevant business process
Short term	1 – 5 years	2023 – 2027	Operational planning timeframes relevant for biological cycles such as seed to harvest planning (mussels, salmon).
Medium term	6 – 10 years	2028 – 2032	Sanford's strategic goals and targets typically set over these timeframes, i.e. to 2030. More certainty of climatic impact and policy settings across/during these timeframes.
Long term	10+ years	2032+	Longer-term strategy planning. Lifespan-relevant timeframe for significant assets such as property and vessels.

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Climate Scenarios

Climate scenarios	Kahawai 2050 "Orderly transition"	Divergent Net Zero "Disorderly transition"	Mako 2050 "Intense and severe outcomes"
Scenario definition source	Aotearoa Circle Marine Domain "Kahawai" scenario (seafood sector specific) theaotearoacircle.nz/ reports-resources/marine- scenarios-report	Network for Greening the Financial System "Divergent Net Zero" scenario data.ene.iiasa.ac.at/ngfs/ (access terms and conditions may apply)	Aotearoa Circle Marine Domain "Mako" scenario (seafood sector specific) theaotearoacircle.nz/ reports-resources/marine- scenarios-report
Scenario description	Kahawhai, a relatively abundant coastal finfish which transition through several stages of life development, collaborating to avoid danger, and well known to fight hard when caught. This scenario describes a 2050 world that has succeeded in implementing the Paris Agreement and is likely to keep warming below 2°C over the course of the century. Climate-related risks are predominantly transitional with cascading impacts on governance and market structures. This scenario favours sustainable economic growth but there is pressure on business for agility and flexibility to meet evolving consumer preferences. Global fisheries' abundance declines by around 10% but New Zealand fares better than most, with relative stability in marine primary production and increased catch potential through advances in scientific understanding and management of fisheries.	Divergent Net Zero scenario reaches net-zero emissions around 2050 but with higher transition costs due to divergent policies being introduced across sectors leading to a rapid phase-out of oil use. Climate-related risks are dominated by transitional events with substantial carry-through to governance, markets, and consumer behaviour. Economic impacts (modelled via GDP) are significant and severe, especially in the near-term. Carbon price impacts are severe but not equal across all sectors. Fisheries' resources decline globally, but New Zealand fares better than most. Due to lagging technology and long-life assets in the marine sector, fisheries and marine aquaculture remain largely reliant on fossil-energy sources and are thereby affected more than most by carbon price impacts and adverse sentiment.	Mako are a fast, aggressive and unpredictable shortfin shark species. This scenario describes a 2050 world where change moves rapidly through the marine domain. A failure to curb emissions means that humanity and nature are facing the consequences of significant climate disruption. Climate-related risks are predominantly physical with cascading economic and market impacts. This scenario constrains adaptive resilience in the face of deteriorating marine ecosystems due to weak global co-operation. Fisheries operators must spend a longer time at sea, travel further, and incur greater energy effort to harvest fisheries. Warm-water species begin migrating south intermittently, while some treasured inshore species extend towards the south too — with associated changes in commercial fisheries' allocations derived from quota. Despite biological challenges, food production is prioritised by governments and many regulatory roadblocks are removed as nations seek to shore-up food supplies. Marine GO-engineering efforts are underway as attempts to weaken the level of warming grow. Business resilience planning becomes increasingly necessary to secure affordable capital from financiers.
Scenario analysis end point	2050	2050, Net Zero	2050
Climate policy	Immediate, smooth, predictable	Strict and disordered	Lagging, absent and/or ineffective
2050 carbon price estimate (USD2010/tCO ₂ e)	USD180	USD700	USD55

Climate scenarios	Kahawai 2050 "Orderly transition"	Divergent Net Zero "Disorderly transition"	Mako 2050 "Intense and severe outcomes"
Transition risk severity (technology and policy)	Moderate	High	Low
Physical risk severity	Low – medium	Medium — high	Extreme
Representative Concentration Pathway (RCP)/ Shared Socioeconomic Pathway (SSP)	RCP 2.6 SSP 1	RCP 2.6 SSP 2	RCP 8.5 SSP 3
Global warming average	<2°C	1.5°C	>=4°C
Climate impacts (to 2050)	+0.7°C air temperature	+0.7°C air temperature	+1.0°C air temperature
Global population (2050)	~8.5b		~11.0b
Marine biophysical	+0.8°C coastal sea-surface temperature	+0.8°C coastal sea-surface temperature	+1.5°C coastal sea-surface temperature
impacts (to 2050)	+0.23 m sea-level rise	+0.20 m sea-level rise	+0.28 m sea-level rise
	8.0 pH ocean acidification	8.0 pH ocean acidification	7.94 pH ocean acidification
	1% decline in dissolved oxygen	Not specified in scenario	2% decline in dissolved oxygen
Fishery production	Net global reduction in primary production (-2%). Some fluctuation in species distributions, some of which impact fisheries management	definition. For scenario analysis purposes, physical marine and fishery impacts assumed to be consistent with the "Kahawai" scenario.	Net global reduction in marine primary production (-5%). Greater uncertainty in fishery stock location, migration, and biological responses
NZ resource and fishery management	Regulation becomes more flexible or makes use of existing settings to allow for flexibility (variation in catch, addition of new species). Decisions with high near-term costs are taken to improve long-term sustainability and resilience.		Reactive responses by fishery managers to changing circumstances. Initial public distrust and reduced reputation give way to support for primary sectors and their role in national food security and self-sufficiency.
Global production in seafood sector	124 MT Aquaculture 71 MT Fisheries	n/a	160 MT Aquaculture 80 MT Fisheries

Assumption on carbon sequestration from afforestation and nature-based solutions are not included.

Climate-related Risks and Opportunities

During scenario analysis workshops, participants prioritised climate-related risks and opportunities from an initial long list developed during an earlier workshop. To assess the materiality of these risks and opportunities, the workshop utilised Sanford's Risk Assessment Guide (SRAG) to allocate High, Moderate or Low materiality ratings across each time horizon and scenario. The results of this activity are shown in the table below.

	riority risk and opportunity	Scenario description	Kahawa	ai 2050		Diverge	nt	
		Time horizon	Short	Med.	Long	Short	Med.	Long
	Risk	More frequent and severe extreme weather events impacting Sanford's ability to conduct operations and service customers						
PHYSICAL	Risk and/or opportunity	Shifts in the distribution or production capacity of wildcatch fisheries due to chronic climate-driven forces						
	Risk	Adverse changes in water temperature, chemistry and quality, impacting the welfare and/or productivity of farmed species	Salmon			Salmon		
			Mussels			Mussels		
	Risk	Current and emerging climate-related regulation of the seafood sector						
TRANSITIONAL	Risk	Increased operational costs due to climate-related effects on core operational inputs (e.g. fuel, packaging, salmon feed)						
	Risk and/or opportunity	Changing consumer preferences around seafood and subsequent impacts on the market						

^{*} In the absence of mitigation

Table 1: Climate-related risk and opportunities

Key

Rating	Action	Sanford's Risk Assessment Guide equivalence (2022)
High	Highest priority for management efforts	Extreme
Moderate	Should be closely monitored	High
Low	Requires a level of monitoring	Low

Mako 2050			Anticipated impact*	Management responses identified to date
Short	Med.	Long		
			Increased rainfall-related mussel harvest closures, increases in weather-related 'non-fishing' days Supply chain disruption (road closures, flooding etc.) delay production and customer deliveries	Strategic allocation of geographically diverse farm locations and quota holdings Strategic investment in R&D, and facilities for climate-resilient seed stock for farms (e.g. SPATNZ)
			Catch entitlement adjustment (up or down) Changed spawning behaviour or success (positive and/or negative) Increased by-catch rates	 Direct monitoring of climate-relevant water variables in key growing locations Allocation of capital towards climate mitigation initiatives such as aeration
Salmon			Increases in mortality Changes (positive and negative) in growth rates Increased susceptibility of fish to disease or stressors	 Participation in sector-wide climate adaptation pathway planning initiatives via Aotearoa Circle
Mussels			Increased biofouling on shell and on grow-out lines Reduction in wild spat availability and seed retention	Planned (FY25+) review of business processes for capital expenditure to provide structural response to reduce climate risks and impact
			Increased compliance costs impacting bottom line Reduced operational flexibility (geography and procedurally) leads to productivity decline	Recognition of the need for future strategic response to identified regulatory risks and anticipated impacts on market preferences
			Margins pressure as costs flow through to sales expectation. Potential to lose competitiveness in international markets Fishing vessels spend more time tied up (reduced asset utilisation if fuel costs rise and cannot be passed on)	
			Changed demand for seafood (increase for low-carbon foods, decrease for sectors perceived as lagging in transition) — both of which are applicable for seafood Alternative proteins (cell culture or similar) challenge traditional proteins in marketplace	

Sanford integrates sustainability considerations into our capital expenditure decisions where relevant. For example, we evaluated new hybrid diesel-electric propellers as part of upgrading our fishing fleet and implemented oxygenation and aeration enhancements on our salmon farms.

4. Sanford Risk Management Processes

Risk management is directed and governed via Sanford's Enterprise Risk Management Policy and Enterprise Risk Management Framework, which are aligned with the ISO 31000:2018 Risk Management Guidelines. The Policy covers all value chain activities and requires that our risk management processes consider all internal and external stakeholders that have an impact on our operations. Sanford's Risk Management Process (Figure 1 below) aims to support the achievement of business objectives while also maintaining compliance with legal and regulatory obligations. Our risk management approach follows a decentralised structure, where individual functions and divisions are directly responsible for their own risk management, with the Group Risk Manager co-ordinating internal communication of risks and maintaining the risk register, and the Board of Directors being responsible at the enterprise level. The Group Risk Manager role is currently held by the General Counsel.

Our risk management processes utilise Sanford's **Risk Register** and **Risk Criteria Guide** which defines the tools to assess the scope, size and impact of risks for our business. The criteria utilise a 'Risk = Likelihood x Impact' approach, where standard definitions are identified for impact (across five impact categories from negligible to extreme, with example impacts per category being defined across the following domains: assets, customer, environment, financial, health/safety, projects, legal, operations, people, reputation and technology) and also for likelihood (across five categories ranging from 'rare' to 'almost certain').



Figure 1. Risk Management Process. (Source: Sanford Enterprise Risk Management Framework, November 2023).

Climate Risk Treatment and Integration

Sanford's initial climate risk prioritisation and scenario analysis process was performed as a stand-alone exercise during late calendar year 2022, and involved a wide cross-functional and diverse group of senior leaders within Sanford and consisted of two workshops facilitated by external specialists (Beca). Specialists from across our executive team, operations, finance, communications, people, fisheries science, and supply chain functions contributed to the process.

Risks were identified during initial workshops in late 2022, and then reviewed during 2024 against Sanford's Risk Criteria Guide (as described above):

- Risk Prioritisation Workshop 28 November 2022. Identification of the highest-ranked priority risks and opportunities
- Climate Scenario Analysis Workshop 12 December 2022. Testing of the six-highest ranked priority risks and opportunities under Sanford's three future climate scenarios
- Reviews of risk ratings and criteria 07 to 15 May 2024. Review of climate risk descriptions, ratings, mitigations and metrics by operations leads for select risks.

We anticipate to review our Risk Management Process for climate-related risks on an annual basis.

To focus efforts towards the most material climate-related risks and opportunities, following the prioritisation process, the three top-ranked physical and transitional climate-related risks/opportunities respectively were selected for further consideration in terms of response, remediation and mitigation. The specific risks and opportunities are shown in Table 1: Climate-related risks and opportunities, per pages 20-21. Those priority climate risks, along with responses and mitigations, are reviewed on a yearly basis.

Climate risks are integrated within the enterprise-wide Risk Register collectively. Climate risks are aggregated as a single representative risk and then prioritised alongside the other (non-climate-related) enterprise risks. Climate risk is currently the number one ranked risk on Sanford's enterprise-wide Risk Register. The top 10 enterprise risks are reported to, reviewed, and rankings/responses discussed by the Board at least annually.

To identify climate-related risks, Sanford's teams employ the following tools and methods:

- Active monitoring of water quality conditions (temperatures, dissolved oxygen, algal populations) at salmon aquaculture sites
- Shellfish monitoring programmes to review shellfish condition
- Monitoring climate-driven growth and yield forecasts for salmon and mussels
- Regularly review fisheries' harvests, catch per unit effort, by-catch rates, weather-related delays, and fuel costs to optimise operations.

5. Metrics and Targets

Greenhouse Gas Emissions:

Scope	Category	FY24	FY23	Base year FY20		
1	Direct emissions (fuel, refrigerants) (tCO ₂ e)	53,346	56,165	59,999		
2	Indirect emissions from electricity, location based (tCO_2e)	1,354	1,493	2,423		
3	Indirect emissions from value chain, upstream and downstream (tCO ₂ e) (measured Scope 3 categories described below)	196,681	184,386	194,774		
Sanford	Sanford's Group intensity metrics*					
	Scopes 1, 2 and 3 emissions per \$ revenue (tCO $_2$ e/thousand\$)	0.50	0.47	0.63		
	Scopes 1, 2, and 3 emissions per greenweight tonne (GWT) harvested (tCO ₂ e/tonnes GWT)	2.31	2.35	2.31		
	Scopes 1 and 2 emissions per GWT harvested (tCO $_2$ e/tonnes GWT)	0.91	0.87	0.85		
Wildcat	Wildcatch division intensity metrics					
	Scope 1 and 2 emissions per GWT harvested (tCO ₂ e/tonnes GWT)	1.61	1.43	1.49		
Mussels division intensity metrics						
	Scope 1 and 2 emissions per GWT harvested (tCO ₂ e/tonnes GWT)	0.19	0.19	0.18		
Salmon division intensity metrics						
	Scope 1 and 2 emissions per GWT harvested (tCO ₂ e/tonnes GWT)	0.50	0.60	0.46		

^{*} FY20 - Base-year emissions were audited by Toitū Envirocare and represents actual emissions, noting the adjustments to the base year data as detailed below. These adjustments ensure like-for-like comparison across the disclosed years.

FY20 to FY23 emission, revenue and harvest data has been adjusted to exclude a material business change being the sale of the inshore business in FY23. Sanford retains the inshore related quota shares and leases the Annual Catch Entitlement (ACE) going forward (further information is disclosed in the FY24 Annual Report at note 20).

Sanford Group's harvest represents total harvest (excluding inshore harvest) from Sanford and third parties' harvesting under Sanford's quota or contract; this data therefore includes fishing partner harvest tonnage.

Wildcatch intensity (Scope 1 and 2) for fishing operations (excluding the inshore business) are based on GWT caught by Sanford-owned vessels and processed at sea or at Sanford's land-based operations.

Mussels' intensity (Scope 1 and 2) for farming operations based on GWT harvested by Sanford-owned vessels and Sanford's mussel processing sites. Our systems do not have the full capability to itemise all Scope 3 emissions categories by business division; accordingly, Scope 3 emissions are included in the Group intensity metrics only.

Details and Assumptions in GHG Inventory

We measure our impact and emissions in accordance with Sanford's GHG Reporting Policy, which follows the GHG Protocol. Key details from that policy are shown in the table below:

Detail	Approach assumption basis	
	Approach, assumption, basis	
Annual measurement period	01 October to 30 September, following our financial year cycle	
Base emissions measurement year	FY20: 01 October 2019 to 30 September 2020	
Base-year assurance	FY20 emissions assurance provided by Toitū Envirocare following ISO 14064-1 assurance standard	
Base-year recalculation approach	The following events shall trigger a recalculation of the FY20 base year to ensure like-for-like comparisons: structural changes to our business, substantial changes by third parties to emissions factors, or discovery of significant errors or a number of cumulative errors that exceed a 5% materiality threshold. Organic growth or decline does not trigger recalculation.	
Base-year recalculation	At the conclusion of FY23, Sanford's direct North Island inshore operations ceased with two vessels being sold along with the rights to fish for a period of 10 years. That constituted a material change to the business as defined by Sanford's base-year recalculation approach. The emissions associated with these operations essentially moved from Sanford's Scope 1 and 2 emissions to Scope 3 category 13 emissions.	
Consolidation approach	Operational control basis, as defined by the GHG Protocol	
Organisational boundaries	All of Sanford's New Zealand and Australian operations, including joint ventures and investments. Sanford's GHG inventory covers all direct (Scope 1 and 2) and material indirect (Scope 3) emissions categories — see definition below for the Scope 3 emissions boundary.	
Exclusions	The following entities, which Sanford had an interest in during the period, are excluded from our GHG emissions inventory: Two Islands Co NZ Limited (50% ownership, sold during FY24), Barnes Oysters Limited (14.29% ownership), Primestone Nominees (75% ownership, closed during FY23), New Zealand Japan Tuna Company Limited (46.74% ownership), Area B Compliance Limited (26.9% ownership), Bluff Oyster Management Company Limited (15.79% ownership), Sugarloaf Port Company Limited (12.19% ownership).	
Data quality and uncertainties	Sanford utilises the BraveGen tool for emissions inventory collation and reporting. All activity data is reliant on supplier invoice accuracy and other data input. Ultimate emissions data is the result of both those input data and the source uncertainty of, and system input of, external emissions factors and spend-based factors. Sanford self-assesses the data sources for quality as follows: High — actual usage data from supplier or internal systems; Medium — a mixture of actual data activity and data estimations; and Low — high use of estimates and assumptions. Sanford's emissions data is assessed as follows: Scope 1 and 2 data quality — High, Scope 3 data quality — Low.	
Scope 3 emissions boundary	Scope 3 emissions GHG Protocol categories are screened (last screening FY21) and subject to a 1% materiality threshold measured across all Scope 3 categories. This resulted in Scope 3 categories C1, C2, C3, C4, C5, C9, C11 and C12 being deemed material categories (and all others being deemed immaterial categories). C15 is included as it represented joint-venture North Island Mussel Ltd operations during FY24. A cumulative exclusion threshold for Scope 3 is set at 5% (the cumulative exclusions do not exceed this value).	
Emissions factors	Emissions factors used in Sanford's inventory are based on the latest information deployed within the third-party-maintained BraveGen software system's emission factor library which utilises those available from: New Zealand Ministry for the Environment DEFRA (Department for Environment, Food, and Rural Affairs, UK) Auckland Council spend-based factors (consumption emissions modelling) National Greenhouse Account factors (Australian National Greenhouse Accounts Factors (dcceew.gov.au)) California Air Resources Board (arb.ca.gov/resources/documents/high-gwp-refrigerants). And in the absence of those, relevant sector information is utilised. For key emissions-intensive suppliers' specific emissions, factors direct from suppliers' own data, analysis, and life-cycle assessment studies are utilised. Emissions factors use the Global Warming Potential (GWP100) basis unless otherwise listed.	
Gases included in inventory	All Kyoto Protocol greenhouse gasses: CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆ ·	
Recalculations implemented in FY24	Scope 3 category 1 component contractor vessel fuel calculation approach changed for FY24 based on greenweight caught by these vessels and emissions-intensity EU standard (Energy transition of fishing fleets: Opportunities and challenges for developing countries).	

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Climate Metrics

Business activities vulnerable to physical and transition risks

Sanford has assessed that, given the nature of our business, collectively, and in the absence of mitigation: up to 100% of our business activities are vulnerable to the climate-related physical risks identified above; and up to 100% of our business activities are also vulnerable to the transition risks identified.

Capital deployment towards climate-related risks and opportunities

During FY24, Sanford continued it's investment in equipment and systems to reduce some of the identified climate-related risks, including implementing oxygenation and aeration systems at Big Glory Bay to improve the resilience of salmon during periods of challenging water-quality conditions, pen-cleaning machinery to improve through-pen water flows, and fuel-efficiency upgrades for the *San Enterprise* deepwater fishing vessel. The total amount of spend across these initiatives during FY24 was NZ \$3.3 million.

Business activities aligned with climate-related opportunities

Two climate-related opportunities are identified in the priority risk and opportunity table (see pages 20-21), being 'shifts in the distribution or production capacity of wildcatch fisheries' (which may be a risk and/or an opportunity, applicable for the wildcatch segment) and 'changing consumer preferences around seafood' (which may be a risk and/or an opportunity applicable to the entirety of Sanford's product portfolio). In the case of fisheries' stocks, scientific understanding is not yet developed to a sufficient level to identify the quantum of shift for each specific fishery. However, in an overall sense New Zealand fisheries stocks are likely to be in a better position than global peers due to geographic location benefits where displaced cold-water species are replaced by other warm-water species.⁵ It is currently not possible to determine a percentage of activity aligned with this opportunity, within our available data, but we are looking to improve this over the course of FY25.

In the case of changing consumer preferences towards seafood, this increases in demand for low-carbon nutrition and protein represent an opportunity for seafood (per benchmaking in life-cycle assessment studies). While significant barriers for further emissions reductions for the sector (technology, asset lifespan, geographies etc.) represent a similar scale of downside risk towards consumer preferences. Accordingly, 100% of Sanford's activities are considered as aligned with that opportunity, although there is an equivalent level of business risk present also. Over time, and as consumer behaviours in this space develop, Sanford anticipates that it will be possible to refine both the opportunity and risk profile towards a greater level of precision.

Other metrics

Sanford does not utilise an internal emissions pricing schedule at present, and management remuneration is not linked to climate-related risk.

Targets

In our 2023 Annual Report, we disclosed three climate-related targets:

- Reduction of 25% absolute Scope 1 and 2 emissions by FY30 from a FY20 baseline
- Deliver on six business projects in support of emissions reductions in FY24
- Implement seven climate-adaptation measures and projects within the business in FY24 (six internal, one external).

Progress Towards Targets in FY24

6. NZX, New Zealand's Exchange Announcement Overview

Target for FY24	Progress in FY24
Reduction of 25% absolute Scope 1 and 2 emissions by FY30 from a FY20 baseline	Achieved to date Sanford achieved a 12.4% reduction in absolute Scope 1 and 2 emissions in FY24 relative to an adjusted FY20 baseline. A number of projects contributed to this significant reduction, such as efficiency upgrades on deepwater vessels, transition to plug-in hybrid electric vehicle fleet, and phasing of coal use. The FY20 baseline and subsequent years were adjusted for the purposes of target measurement for FY24 to remove the contributions from the North Island inshore fishery assets, which were sold at the commencement of FY24 as part of the Moana transaction. The adjustment is made to ensure 'like for like' year-on-year comparisons following material business changes. The FY30 emissions-reduction target has been reviewed during FY24 and replaced with a new intensity-based target (see below).
Deliver on six business projects in support of emissions reductions in FY24	Achieved During FY24, Sanford delivered the following projects in support of emissions reductions across the business: Completed San Enterprise deepwater vessel fuel-efficiency upgrade works Achieved an on-time and on-budget status for new diesel-electric Scampi vessel build project (San Koura Rangi) Delivered a hybrid (with battery energy storage) feed barge to Big Glory Bay salmon farm Upgraded generators and compressors used for aeration and oxygenation support at Big Glory Bay salmon farm to more fuel-efficient models Upgraded and rolled out a business-wide emissions measurement software system Engaged with fuel suppliers and marine-sector participants on future marine fuels collaborations.
Seven climate- adaptation measures and projects implemented and completed within the business in FY24 (six internal, one external)	 Partially Achieved During FY24, the following business-adaptation projects were implemented and completed: Integration of climate risk planning into Sanford's overall Enterprise Risk Management frameworks Contribution towards the completion and implementation of seafood sector-wide climate-adaptation pathways. Facilitated by the Aotearoa Circle, this project resulted in the implementation of climate-adaptation pathways for the deepwater trawl wildcatch, salmon aquaculture, and mussel aquaculture sectors Review of emissions factors utilised within Sanford's emissions reporting software and accounting system to ensure all factors use the same Global Warming Potential (GWP100) basis Review and determination of percentage of business activities vulnerable to climate-related risks and opportunities for climate-related disclosure purposes. The following business-adaptation projects were partially (not fully) achieved during FY24: Review of internal capital expenditure processes and systems to account for climate risks Completion of a climate transition plan for Sanford (this is now anticipated to occur during FY25). Sanford made progress towards its transition plan in FY24, including developing its emissions-reductions plan and revised emissions-reduction target Determination of the current and anticipated financial impacts of climate-related risks and opportunities.

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^{5.} Cheung W et al., 2019. Future scenarios and projections for fisheries on the high seas under a changing climate. IIED Working Paper. IIED London.

2030 Emission-reduction Target

Sanford has reviewed and replaced its absolute Scope 1 and 2 GHG emission-reduction target during FY24. This revision has been prompted by changes in a combination of internal and external factors and assumptions which supported the prior target. It has become apparent that in setting the prior target, some key assumptions – including those relating to the domestic availability and cost of sustainable marine fuels (blendable, drop-in-diesel replacements), and policy settings to support these – are unlikely to be realised before the FY30 target date. Sanford is also anticipating volume growth which means an absolute emissions reduction target will be difficult to achieve. Accordingly, the earlier absolute reduction FY30 target is no longer considered viable. As a result, we have adopted a new intensity-reduction FY30 target as follows:

• >=5% reduction in GHG intensity (tCO₂e / greenweight tonne harvested) for Scope 1 and 2 GHG emissions by FY30 from a FY20 baseline.

Sanford considers it is important to retain an intensity-reduction target, because, although Sanford's absolute Scope 1 and 2 emissions had reduced by 12.4% in FY24 compared to the FY20 baseline (excluding inshore contributions) Sanford's FY24 Scope 1 and 2 emissions intensity (tCO₂e/GWT) increased by 7% compared to the FY20 base. We experience an increase in Scope 1 and 2 emissions intensity per greenweight tonne relative to FY20 in each of FY21, FY22 and FY23 as harvest activity in both the wildcatch and mussels divisions reduced. During FY24, harvest activity decreased due to lease of inshore Annual Catch Entitlement as did the year-on-year absolute Scope 1 and 2 emissions (Figure 2).

Sanford's modelling for the updated intensity target assumes some limited harvest volume growth across aquaculture operations and relatively unchanged harvest volumes compared to prior periods for the wildcatch division, as well as successful deployment of energy-efficiency projects across the business.

In the absence of an applicable Science Based Targets initiative (SBTi) sector pathway which appropriately covers the fisheries and aquaculture sectors, Sanford does not currently consider that our target is able to be referenced with a pathway which limits global warming to 1.5°C. In addition the lack of an applicable sector pathway, is due to:

- The nature of more than 85% of Sanford's Scope 1 and 2 emissions being 'hard to abate' (i.e. those emissions derived from high capital value and long-life assets, where technological decarbonisation solutions are lagging e.g. large deepwater fishing vessels).
- The existing lack of policy support, logistics and infrastructure for domestic and price-competitive sustainable marine fuel deployment in New Zealand at scale prior to FY30.

Sanford's emissions-reduction pathway does not currently assume the use of offsets.

Progress towards achieving our revised GHG emissions-reduction target is indicated below:

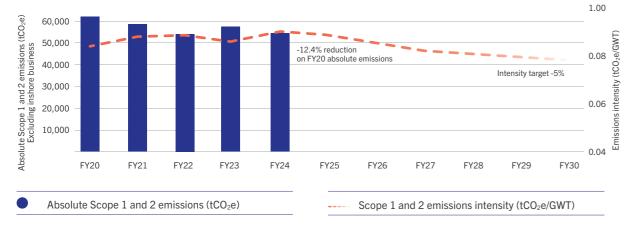


Figure 2: Graph showing progress against absolute emissions and Sanford's revised GHG emissions-intensity target

The trend showing Sanford's whole value-chain emissions intensity based on economic output (\$ revenue) is indicated below:

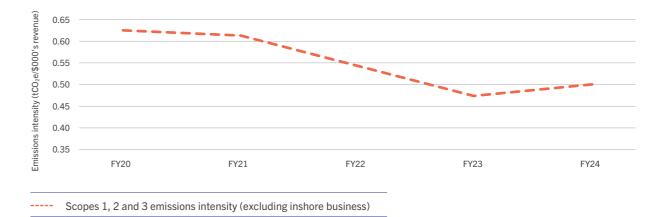


Figure 3: Graph showing Scopes 1, 2 and 3 emissions intensity per sales revenue

Sanford has been successful at gaining value from the harvest, leading to a reduction in Scopes 1, 2 and 3 emissions intensity per \$ revenue from FY20 to FY23. However, in FY24, the increase in intensity reflected a growth in Scope 3 emissions (Figure 3). Sanford's challenge is to ensure the deployment of efficiency projects, fuel changes and behavioural change projects internally to deliver further emissions reductions as the harvested GWT grows.

Key risks that have potential to affect our ability to reduce emissions effectively and achieve our new intensity target include:

- Volume growth through production efficiency gains in the mussels and salmon sectors to deliver lower Scope 1 and 2 emissions intensity across the portfolio of seafood risks to that growth include hatchery production and associated biological system performance.
- Sanford's pathway requires that emissions mitigation actions are taken, such as efficiency
 improvement projects like recent propeller and nozzle upgrades, auxiliary generator upgrades,
 and boiler enhancements on some of our largest deepwater vessels. The availability and cost of
 finance to fund these projects represent a risk to achieving the target.
- 'Hard to abate' emissions from our vessel fleet dominate Sanford's Scope 1 emissions profile.

Aotearoa New Zealand Climate Standards (NZ CS1, CS2 and CS3) Disclosure Reference Table

Objective	Category	Page Reference in Report
Governance	6-7. Disclosures	14-15
	8. Governance body oversight	14-15
	9. Management's role	14-15
Strategy	10. Disclosure objective	16-17
	11. Disclosures	16-17
	12. Current impacts and financial impacts	16, 17, 24, 26
	13. Scenario analysis undertaken	18-19
	14. Climate related risks and opportunities	20-21
	15. Anticipated impacts and financial impacts	17
	16. Transition plan aspects of its strategy	16
Risk management	17. Disclosure objective	15, 22, 23
	18. Disclosures	15, 22, 23
	19. Disclosures	15, 22, 23
Metrics and targets	20. Disclosure objective	24-29
	21. Disclosures	24-29
	22. Metric categories	24-29
	23. Targets	24-29
	24. GHG emissions	24-29
Assurance of GHG emissions	25 and 26. Assurance of GHG emissions	N/A prior to 27th Oct 2024 requirement
NZ CS 3 Requirements	40-42. Comparative metrics	24
	44-46. Consistency	24
	47-50. Restatement of comparatives	17
	49. Methods and assumptions and data and	
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