# Strategies for addressing material environmental issue

As we aim to achieve the Kirin Group Environmental Vision 2050, the Kirin Group is developing a unique environmental strategy based on our strengths in R&D and engineering. When developing and implementing strategies, we listen not just to the voices of stakeholders in the value chain, but also society at large. Additionally, at the execution stage, we work with NGOs, local communities, and the next generation to develop activities with an awareness of outcomes.

## Rulemaking

#### Science Based Targets Network

On February 27, 2021, Kirin became the first Japanese company in the pharmaceutical and food industry to participate in the Corporate Engagement Program held by the Science Based Targets Network. By 2022, we will set targets for corporate use of natural capital (freshwater, land, oceans, resource exploitation, climate change, pollution, and invasive species).

### Alliance to End Plastic Waste

In March 2021, Kirin participated in the "Alliance to End Plastic Waste," an international non-profit organization that works on a global basis to resolve the issue of waste plastics. We will work with a variety of stakeholders to create a "society that continuously circulate plastic," as we engage in activities with the aim of solving problems related to plastic waste from a global perspective.

#### Scenarios

l Risk

Transitional

Increase in procurement costs due to decline in yields of agricultural

Suspensions of operation and delivery due to droughts and floods Decline in yields of agricultural raw materials due to droughts and floods Social issues caused by climate change (infectious diseases and

Rapid increase in energy costs due to carbon pricing Increase in reliance on bioenergy and a shortage of farmland as a result of carbon pricing

Increase in idle lands due to decrease in domestic farmers

Damage to ecosystems due to farming and forestry that is not

Decline in yields of agricultural products and environmental damage owing to low level of agricultural technology at small farms Human rights violations upstream in the value chain Leaking of pollutants into wastewater

# Financial impact

Energy cost reduction
Infectious disease cost Infectious disease control market Heat stroke prevention market Ethical consumption

Higher procurement costs for agricultural products

Drop in earnings due to production suspensions

Drop in earnings due to delivery suspensions Increase in cost of conserving energy Depletion of renewable energy and increase

Brand damage from problems related to waste plastics

Brand damage from problems related to human rights

Violations of laws and regulations

## Reinforced points in the Kirin Group's Environmental Vision 2050

#### Commitment and scope

From activities completed in-house to those extended to the whole of society From domestic focus to global From minimizing negative impacts

To getting the next generation involved, working together with the whole of society

iological Resources

- Cultivate, expand and procure sustainable agricultural raw materials
- Stand by the side of farmers to make raw material production areas sustainable

Water Resources

- Continue to reduce the volume of water use in group operational bases
- Solving water issues in the value chain

- Build a resource-recycling system
- Develop new containers and services

Climate Change

- Realize Net-Zero GHG emission by 2050
- Achieve 100% renewable energy at an early stage by joining RE100
- Lead to build a decarbonized society

## Research and development capabilities

#### Kirin Central Research Institute



Mass plant propagation technology

#### Institute for Packaging Innovation



Package development technology capabilities

# **Engineering capability**

Engineering divisions and Kirin Engineering Company, Limited

The Kirin Group's

Strengths



Heat pump equipment in Toride Brewery

# **Partnerships**

