

Exercise strengths in “Connections” Sustainability initiatives

Efforts to Address Climate Change

In July, 2020, the Gunma Bank announced its support for TCFD* recommendations as a means to achieve preservation and creation of the global environment, a priority issue in the Gunma Bank Group SDGs Declaration. We actively disclose information on the impact of climate change on the Bank's operations.



*Task Force on Climate-related Financial Disclosures

Governance

Governance Structure

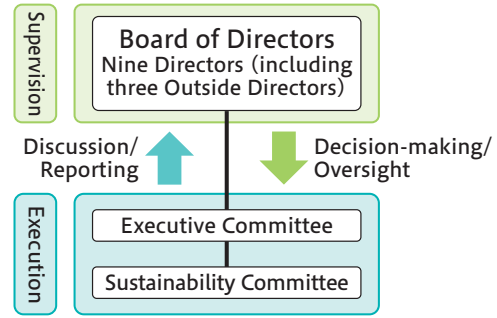
The Bank considers addressing climate change, the SDGs, ESG, and other sustainability-related initiatives as important management issues. We are developing a governance structure to provide oversight of these issues.

In April 2022, we established the Sustainability Committee chaired by the President. Its goal is to reinforce the Bank's sustainability initiatives, develop management strategies from a mid- to long-term perspective, and enhance the effectiveness of measures.

The Sustainability Committee will hold four meetings per year, in principle. The main matters it will discuss and consider include the formulation of policies related to sustainability initiatives and reports on the progress of the plan.

The matters discussed and considered at each Sustainability Committee meeting are submitted for discussion at or reported to the Executive Committee, which is the President's advisory body and discusses important business matters.

The committee will make four reports to the Board of Directors per year, in principle, allowing the Board of Directors to provide oversight. The committee submits important sustainability-related matters for discussion by the Board of Directors, which in turn makes decisions on these matters.



Performance-linked share remuneration

A performance-linked share remuneration system for inside directors was introduced in June 2019. In addition to financial evaluation indicators, the Bank has adopted non-financial indicators for this system that measure contributions towards the achievement of the SDGs, including addressing climate change. These indicators include the Bank's greenhouse gas emissions reduction rates and the amount of loans to renewable energy projects executed.

*See P51 for more on the performance-linked share remuneration system.

Strategies

Identifying climate change-related risks and opportunities

We conduct qualitative analyses of the risks (physical risks and migration risks) and opportunities of climate change on short- (three-year), mid- (10-year), and long-term (30-year) time scales.

Type	Overview (Time Scale)
Physical risk	• Damage to real estate collateral (buildings) due to flooding, etc. (short-to-long term)
	• Increased credit risk due to business stagnation caused by damage to customers' business facilities (short-to-long term)
	• Increased operating costs due to damage to the Bank's business facilities (short-to-long term)
Migration risk	• Increased credit risk due to the negative impact of tighter climate change-related regulations, taxation, etc. on customers' business performance (mid-to-long term)
	• Increased credit risk due to negative impacts on customer performance, e.g. increased migration costs of transitions to low-carbon and decarbonized products, delayed responses to changes in consumer product preferences, etc. (short-to-long term)
	• Damage to the Bank's reputation in the event it is determined we have not provided adequate disclosure (short-to-long term)
Opportunity	• Provision of new financial products and services to support the transition to a decarbonized society (short-to-long term)
	• Reduction of operating costs through resource and energy conservation at the Bank's business locations (short-to-long term)
	• Increased demand for public works projects, corporate capital investment, etc. as a countermeasure for climate change-related disasters (short-to-long term)

Scenario analysis

We estimated the increase in the Bank's credit costs due to physical and transition risks in multiple temperature range scenarios. As shown below, the results of all analyses indicate that the impact on the Bank's finances is limited.

[Scenarios Used]

Scenario	Scenario Expectations	Impact on Risk
"4°C Scenario" IPCC/RCP8.5 (4°C Scenario)	Slow adoption of regulations will lead to further global warming.	Increased physical risk expected
"2°C and Below Scenarios" IEA/NZE2050 (1.5°C Scenario) IPCC/RCP2.6 (2°C Scenario)	The regulations and technological innovations necessary to control temperature increases are adopted.	Increased migration risk expected

Physical risk

The majority of physical risk was due to natural disasters caused by climate change. As floods have a high probability of occurring in Japan, we analyzed the impact of flood damage. The analysis was based on the Intergovernmental Panel on Climate Change (IPCC) 8.5 scenario (4°C scenario). We calculated the increase in the Bank's credit costs through 2050 based on two factors estimated using hazard maps; the amount of damage to the value of real estate collateral held by the Bank, and the number of days of business stagnation for customers due to flooding.

The result of the analysis was a maximum increase in credit costs of 6.3 billion yen through 2050.

Scenario	"4°C Scenario"
Subjects of analysis	Financed small and medium companies with head offices in Japan
Content of analysis	Damage to the value of real estate (buildings and condominiums) collateral held by the Bank estimated using hazard maps/Estimated impact on credit costs of decreased customer revenue due to business stagnation
Period analyzed	Through 2050
Results of analysis	Maximum increase in credit costs through 2050: 6.3 billion yen

Migration risk

Among the sectors identified as vulnerable to climate-related financial impacts in the TCFD recommendations, the automotive sector, a key industry of the region, was selected for analysis in terms of the impact on climate change and the Bank's exposure.

In the analysis, we referred to the NZE scenario (1.5 °C scenario) and other scenarios published in "World Energy Outlook 2021" by the International Energy Agency (IEA). We also assumed that 100% of vehicles sold in 2050 will be electric vehicles. We also considered factors including the introduction of a carbon tax, cost increases due to capital investment, R&D expenses, etc., and changes in components due to the shift to electric vehicles were also taken into account. In addition, we assumed that an increase in the ratio of electric vehicles sold will have an impact on the businesses of automotive parts suppliers. We forecast the performance of suppliers grouped according to factors including the composition ratios of products handled by each company. Based on all these assumptions, considerations, etc. we calculated the increase in the Bank's credit costs through 2050.

The result of the analysis was a cumulative increase in credit costs of 4.8 billion yen through 2050.

Scenario	"2°C and Below Scenarios"
Subjects of analysis	Automobile and automotive part manufacturing industry
Content of analysis	<ul style="list-style-type: none"> Qualitative evaluation of the expected business impact on the sector [Main Business Impacts] Introduction of a carbon tax, higher GHG emissions standards (cost increases) Transition to electric vehicles (increased capital investment, impact on suppliers due to changes in components, etc.) Estimation of the impact on credit costs estimated by projecting future changes in business performance reflecting increased costs (such as the introduction of a carbon tax) based on scenarios and accounting for the results of qualitative analyses <p>*Main factors assumed</p> <ul style="list-style-type: none"> 2035: Suspension of sales of new internal combustion engine-powered (gasoline-powered) vehicles 2050: 100% sales ratio of electric and other next-generation vehicles
Period analyzed	Through 2050
Results of analysis	Cumulative increase in credit costs through 2050: 4.8 billion yen

State of carbon-related assets

Carbon-related assets accounted for approximately 0.9% of the Bank's total credit balance.

(Exposure to the energy and utilities sectors. Total of loans and bills discounted, acceptance of payment, foreign currency, private placements bonds, etc. as of the end of March 2022. Excluding water utility businesses and renewable power generation projects.)

[Reference] Percentage of carbon-related assets* based on revised October 2021 TCFD recommendations: approx. 23.5%

*The October 2021 revision of the TCFD recommendations redefines carbon-related assets as "energy," "transportation," "materials and buildings," and "agriculture, food, and forestry products." The Bank selected and compiled the industries in question based on the Bank of Japan's industry classifications.

Risk management

The Bank recognizes that the physical and migration risks arising from climate change are significant risks that could significantly impact the Bank's business operations and strategic and financial plans. The impact of the various risks identified through scenario analysis, etc. will be assessed for different categories, such as "credit risks" and "operational risks." The Bank will adopt a posture that allows it to manage such risks within the existing framework.

Based on the results of scenario analysis and other factors, we will strengthen our dialogue (engagement) with customers with the aim of addressing climate change and transitioning to a decarbonized society. Deeply understanding the challenges and needs of each of our customers and providing them with solutions will lead to the creation and better management of business opportunities.

Further, the Gunma Bank established the Environmentally and Socially Conscious Investment and Loan Policy* in June 2021 in order to help solve environmental and social issues with a regard for sustainability. The policy clearly states the Bank's stance on providing credit to sectors that have a significant impact on climate change risk, including a principle of not providing Investments and loans for the construction of new coal-fired power plants.

Indicators and targets

Sustainable finance

The Group has also set mid- to long-term finance targets for the period through FY2030 in order to further initiatives aimed at achieving sustainability in the region by solving environmental, social, and other issues.

By proactively engaging in sustainable finance, we will uncover and resolve local ESG issues.

Target cumulative amount of sustainable financing*	
FY2024: 5,000 billion yen (including 300 billion yen in the environmental field)	FY2030: 1.5 trillion yen (including 1 trillion yen in the environmental field)
*Accumulated amount executed since FY2022. Sustainable finance refers to finance activities that contribute to solving environmental issues (renewable energy, energy-saving equipment, etc.) and social issues (business start-ups and succession-related issues, medical care, etc.).	

As part of our efforts to decarbonize the region, in October 2021 we established the GB Green Fund, an investment and loan fund totaling 50 billion yen to support the development of renewable energy. Through the fund, we will support the development of renewable energy and contribute to the reduction of greenhouse gas emissions. We will also promote the local production for local consumption of energy and regional revitalization through the spread of distributed power sources and other means.

Cumulative financing by the GB Green Fund	
FY2021 (October 2021-March 2022)	18.3 billion yen

Greenhouse gas emission reduction target and results

Previous targets

FY2025 Reduction of at least 23% compared to FY2013
 FY2030 Reduction of at least 26% compared to FY2013

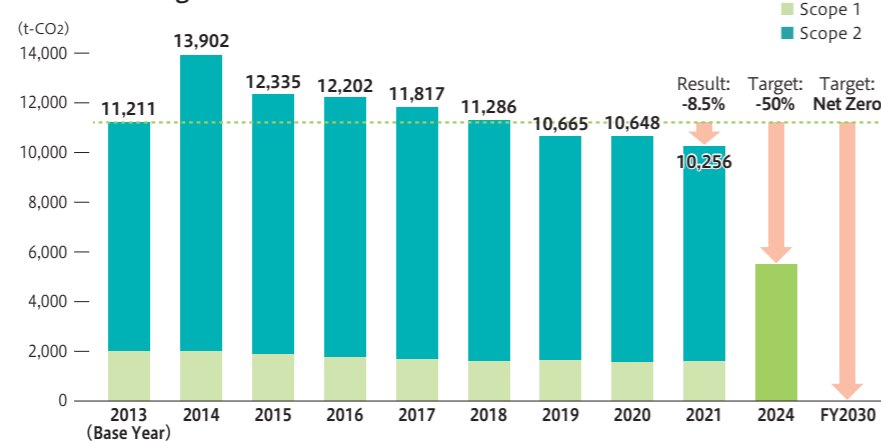
Target

FY2024 Reduction of at least 50% compared to FY2013
FY2030 Net zero

In order to contribute to the realization of a decarbonized society and the sustainable development of society by proactively working to solve local environmental issues, the Bank revised its greenhouse gas emission reduction targets in January 2022, setting a new goal of "Net Zero FY2030." Greenhouse gas emissions in FY2021 were 10,256 tons of CO₂, a reduction of 8.5% from FY2013.

Further, in April 2022, we switched our head office building to renewable electricity. As of today, greenhouse gas emissions from electricity consumption at the head office building are effectively zero. In the future, we will increase the number of banks using electricity derived from renewable energy sources. We will also increase the number of banks equipped with solar power generation systems, which are currently installed at some banks. In addition, we will introduce electric vehicles and upgrade our facilities to energy-saving ones. In these ways and others, we will further strengthen our decarbonization efforts.

[Greenhouse gas emission]



*The scope of the greenhouse gas emissions calculation is part of scope 1 and scope 2 for the Bank's domestic offices.
 *For the purpose of refinement, emissions for previous fiscal years are updated from values calculated with the base year emission factors to values calculated with the emission factors used for statutory reporting for each year.

(Unit: Tons of CO₂)

	FY2013	FY2019	FY2020	FY2021
Scope 1	2,019	1,679	1,527	1,609
Scope 2	9,192	8,986	9,121	8,647
Total	11,211	10,665	10,648	10,256

Scope 1: Direct emissions by the Bank itself (heavy oil, utility gas, gasoline, etc.)

Scope 2: Indirect emissions from the use of electricity, heat, and steam supplied by other companies (electricity, cold water, steam, etc.)

*Calculated in accordance with the periodic reports mandated by the Act on Rationalizing Energy Use. Gasoline emissions are calculated using average annual gasoline prices and emission factors.

Paper (copy paper) usage reduction targets and results

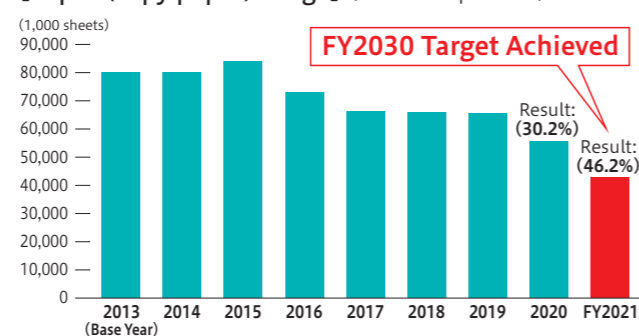
In July 2020, we established targets for reducing the amount of paper (copy paper) we use and are striving to achieve said targets. In FY2021, we achieved a 46.2% reduction compared to FY2013, well ahead of the target for FY2030.

We are currently studying the possibility of calculating Scope 3 as part of our calculations of our greenhouse gas emissions. Among these emissions, we believe that reducing the emissions from paper purchasing is a particularly important measure that is also related to the promotion of business process reform as part of our digital strategy. We will not only continue to reduce greenhouse gas emissions from paper purchasing by promoting the reduction of paper usage, but also enhance our Scope 3 measurements.

Target

FY2025 Reduction of at least 30% compared to FY2013
FY2030 Reduction of at least 40% compared to FY2013

[Paper (copy paper) usage] (A4 sheet equivalent)



[Reference] Greenhouse gas emissions from paper (copy paper) purchases in FY2021: 263 tons of CO₂

Feature Article Automotive Sector Initiatives

Rapid changes in the environment around the automotive industry

The environment surrounding the automotive industry is undergoing significant changes, including rapid progress in the electrification of cars. Suppliers in the region, too, are being forced to respond to these changes in a variety of ways. This includes offering products compatible with electric vehicles and reducing greenhouse gas emissions in their manufacturing processes. Due to the reduction in the number of parts it takes to build cars, this also includes entering new fields or changing business models.

FY2021, we have been building a database of suppliers in the prefecture and conducting interviews with individual suppliers, especially Subaru affiliates, on subjects such as their technologies, facilities, and characteristics. Moving forward, we will expand the scope of these interviews to include more suppliers. Based on the results of the interviews and other factors, we will provide mid- to long-term accompanying support tailored to each supplier, such as support for electrification and productivity improvement, working with external organizations as necessary.



Interviews conducted with branches aimed at enhancing our support system (November 2021)

Expanding the support system for business partners and providing mid- to long-term accompanying support

The Bank has striven to expand its support structure by inviting automaker alumni to help improve the sustainability of the automotive-related industry. Since

Initiatives for sustainable finance

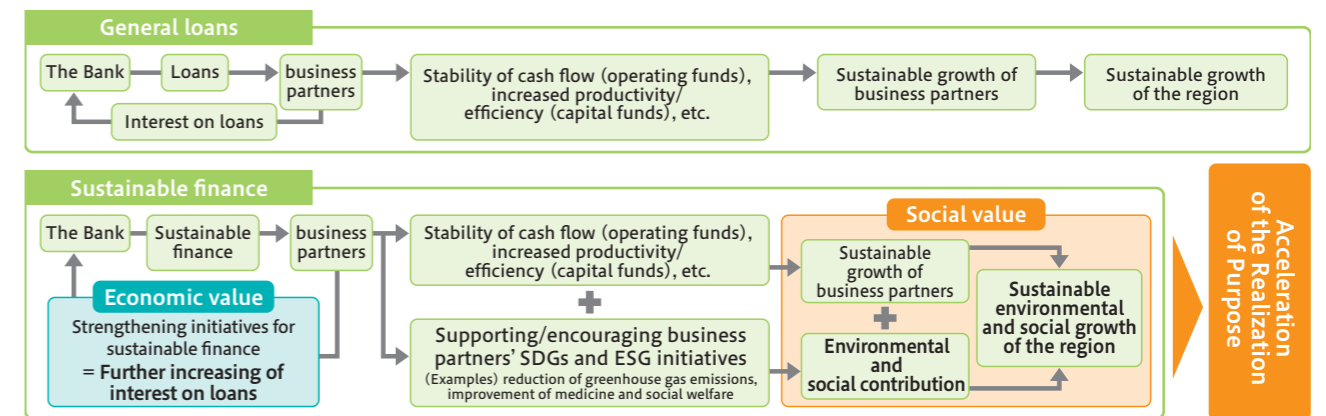
With the urgent need to address social issues such as climate change and population decline, sustainable finance, finance that provides funds and advice to help solve social problems, is becoming increasingly important. The Bank offers a variety of sustainable finance services. This includes Sustainability Linked Loans, Gungin SLLs, structured covenant loans for business successions, SDGs

Private Placement Bonds, loans for renewable energy projects, and Financing with Special Clause for Waiver in the event of Torrential Rain and Earthquake. The Bank takes appropriate actions according to each customer's phase to encourage their use of services such as these sustainable finance and our business matching services.

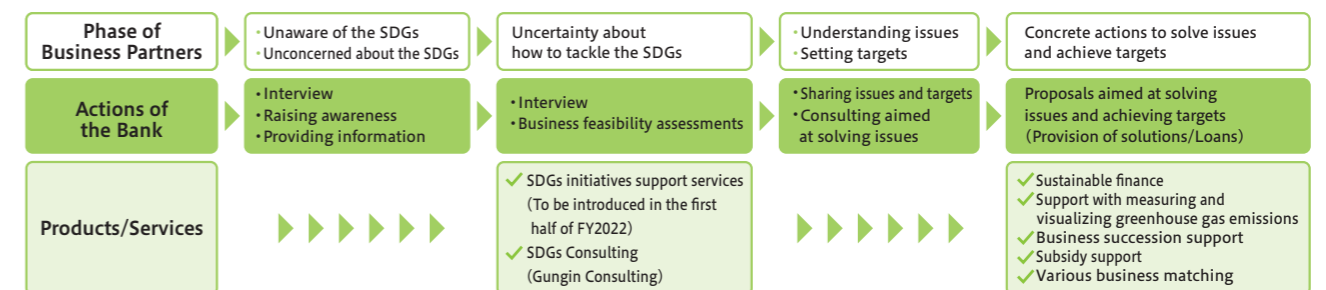
The significance of sustainable finance initiatives

Sustainable finance can make a significant environmental and social contribution and lead to the sustainable growth in the region (increase of social value). For the Bank, strengthening sustainable finance initiatives will lead to an

increase in interest on loans (increase in economic value). We believe that this increase in both social and economic value will accelerate the realization of our Purpose.



System Diagram



The Gunma Bank Group's Support for Customers' SDGs Initiatives

Raising Understanding of the SDGs and Their Necessity

SDGs initiatives support services (To be introduced in the first half of FY2022)

- Confirm current state of initiatives based on interview sheets
- Ascertain issues, etc. through dialog with business partners using feedback sheets
- Support formulation of SDGs declarations tailored to business partners' businesses
- Contributing to social trust and the improvement of employee satisfaction by declaring commitment to initiatives

Deciding on priority issues

Environment	Human Rights/Labor	Fair Business Practices Organizational Structure	Products Service	Social Contribution Regional Contribution
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Proposing Solutions that "Connect" to Solving Issues

Parameter	Main Services, Etc.	Group companies
SDGs-related Consulting	SDGs-related KPI setting, training, etc.	Gungin Consulting Co., Ltd.
Carbon-related		
Measuring and Visualizing Greenhouse Gas Emissions	Greenhouse Gas Emission Visualization Cloud Service	
Carbon Offsets	Sale of J-Credits	
Introduction of Renewable Energy Facilities	Support of installation of solar equipment, etc.	
Support for Solving Other Social Issues		
Business Succession	Support of business succession plan formulation Provision of capital funds, hands-on support	Gungin Consulting Co., Ltd. Gunma Regional Advanced Solution Partners Co., Ltd.
Hiring of High-level Human Resources	Staffing service	
BCP Consulting	Support with BCP formulation and BCP training	
Human and Labor Affairs/Training and Development	Formulation of personnel and labor regulations, training and development	Gungin Consulting Co., Ltd.
Demand Forecasting Service	Demand forecasting using weather and sales data, etc.	

Financing, Subsidies, Etc. Based on Proposed Solution

Sustainable finance	Sustainability-Linked Loans, Gungin SLLs Structured covenant loans for business successions, SDGs private placement bonds Loans for renewable energy projects Financing with Special Clause for Waiver in the event of Torrential Rain/Earthquake, etc.
Subsidy support	Support for leading decarbonization initiatives in construction and business sites Subsidies for advanced energy efficiency investment promotion and support projects Projects to reduce the prices of solar power generation equipment, etc.
Interest subsidy	Subsidy for Energy Efficiency Investments

Feature Article The Gunma Bank Group Green/Social/Sustainability Bond Framework

As a step towards achieving the SDGs, in November 2019 the Gunma Bank formulated the Green Bond Framework, which sells bonds for green projects that stand out in areas such as renewables energy, energy performance, and clean transportation, and became the first regional bank in Japan to issue green bonds. In addition, we formulated the Gunma Bank Group Green/Social/Sustainability Bond Framework in May 2021, which added social projects that contribute to solving as one of the uses of the funds. Based on the above frameworks, in October 2021, we became the first regional bank to issue a sustainability bond (amount issued: 10 billion yen).

<p>Green projects</p> <ul style="list-style-type: none"> Renewable energy Energy efficiency Clean transportation Green buildings 	<p>Social projects</p> <ul style="list-style-type: none"> Keep and create jobs Support reconstruction and rehabilitation from disasters Support regional economy revitalization and sustainability Medical and welfare services
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	Green bonds		Sustainability Bond (Green projects)	
	Allocated funds (million yen)	CO2 Reduction (Tons CO2/Year)	Allocated funds (million yen)	CO2 Reduction (Tons CO2/Year)
Total allocated funds/reductions	9,950	12,494	2,759	23,368
Renewable energy	9,884	12,428	2,673	23,324
Solar power generation business	9,435	4,376	2,388	899
Hydroelectric power generation business	449	8,052	—	—
Biomass power generation	—	—	285	22,425
Energy efficiency	25	53	27	37
Clean transportation	40	12	58	6

Household equivalent (*1)	6,645 households	12,429 households
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(*1) Annual electricity consumption per household converted into CO2 emissions (Calculated based on MOE "Summary of FY2020 Statistical Survey on CO2 Emissions from the Household Sector (Confirmed Figures)")
(*2) Prior to third-party evaluation

Regional sustainability initiatives

Comprehensive collaborative agreement for community revitalization

Collaboration with local governments in Gunma Prefecture aimed at regional revitalization

The Bank has established a Regional Revitalization Office within the Corporate Consulting Department to work on regional revitalization, primarily in cooperation with local governments in Gunma Prefecture.

In September 2021, we signed the Comprehensive Collaboration Agreement on Regional Revitalization in Minakami Town with Minakami Town, Open House Co., Ltd., and the University of Tokyo. The four parties to this industry-academia-government-finance collaboration agreement will work together to develop the regional community in the low uplands, revitalize the regional economy, and improve services for the residents of the town.

Striving to realize the Purpose through regional revitalization

We believe that by transcending the boundaries between industrial, government, academic, and financial institutions and leveraging their strengths to address issues common to all hot spring towns in Japan, this can lead to innovative town development and the creation of tourism industries. In the future, we aim to revitalize the region by horizontally expanding this initiative to other tourist destinations in the prefecture.



Signing of the Comprehensive Collaboration Agreement on Regional Revitalization in Minakami Town (September 2021)

Collaboration Agreement on Gunma Next-Generation Industry Creation and Cultivation

Creating and fostering industries that will build a future for Gunma Prefecture

In March 2021, the Bank signed the Collaboration Agreement on Gunma Next-Generation Industry Creation and Cultivation. The agreement aims to create and cultivate new next-generation industries based on the technological seeds possessed by universities, companies, and other entities in Gunma Prefecture and the R&D capabilities of local companies.

Through the agreement, the Bank will work to create and foster new industries and revitalize the region through organic collaboration between industrial, government, academic, and financial institutions while leveraging the strengths of each.

Tech Planter, a support program to discover science and technology generated by universities, technical colleges, and companies, and to promote their social implementation. We support the social implementation of these technological seeds by providing accommodating support to the teams that enter the event.

Through the continuous implementation of such efforts, we aim to create the seedbed for new industries to emerge and make the region a place where business continue to be created.



Press conference on the Gunma Next-Generation Industry Creation and Cultivation Consortium (March 2021)

Implementation of the Gunma Tech Planter, which promotes the discovery and social implementation of science and technology

Since FY2021, the Bank has implemented the Gunma

Other support activities

The Gunma Bank Environmental Foundation Activities

The Gunma Bank Environmental Foundation was established with the aim of securing an environment where nature and humans can coexist in harmony and to contribute to the development of local communities. It is engaged in education and subsidy programs for environmental conservation and environmental research.

As a subsidy program, the Gunma Bank Environmental Foundation Education Award is presented annually to Gunma Prefecture elementary, junior high, and high schools that have made outstanding activities for environmental improvement and conservation. In addition, the Gunma Bank Environmental Foundation Award is presented annually to organizations that have made outstanding achievements in conservation activities and research on the natural environment. As awareness raising activities, we hold the Eco-kids Camp in Akagi-yama for elementary school students and the Environmental Expedition Group for junior high school students. (2020-2021 programs cancelled due to the COVID-19 pandemic)

Donations to Oze Preservation Foundation

We operate a natural protection fund, "Oze Kiko." "Oze Kiko" is a fund that donates part of the trust fees received by the Bank and its trustee companies to the Oze Preservation Foundation, which conducts environmental preservation activities in Oze. We also handle donations made to the foundation through the donation course of the shareholder benefits program.

<FY2021 Results>

- Donations from the "Oze Kiko" 821,364 yen (Gunma Bank and Gungin Securities Total) (cumulative total: 16,494,664 yen)
- Donations from the donation course of the shareholder benefits program 289,500 yen (cumulative total: 684,500 yen)

Maintenance Activities for Gungin Forest

In 2011, as part of our environmental conservation activities, we named a forest as the Gungin Forest based on the designation in the Prefectural Forest Maintenance Partner Project Implementation Agreement signed with Gunma Prefecture, and are working on its maintenance and conservation activities.