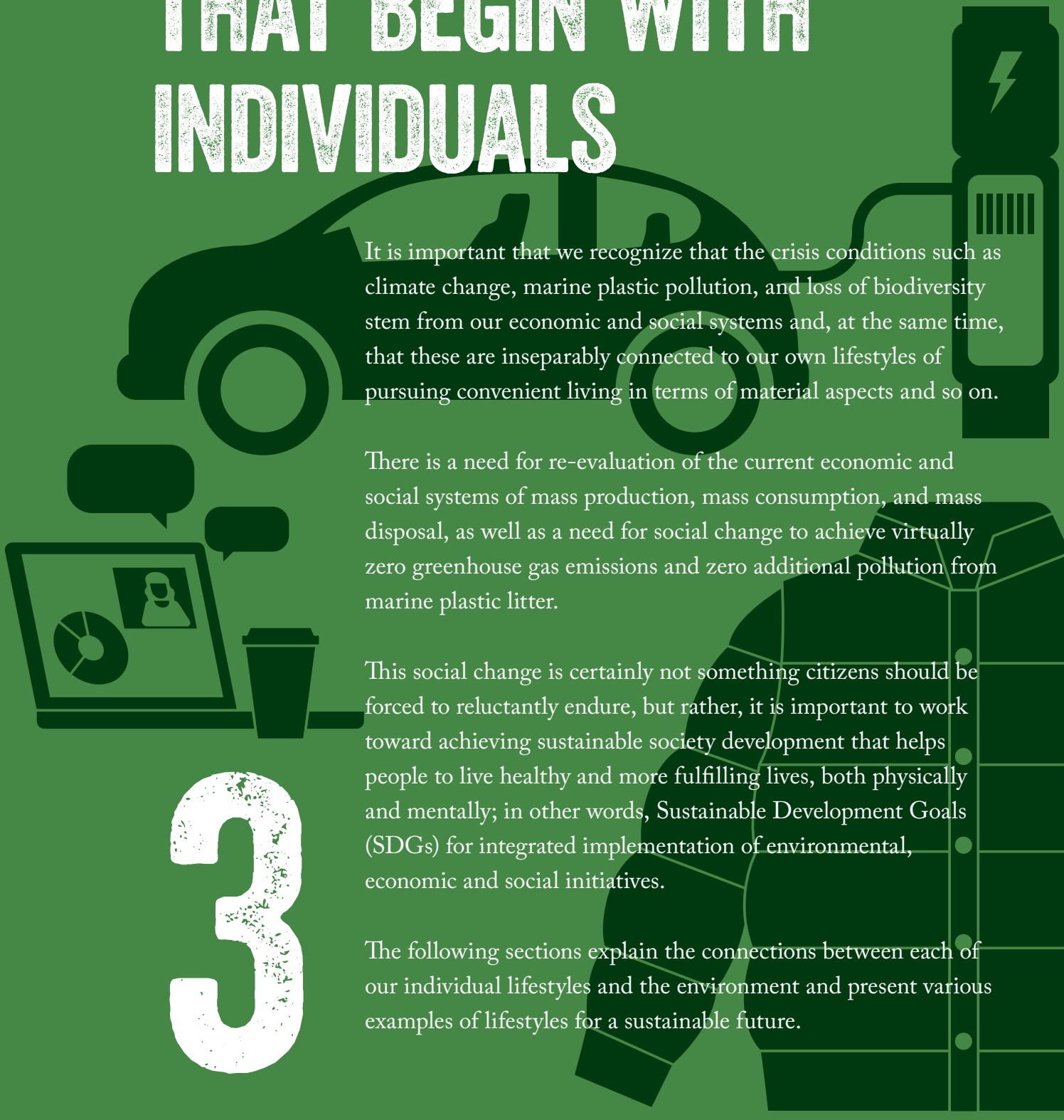
EFFORTS TO BRING ABOUT SOCIAL CHANGE THAT BEGIN WITH INDIVIDUALS



It is important that we recognize that the crisis conditions such as climate change, marine plastic pollution, and loss of biodiversity stem from our economic and social systems and, at the same time, that these are inseparably connected to our own lifestyles of pursuing convenient living in terms of material aspects and so on.

There is a need for re-evaluation of the current economic and social systems of mass production, mass consumption, and mass disposal, as well as a need for social change to achieve virtually zero greenhouse gas emissions and zero additional pollution from marine plastic litter.

This social change is certainly not something citizens should be forced to reluctantly endure, but rather, it is important to work toward achieving sustainable society development that helps people to live healthy and more fulfilling lives, both physically and mentally; in other words, Sustainable Development Goals (SDGs) for integrated implementation of environmental, economic and social initiatives.

The following sections explain the connections between each of our individual lifestyles and the environment and present various examples of lifestyles for a sustainable future.

3

LIFESTYLE INNOVATIONS FOR DEVELOPING A SUSTAINABLE, DECARBONIZED SOCIETY

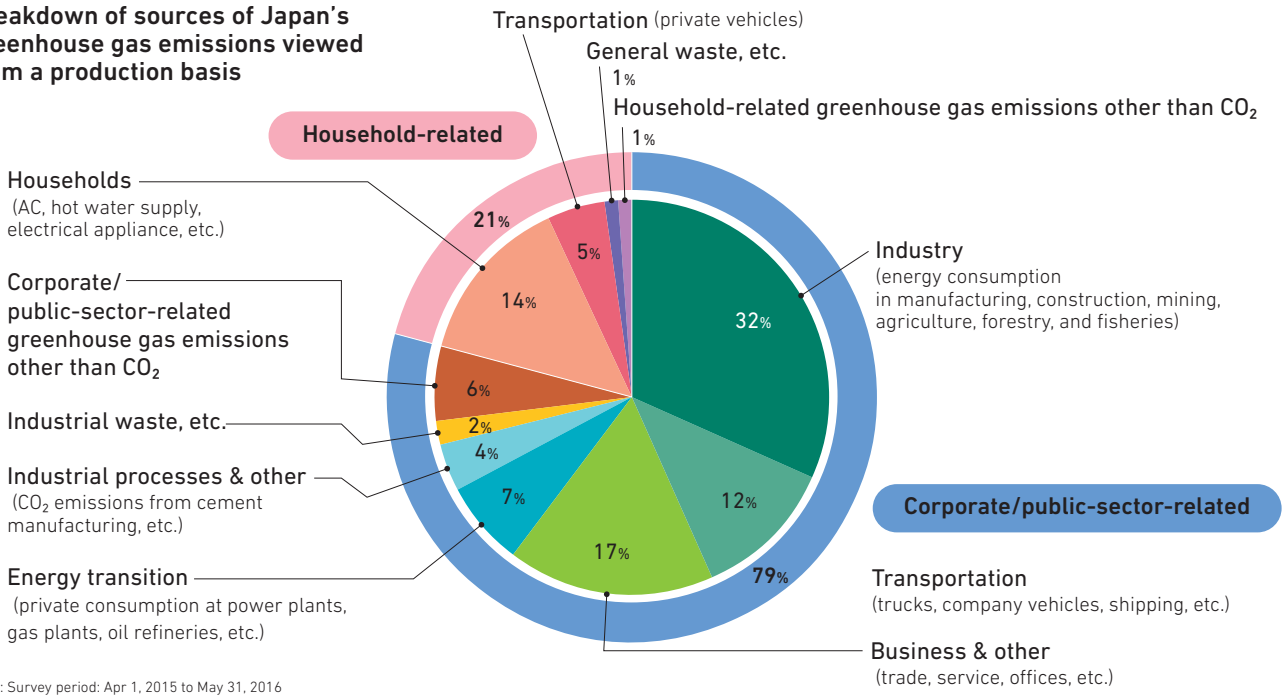
In the process of manufacturing, distribution, service provision, and garbage processing for the products that we purchase and consume in our day-to-day lives, CO_2 and other greenhouse gasses are emitted.

When Japan's greenhouse gas emissions are viewed from a production basis, household-related emissions (which come mainly from household energy consumption through air conditioning, hot water supply, and use of electrical appliances, etc.) account for only a small portion of the total.

On the other hand, when viewed from a consumption basis (i.e., carbon footprint), household consumption has been reported to account for approximately 60% of the total.

Although we cannot make a blanket comparison because the target period of each analysis is different, simply by changing our perspective in such a way, we can begin to see that our lifestyles have a huge influence on climate change and other environmental issues.

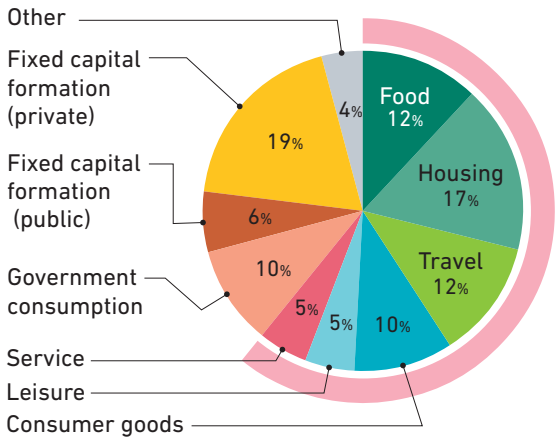
Breakdown of sources of Japan's greenhouse gas emissions viewed from a production basis



Note: Survey period: Apr 1, 2015 to May 31, 2016

Note 2: Greenhouse gasses other than CO_2 are CH_4, N_2O, HFCs, PFCs, SF_6, and NF_3

Source: Ministry of the Environment



Breakdown of sources of Japan's greenhouse gas emissions viewed from a consumption basis (carbon footprint)

Household consumption ≥ 60%

Note: Survey period: Jan 1, 2015 to Dec 31, 2015

Source: Keisuke Nansai, "Embodied Energy and Emission Intensity Data for Japan Using Input-Output Tables" (provided by National Institute for Environmental Studies); Ministry of Internal Affairs and Communications, "Input-output Table 2015"; produced by Institute for Global Environmental Strategies (IGES)

2

CLOTHES, FOOD, AND HOUSING

Housing

From the construction stage to usage and eventual demolition, housing has various influences on the environment via CO2 emission, use of chemical substances, construction waste, etc. As housing-related initiatives, it is important to reduce the amount of energy needed for heating and cooling by constructing houses with high insulation efficiency, improving the insulation of existing houses, and installing energy-saving equipment.

Through initiatives for facilitating the shift toward energy-conservation lifestyles by utilizing knowledge of the behavioral science concept of "nudging," and through the promotion of regional power producers and suppliers, etc., the Ministry of the Environment is carrying out efforts to encourage consumers to choose power from renewable energy sources.

Food

The lifecycle of foodstuffs, from production to processing to disposal, has the potential to cause various environmental problems, including emission of CO2 and waste water, environmental burden from use of agricultural chemicals and chemical fertilizers, and environmental burden from forestry development for conversion to farmland. Moreover, in 2017, an estimated 6,120,000 tons of food was wasted in Japan through needless disposal of still edible foodstuff, of which 2,840,000 tons came from households.

By buying locally grown fruits and vegetables and locally processed food products, and by buying environmentally-friendly food products such as organic farm products, we can lend support to the efforts of food producers. It is also important to reduce the amount of food waste by completely using up food products in meal preparations, without wasting any, and by reducing the amount of leftovers.

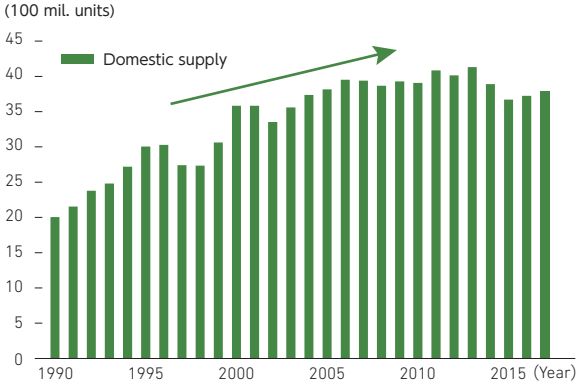
Clothing

The supply chains of clothing-related industries have various effects on the environment, including producing 20% of global waste water emissions and 10% of global CO_2 emissions. With such things as the fast fashion business model, business practices that assume a large stock of apparel, and the incineration of unused products by manufacturers to avoid loss of brand value, the clothing disposal problem is becoming apparent worldwide.

The market size of the apparel industry is expanding every year. In Japan, although the domestic market size has been shrinking since 1990, the scale of domestic supply has almost doubled, while household purchase and import prices have declined.

Through such actions as selecting environmentally-friendly clothing and participating in initiatives for reusing and recycling clothing, individuals can support environmentally-conscious efforts throughout the clothing lifecycle. Such lifecycle-spanning

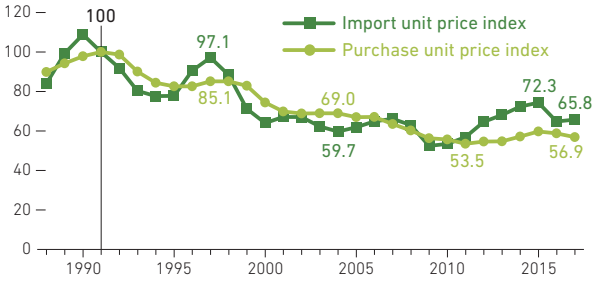
Changes in domestic apparel supply



Source: Ministry of Economy, Trade and Industry, "Current Survey of Production" ; Ministry of Finance, "Trade Statistics"

efforts require collaboration and cooperation between various businesses and communities. Also, if clothing manufacturers carry out manufacturing and sale in collaboration with local agriculture and other businesses from the production stage of thread and fabric, this could contribute to the creation of a circular and ecological economy that can help to solve local issues through the production and sale of clothing.

Changes in clothing purchase and import prices



Note: 1991 unit prices are set as 100.

Source: Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Family Income and Expenditure Survey" ; Ministry of Finance, "Trade Statistics"

Recycling of feather products (Green Down Project)

In a world-first initiative, the Green Down Project (general incorporated association) is carrying out recovery and recycling of feather products that have become unneeded, with the aim of realizing a feather-recycling system that provides stable supply of safe and clean feathers through collaboration with more than 100 member companies and organizations, removing feathers from feather products and recycling them as GREEN DOWN.

Unneeded feather products are collected from individuals, organizations, and companies at sites such as clothing stores operated by Green Down Project members. The recovered feather products are taken apart and separated into feathers and other materials, the feathers are cleaned, and the recycled feathers are used in various products sold as GREEN DOWN products.

The feather removal and cleaning work is performed with a division of labor system, as regional contribution and employment support for people with disabilities.

Image of a feather-recycling society

Source: Green Down Project (general incorporated association)

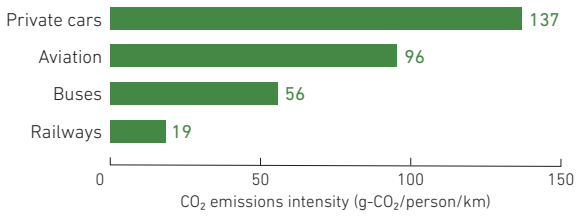
A feather-recycling society

3 TRAVEL, TRAFFIC, AND TRANSPORTATION

The amount of CO_2 emission per kilometer traveled for a single person varies greatly depending on the mode of transport. In Japan, motorization has led to many people using private vehicles to get about. Also, while the number of parcels handled by delivery services is increasing, approximately 20% of those require redelivery.

There are a number of possibilities for adopting environmentally friendly transportation methods according to the characteristics of each region, such as increasing the use of public transport for daily travel in regions with easy access to public transport, or switching to use of eco cars in regions where public transport is difficult to access. As the next-generation of mobility services,

CO_2 emissions per volume of transport (passengers)



Source: Ministry of Land, Infrastructure and Transport

Mobility-as-a-Service (MaaS) initiatives utilizing ICT to improve the convenience of public transport and use of electric, low-speed Green Slow Mobility are gaining popularity.

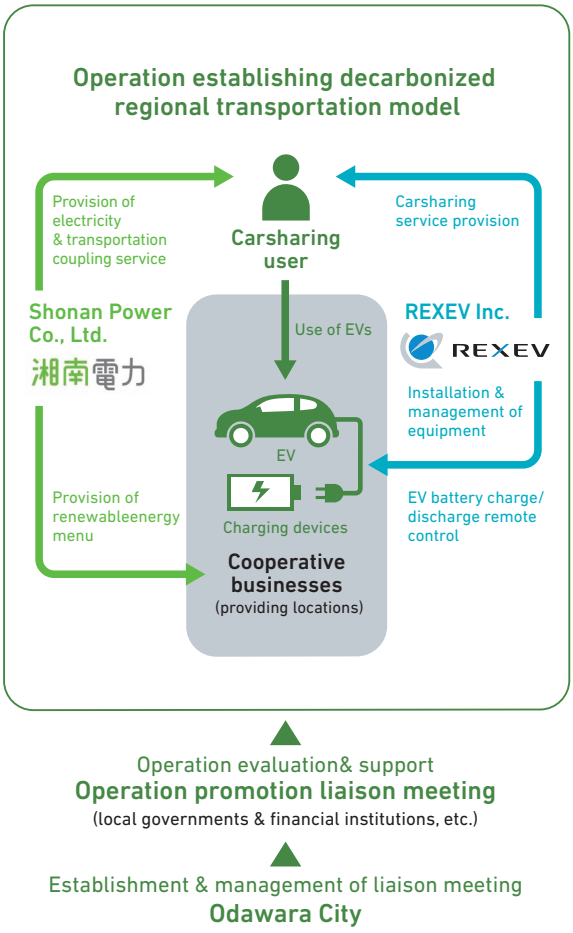
Carsharing service specializing in electric cars (REXEV, Odawara City, and Shonan Power)

In a collaborative initiative, REXEV, Odawara City, and Shonan Power Co., Ltd. began demonstrating a carsharing service using electric cars within Odawara City in June 2020.

By putting electric cars and charging stations in front of train stations within Odawara City and carrying out stepwise introduction at private establishments, the city office, and other facilities, the operation of a carsharing service for use by the general public and tourists will be implemented. In addition to the electric cars being powered with electricity from renewable energy supplied by Shonan Power, it is expected that the storage batteries used in the electric cars will also be used to help regulate the supply and demand of electricity through charge-discharge control.

By creating demand for renewable energy in the region, this effort will encourage further implementation of renewable energy facilities. It is also expected to have a ripple effect on regional economic stimulation by creating a flow of people through the area via carsharing. Furthermore, as the power stored in the storage batteries used for electric cars can be used in times of disaster, this is expected to strengthen local disaster protection capabilities.

Carsharing operation image



Source: REXEV Inc.

4 WORK

From the perspective of risk response for problems such as meteorological disasters and infectious diseases, it is advisable to adopt flexible work styles such as telework, which offers the ability to work without being bound by the restraints of time and place. Telework is expected to have an effect in environmental conservation through reduction of CO_2 emissions due to commuting, reduction of paper usage through paperless operations, and so on.

Another initiative is the practice of workations, which combine work with vacation time in places removed from a city office, such as nature-rich resort areas, and include telework using information and communication devices, etc.

The Ministry of the Environment is carrying out efforts to promote workations in national parks and other locations. Working in a different environment from the usual and taking time off on different days or time periods can improve personal motivation in one's work and lead to increased creativity and productivity.

New ways of working in business regions (Unilever Japan K.K.)

As a new way of working, Unilever Japan K.K. has introduced the practice of "Work from Anywhere and Anytime" (WAA), in which company members can choose for themselves the location and time of their work.

As a further expansion of this system, the company also began "Regional WAA" in 2019. Local governments provide Unilever Japan's company members with coworking spaces (spaces where they can work with internet connection) and accommodation. They also present regional issues and work that they would like the company members to become involved in, and if the company members contribute to solving the issues of local governments, then the local governments will cover the cost of accommodation.

Such new ways of working with cooperation between businesses and communities, while enabling mutual utilization of resources between city and regional areas, can be considered to lead to regional development for a circular and ecological economy that contributes to solving issues on both sides.

Holding training in the woods in Kakegawa

Source: Unilever Japan Holdings K.K.

5 LEISURE

Activities such as mountain climbing, hiking, camping, snorkeling, bird watching, and nature observation help us to enjoy the rich blessings of nature, and the absence of such benefits robs people of opportunities to enjoy nature. In recent years, there have been increases in environmentally-friendly initiatives and lodging facilities that make use of a regional natural resources, etc., and travel to places taking initiative for environmental conservation may well contribute to sustainable regional development and the maintenance of natural resources.

The Ministry of the Environment is conducting and promoting the Project to Fully Enjoy National Parks. As an example of efforts for revitalization of regions that have national parks, with the goal of realizing a virtuous cycle of protection and utilization of the natural environment, in Aso-Kuju National Park, bike trekking and other kinds of tours led by registered guides have been opened in pasture land (grassland) during the agricultural off-season, in an initiative that uses part of the money from guide fees to compensate grassland maintenance costs.

The shape of a sustainable future experienced at KURKKU FIELDS

In November 2019, on a vast tract of land of about 30 ha in Kisarazu City, Chiba Prefecture, KURKKU Co., Ltd. opened the Sustainable farm & Park "KURKKU FIELDS," which includes farms, a meat processing plant, restaurants, outdoor art works, and more.

KURKKU FIELDS offers a variety of attractions for visitors to experience what a sustainable future could be like. For example, the vegetable farm sells JAS-certified organic vegetables and the ham and sausage factory sells processed meats, including meat from wild boars culled in efforts to prevent damage from harmful animals. In such ways, the project creates a place where visitors can understand the narrative of resources that integrates production, processing, and consumption.

The purpose of KURKKU FIELDS is to give visitors a firsthand experience of their connection with nature that they were not aware of in their normal lives, and help them realize that sustainable practices will lead to a better future.

Overall image of KURKKU FIELDS

Source: KURKKU Co., Ltd.