

Industrial and Commercial Bank of China (New Zealand) Limited

Climate Report

For the year ended 31 December 2023



Foreword

This climate-related disclosure statement of the Industrial and Commercial Bank of China (New Zealand) Limited (*ICBC NZ, us, we, our, or bank*) covers the first reporting period (the financial year from January to December 2023). **This disclosure statement was prepared in accordance and in compliance with the climate-related disclosure regime,** specifically the Aotearoa New Zealand Climate Standards (NZCS) developed by the External Reporting Board (XRB):

NZCS 1: Provides a framework for entities to consider climate related risks and opportunities

NZCS 2: Outlines a limited number of adoption provisions

NZCS 3: Establishes principles and general requirements

The ultimate aim of the Climate Standards is to support the allocation of capital towards activities that are consistent with a transition to a low-emissions, climate-resilient future.*

This disclosure statement follows the structure set out in the NZCS 1 covering the four thematic areas:

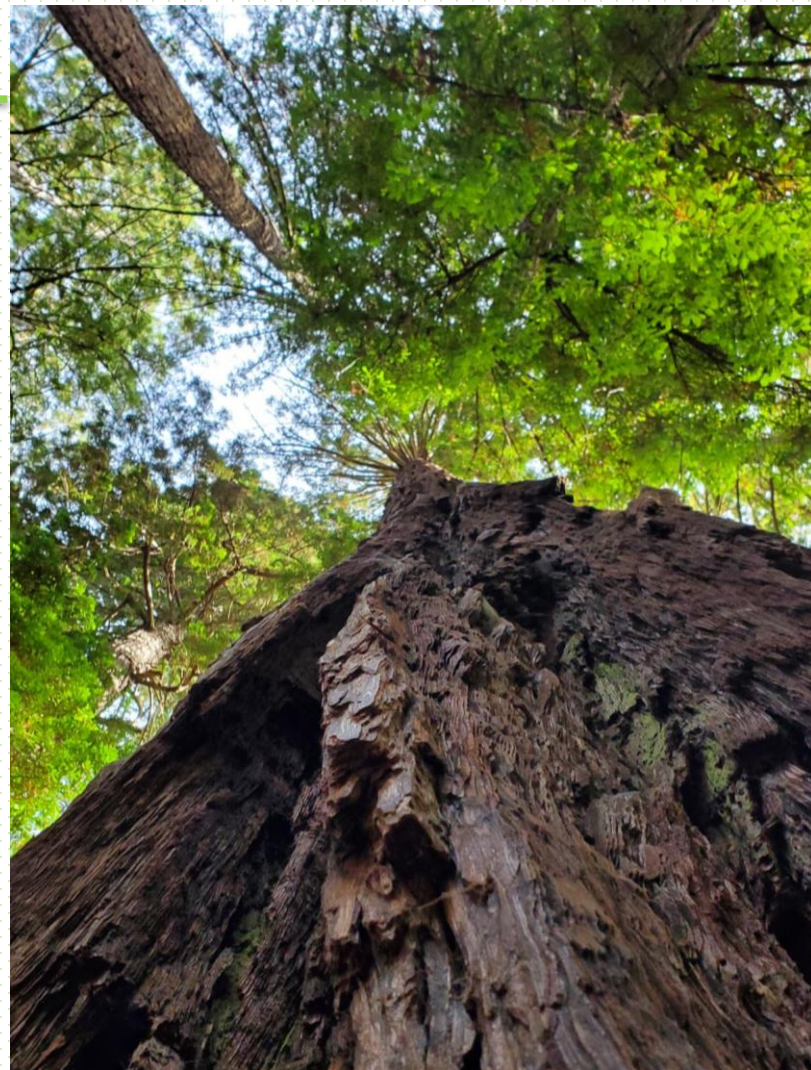
Governance - how ICBC NZ's governance body and management oversee, assess, and manage climate-related risks and opportunities

Strategy - how climate change currently impacts ICBC NZ, and how it might do so in the future

Risk Management - how ICBC NZ identifies, assesses and manages climate-related risks, and how those processes are integrated into its existing risk management processes

Metrics and Targets - how ICBC NZ measures and manages climate-related risk and opportunities

* NZCS1, section 2.



Board Message

ICBC NZ is a wholly owned subsidiary of Industrial and Commercial Bank of China Limited (ICBC or ICBC Group) with the vision of constituting a bridge to support economic, financial and cultural exchanges between New Zealand and China. ICBC NZ is committed to supporting local economic growth and social development with sustainability and high quality. ICBC NZ has been following the Head Office's overall strategies and implementing the ICBC Group's Strategic Development Plan to strengthen the building of a green finance system, striving for high-quality development by strategic actions including promoting green financing and local climate transition.

Governance over climate-related risks and opportunities is an important aspect of climate reporting and risk management in order to achieve strategy integration. As we navigate an increasingly complex and volatile economic landscape, it is imperative that we acknowledge and address the risks posed by climate change. The impact of climate-related events on our strategy, operations, and overall business resilience must be appropriately managed.

To mitigate climate-related risks associated with climate change, we are proactively incorporating climate risk management into our strategic decision-making processes. This involves conducting a thorough assessment of our vulnerabilities to climate-related hazards, such as extreme weather events, resource scarcity, and regulatory changes, and implementing robust adaptation and mitigation strategies.

By embracing climate risk management, we not only safeguard our business from potential disruptions but also position ourselves as a responsible institution committed to sustainable practices. Embracing this approach will not only enhance our long-term resilience but also open doors to new markets, customers, and partnerships.

We are in the process of dynamically incorporating the green financing concept into our operation and development, and striving to create greater value for our stakeholders. On this new journey, we will concentrate our efforts on improving governance, strategy, risk management, metrics, and targets, striving to make greater contributions for a good future.



Alternate Executive Director



Chairman/Independent Director
Date: 30 April 2024

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Governance

ICBC NZ Board of Directors

Governance Body

ICBC operates under two entities in New Zealand: ICBC NZ, a locally incorporated company, and ICBC Auckland Branch, operating as a registered branch of ICBC. The ICBC Group is the world's largest bank by asset size.

The responsibility for overseeing climate-related risks and opportunities at ICBC NZ lies with its Board of Directors. The ICBC NZ Board is supported by two sub-committees in overseeing climate-related risks and opportunities: the Board Risk Committee, and the Board Audit Committee.

Process

The ICBC NZ Board has been informed about climate-related risks and opportunities through various reports, both routine and ad-hoc, from management. Different teams contribute to climate reporting, including Finance and Risk. Routine reporting to the Board occurs every quarter, while any new, emerging, pressing, or off-cycle reporting happens on an ad-hoc basis as necessary. The board in 2023 engaged in discussions and workshops as key workstreams were developed for climate risk and opportunities

Through these discussions, workshops, and regular Board meetings, the Board agreed metrics and targets for managing climate-related risks and opportunities. For subsequent years, the Board will monitor and oversee outcomes against these metrics and targets.

Oversight

The ICBC NZ Board reviews the bank's strategy annually. Its medium term strategy, reviewed in 2023 did not identify climate change as a material risk for that year. During 2023 the ICBC NZ Board discussed the bank's climate-related risks and opportunities and recommended their inclusion in the upcoming year's strategy. The ICBC NZ strategy supports the ICBC Group's Strategic development plan to strengthen the building of a green finance system, striving for high-quality development by strategic actions including promoting green financing and local climate transition.

Skills and Competencies

The ICBC NZ Board and Executive Team have been supported with material and training from external specialists, who possess extensive climate risk management expertise. This supports overseeing climate-related risks and opportunities. The Risk Management Committee (*RMC*), Board Risk Committee and Board Audit Committee, comprising senior managers from diverse backgrounds, actively support this initiative.

Governance Structure



Governance

ICBC NZ Executive Team

Management Responsibilities

Climate-related responsibilities were allocated to committees and senior managers by aligning existing mandates with the requirements of the climate-related disclosure regime. While the regime falls under the purview of the RMC, individual climate-related obligations have been provisionally assigned to senior managers and discussed within the committee.

The RMC, composed of senior managers, plays a crucial role in assessing and managing climate-related risks and opportunities. During the reporting period, external consultants supported this committee's efforts. The bank's management committee also plays a role in maintaining oversight of progress, supporting the allocation of responsibilities and reviewing resource allocation.

Process

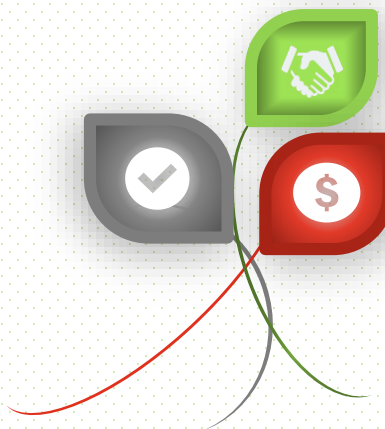
The RMC is the principal management level committee responsible for material risks across ICBC NZ. This includes climate-related risks, and related risks and opportunities. The RMC informs the bank's executives and engages with the Board via regular and ad-hoc reporting, at a minimum on a quarterly basis.

The RMC is informed of climate risks through various reports, including but not limited to the Chief Risk Officer's report and in relation to regulations via a compliance report. It makes decisions on and monitors climate-related risks and opportunities during its monthly meetings.

Metrics and targets, as defined in the NZCS 1 have been developed for 2024. Reporting against metrics and targets will be provided regularly to the RMC and to the ICBC NZ Board.

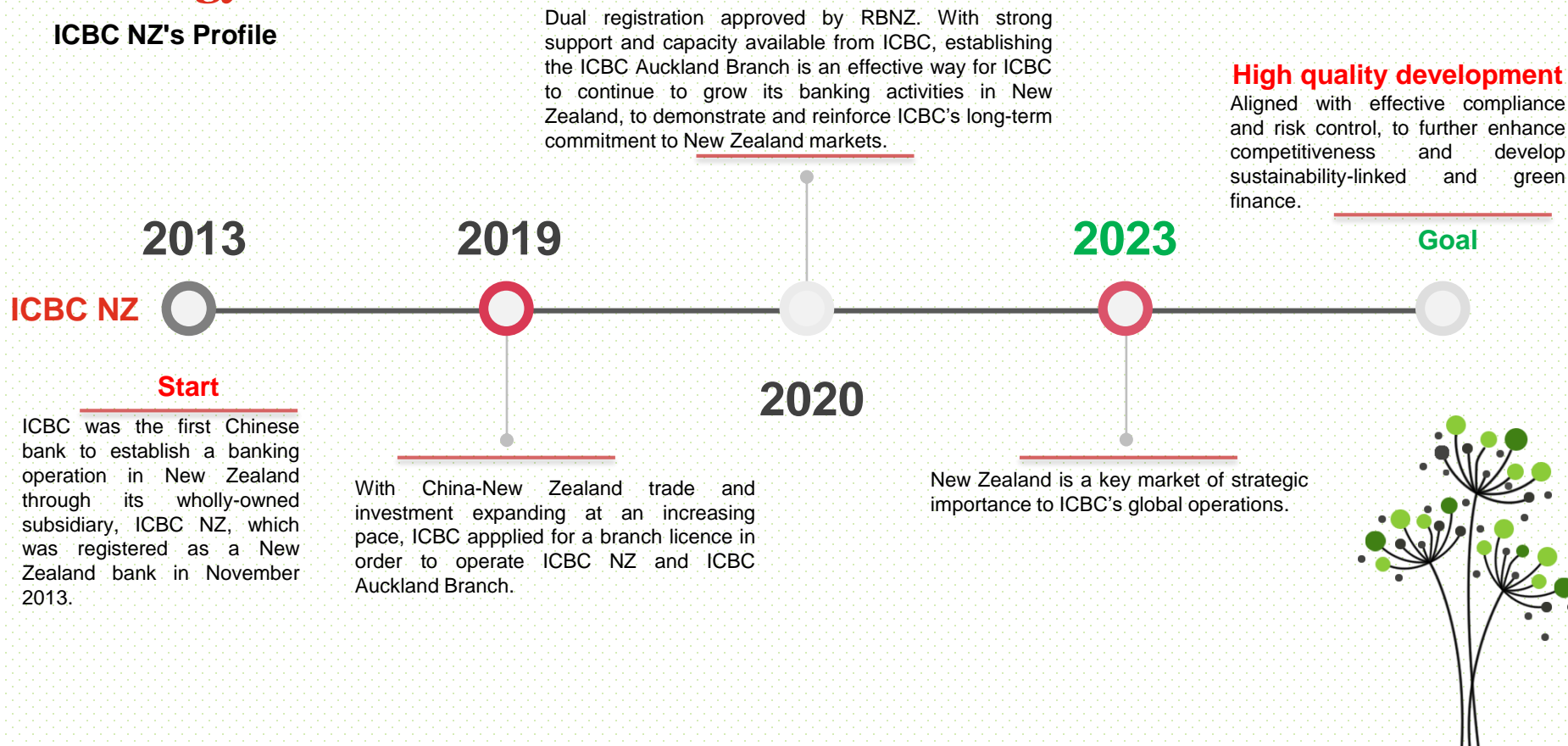
Remuneration

During the reporting period, Executive Team members were not assigned specific individual performance-based metrics related to climate-related opportunities. However, they were held accountable for compliance with the parent bank's Green Credit Policy. This policy emphasises green development, active participation in international exchanges, cooperation in green financing, and a continuous increase in the proportion of green investment and financing. Failure to comply with this policy may result in deductions from performance evaluation scores.



Strategy

ICBC NZ's Profile



Strategy

ICBC NZ offers integrated, multi-functional banking solutions to its customer base, featuring a suite of products and services to retail and corporate clients.

ICBC NZ sets its own strategy, while remaining aligned with that of the ICBC Group. The bank has been following ICBC Group's green finance strategy with the goal of becoming a green bank with good international reputation. ICBC NZ is committed to sustainable high-quality development, aiming to be the most respected Chinese bank in New Zealand while being recognised as an economic, financial and cultural bridge between the two countries.

Our long-term vision in the local market requires the bank to always adhere to integrating economic and social responsibility, and attach greater importance to developing a robust climate risk framework. Meanwhile, we will also steadily advance the green and low-carbon transformation of our own operations and improve our own environmental performance.

The bank will stick to its role in green finance and further promote green product innovation and risk management. Its approach to managing climate risks and opportunities is primarily set out in the bank's Enterprise Risk Management Framework and Risk Appetite Statement. We are proactively integrating climate risk management into our operations and development to create greater value for our stakeholders. That should enable the bank to enhance the adaptation, competitiveness and inclusiveness of our services for green development.

Structural Adjustment

- Optimise the business structure of Assets and Liabilities
- Continuously optimise structures of customer, product and business channel
- Promote green finance

Risk Prevention

- Enhance the long-term mechanism to continuously develop the compliance and internal control system
- Further implement risk management system, and optimise risk assurance frameworks and procedures

Stable Growth

- Strengthen the dual licence model, focusing on the local market
- Effective and high quality growth in assets
- Sustainable financial performance

Opening New Prospects

- Enhance customer-centricity and customer service
- Focus on the bank's culture & team

Enhance Growth Drivers

- Optimise system automation
- Improve operational efficiency
- Strengthen digitisation capabilities

ICBC NZ 2023 Strategic Focuses



Strategy



ICBC group Headquarters in Beijing.

ICBC Group's Strategy

***“Become a Green Bank with
Good International
Reputation”***

Current impacts

Transition risk can be seen to arise for ICBC NZ through a need to comply with the *Aotearoa* New Zealand Climate Standards. As the Climate-Related Disclosure legislative requirements and the standards published by the XRB are new, there has been a need to implement procedures to create this disclosure. There is a direct organisational impact and cost of doing so, conversely this supports ICBC NZ positioning itself for a lower carbon economy.

Climate-related impacts primarily affect ICBC NZ through the impact on borrowers and the quality of the bank's loans. Physical risks have arisen through acute weather impacting customers financed by ICBC NZ. Global warming of 1.1°C is estimated to have increased rainfall intensity.* In 2023, which was a year of acute weather events, these impacts were restricted to damage to properties financed via home loans by ICBC NZ. This damage was covered by insurance or to a lesser extent by borrowers' own resources, therefore not impacting ICBC NZ's loan book. A limited number of customers of ICBC NZ's corporate businesses clients were also impacted by acute weather events, with damage covered by insurance and the earnings of those borrowers. ICBC NZ loans were not impacted by a need to lower collateral values or amend expected credit losses.

Transition risk was of limited impact to borrowers in 2023.

*National Institute of Water and Atmospheric Research (NIWA) (2023). Auckland suffers wettest month in history.

Strategy

Scenario Analysis

ICBC NZ conducted scenario analysis with the support of external consultants and in line with guidance on the scenario analysis process published by the External Reporting Board. The process was run by management via the RMC, informing the Board of the outcome through ad-hoc papers.

ICBC NZ developed and analysed a 1.5°C, a >2°C and a >3°C climate-related scenario to align with XRB requirements. Each scenario was designed to be plausible and challenging. Key stakeholders from across ICBC NZ were involved in the process and reference scenarios used include the New Zealand Banking Sector scenarios as well as outputs from global climate and integrated assessment models. The New Zealand Banking Association (NZBA) sector scenario project was supported by ICBC NZ.

ICBC NZ set scope boundaries for the scenario analysis. These provided the direction and breadth of the analysis and scenario narratives. Using the NZBA scenarios as a foundational input, interactive sessions were held to identify key drivers of change and climate-related risk and opportunities that could impact ICBC NZ. The influence and uncertainty of each driver, risk and opportunity was assessed against ICBC NZ's value chain under each scenario. Scenario narratives were developed to capture the analysis conducted, including relative scoring of key risks at each time horizon under each scenario for the organisation and five investment sectors.

Three scenarios have been used in line with NZCS 1:

Orderly:

- ✓ An Orderly transition describes a world where there is action in public policy and technological change towards low-carbon emissions. Net-zero emissions are achieved globally by 2050, and temperature rise is limited to 1.5°C, with limited overshoot. This is due to collective buy-in from the public, investors, businesses and governments. These changes are accompanied by an increasing carbon price that incentivises low-carbon behaviour change. Physical weather event impacts and transition risks occur, but not as severely as in the other scenarios.

Too Little, Too Late:

- ✓ Too Little, Too Late describes a world in which a delayed and misaligned transition occurs. In this scenario, New Zealand transitions earlier compared to the rest of the world, and introduces policies in line with net zero by 2050. Globally, action on climate change is slower, with fossil fuel use remaining high until mid-century. From then on, global efforts begin to align, including large increases in carbon price. Despite efforts to rapidly reduce global emissions, the transition is too late to prevent widespread acute and chronic physical climate impacts.

Hot House:

- ✓ Hot House represents a world in which the worst-case emissions trajectory has occurred, with little to no effort to transition. Weather events and chronic impacts are severe, coupled with the destabilisation of social and economic structures. Any adaptation to climate change is driven by short-term economic interests. Unabated fossil fuel use continues, and temperature continues to rise at an unprecedented rate. Climate tipping points are crossed and ecosystems are devastated.

Strategy

Scenario - Orderly:

- Key assumptions include that transformation is driven by collective buy-in from the public, investors, businesses and governments. This scenario is characterised by fast and aggressive transition risk from now until 2040. Physical risks are less prevalent than other scenarios. Global CO₂ emissions are assumed to follow the Shared Socioeconomic Pathways (SSP) 1-1.9 pathway, peaking in the 2020s and dropping steadily to 2.1 Gt/year by 2050. Land use and energy sector emissions both go net negative around 2046.
- Managed retreat policies are implemented more gradually and in a coordinated way, with government support and funding available. Collective action and steady societal behavioural changes toward a low-carbon economy are evident both in New Zealand and globally. With increased stakeholder and investor expectations, ICBC NZ will be required to adopt a proactive approach to transition. Consequently, moderate-to-high transition risks emerge for ICBC NZ. Meanwhile, the general population has more time to prepare for the severe physical impacts of climate change, with the severity level remaining lower compared to other scenarios.
- The global economy ultimately benefits from the steady transition to a low carbon economy due the avoidance of damage costs from physical climate change impacts. Lenders have more time to prepare due to climate-related risks being slower to eventuate. Climate change-related events, such as floods and storms, become somewhat more frequent and intense, but this trend levels off by mid-century. The most significant physical impacts of climate change are mitigated. By 2050, New Zealand's average temperature rises by 0.7°C relative to the 1986-2005 baseline.
- A consistent flow of low-emission technologies emerges, propelled by increasing carbon prices. This drive incentivizes the development of lower-emission energy sources, including electrification and green hydrogen, consequently reducing costs. Moreover, there is broader access to comprehensive data, with a dual focus on both mitigation efforts (such as emissions inventories) and adaptation strategies. The emphasis lies on coordination, standardisation, and usability. New Zealand's carbon price rises to \$250 by 2050, and the share of energy from renewable electricity grows to 89% (assumed to follow the Climate Change Commission's (CCC) Tailwinds scenario).

Strategy

Scenario - Too Little, Too Late:

- Key assumptions include that a world in which a delayed and misaligned transition occurs. This scenario is characterised by late but aggressive transition risk and higher physical risk. Global CO₂ emissions are assumed to follow the SSP2-4.5 pathway, rising slowly until 2040 and then dropping slightly to 43.5 Gt/year by 2050. Land use emissions go net negative around 2053, and energy sector around 2093.
- Regulations towards decarbonisation in New Zealand are introduced, but a lack of decarbonisation options results in high costs for some sectors. Challenges arise as local regulations lack alignment with those of trading partners, making implementation more difficult. Data availability remains largely unchanged, with significant portions still restricted behind paywalls. Interpreting and comparing data across sources remains a specialised activity. In New Zealand, stakeholder preferences shift towards decarbonisation, influenced by policy changes. However, overseas, stakeholder expectations regarding decarbonisation are less pronounced until later stages. Adaptation investment remains minimal and slow until the mid-term, picking up momentum from the 2040s onward as the physical impacts of climate change become more apparent.
- Local attempts to transition without global support caused financial strain for New Zealand in the first half of the century, followed by a rapid transition that disrupted the global economy. By 2050, global temperatures increase by +1.7°C. Regions like Northland, Hawke's Bay, and Canterbury witness increased frequency and severity of drought, alongside a decrease in precipitation. Conversely, the West Coast of the South Island experiences higher precipitation levels. Climate change-related events, such as floods and storms, become more frequent and intense, persisting throughout the century, albeit at a slower rate in later years.
- Although there was limited early investment in low-carbon technologies, a global focus on low-emission technologies emerged from mid-century onwards, with widespread adoption in New Zealand. Increased scrutiny from customers and investors, starting in New Zealand from the late 2020s and later elsewhere, prompts banks to prioritise green finance innovations alongside low-carbon regulations. New Zealand's carbon price rises to \$250 by 2050, and the share of energy from renewable electricity grows to 74% (assumed to follow the CCC's Headwinds scenario).

Strategy

Scenario - Hot House:

- Key assumptions include the worst-case emissions trajectory has occurred, with little to no effort to transition. This scenario is characterised by low transition risk and high physical risk (to a state of unprecedented climate volatility). Global CO₂ emissions are assumed to follow the SSP5-8.5 pathway, increasing year-on-year to reach 83.3 Gt/year by 2050. Land use emissions go net negative around 2064, but energy sector emissions increase drastically.
- Some adaptation policies are implemented where deemed necessary, but regulations lack a focus on climate adaptation, with climate and nature not being prioritised. Stakeholders remain unconcerned about mitigating climate change, primarily driven by investment returns. This leads to global economic destabilisation, compounded by rising costs of raw materials and resources due to damages from severe weather events.
- As severe weather events increase, significant investments in climate adaptation begin from the medium-term onwards, with no indication of slowing. These events, including floods, storms, droughts, and heatwaves, become increasingly devastating, with global temperatures rising by +2.5°C by 2050. Changes in precipitation patterns threaten water security, while chronic alterations reduce resilience to more frequent severe weather events.
- Despite the existence of more and better data focused on adapting to increasing physical risks, there remains low demand for low-carbon or emissions-saving technologies. New technologies continue to rely on fossil fuels, and progress in bringing low-emissions technology to market is hindered by a lack of investment. Green finance products remain niche, with limited uptake across the board. New Zealand's carbon price stays low (\$35 in 2050), and the share of energy from renewable electricity only rises slightly to 46% (assumed to follow the CCC's Current Policy Reference scenario).

Strategy

Scenarios

The scenarios developed by ICBC NZ are relevant and appropriate as each scenario is constructed based on a few reference scenarios projecting various variables, including:

- ✓ *CCC Ināia tonu nei: a low emissions future for Aotearoa scenarios dataset;*
- ✓ *Intergovernmental Panel on Climate Change (IPCC) Shared Socioeconomic Pathways (SSPs);*
- ✓ *Downscaled NZ climate change projections prepared by NIWA for Minister for the Environment (MfE); and*
- ✓ *Network for Greening the Financial System (NGFS) Climate Scenarios.*

These above reference scenarios provide us with projected economic, political, social, technological and environmental variables to build out our scenarios. Types of data provided include variables such as GDP, demographics, energy sources, trade policies, physical climate data and land use change. These specific source materials are recommended for use by the XRB when constructing scenarios.

In addition, ICBC NZ developed climate scenarios using the NZBA scenarios as a foundation to draw on. Any deviations from these scenarios and the utilisation of other reference scenarios and data are based on the rationale of data availability and comprehension of the physical impacts within an intermediate emissions scenario.

The three scenarios offer a wide range of potential futures for analysis, while also presenting three distinct and plausible scenarios to establish the groundwork for strategic planning.

The climate change scenario analysis process was not undertaken as an individual workstream. The insights and observations gained from the process will be integrated within ICBC NZ's strategy process.

Strategy

The scenarios incorporate findings from multiple modelling exercises by external data providers. ICBC NZ placed reliance on these exercises, and did not separately undertake internal modelling for this Disclosure.

The scenario analysis incorporates findings from global climate models as reported in IPCC Assessment Reports and downscaled results for New Zealand produced by NIWA for the MfE. These models are state-of-the-art for climate change projections and represent the best available data for assessing physical climate change risks.

External Partners and Stakeholders Involved

PricewaterhouseCoopers New Zealand Sustainability, Climate Change and Nature team.

The three scenarios are built using CO₂ concentration pathways from three of the Shared Socioeconomic Pathways that are used to coordinate the climate models that inform the IPCC's 6th Assessment Report (AR6). Each SSP makes assumptions about the amount of carbon sequestration from afforestation/nature-based solutions and negative emissions technology, but the amounts are not reported directly via the International Institute for Applied Systems Analysis (IIASA), which prescribes the SSP data. They are instead aggregated with other emissions sources into two of the reported sector-level emissions levels: Agriculture, Forestry, and Other Land Use (AFOLU) for afforestation; and Energy Sector for negative emissions technology.

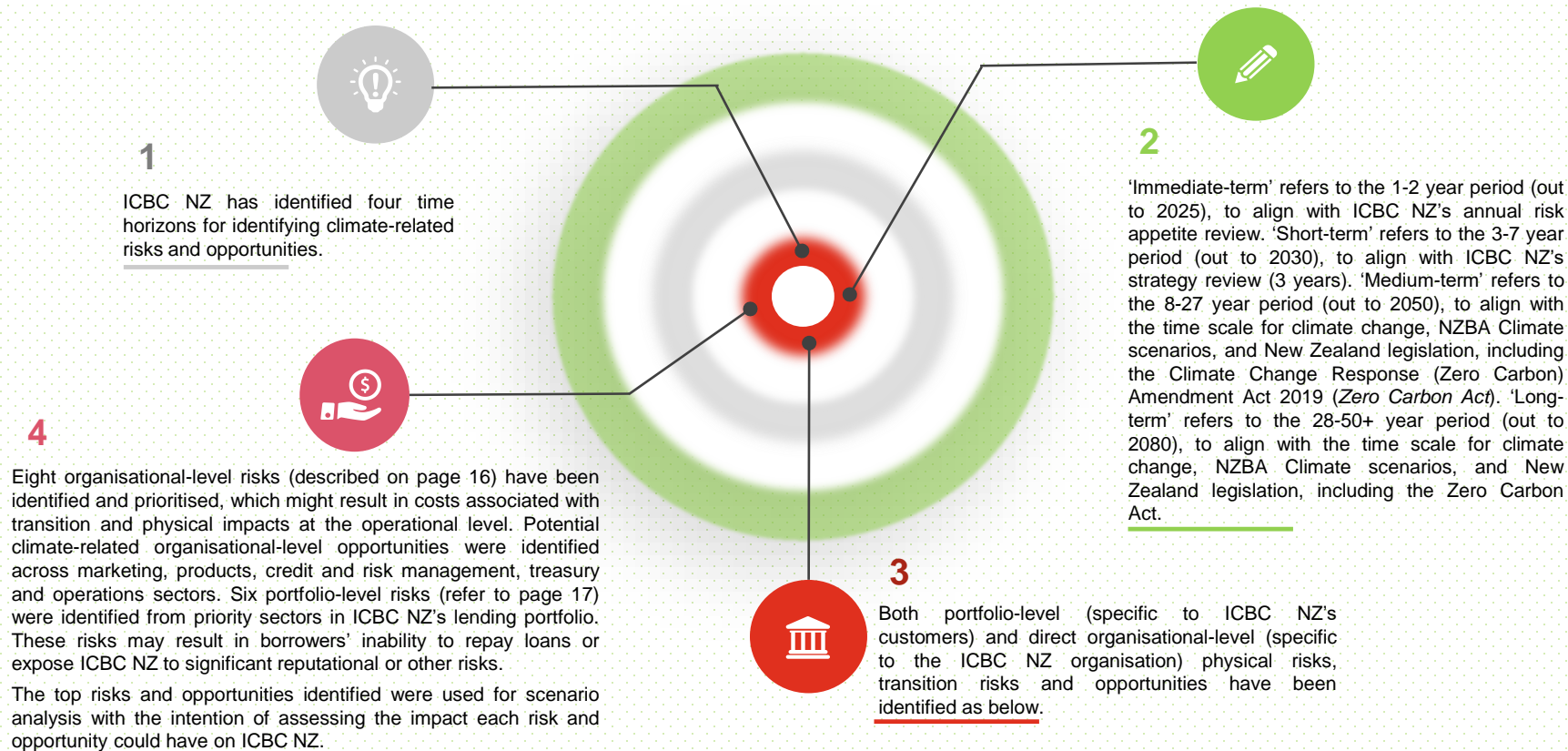
Sources of Data

Data used in narratives includes:

- Global temperature increase and annual global CO₂ emissions (International Institute for Applied Systems Analysis SSP Database. (Version 2.0).
- Global population (Samir KC, Wolfgang Lutz, The human core of the shared socioeconomic pathways: Population scenarios by age, sex and level of education for all countries to 2100, *Global Environmental Change*, Volume 42, 2017, Pages 181-192, ISSN 0959-3780, DOI:10.1016/j.gloenvcha.2014.06.004)
- Global GDP, Global carbon price, Domestic GDP (NZ) (NGFS. 2023. NGFS Scenarios for central banks and supervisors November 2023. Network for Greening the Financial System, Paris, France.)
- Likely occurrence of an 50 year extreme temp event (IPCC, AR6 (2021). *Climate change 2021 (Figure SPM.6)*
- New Zealand and Auckland Mean temperature increase (Ministry for the Environment. (2018). *Climate Change Projections for New Zealand*).
- Auckland hot days and rainfall intensity (days annually over 25°C) (Ministry for the Environment. (2018). *Climate Change Projections for New Zealand*).
- Domestic carbon price (ETS) (Climate Change Commission (2021). *Ināia tonu nei: a low emissions future for Aotearoa, Scenarios dataset 2021 final advice*).
- New Zealand Sea Level Rise (NZSeaRise, data taken from site 1233 (Auckland CBD), assuming the sea level rise will be similar across the country. Accessed 29 November 2023 from <https://www.searise.nz/maps-2>; IPCC. 2023. AR6 Synthesis Report: Climate Change 2023). Notes: Data presented as median estimate across models (p50), with the p17-p83 range in brackets (corresponding to approximately ± 1 standard deviation). Vertical Land Movement is excluded. Data for 2025 taken as the arithmetic mean of the 2020 and 2030 values.

Strategy

Climate-related risks and opportunities



Strategy

ICBC NZ - Organisational level climate-related risks

This and the following tables shows the outputs from a climate risk and opportunity identification and prioritisation exercise that was completed with key stakeholders from across ICBC NZ's business areas in 2023. ICBC NZ assessed climate-related risks using a risk matrix with a four-point scale (Low, Moderate, High, Extreme) for both exposure and vulnerability.

Risk Description	Exposure to threat	Vulnerability	Type of risk
Lack of capacity/capability, failure to articulate sustainability progress, and continued investment in high carbon emitting sectors could lead to an inability for ICBC NZ to obtain sustainability certifications/ratings resulting in reputation damage, loss of market share, reduction in access to financial markets.	High	Moderate	Transition
Increased scrutiny of sustainability claims and ESG information could lead to increased perception and accusation of greenwashing, resulting in reputation damage with customers, constrained access to debt/capital markets and increased legal exposure.	Moderate	Moderate	Transition
Insufficient capability/capacity, lack of accurate data to inform key product decisions, and limited monitoring of customer/regulator expectations could lead to a failure to effectively implement responsible finance practices resulting in financial penalties, loss of market share, divestment by shareholders etc.	Moderate	Moderate	Transition
Lack of understanding and awareness of emerging environmental regulations, and insufficient capacity/capability could lead to an inability for ICBC NZ to fully comply with environmental and broader sustainability regulation resulting in financial penalties, reputation damage, increased regulatory scrutiny beyond sustainability etc.	Moderate	Moderate	Transition
Lack of accurate ESG/physical climate risk data to inform both organisational and portfolio level decision making, could lead to poor or delayed investment decision making resulting in missed opportunities or increased climate risk exposure beyond risk appetite.	Moderate	Moderate	Physical
Increase in regulatory requirements and the need to transition to a low-carbon economy could lead to an increase in demand for sustainability expertise and resource e.g. Climate Stress testing, making access to relevant expertise challenging or expensive, resulting in maladaptive decision making, increased operational costs, inability to comply etc.	Moderate	Moderate	Transition
Increased frequency and severity of extreme acute weather events could lead to an inability for ICBC NZ to access or operate key facilities and maintain service delivery resulting in disruption to operations, revenue loss, etc.	Moderate	Moderate	Physical
Increased frequency and severity of extreme acute weather events at the main data centre and mainframe in China could lead to an inability to access and maintain the technology required for remote service delivery resulting in operational disruption, loss of revenue, reputation damage etc.	Moderate	Moderate	Physical

Strategy

ICBC NZ - Portfolio level climate-related risks

Risk Description	Exposure to threat	Vulnerability	Type of risk
Increased frequency and severity of extreme acute weather events impacting key sites, coastal inundation, increased temperatures raising fire risk could lead to increased cost of and/or reduced access to insurance resulting in increased operating costs, increased stranded assets, write down of assets deteriorating financial position.	High	Moderate	Physical
Increased property damage from increased frequency and severity of extreme weather events, especially in coastal areas, could lead to a significant drop in property attractiveness to potential tenants, resulting in reduced revenue and property values for client.	High	Moderate	Physical
Change in perception of adopted decarbonisation technologies, change in regulatory requirements, and reduction in viability of renewable investments and decarbonisation technologies could lead to the chosen decarbonisation pathway failing to deliver anticipated benefits resulting in increased operating costs and capital investment requirements, exposure to regulatory penalties and restrictions, and reputation damage.	Moderate	Moderate	Transition
Changes in climate-related market access regulations could lead to constraints on access to both domestic and global markets and value chains resulting in business disruption, reduced revenue, inability to meet customer requirements.	Moderate	Moderate	Transition
Shift in consumer expectations towards perceived more sustainable alternatives, increased scrutiny of environmental claims including decarbonisation technologies could lead to diminishing social licence to operate and reduced market access to key markets resulting in reputation damage, loss of revenue, increased cost per unit of production etc.	Moderate	Moderate	Transition
Increased frequency of extreme seasonal variations in precipitation e.g. flooding or drought could lead to limited access or ability to operate physical assets and maintain operations resulting in reduced revenue, increased costs to operate, project delays.	Moderate	Moderate	Physical

Strategy

ICBC NZ - Climate-related opportunities

ICBC NZ has identified the following potential climate-related opportunities.

Headline opportunity	Opportunity description	Direct/Portfolio
Partnership on climate mitigation and adaptation projects	Increased ability to partner with key clients and other financial service institutions on advantageous climate mitigation and adaptation projects. This could result in an improvement of ICBC NZ's reputation and market position.	Direct
Growth through sustainability linked products	Increased use of sustainability linked products e.g. Sustainability Linked Loans, Green Bonds, Green Loans, Green Deposits could lead to improved revenue growth and an increase in ICBC NZ's market share of sustainability-linked products.	Direct
Integration of renewable energy	Integration of renewable energy systems into buildings and property development will become more affordable as the advancement of renewable energy technology continues to develop, reducing energy costs.	Portfolio
Improving the resilience of electricity infrastructure	Focus on increasing sustainable transition funding to enable rebuilds and further enhancements that strengthen the resilience of electricity line infrastructure. This will ensure that infrastructure is more resilient to withstand climate impacts.	Portfolio

Strategy

Anticipated impacts of climate-related risks and opportunities

As part of the scenario analysis process, seven impact pathways were developed for the highest priority physical and transition risks and opportunities to better understand how risks and opportunities could potentially impact ICBC NZ.

These seven pathways cover:

- Reduction in property attractiveness to potential tenants
- Increased cost of and reduced access to insurance
- Limited access or ability to operate physical assets and maintain operations
- Inability for ICBC NZ to obtain sustainability certifications/ratings to maintain market share and meet consumer expectations
- Increased perception and accusation of greenwashing
- Partnership on climate mitigation and adaptation projects
- Growth through sustainability linked products

ICBC NZ has applied the adoption provision in NZCS 2 for the first reporting period for the following disclosures:

- The anticipated financial impacts of climate-related risks and opportunities reasonably expected by an entity;
- A description of the time horizons over which the anticipated financial impacts of climate-related risks and opportunities could reasonably be expected to occur;
- Quantitative financial impact;
- The transition plan aspects of its strategy, including how its business model and strategy might change to address its climate-related risks and opportunities; and
- The extent to which transition plan aspects of its strategy are aligned with its internal capital deployment and funding decision-making processes.

Description of ICBC NZ's progress towards developing the transition plan aspects of its strategy

The bank is continuing to integrate consideration of climate-related risks and opportunities into strategic decision making and investment decisions. Work will continue into FY25 to support transition planning activities. The risk and opportunity workshops conducted in 2023 did not highlight climate as the highest risk during the horizon covered by the medium term strategy. Quantification of the financial impact of physical and transition risks is a topic to be resolved within 2024.

Risk Management

Identifying and assessing climate-related risks

ICBC NZ has incorporated climate risk considerations into its Enterprise Risk Management Framework. This ensures that climate-related risks are identified, assessed and managed alongside other financial and operational risks.

ICBC NZ engaged external consultants to support a climate-related risk and opportunities identification exercise. This process included ICBC NZ's risk team and key stakeholders from across ICBC NZ. The identified risks and opportunities have been recorded in a risk register, along with information about the time horizon and ratings by likelihood and consequence.

An additional exercise was conducted to prioritise the key climate-related risks and opportunities based on the concepts of exposure and vulnerability.

As part of the risk and opportunity screening, ICBC NZ assessed climate-related risks using a risk matrix with a four-point scale (Low, Moderate, High, Extreme) for both exposure and vulnerability. Exposure is defined in terms of the extent to which assets/operations are in a vulnerable place or setting. Vulnerability is defined in terms of the extent to which the asset/operations are expected to be adversely affected. This considers aspects such as the entity's sensitivity to the risk / opportunity and the capacity to adapt.

The eight direct organisational risks and six portfolio risks have been considered across the six key portfolio sectors (Property, Utilities, Education and Public Sector, Transport, Primary industries, and Retail). The top prioritised risks and opportunities were consolidated and included in the scenario analysis and impact pathway assessment.

Value Chain - The full value chain was considered in the scenario analysis process. The risk and opportunity analysis includes all ICBC NZ operations and the full banking portfolio to ensure completeness at a high-level, with a deep dive into Auckland region and specific high-exposure areas such as property investment.

Physical risk analysis (organisational-level and portfolio level) was conducted across ICBC NZ's key locations and operations (NZ) and regional-level locations of assets in the customer portfolio. Transition risk (organisational-level and credit level) analysis was broken down portfolio by sector based on the full banking portfolio.

The bank identifies and assesses climate-related risks across the full range of activities, resources and relationships related to its business model. In 2023, the bank introduced an impact pathways approach to assess the potential impacts of climate change, considering the unique context of the ICBC NZ's sector, business model, and activities across the value chain. The bank has developed seven impact pathways which represent the risks and opportunities that ICBC NZ has the highest exposure to. Whilst these are the key risks and opportunities for ICBC NZ, this does not necessarily mean that all impacts outlined in the impact pathways will be material for ICBC NZ.

Risk Management

ICBC NZ's risk management process

ICBC NZ has established risk appetites for different sectors and borrowers, reviewed at least annually. Climate risk is considered as part of the evaluation process for lending, together with a broader preference to support business with green and sustainable characteristics as this aligns with the bank's strategy. ICBC NZ's lending decisions (i.e. its capital deployment and funding decision-making) are informed by its risk appetite settings, with specific sectors and risk tolerance levels including climate risk. ICBC NZ did not have a specific green or sustainable loan target but has sought to grow green and sustainable loans. Capital was allocated to climate risk in the bank's ICAAP.*

*ICAAP is the bank's Internal Capital Adequacy Assessment Process.

"Three Lines of Defense" for Climate Risk Management

The first line of defense

Business departments

As the first line of defense for climate risk management, business departments are the major bearer and managers of climate risk, and own the responsibility for implementing climate risk-related business management.

The second line of defense

Risk management departments

As the second line of defense for climate risk management, risk management departments formulate climate risk management policies, standards and requirements, and provide climate risk management methods, tools, processes and guidance for the first line of defense. Risk management departments independently monitor, assess and report on climate risk and risk changes of the bank and business lines.

The third line of defense

Internal audit department

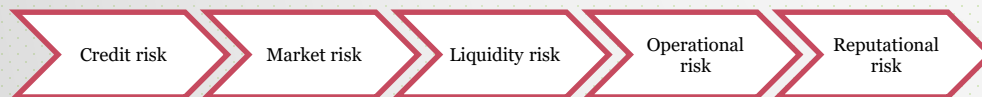
As the third line of defense for climate risk management, the Internal Audit Department is responsible for auditing the implementation of climate risk governance and the effectiveness of climate risk management and process.

Risk Management

ICBC NZ has incorporated climate risk into its enterprise risk management framework, clarified the governance structure and responsibilities of climate-related risk management, and updated its Risk Appetite Statement with specific qualitative preferences related to climate risk. The full-process management mechanism for climate risk identification, assessment, monitoring, control and reporting is specified in the bank's Enterprise Risk Management Framework and relevant policies and procedures.

The bank identifies and assesses climate risk by studying and analysing the climate risk factors that affect traditional risks.

The main traditional risks impacted by physical risks and transition risks



ICBC NZ has a moderate appetite for credit risk and seeks to continuously improve the effective identification and measurement of climate related risks as part of credit risk acceptance. ICBC NZ has a low tolerance for operational risks, including reputational and regulatory risks which pertain to climate risk. These risk tolerances set ICBC NZ's acceptance levels for climate related risks.

Risk Management

Risk type	Impact	Climate risk factors	Impact Term
Credit risk	The risk that loss is caused to banking business when the borrower or counterparty fails to meet its contractual obligations.	<ul style="list-style-type: none"> Climate change results in weaker profitability or asset depreciation of the debtor Failure to adapt to the changes in policies, regulations and technologies has a negative impact on the obligor 	Medium and long terms
Market risk	The risk of loss to the Bank's on- and off-balance sheet activities caused by adverse movements in market rates (including interest rates, exchange rates, and stock prices and commodity prices).	<ul style="list-style-type: none"> Asset depreciation due to climate change 	Medium and long terms
Liquidity risk	The risk that the Bank is unable to raise funds on a timely basis or at a reasonable cost to settle liabilities as they fall due, perform other payment obligations and satisfy other funding demands of normal business development.	<ul style="list-style-type: none"> Extreme weather events lead to customers' credit overdraft or less-than-expected funds available to the Bank 	Medium and long terms
Operational risk	The risk of loss resulting from insufficient or problematic internal processes, employees and IT systems or from external events, including legal risk, but excluding strategic and reputational risk.	<ul style="list-style-type: none"> Disruption of business activity and supply chain caused by extreme weather events and damaged facilities Carbon emission reduction measures add to operating costs and capital expenditures Failure to adapt to the changes in policies, regulations and technologies 	Medium term
Reputational risk	The Bank's behavior, its employees' behavior or external events lead to negative opinions on the Bank of stakeholders, the public and the media, thus damaging the brand value, adversely affecting the normal operation and even affecting market and social stability.	<ul style="list-style-type: none"> Negative impact caused by insufficient support for customers hit by extreme weather Reputational damage due to exposure to carbon-intensive industries 	Short, medium and long terms

Metrics & Targets

Greenhouse Gas (GHG) Emissions, Intensity and Targets

GHG Emissions	2022 t CO ₂ e	2023 t CO ₂ e	2024 Target
Scope 1 - Direct emissions	1	1	Maintain emissions within 110% of 2023
Scope 2 - Electricity	12	13	Maintain emissions within 110% of 2023
Scope 3 - Excluding Financed emissions	397	435	Maintain emissions within 110% of 2023
Total	410	449	Maintain emissions within 110% of 2023
Building emission intensity (t CO ₂ e/m ²)	0.34	0.37	Maintain at 2023 level
Per capita emission intensity (t CO ₂ e/person)	4.66	4.99	Maintain at 2023 level

Standard used: Our GHG emissions have been calculated in accordance with the requirements of ISO 14064-1:2018 and informed by the GHG Protocol. This is an international standard which contain the principles and requirements for designing, developing, managing and reporting organisation-level GHG inventories. It categorises emissions as direct or indirect sources, to manage the double counting of emissions. While the GHG Protocol identifies, explains, and provides options for GHG inventory best practice, the ISO14064-1:2018 standard establishes the minimum standards for compliance with these best practices.

Consolidation approach: We determine our organisational boundary using an operational control approach defined in the GHG Protocol Corporate and reporting Standard.

Emission factors: Emission factors are mainly sourced from Ministry for the Environment NZ, Measuring Emissions: A Guide for Organisations (MfE(2023)).

Global Warming Potential (GWP): Each non-CO₂ gas emission is converted to CO₂ equivalent by using its 100-year time-horizon GWP (GWP100) value from the IPCC Fifth Assessment Report (AR5) .

Estimation uncertainty: While our external partner CarbonEss has prepared the GHG emissions calculations based on our current knowledge, data, and understanding, significant uncertainties remain due to factors like data quality, immature methods, complex calculations and estimates. For example, emissions from Category 1 were calculated against the bank's fuel expenditure and the emission factor for petrol from Market Economics (2023). However, fuel expenditure is not technologically representative of the actual emissions from fuel combustion. Additionally, meaningful comparisons of fuel expenditure and emissions between years can be challenging due to the volatility of fuel prices.

Financed emissions: ICBC NZ has chosen to apply the adoption provision 4 in NZ CS 2. We will commence disclosing financed emissions, category 15 emissions under scope 3, from the 2024 reporting period.

Emissions price: ICBC NZ has not determined an internal emissions price.

Targets above are **absolute**, with ICBC NZ is **not relying on any offsets** to achieve these.

Industry-based metrics: ICBC NZ relied on the New Zealand Banking Association Banking Sector scenario analysis to assess, measure and manage its scenario analysis and, consequently, its climate-related risks and opportunities.

Contribution to 1.5°C limit: ICBC NZ's view is that the targets proposed contribute to limiting global warming to 1.5°C by restricting how much financing the bank provides to extractive sectors, and by ensuring clients and the bank understands their physical and transition impacts of climate change.

Metrics & Targets

The following table sets out the bank's key climate-related targets and planned progress in 2024.

Category	Target	2022	2023	2024 Target
Transition Risk	Gas sector - exploration and extraction	2.96%*	2.06%*	Less than 3.5% of loan balances**
	Coal mining sector (extractive)	0.00%	0.00%	No customers/exposure
	Corporate customers with qualitative and quantitative transition risk assessment	NA	NA	Assess 15% of corporate customers transition risk
Physical Risk	Mortgaged properties exposed to 100-year flood risk	NA	NA	Establish base line in 2024, implement a target for 2025
	Corporate customers with qualitative and quantitative physical risk assessment	NA	NA	Assess 15% of corporate customers physical risk

* As a percentage of loan balances **ICBC NZ has no active plans to increase exploration and extraction sector exposure.

The metrics & targets disclosed apply for 2024 (12 months) and will then be reviewed. It is expected that these metrics and targets will continue to apply, excepting the retail physical risk target for which a quantitative target will be set. 2024 is the first year ICBC NZ has set climate metrics & targets.

Metrics & Targets

Exclusions

The following sources of emissions have been recognized and left out of ICBC NZ's GHG inventory. These sources have been deemed insignificant to ICBC NZ, not relevant to the inventory, and/or not practically or economically viable to be measured currently.

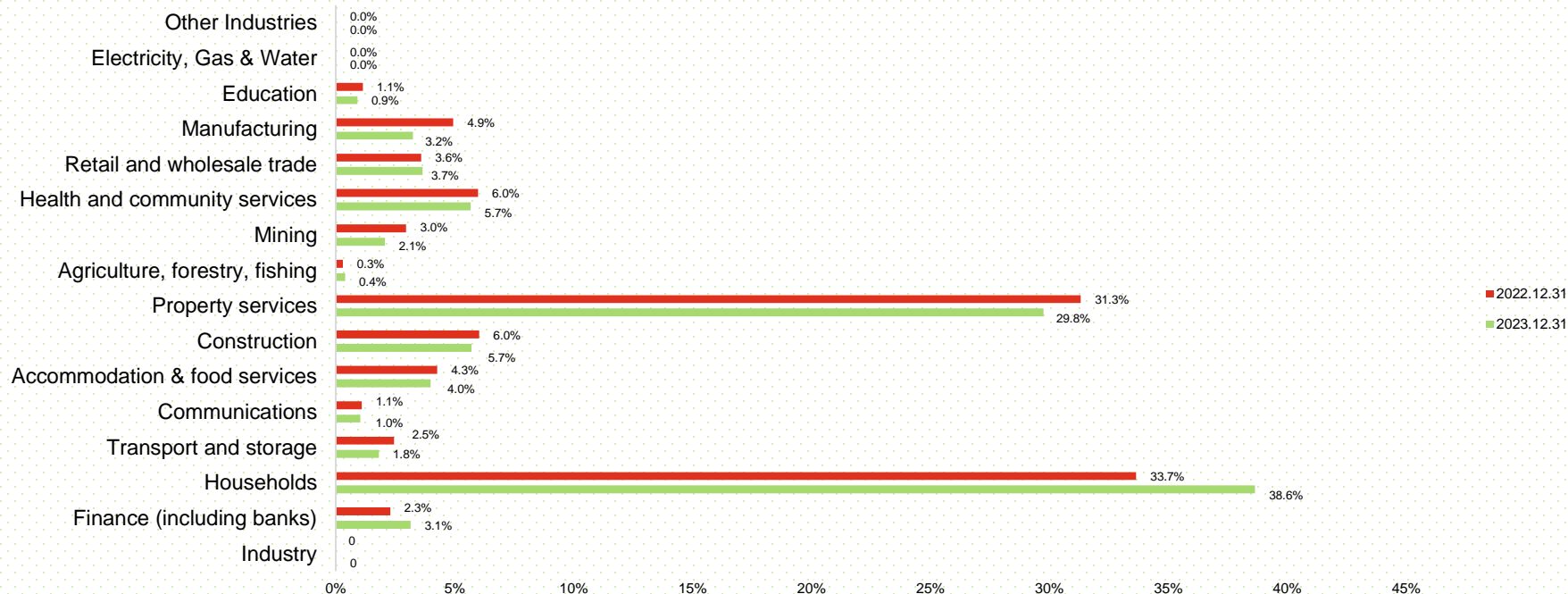
Emission Category	Emission Source	Reason for Exclusion
Scope 1 - Direct emissions	Fugitive Emissions from vehicles	Consumption data unavailable. These emissions are assumed to be de minimis (<1%).
Scope 1 - Direct emissions	Refrigerants	No top ups in FY23 and no leaks.
Category 3 - Indirect Emissions from Transportation	Rental Car	Consumption data unavailable. As rental cars are not a core part of ICBC NZ's business operations, these emissions are assumed to be de minimis (<1%).
Category 5 – Indirect Emissions associated with the use of products from an organisation	Processing of sold products	Not Applicable
Category 5 – Indirect Emissions associated with the use of products from an organisation	End-of-life treatment of sold products	Not Applicable
Category 5 – Indirect Emissions associated with the use of products from an organisation	Upstream leased assets (i.e., assets leased to third parties)	Not Applicable
Category 5 – Indirect Emissions associated with the use of products from an organisation	Franchises	Not Applicable

Metrics & Targets

- ICBC NZ has undertaken a climate risk and opportunities review. Climate change is bringing increased risks, including more extreme weather events, acute temperatures and inundation risks. ICBC NZ has assessed its organisational level physical risk as 'low' under the orderly scenario and transition risk as 'medium'. As a bank, ICBC NZ is predominantly exposed to physical and transition risk through all loans provided to customers.
- ICBC NZ's primary activities include lending to corporate and retail customers. Climate impacts are a new form of disclosure, with inherent uncertainties. All financed property assets (including residential property) and business operations have the potential to be impacted by physical risk from climate change, as climate impacts worsen and from transition risk as regulations change and as social sentiments evolve. ICBC NZ has assessed the physical risks to property to be higher. The property sector forms a material proportion of ICBC NZ's portfolio (30% of loans). Property assets are generally well spread (property type, location), which provides some mitigation to physical risk. The transport sector (1.8% of loans) is an example of a sector more highly exposed to transition risks (under the orderly scenario). ICBC NZ has undertaken sample testing of its home loan lending and identified 15% of secured houses to have greater vulnerability to flooding. A more in depth review will be undertaken in 2024, which is included as a target. Home loans comprise 39% of ICBC NZ's loan portfolio. For corporate lending, only a sector level view has been established. A target for 2024 is to review, at a business level, a proportion of corporate customers physical and transition risk.
- ICBC NZ has offered a number of products with pricing incentives to support our customers sustainability and green goals. As of the end of 2023, our outstanding Green Loans and Sustainability-Linked Lending amounted to \$99.74 m, which accounted for 9.73% of total outstanding corporate loans.
- ICBC NZ has allocated a 0.55% capital buffer as part of its ICAAP for climate risks. ICBC NZ risk appetite establishes the level of risk the bank wishes to take and the maximum exposure to different sectors. The risk appetite statement considers climate risks & opportunities.
- ICBC NZ's emission intensity is 4.99 t CO₂e/FTE and 0.37 t CO₂e per m² for scope 1, 2 and scope 3 emissions that pertain to purchased services. Scope 3 financed emissions are not disclosed under the NZCS 2 transition provision. Our initial calculations of financed emissions show these to comprise the majority of emissions associated with ICBC NZ.

Metrics & Targets

ICBC NZ's loan exposure by sector



Case Study: Climate change's impacts are here today

The Auckland Anniversary Weekend Floods

On 27 January 2023, over 200 mm of rain fell in central Auckland, a 1-in-200-year event¹ that flooded thousands of properties.

The storm resulted in over 58,000 insurance claims totalling an estimated \$1.9 billion NZD².

Major insurers are now retreating from the worst-affected neighbourhoods - not renewing policies for "category 3" and the worst-hit "category 2" homes, and not issuing new policies for any category 2 homes³. Only category 3 homes are eligible for the government buy-back scheme, so there is a real risk of hundreds of properties being left uninsurable.

Climate change's influence

The rainfall was worsened by climate change. 1.1°C of global warming to date has led to an estimated increase in rainfall intensity (mm/hr) of 10-20% for such events, compared to a pre-industrial climate¹. The shortest, most extreme rainfall events intensify by the greatest degree under warming.

Attribution science is a developing field which aims to quantify the degree of human causality in the risk of an extreme weather event occurring. For Auckland, the contribution of human activity has been calculated as between 10-40% for a range of extreme rainfall events⁴.

Flood damage costs have been shown to increase non-linearly with rainfall intensity due to factors such as local topography and stormwater infrastructure⁵. This means that some locations will experience damage and repair costs that increase by even more than the changes to rainfall intensity.

Rainfall intensity in extreme events will increase more as temperatures rise - an estimated 5.7-8.2% by 2050 across the scenarios in this report.

86% of ICBC NZ home loans are centered in Auckland. This severe event saw ICBC customers suffer damage totalling \$1.238 million, which covered 7 properties. This serious storm was a very real climate "stress test" event.

1. NIWA. (2023). Auckland suffers wettest month in history.
2. Insurance Council of New Zealand (ICNZ). (2023). Insurers fully settled 87% Gabrielle and Auckland Anniversary claims.
3. The Post. (2023). Country's largest insurer IAG begins insurance 'retreat' from flood-prone homes.
4. NIWA. (2018). Impacts of severe weather: Chasing resilience for NZ.
5. Ministry for the Environment. (2010). Preparing for future flooding.

Disclaimer

This is the ICBC NZ's first Climate report. The process undertaken to prepare this report necessarily involves estimates, projections, and assumptions about the future, which are inherently uncertain and are not forecasts of future performance. Forward-looking statements and commitments are based on ICBC NZ's reasonable understanding as of 31 December 2023, but incorporate limitations and assumptions that mean future performance and actions may differ materially from this report. If ICBC NZ changes its assessment of the future climate-related risks and opportunities, it will not update this report but will instead incorporate updates in future reports. This report provides early and indicative assessments that will improve over time as relevant data, including greenhouse gas emissions data, climate risk data, and customer data, becomes available to ICBC NZ. Similarly, climate-related risk modeling and metrics are subject to a number of methodological and data-related limitations. As a result, readers should make their own assessments and not place undue reliance on this report. While ICBC NZ has taken all due care in preparing this report, it is necessarily limited in coverage and a summary only. ICBC NZ makes no representation as to its accuracy, completeness, or reliability. ICBC NZ expressly disclaims all liability for any loss (direct, indirect, consequential, or otherwise) arising from the use of this report.

A copy of this report can be found on our website.

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