

Focus Area 1

# Creating positive impact on the AFF industries food and local communities

In this focus area, the Norinchukin Bank aims to utilize accumulated knowledge in food and agriculture, conduct investment and lending, build business partnerships, collaborate with stakeholders, and generate new innovation to promote initiatives to contribute to the preservation and development of local communities and the natural environment. Here, we will turn the AFF industries into sustainable growth industries.

Topics		Medium-Term Goals
Topic 1-1	Contribute to sustainable AFF industries	<b>Through initiatives in the Food and Agriculture Business and collaboration with stakeholders, we contribute to the realization of sustainable AFF industries.</b>
Topic 1-2	Contribute to safe and secure food supply	<b>We leverage our organizational knowledge in food and agriculture to contribute to people's rich dietary lifestyles.</b>
Topic 1-3	Contribute to sustainable local communities	<b>We contribute to providing solutions for and supporting sustainable development of local communities across all of Japan, the foundations of the AFF industries.</b>
Topic 1-4	Conserve the natural environment as a foundation of the AFF industries	<b>We contribute to conserving the natural environment, such as soil, forests, rivers, and oceans, which are fundamental for the sustainable development of the AFF industries.</b>
Topic 1-5	Create business innovation	<b>We contribute to the sustainable development of the AFF industries through investments and business alliances that create new technologies and business models.</b>

## Major Initiatives

- Provide financial support and solutions to management issues for agricultural, fishery, and forestry organizations
- Collaborate with the Japan Institute of Agricultural Management, which trains next-generation farm operators
- Support the AFF industries and help revitalize industries and help revitalize local communities via the AFF Future Fund, a general incorporated association
- Conduct food and farming education activities
- Support forest rejuvenation through the Wood Solution Network, the Norinchukin Forest Rejuvenation Fund (Nochu Potential Forest Productivity Fund), Potential Forest Productivity Fund, and more
- Create business innovation by supporting startup companies

## Related SDGs

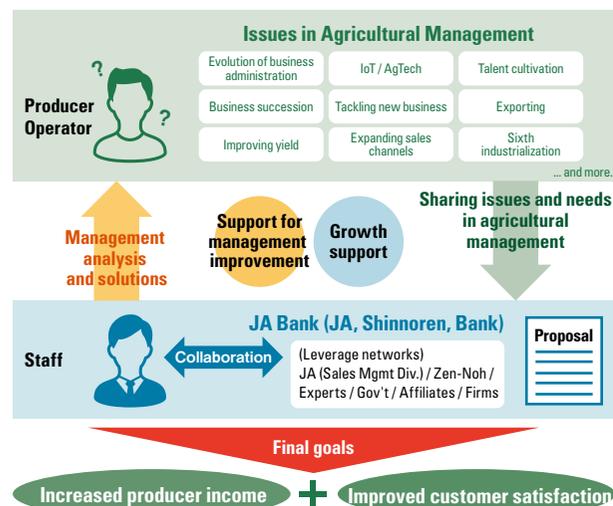


## Contributing to Sustainable AFF Industries

### Provide Financial Support and Solutions to Management Issues for the AFF Industries

As a member of the JA Group, and as a financial institution playing a role at JA Bank, the Norinchukin Bank supports the development of management and cultivation of people underpinning agriculture. It does this through striving to provide unimpeded financing and multifaceted solutions in fields related to food and agriculture.

One specific initiative is the Bank's demonstration of a consulting function to increase agricultural income. We extract, clarify, and share the management issues that need to be resolved based on an understanding of the actual business situation by conducting multiple in-depth dialogues with the operators of agricultural corporations. These form the basis of our initiative to increase income for producers and improve customer satisfaction (CS).



### Contributing towards Solving Issues with Sustainability through the "F&A Growth Industrialization Investment Framework"

The Norinchukin Bank has established the "F&A Growth Industrialization Investment Framework" with the aim of collaborating with industry members and businesses both within Japan and overseas and providing them with risk money to support them, in order to increase the added value and productivity of the AFF industries. By investing in this framework, we are contributing towards solving sustainability issues surrounding the AFF industries.

### Promoting the Spread of Soy-based Meat

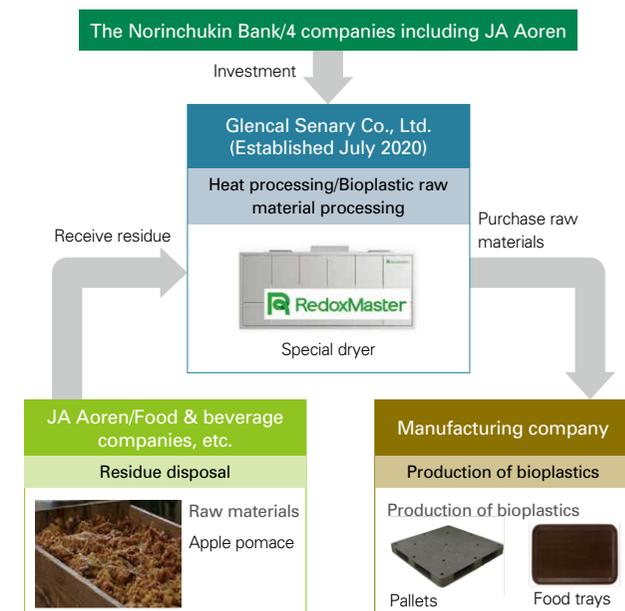
Given the "protein crisis" caused by global population growth, deepening environmental problems, and the increase in ethical consumption, plant-based meats are gaining increasing attention as alternative proteins. In March 2021, we invested in Kumamoto company DAIZ Inc. which is developing, producing, and selling plant-based meats. DAIZ uses its proprietary technology utilizing raw materials made from sprouted soybeans instead of conventional pressed soybeans to make "Miracle Meat," a plant-based meat that is highly nutritious and with a flavor, texture, and aroma similar to that of traditional meat. The Norinchukin Bank is providing investment to not only support their efforts to promote the spread of plant-based meats using domestically-produced soybeans but also to introduce sales channels, thereby not only solving food and environmental problems, but also increasing consumption of domestic soybeans and increasing the incomes of agricultural producers.



Products made from soybean-derived plant-based meat

### Bioplastics Raw Materials made from Plant Residues

Reducing the emission of greenhouse gases in the post-processing of plastics made from fossil fuels is a challenge in bringing about a decarbonized society. In July 2020, the Bank invested in Aomori company Glencal Senary Co., Ltd., which uses its own proprietary drying technology to dry food residues, felled trees, and other plant residues to produce raw materials for biomass plastics. One example initiative is The Farm Village Industry Federation of Aomori Prefectural Agricultural Cooperatives (JA Aoren), which has started initiatives to dry at low cost apple pomace produced in the apple juice production process for use as raw materials for biomass plastics.



## Forming Partnerships Towards the Wider Use of Biogas Plants

In the dairy and livestock industry, labor shortages mean that costs for treatment of manure as well as securing enough personnel are becoming problematic. The inability to ensure capacity for treatment of manure while increasing cattle herd sizes is proving a bottleneck to business expansion, and even if this manure is composted this may not be functionally adequate in terms of quality, and there have been incidents of problems with odor.

Hoping to solve such problems, the Norinchukin Bank formed a partnership with Biomass Research & Development, and JA-HokkaidoShinnoren in August 2020 aimed at promoting the spread of biogas plants for the dairy and livestock industries. As well as reducing farmers' burden of manure disposal, biogas plants enable use of by-products for manufacturing fertilizer in farming as well as providing biogas for renewable energy. This provides additional income for farmers thus increasing the viability of a sustainable farming business, and by producing and using energy locally, contributes to fighting climate change.

We will first ensure the success of individual cases in Hokkaido, and by expanding this nationwide in the future will develop local businesses and investment demand, thus creating an opportunity to exercise our financial functions.

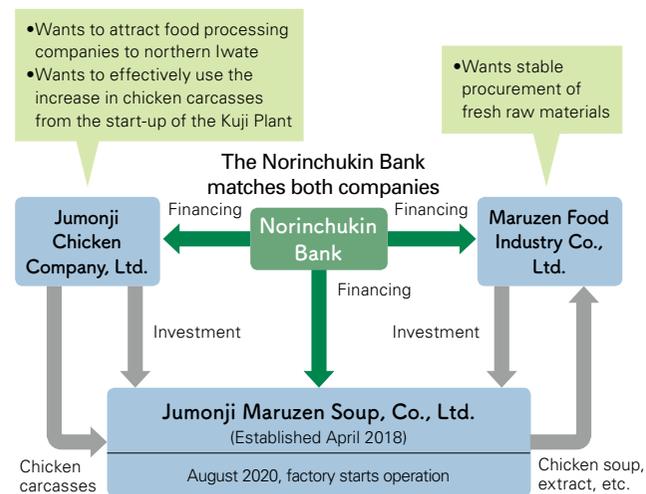


(From right) YASUMOTO Kaoru, President of JA-Hokkaido Shinnoren, KIKUCHI Sadao, Representative Director of Biomass Research Ltd., and KAWAMOTO Shin, Managing Executive Officer of The Norinchukin Bank who together signed a partnership to promote the spread of biogas plants

## Initiatives to Reduce Food Waste through Financing

For poultry farmers, disposing of chicken carcasses is an unavoidable problem. Jumonji Chicken Company, Ltd., is a company in Iwate Prefecture involved in chicken meat production and sale. In order to effectively use the chicken carcasses produced by its plant, it established Jumonji Maruzen Soup, Co., Ltd. as a joint venture with Maruzen Food Industry Co., Ltd. In order to produce chicken broth. In establishing this company the Bank acted as an intermediary, and provided 2.6 billion yen in loans for the construction of the plant. This plant processes 35 tons of chicken carcasses daily, producing soup, extract, and oil, and the waste from this is converted into poultry feed, contributing to reductions in food waste. In addition, the plant also contributes to local employment.

### Companies' relationships with the Norinchukin Bank



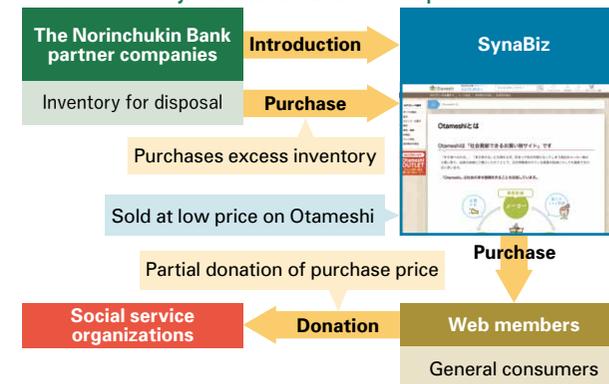
## Contributing to Safe and Secure Food Supply

### Supporting the Redistribution of Excess Food Inventory to Reduce Food Loss

In Japan, the amount of food loss — food that could otherwise be eaten but is thrown away instead — is 6 million tons per year (2018 estimate by the Ministry of Agriculture, Forestry and Fisheries). Of this loss, the food manufacturing, food wholesaling, and food retailing industries count for approximately one-third.

To resolve this issue, the Bank began working with SynaBiz Co., Ltd. in 2019. Through the Bank, SynaBiz is introduced to companies facing concerns over dealing with food inventory, with ordinary distribution made difficult due to seasonal products, packaging changes, and other issues, forcing inventories to be disposed of over time. Through the SynaBiz-operated Otameshi social contribution-style distribution platform, we work to redistribute these inventories. Going forward, we will leverage the Otameshi distribution platform and the Bank's network in strengthening our cooperative structure to contribute to reducing food loss, including agricultural products and other perishable items.

### Initiative with SynaBiz and Partner Companies



### Introducing New Sales Channels for Seafood Processing Companies

In light of the impact of COVID-19, JF Nagisa Shingyoren together with the Bank conducted a survey about their current situations based on the hypothesis that "some seafood processing companies may have excess stock levels." As a result, it became clear that many seafood processing companies that had lost their sales channels were suffering from excess stock levels. In order to solve this problem, in cooperation with JF Nagisa Shingyoren, the Bank introduced these seafood processing companies to Synabiz (page 33). Sales of processed seafood products through Synabiz started in September 2020. In addition to making these specific matching projects a reality, we also provide financing support.



JF Nagisa Shingyoren and The Norinchukin Bank

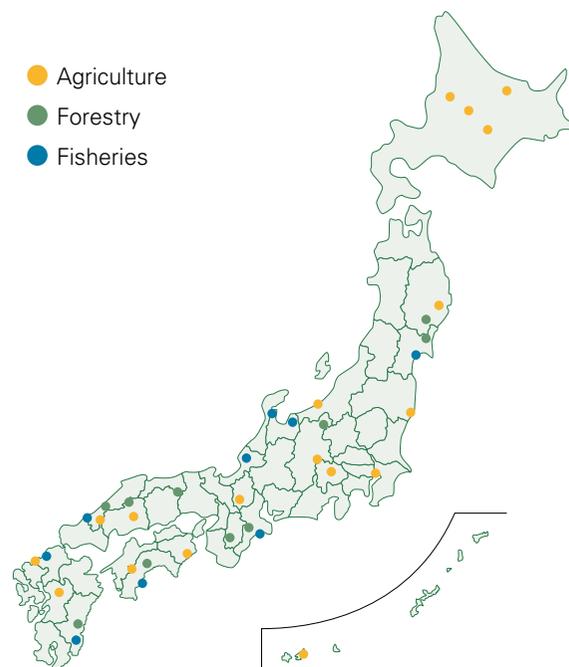
### Contributing to sustainable local communities

#### The Agricultural, Forestry, and Fisheries Future Fund, Supporting Local AFF Organizations

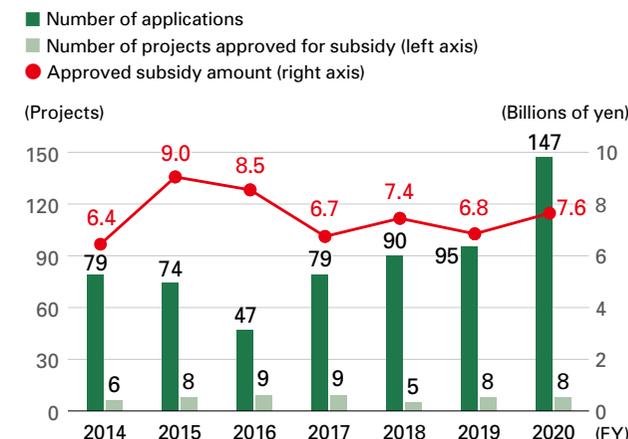
The Agricultural, Forestry, and Fisheries Future Fund was established in 2014 by The Norinchukin Bank, a member of the JA Group, JF Group, and JForest Group, with a 20 billion yen contribution. This fund seeks to support initiatives to nurture leaders who drive the sustainable development of the AFF industries, strengthen the revenue base of these industries, and revitalize local communities based on the AFF industries.

#### Projects targeted by the Agricultural, Forestry, and Fisheries Future Fund

- Agriculture
- Forestry
- Fisheries



#### Number of projects targeted and amount of subsidy from the Agricultural, Forestry, and Fisheries Future Fund



### Food and Farming Education Activities

Each year, we distribute booklets to children in the fifth year of elementary school across Japan covering a variety of topics, from food and farming education to environmental education to financial and economic education. We also distribute a universal edition for special education schools. In FY2020, approximately 1.30 million copies were distributed free of charge to 20,000 elementary schools nationwide.



Senior Elementary School Edition: Our Lives with Agriculture (Left), Universal Design Edition (Right)

### Alliance with the Japan Institute of Agricultural Management, Which Trains Next-Generation Farm Operators

The Japan Institute of Agricultural Management (JAIAM) was established in 2013 with the Norinchukin Bank as its main sponsor and in cooperation with member companies. The institute seeks to train next-generation farm operators and agricultural leaders in local communities. Under its organizational philosophy of *training farm operators*, which is indispensable to Japan's future agriculture, the JAIAM provides holistic education under the four themes of *management capability, farming capability, social capability and humanity*.



### Post-graduation agricultural employment status

As of April 1, 2021

	Total graduates (101)	No. Farmer's child (70)	No. Non-Farmer's child (31)
At family farms*	55	51	4
At farming companies	24	12	12
Independent farmers	19	6	13
Other	3	1	2

\*Family farms include those owned by grandparents, relatives



First Generation of Graduates: Employed in Nakano City, Nagano  
**Mr. ABE Hiroaki**

After graduating, I began working in plum management in Nakano City, Nagano, which is where my family lives. When I took my farming job, new plum varieties cultivated by the Nagano Prefectural Agricultural Experiment Station was a big topic of discussion. We secured a farming field in the hope that this would lead to development in plum management. On the sales side, we have been striving to diversify our sales routes, with core sales from shipping to JA Nakano City, plus direct sales to customers, gifts for hometown tax payments, and so on. We also worked on creating shipping boxes, pamphlets, and office documents, such as invoices. Looking ahead, we will keep coming up with initiatives that help us appeal to consumers about our self-produced Nakano City sourced products. There are many young farmers in Nakano City who enjoy a life of fulfillment each day, exchanging information about cultivation, having personal relationships, and so on. In the future, I plan to integrate grape cultivation, a business run by my parents, and create a cultivation plan that looks at both plum and grape work. I still have much to learn, but I will deal with each issue as it comes.

### Local Revitalization Support Utilizing Farmstays

We are promoting a farmstay venture meant to generate profit in the sense that it creates hiring and income in rural areas. In March 2020, we signed a four-way partnership agreement with JA Zen-Noh, Nokyo Tourist Corporation, and the Japan Countryside Stay Association. Through this agreement, we are working to realize regional revitalization through the establishment and promotion of the farmstay business.

In addition to providing the JA Bank's financial functions (such as farmstay loans), the bank also offers partnership coordination via a broad trading infrastructure.

### Regional Revitalization through Farmstays, Promotion of Farming Areas and Agriculture

From October 2020 to March 2021, as an effort to contribute to the revitalization of rural districts, the four groups at left held farmstay-themed courses at Marunouchi Platinum University, which offers career courses for businesspeople. This initiative was supported by Dai Maru Yu, a partnership between companies situated in the Otemachi, Marunouchi, and Yurakucho districts of Tokyo, in collaboration with "Dai Maru Yu SDGs ACT5" which aims to build an SDG model city.

This course aimed to create sustainable local communities through exchange between rural and urban areas to solve problems and create fans, and had a total of 227 participants in six sessions.



Learning in Tokyo



Interaction with the regions



Rural-urban exchanges, building communities (creating fans of regions)



## Conserving the Natural Environment as a Foundation of the AFF Industries

### Energy-saving and resource-saving initiatives

When the Act on the Rational Use of Energy (Energy Conservation Act) was revised, the Norinchukin Bank newly established an energy management structure and implemented the visualization of organization-wide energy usage. By promoting initiatives such as adopting energy efficient features at the time of facility updates and disseminating a Cool Biz campaign, we continue efforts to prevent global warming.

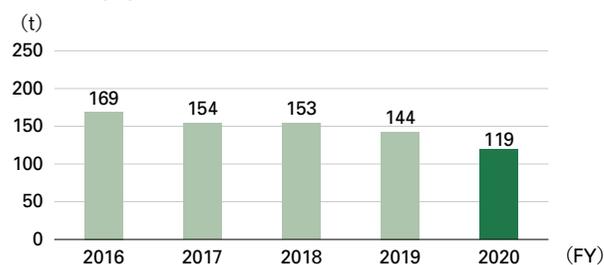
We also continue efforts to save resources such as shifting to paperless methods.

The bank will continue to address the Energy Conservation Act and each prefecture's ordinances and other regulations appropriately, and engage in ongoing energy and resource-saving efforts.

#### Energy consumption (crude oil equivalent) over time



#### Volume of paper waste over time (head office)



## Initiative to Reduce Food Loss at Cafeteria Facilities

The Act on Promotion of Food Loss and Waste Reduction came into effect in October 2019, and JAs across the country are working to reduce food loss. We are also engaged in similar initiatives. Since April 2020, we have been reducing food loss by improving the accuracy of our user count forecasts and rethinking less popular menu options at the cafeteria in our Akishima Center (Akishima City, Tokyo). A portion of generated food waste is recycled as compost through an external contractor rather than being disposed of as regular garbage.

### Topics

#### Global Warming Prevention Initiatives Certified by Gunma Prefecture (Maebashi Branch)

Since 2006, Gunma Prefecture has been implementing the "Environmental GS (Gunma Standard) Certification System." This certifies and publicizes activities of businesses in making sustainable reductions in greenhouse gas emissions, and also supports their activities to prevent global warming. As of the end of March 2020, a total of 2,477 businesses within Gunma Prefecture have been certified, and our Maebashi Branch has retained its certification for 13 years.

### From the Front Lines

When we hear the word sustainability, we may think this is "someone else's issue." However, participation in the Environmental GS Certification System is effective in changing the awareness of individual branch employees from this being "someone else's problem" to "my problem."

We remade the Environmental GS Certification into the size of a business card and distributed to each branch staff. This helps people feel more connected to environmental issues. The wording "Gunma Environmental GS Company" on these certifications is unconsciously seen by staff.

Initiatives to reduce energy consumption at our branch include day-to-day operations, such as encouraging use of stairs and prioritizing the use of hybrid vehicles. What is important is that notifying the branch of monthly usage data and visualizing this makes this information more of a "my issue." This year we set up the Sustainable Leader Committee and we are thinking seriously about initiatives we should develop as a branch, as a bank, and in the future as the JA Group regarding SDG Initiative Items.

The Maebashi Branch aims to achieve sustainability through the efforts of all of our employees.

General Affairs Group,  
Maebashi Branch  
**IMAIZUMI Naomi**



## Creating Business Innovation

### AgVenture Lab: A hub for Open Innovation

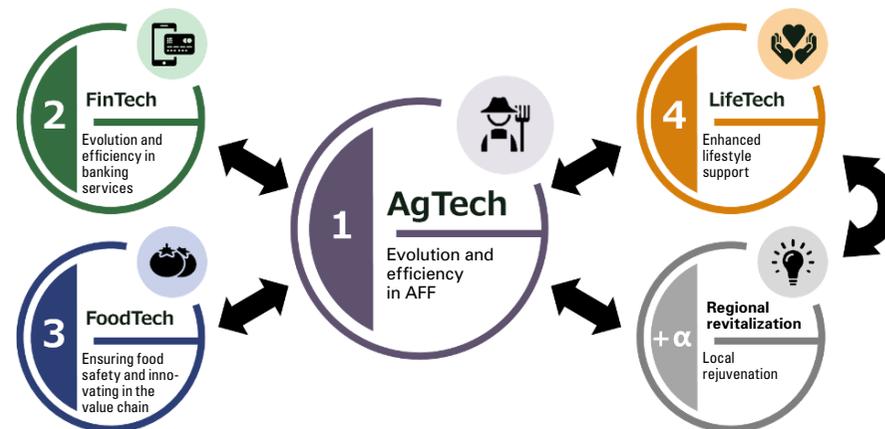
In May 2019, the JA Group established AgVenture Lab, an innovation laboratory, in Otemachi, Tokyo. AgVenture Lab is based on the concept of cultivating the next generation of agriculture, closely supporting daily lives of local communities, and connecting places and people.

At this lab, the various businesses of the JA Group connect with startups, partner companies, universities, government actors, and others who possess technology, ideas, and other assets. These players utilize a variety of knowledge and technologies to create new businesses, develop services, and resolve social issues. On the hard side, we have set up coworking spaces for startups. On the soft side, we also work to accelerate innovation based on the JA Accelerator Program which seeks to generate new business models, soliciting business plans from startups and other companies and leveraging the JA Group's strengths.

In May 2020, we held a business plan contest to select companies that would participate in the 2nd JA Accelerator Program; in this contest, eight companies passed the selection process.

The program adopts the key phrase of innovation of food, agriculture and life, and covers the wide range of businesses operated by the JA Group. It solicits business plans not only in FinTech but also AgTech, FoodTech, LifeTech, and others, leveraging the JA Group's strengths (e.g. physical storefronts and other infrastructure, its customer networks) in an attempt to generate new business models.

### AgVenture Lab Initiative Areas



AgVenture Lab

#### 2nd JA Accelerator Program Business Plan Contest Award Recipients

##### < Business Plan Contest Merit Award > 2nd JA Accelerator Program Participating Companies

AGRIST Inc.	Solving agricultural labor shortages with AI and harvesting robots
Agrihub Inc.	From core agricultural systems to cultivation support AI
CuboRex Co., Ltd.	"E-Cat Kit" for electric drive of wheelbarrows
greenase Inc.	Powdering technologies that connect vegetable production and consumption
sharagri Co., Ltd.	Sharagri specific skills temporary staffing
TERRACE MILE, Inc.	Utilizing data to build a new farming support platform
TrueBizon, Ltd.	sora:share sky sharing platform for drone navigation
myProduct Co., Ltd.	CRAFTRIP – industrial tourism platform specializing in local handicrafts

##### <Innovation Award> Companies separate to this program being considered for an alliance or support

Axis-motion Inc., INGEN Inc., WFFrontier Inc., Tabetech Inc., STOCK POINT Inc., miraiscien Co., Ltd.

# Restoring a Healthy Circulation of Forest and Forest Industry Providing Full Support for Wood Utilization Initiative

## Forest Industry Issues in Japan

Japan is a forest superpower. Japan's forests account for about two-thirds of its national land area and cover about 25 million hectares. The total timber volume (volume of timber in forests) of Japan is about 5.2 billion cubic meters. The majority of Japan's forests are artificial forests planted after World War II. About half of the trees are nearly 50 years old, so cutting and replanting are necessary.

The biggest problem facing the forest industry in Japan is that forest owners cannot replant their forests, even if they wish to do so. This is because of low timber prices, high costs for replanting, and the lack of business succession planning.

## Forest Industry Contributions to Mitigate and Adapt to Climate Change

In the meantime, the carbon absorption capacity of forests is attracting attention as Japan and other countries grapple with climate change. In cooperation with a nationwide network of forest owners' cooperatives, the Bank aims to promote initiatives to prevent global warming by ensuring CO<sub>2</sub> absorption through appropriate thinning and other forest maintenance, as well as by promoting the usage of wood, which sequesters carbon.



Topics

### Expanding the Utilization of Japanese Wood Wood Solution Network

A total of 31 companies and organizations involved in wood participate in the wood solutions network (WSN) (as of June 2021). These entities include forestry producer's groups, lumber companies involved in wood processing and distribution, trading companies, general contractors, and housing manufacturers. WSN activities have entered their second phase (2019 to 2022). Together with participating organizations, we are promoting a range of initiatives aimed at expanding the use of wood — these include popularization activities using the approach book for promoting non-residential wood construction and interior wood construction that was created in the first phase, and employing new themes (forest environment tax credits, ESG investment, and SDGs) that are in line with current themes.

### Forestry Safety Education 360 Degree VR that Improves the Labor Safety of Forestry

In FY2020, we expanded the Forest Labor Safety Project and added an educational tool called "Forestry Safety Education 360 Degree VR - Other Chainsaw Operator Dangers Edition." Based upon input from users, in FY2021 we created our second effort, the "Clearing Leaner Edition" and "Kick-back Edition."



#### VR Images



### Low-Cost Forest Replanting Project to shorten the replanting cycle and reduce costs

Main points of the Low-Cost Forest Replanting Project are 1) using fast-growing trees, 2) using large-container nursery trees, and 3) less dense planting. Demonstration experiments have been started at three sites in Japan — (JForest Neba Village in Nagano Prefecture, JForest Miyoshi Regional in Hiroshima Prefecture, and JForest Miyakonojo in Miyazaki Prefecture). Results obtained from these will be extended nationwide, and we will encourage replanting after major logging.

Points	Details	
1) Using fast-growing trees	Planting trees which grow faster than cedar and cypress (in this case, Chinese fir)	(Reducing cutting cycle from 50 to 30 years)
2) Using large-container nursery trees	Integrated logging and planting operations using large containerized seedlings, eliminating land preparation and reducing clearing frequency	Work reduced from 3 - 4 years to several months
3) Less dense planting	Reducing density from 3,000 to 1,500 trees per hectare, leading to faster logging and less need for thinning work	Planted trees halved from 3,000/ha (high density) to 1,500/ha (low density)



Containerized seedlings

#### From the Front Lines

Forestry Finance & Planning Group  
Food & Agriculture Business Planning Division

SATO Riho



Our Forestry Group provides support for regional forest owners' cooperatives. Support is not limited to investment and lending, instead we are also involved in improving the safety of forestry workers and in creating networks to further promote the use of timber. Forestry has a higher rate of occupational accidents than other industries, with health and safety measures being of major concern. We have also, in cooperation with the National Federation of Forestry Owners' Cooperatives Association, developed the Forestry Safety Education 360 Degree VR. In cooperation with the JForest NaraMoriren, it is possible to experience 11K high-definition VR video of an actually cut tree crashing into a mannequin. This has been well received by people who have experienced it, driving home the danger of such accidents. It has been used as an educational tool by the Forestry Agency's "Green Employment Project" as well as forestry colleges, prefectures, municipalities, and universities. The forestry industry relies on a long cycle of planting by grandparents, nurturing by parents, and felling by their children, and is deeply rooted in the idea of being aware of future generations. This is also in line with SDGs and concepts behind sustainability. Moving forward, we will continue to actively provide support for forests and forestry, while remaining aware that this industry contributes towards solving various issues such as climate change and disaster prevention.

# The Initiatives of the JA Group

## JA Group SDG Initiatives

In addition to the world's governments, private-sector organizations and businesses are also expected to play a role in achieving the SDGs. Cooperative organizations also have a role to play. Based on these circumstances and high expectations for cooperative associations, the JA Group summarized and published the JA Group SDGs Declaration, reflecting the group's basic philosophy, in May 2020. As a member of the JA Group, the Norinchukin Bank will continue to promote initiatives to achieve the SDGs.

### SDGs and the JA Group

<https://org.ja-group.jp/challenge/sdgs/>

## Initiatives to Revitalize the Regions

Regions throughout Japan are confronted by shrinking workforces, aging populations, and COVID-19. At the 28th JA National Convention, it was resolved that as points to be confronted nationwide, "JA will cooperate with a range of local organizations in order to respond to the various issues related to the lives of its members while confronted by shrinking populations and aging societies."

In view of this policy, the JA Bank will promote initiatives to

play a more in-depth role in revitalizing local communities, which is where JA Bank started. We will continue to provide support for JA's creative and original initiatives tailored to the actual conditions and requirements of local communities, including disaster prevention measures and the installation of renewable energy infrastructure in order that they can use locally produced energy.

### Topics

#### Smartphone Classes aimed at Eliminating the Digital Divide throughout the Country

Triggered by the spread of COVID-19, the very concept of "connectedness" is undergoing dramatic changes, and the importance and presence of digital services in our daily lives is rapidly increasing. Smartphones are already an important link in individual's lives.

The importance of the countermeasure to "digital divide" is of increasing importance in today's society — this includes ensuring the same levels of convenience anywhere in the country, and communicating with friends and family who live in remote locations.

The JA Group will continue its efforts to eliminate this digital divide gap by offering "smartphone classes" nationwide to meet the needs of local residents and let them experience the new opportunities provided by digital services.



参加無料！要予約

## スマホ体験教室開催

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日時	
会場	
定員	20名（要予約：ご参加の際は下記までお電話ください）
参加費	無料
講師	スマートフォンアドバイザー（ 社） ※ 社とご契約のない方もご参加可能 ※ 飯塚は致しません！

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