1 Governance and risk management

The Tobu Group will further enhance our high environmental superiority centering on the Railway Business and bring about reductions in our environmental impact and climate change risks. We will also promote environmental conservation activities in all business fields, including the reduction of waste, and initiatives to reduce risks from natural disasters. We are committed to contributing to the creation of a sustainable society and balancing this with corporate growth.

To promote these initiatives, the Company has established the Environment Promotion Committee, which is chaired and overseen by an assigned executive officer and made up of all general managers, executive officers responsible for departments and offices dealing with environmental management and the heads of those departments and offices. Through this committee, we discuss and verify risks and opportunities related to climate change (hereafter, climate change risks and opportunities).

The chair of the Environment Promotion Committee then provides reports on action plans and activities in relation to those climate change risks and opportunities and also offers suggestions, at the Governance Committee, which is made up of an Outside Director who serves as the chair and presides over meetings and committee members consisting of Representative Directors, Outside Directors and Full-time Audit & Supervisory Board Members. The Governance Committee builds governance structures for initiatives concerned with climate change risks and opportunities, such as by deliberating and evaluating the corresponding items and providing reports to the Board of Directors.

Considering that such initiatives also play an important role during crisis management conducted by the Tobu Group, we share that information with the Crisis Management Committee and create appropriate management systems.



2 Strategy

(1) Scenario analysis

Within our consolidated accounts, we looked at the impact of climate change on the railway business, which bears the largest financial impact. The socioeconomic scenarios (SSP scenario) by the National Institute for Environmental Studies used in the field of climate change research are compared with the Sustainability scenario (SSP1: <2°C scenario) and the Regional rivalry scenario (SSP3: 4°C scenario) to determine the impacts of climate change, and we analyzed the impact on "Risk", "Opportunity", and "Revenue" in each society.

SSP (Shared Socioeconomic Pathways) Scenario



For both SSP1 and SSP3, we classified the physical risks (e.g., destruction caused by abnormal weather such as flooding or rainstorms) and transitional risks/opportunities (e.g., the strengthening of regulations and introduction of new technologies due to the shift to a low carbon economy, changes in markets and reputations due to changes in consumer preferences and behavior) that may impact the Company's railway business due to climate change and carried out the following analysis.

(2) Physical risks

We analyzed the financial impact on "Facilities" and "Equipment" of the Railway Business as a risk of flooding damage due to increased events of extreme weather. During this analysis, we used a flood risk evaluation model (*1) and climate forecast database (*2) and assessed the extent to which separate railway business assets (station buildings, tracks, electrical equipment, etc.) might be physically damaged by flooding. Based on past weather data, we calculated the amount of damage caused by disasters on all of our lines at a once-in-a-century level. We also made an approximate calculation of the impact on our income if rail operation is impeded by the outbreak of disasters.

As a result, regarding the impact of water hazard risks on the railway business as a whole, while both SSP1 and SSP3 present the risk of damage amounts increasing beyond current levels, we observed that the damages under SSP1 would be smaller. Therefore, we recognize that the realization of a sustainable society and limiting the temperature increase to less than 2°C is important for the Company's business and from the perspective of reducing the flooding risk.

The Company also focuses on measures to reduce harm from natural disasters, such as reinforcing facilities by strengthening slopes and bridges and raising substations, as well as developing vehicle evacuation plans. On into the future, while striving to reduce our environmental impact, we will also promote initiatives that decrease risk.

- (*1) Model that uses a computer to virtually replicate and evaluate tens of thousands of precipitation possibilities based on past weather data
- (*2) Large-scale weather prediction database produced by the Climate Change Risk Data Creation Project under the Ministry of Education, Culture, Sports, Science and Technology

(3) Transition risks and opportunities

With the SSP1, there is a risk that the cost of energy and material procurement will increase due to the introduction of a carbon tax and the strengthening of regulations for decarbonization, and that this will result in an increased financial impact. On the other hand, we consider the spread of next-generation technologies as an opportunity, including the advancement of clean energy technologies, and especially measures that the Company is already engaged in, such as MaaS and automated driving experiments, and it is expected that there will be opportunities to increase revenues. For example, this can be done by shifting away from alternative modes of transportation by maintaining the environmental advantages of rail, in addition to the possibility of having reduced costs associated with rail operations and other related activities and increased operational efficiency.

(4) Impact on revenues

As another factor to be considered in addition to physical and transition risks, we also analyzed the impact of future demographic changes on railway revenues. Although a low birthrate, aging society, and falling population are expected in terms of trends in Japan's population, in contrast to SSP1, a scenario where the social environment is conducive to raising children, SSP3 is expected to experience a further decline in population due to economic stagnation and other factors.

The results showed that, between SSP1 and SSP3, SSP3 will have a larger decline in railway revenues in FY2050. Therefore, we recognized that the realization of a sustainable society and limiting the temperature increase to less than 2°C was important for the Company's business and from the perspective of securing future earnings.

Based on the above, the Tobu Group, which aims to achieve sustainable growth together with local communities, will consider the importance of realizing SSP1 while carrying out our business, and promote various initiatives concerned with climate change from here forward.

Please refer to the reference materials for details of the risks and opportunities identified in the above scenario analysis, as well as the respective evaluations and countermeasures.



3 Indicators and Targets

The Company considers the reduction of environmental impact through means such as the further improvement of environmental advantage as a Materiality that we must solve. For FY2030, we have set a target of reducing CO₂ emissions by 30% from the FY2022 level and achieving carbon neutrality in the Oku-Nikko area across the Tobu Group as a whole.

In our Railway Business, the foundation of the Tobu Group's businesses, we expect to reduce CO₂ emissions by approximately 50% compared with FY2013 by FY2030. To achieve this target, various measures are taken to reduce environmental impact, focusing on "replacing with energy-saving railcars and optimizing the number of railcars," "switching to LED lighting for stations, railcars, etc.," and "upgrading to high-efficiency transformers."

In particular, in the Nikko/Kinugawa area, we have effectively replaced the electricity used by trains running in the area and express trains accessing the area from central Tokyo with electricity derived from renewable energy sources, thereby realizing carbon neutrality in the area's railroad transportation. In addition, based on the "Nikko MaaS," an eco-friendly MaaS, we will accelerate initiatives in cooperation with Nikko City, which is promoting initiatives as a priority area for decarbonization, as well as the local community, and strengthen the area's branding as "International Eco-Resort Nikko."

The Tobu Group will continue its efforts to reduce its environmental impact, aiming to achieve carbon neutrality by 2050.

(Reference Materials)

Classification	Key risks and opportunities	Details	Evaluation			Severity		Time of onset		
			Risk	Opportunity		SSP1	SSP3	Short term	Long term	Countermeasures
Physical	Increase in abnormal weather	Impact of abnormal weather	0		Risk of impact on railway facilities and operation from abnormal weather such as floods, typhoons, and landslides	Medium	Large	•	•	Aiming to ensure that our railways are resistant to natural disasters, we are reinforcing facilities to reduce damage (reinforcing slopes and bridges, raising substations, etc.) and preparing materials and equipment for early recovery (securing crushed stone, spare parts for facilities, etc.). We are also implementing disaster prevention and mitigation measures in preparation for the occurrence of natural disasters, such as estimating damage using dedicated hazard maps, formulating planned suspensions and vehicle evacuation plans to reduce damage, and conducting comprehensive emergency drills.
Transition	Tighter regulations	Introduction of carbon pricing	0		Risk of increase in financial burden due to stricter regulations on greenhouse gas emissions, such as carbon taxes	Large	Medium		•	Aiming to reduce CO ₂ emissions from the Railway Business by approximately 50% (compared with FY2013) by FY2030, we are taking various measures to reduce environmental impact, focusing on the following measures. (1) Replacement with energy-saving railcars and optimizing the number of railcars (2) Switching to LED lighting for stations, railcars, etc. (3) Upgrading to high-efficiency transformers We will also continue our efforts to reduce our dependence on fossil resources and reduce CO ₂ emissions, including utilizing renewable energy from the Tobu Group's solar power plants.
	Rise in energy and resource prices	Increase in material procurement expenses due to higher resource prices	0		Risk that the cost of energy and material procurement will increase due to the strengthening of regulations for decarbonization, etc.	Medium	Small		•	As a company with many infrastructure facilities, we are promoting energy conservation by, for example, replacing railcars and updating facilities, while also promoting the optimization and review of facilities to reduce procurement costs. In FY2021, we began full-fledged operation of "Remote," a system that effectively utilizes onboard data such as occupancy rate, cabin temperature, operating speed, power consumption, and equipment status of running vehicles. In addition to optimizing timetables, we are also utilizing this system for energy-saving operation. We are also promoting the introduction of highly efficient vehicles. The new Spacia express train scheduled to be introduced in 2023 will reduce CO ₂ emissions by up to 40% compared to the current Spacia. In terms of facilities, we plan to use LED lighting at all stations. In addition, we have installed solar panels at five substations, and we are utilizing renewable energy as an auxiliary power source.
	Spread of next- generation technologies	Development and spread of clean energy technologies		0	Possibility that the development and spread of clean energy and energy-saving technologies may reduce the cost of introducing energy- saving railcars and renewable energy facilities, etc., as well as energy-related expenses related to railway operations, etc.	Large	Small	•	•	
		Development and spread of automated railway driving technology		0	Possibility that in a sustainable society, advances in technology and the advancement and spread of automated railway driving technology may increase operational efficiency	Medium	Small		•	From FY2023 onward, we plan to begin a demonstration test for the implementation of automated driving with crew members (GoA3) on the Tobu Daishi Line.
		Increased demand for public transportation due to the spread of MaaS		0	Possibility that seamless mobility services will be achieved through the spread of MaaS, resulting in increased demand for public transportation, including railways	Medium	Small	•	•	In October 2021, the Tobu Group launched the "NIKKO MaaS" service, Japan's first eco-friendly MaaS for tourism, in the Nikko area of Tochigi Prefecture. Through the "NIKKO MaaS," we aim to reduce traffic congestion in the Nikko area by further encouraging people to switch from their own cars to trains when they visit the area. We also aim for it to become a leading model for a decarbonized society by promoting the adoption of the latest EV cars and the installation of RE100 chargers. Going forward, we will continue to view MaaS and other changes in mobility as opportunities to transition toward a decarbonized society and revitalize local communities by promoting excursion tourism, as we respond to increasingly diversified and sophisticated needs.
	Reputation improvement/ decline	Reputation damage due to delays to climate change measures	0		Risk of criticism from customers, investors, etc., due to inadequate climate change measures	Medium	Small			In the Tobu Group, we position the Nikko/Kinugawa area as an "International Eco-Resort Nikko," and we aim to achieve
		Improvement in reputation as a result of advanced climate change measures		0	Possibility that customers will actively prefer railways as a means of transportation based on recognition of their environmental superiority Possibility of improved reputation from investors, etc., and acceleration in the inflow of ESG investment funds	acuvery preter ortation based environmental Medium Small utation from in the inflow	rbon neutrality in our businesses in this area. In terms of specific initiatives in this area, we have effectively replaced a amount of electricity equivalent to that used by trains, station facilities, and express trains accessing the area from intral Tokyo with electricity derived from renewable energy sources, thereby realizing carbon neutrality in the area's liroad transportation since April 2022.			