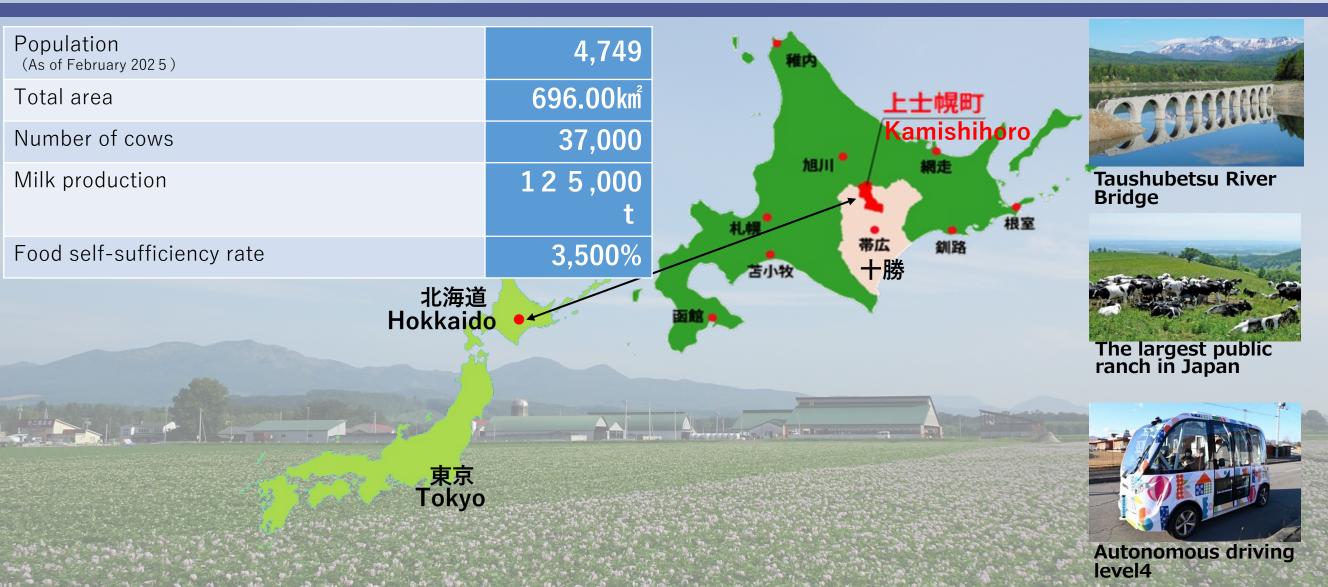


# Sustainable rural community based on resource-recycling agriculture ~ Kamishihoro Town, Hokkaido





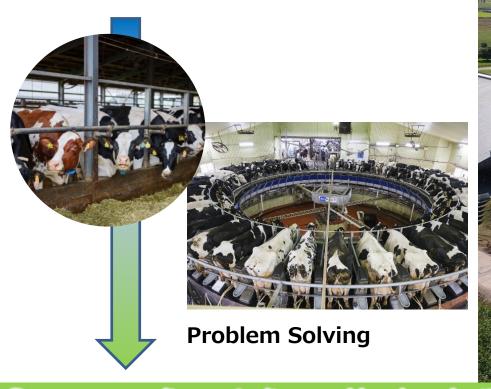


### **Biogas Power Generation**



Kamishihoro Town is a town with a thriving dairy and livestock industry.

Due to the expansion of the industry, proper disposal of livestock manure has become a regional issue.



Resource-recycling agriculture and local production and local consumption



## Creating a sustainable region through resource-recycling agriculture





bedding for cattle









Residue used for cattle bedding Tank for storing liquid fertilizer

Livestock manure

agriculture

Bedding recycle

**Electricity business** 

Kamishihoro has achieved food self-sufficiency ratio (based on production value): Approx. 3500% Energy self-sufficiency rate from biogas plant (based on electricity generated): Approx. 100%

\* Assumed power consumed by public facilities, Japan Agriculture Cooperation facilities, livestock farmers, and ordinary households

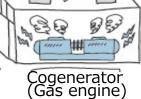


Set up a biogas plant in the town, generate methane gas from livestock manure, and produce electricity and heat

> Methane fermentation tank

resource-recycling Livestock manure undergoes

methene fermentation, resulting in digestate, which is used as liquid fertilizer



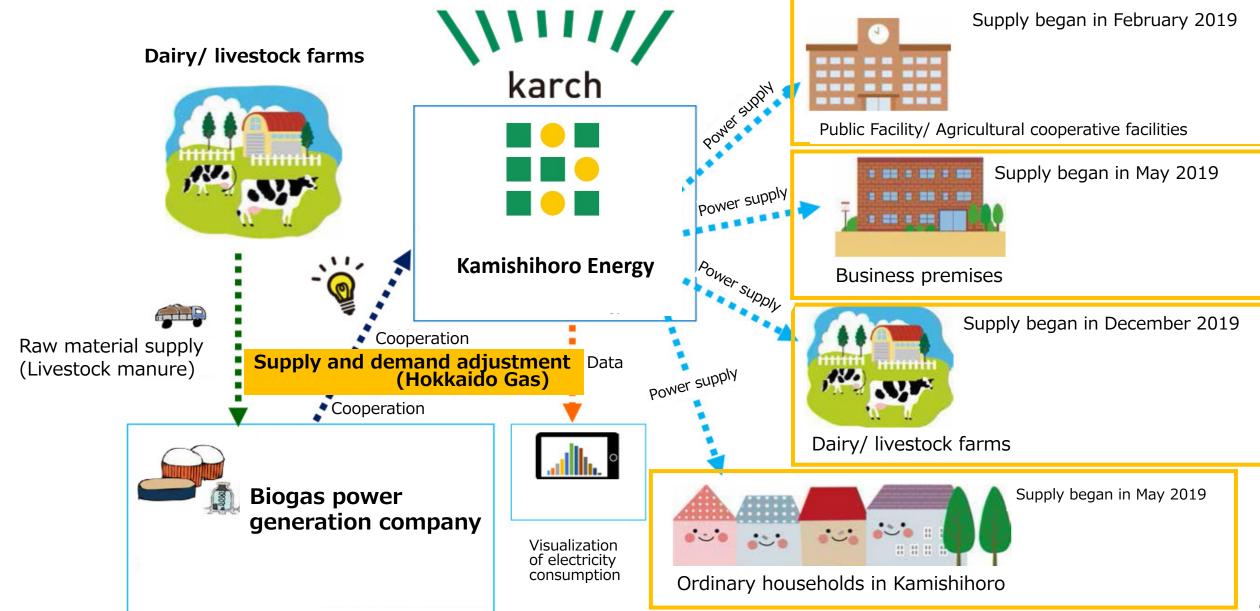
Kamishihoro Energy





## Creating a sustainable region through resource-recycling agriculture







### **Decabonization Promotion Plan**



Promotion of renewable energy and energy conservation and construction of micro-grids

Decarbonization for the entire town

Support for the installation of solar power generation equipment in the region

Installation of renewable energy equipment and promoting energy saving in public facilities through the renovation of the town hall building.

New initiatives of large-scale solar power generation through public-private sector collaboration.

Microgrid construction for disaster prevention facilities, etc.



Effective use of biomass resources



Resource recycling through appropriate treatment of livestock manure in the biomass plants.

Consider using energy resources from woody biomass and food waste.

Foster awareness of renewable energy and energy saving

Establish a system to give points for environmentally friendly actions by residents



Logging

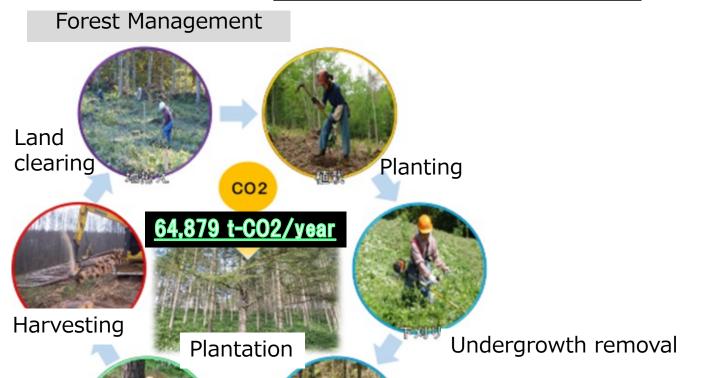
#### **Environmentally Friendly Circulation of Green Resources**



#### CO<sub>2</sub> absorption in Kamishihoro forests and CO<sub>2</sub> emissions from the respiration of about 5,000 residents

Forests and green manure absorb 97 years' worth of CO<sub>2</sub> emitted by the residents of Kamishihoro

Area of forests in Kamishihoro (national, town and private forests) 49,764.92ha



Thinning

Natural forests 76,928 t-CO<sub>2</sub>/year

Forests + Green manure CO<sub>2</sub> absorption 142,940 t-/year

Green manure 1,133 t-CO<sub>2</sub>/year

STATE OF STREET



## SDGs for Children Who Will Lead the Next Generation





30-hour SDGs Curriculum per year for the 5th grade



Learning about the importance of food and the food cycle (4th graders)



School lunch



Cooking the harvest











Composting food waste













# Thank you for kind attention