

**KIRIN**



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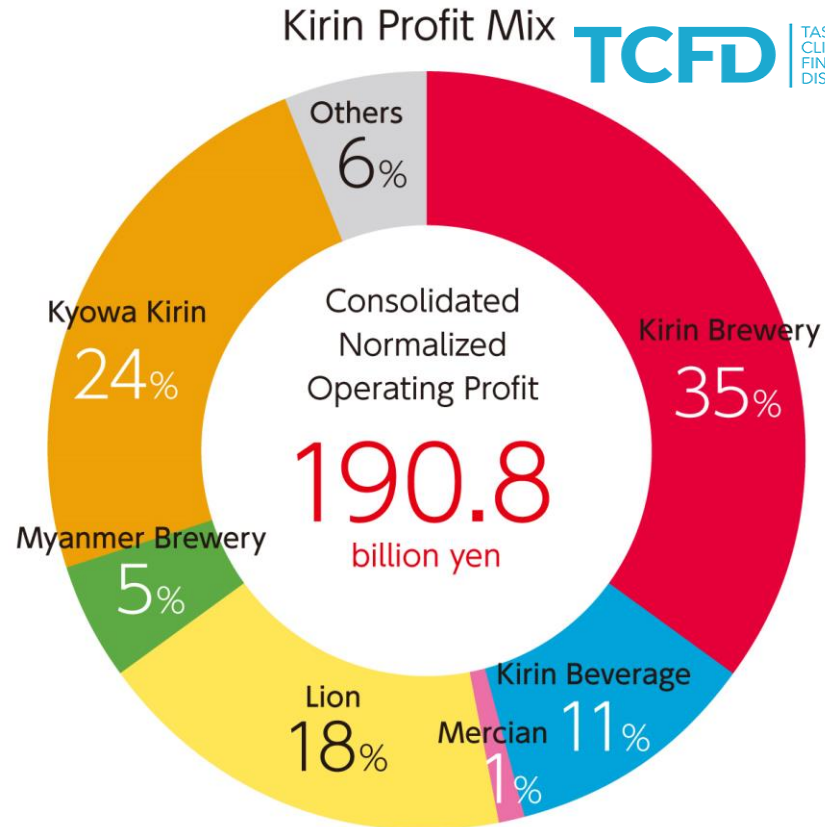


# Scenario Analysis and Strategy for Climate Change

Kirin Holdings Co., Ltd  
October, 2020

# Kirin Group Overview

- Kirin is a beverage and pharmaceutical company with net sales revenue of about \$18 billion and normalized operating profit of \$1.8 billion
- Kirin is the first Japanese food company to support the recommendations of TCFD

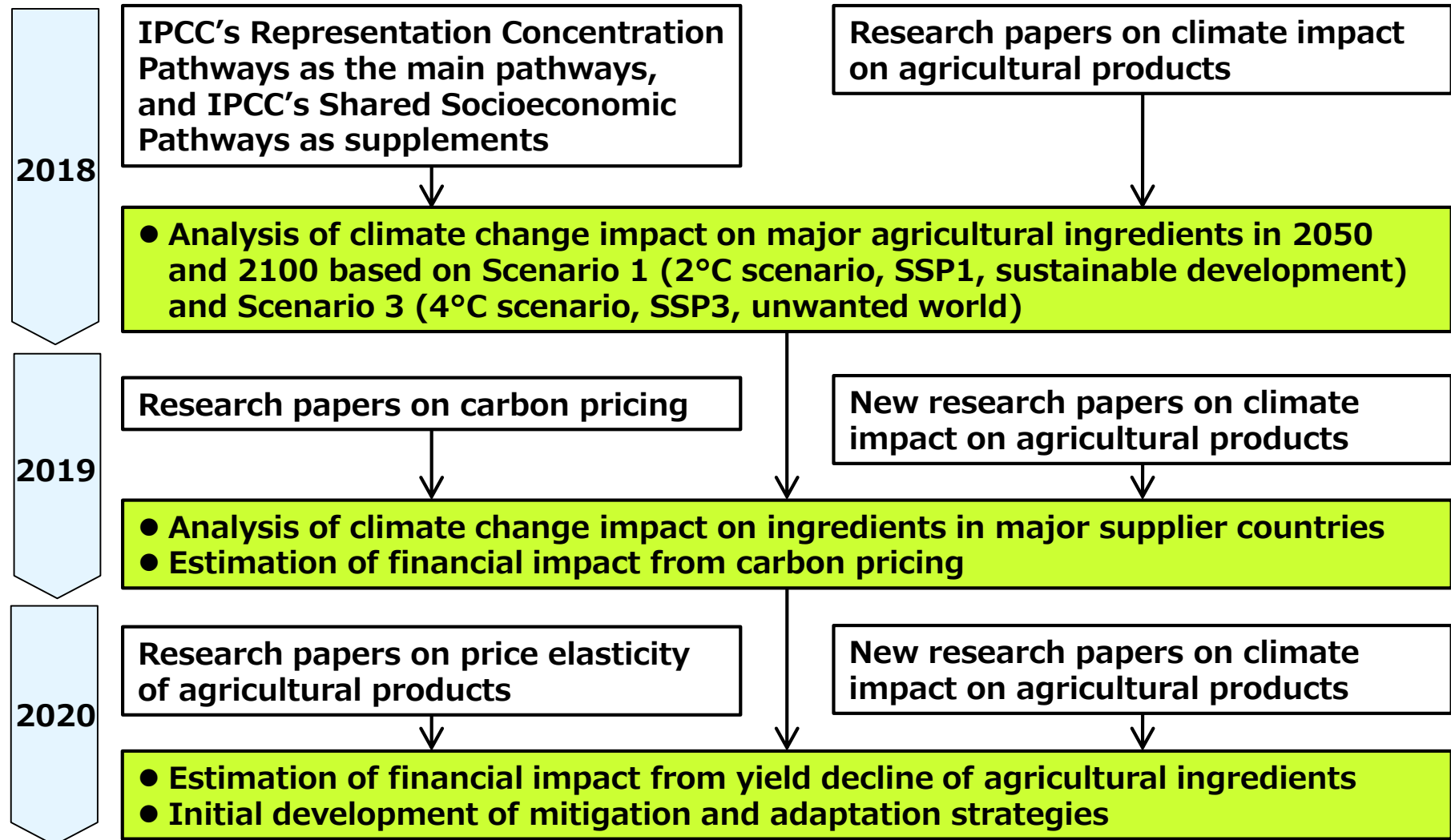


Capital: 102 billion yen  
Employees: 30,464  
Revenue: 1,941 billion yen

Minority: San Miguel Brewery Inc.  
China Resources Kirin  
Beverages Co. Ltd.

# Development Steps of Scenario Analysis

- Scenario analysis provides a great opportunity to discuss climate issues with top management and board members and develop their attention to these issues





# Examples of Strategy: Mitigation

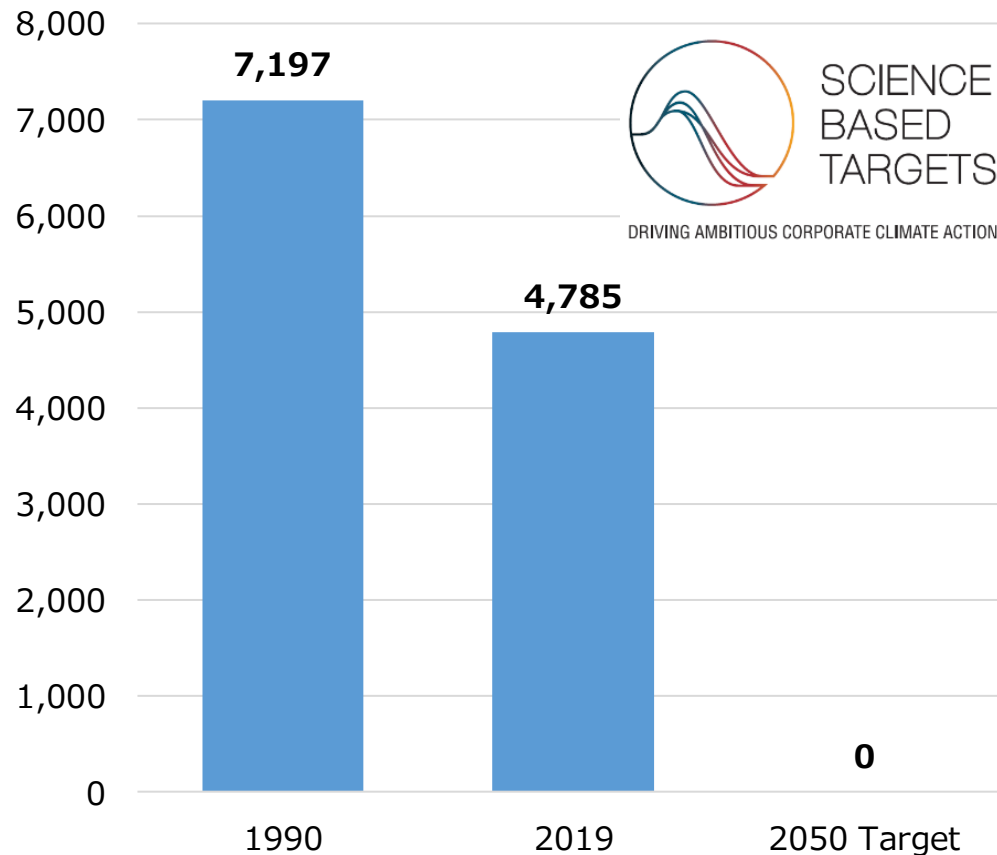
Scenario Finding

Material difference of financial impact between 2°C and 4°C scenarios

Kirin's Strategy

Enhance mitigation measures, such as the renewal of our SBT from 2°C to 1.5°C and an initiative in Australia to be a carbon neutral brewer powered by 100% renewable electricity

GHG Emission (Scope 1,2 &3: 1,000t)



Carbon Neutral & 100% Renewable Electricity Initiatives in Australia

**Lion becomes Australia's first large-scale carbon neutral brewer**



**Lion Beers to be brewed with 100% renewable electricity by 2025**

Following its announcement last month that it would become Australasia's first major carbon neutral brewer in 2020, Lion has today pledged to use 100% renewable electricity to brew all of its beers by 2025.



# Examples of Strategy: Adaptation (1)

Scenario Finding

Smaller impact of climate change on the black tea leaves in Sri Lanka highlands

Kirin's Strategy

Expand technical and financial assistance to obtain Rainforest Alliance certification for small tea farms



## 2019 Results

- A large number of farms gained certification with Kirin's support: **87 Farms**
- Percentage of farms acquiring certification with Kirin support in Sri Lanka: **approx. 30%**
- Number of small farms in certification training: **789 Farms**

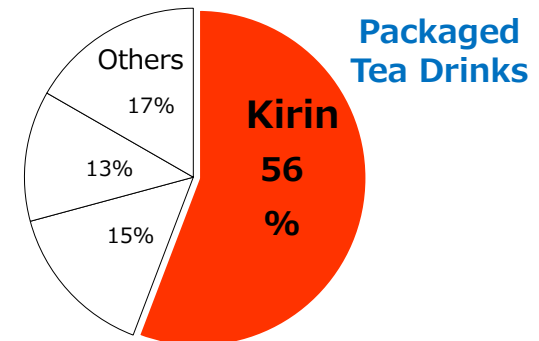
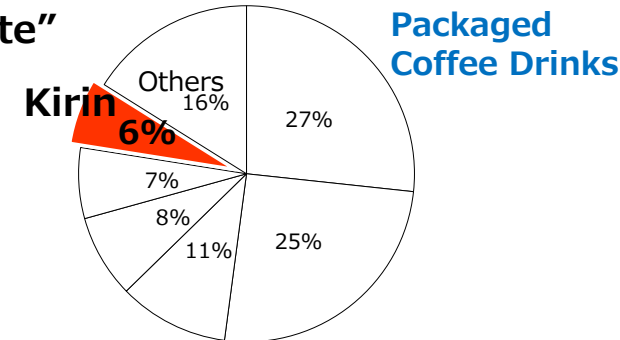
Scenario Finding

Smaller impact of climate change on black tea leaves than coffee beans

Kirin's Strategy

Introduce coffee-substitute tea drinks to facilitate the demand shift from coffee to tea where Kirin has a better position

## "Espresso" Tea "Latte"



# Examples of Strategy: Adaptation (2)

Scenario Finding

Decline of barley yield and resulting increase of malt cost

Kirin's Strategy

Utilize brewing technologies that do not rely on barley to mitigate the cost pressure

No Malt Beer\*



Low Malt Beer\*



Scenario Finding

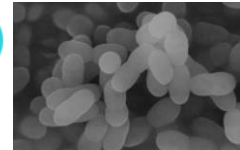
Increase of infectious diseases

Kirin's Strategy

Promote Kirin's lactococcus lactic strain Plasma, the world's first lactic acid bacteria that can directly activate the pivotal leaders of immune system

First-ever Immune System Support  
"Foods with Function Claims" \*\*

Lactococcus lactis strain Plasma



The pivotal leaders of immune cells  
Plasmacytoid dendritic cells

Activation

NK cells

Cytotoxic T cells

B cells

Helper T cells

Virus rejection and clearance

Comprehensive activation  
of the immune system

\* Kirin is the market leader in both categories in Japan

\*\* Registered by Japan's Consumer Affairs Agency on 7<sup>th</sup> August, 2020

# Key Learnings and Next Steps

- TCFD facilitates not only engagement with investors but also the involvement of top management and board members on climate issues

## Key Learnings

- Disclosures in accordance with TCFD facilitates engagement with investors
- Scenario analysis provides opportunities to enhance the attention of top management and board members toward climate issues

## Next Steps

- Further involve business units and board directors
- Enhance the quantitative disclosure of financial impacts
- Run Monte-Carlo simulations to calculate long-tail risk of climate change
- Evaluate adaptation and mitigation measures by applying real option pricing theory



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