



# Notice Regarding Announcement on Endorsement of Task Force on Climate-related Financial Disclosures (TCFD) and Disclosure of Information

Climate change is resulting in increasingly severe and frequent abnormal weather, including floods, massive typhoons and landslides. Tobu Group perceives this to be an issue that greatly affects business activities and is promoting its businesses under the recognition that the "reduction of environmental burden through further improvement of environmental advantage, etc." is a key issue to be tackled.

In connection with this, on June 23, Tobu Group announced its endorsement of the recommendations of Task Force on Climate-related Financial Disclosures (TCFD) established by the Financial Stability Board (FSB). At the same time, we disclosed the following information.

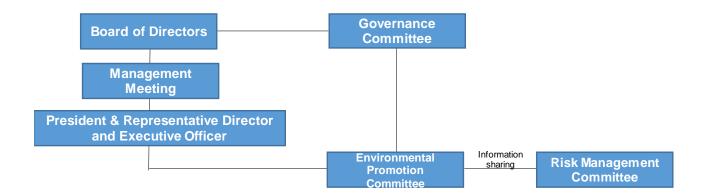
# 1. Governance and Risk Management

Tobu Group are further improving its high level of environmental advantage, particularly in its railway business, to reduce environmental burden and climate change risks. In addition, Tobu Group promotes environmental conservation activities, such as waste reduction, and initiatives to reduce risks from natural disasters in all business fields. In this way, it strives to help bring about a sustainable society and strike a balance between corporate growth and such activities.

In order to promote these efforts, Tobu Group has established an Environmental Promotion Committee. The committee is chaired by the Director in charge of the Corporate Planning Division and comprised of division Heads, and Executive Officers in charge of departments and offices concerned with environmental management, and General Managers thereof. The committee discusses and evaluates risks and opportunities resulting from climate change (hereinafter "climate change risks, etc.").

In the Governance Committee, comprised of Representative Directors, Outside Directors and Audit & Supervisory Board Members and chaired by an Outside Director, the chairperson of the Environmental Promotion Committee provides activity plans, activity reports and suggestions concerning climate change risks, etc. Under the Governance Committee, a governance system has been established concerning initiatives to tackle climate change risks, etc. in which the above details are deliberated, evaluated and reported to the Board of Directors.

Tobu Group perceives initiatives concerning climate change risks, etc. to be an important matter in its crisis management and shares information on these initiatives with the Risk Management Committee and has established a system for their appropriate management.



## 2. Strategy

## (1) Scenario Analysis

Tobu Group has conducted an analysis of the effects of climate change on its railway business, which has the greatest financial impact on its consolidated results. From among the Shared Socioeconomic Pathways (SSP) scenarios used in the field of climate change research, provided by the National Institute for Environmental Studies, we compared the SSP1 (sustainability; less than 2°C warming scenario) and SSP3 (regional rivalry; 4°C warming scenario) to analyze the risks and opportunities in each society as well as the impact on revenue.

#### ▼ Shared Socioeconomic Pathways (SSP) Scenarios



For both SSP1 and SSP3, we classified the effects of climate change on our railway business as "physical risks" (such as destruction caused by flooding, heavy storms and other abnormal weather) and "transition risks and opportunities" (such as strengthened regulations and new technologies resulting from the transition to a low carbon economy, and market and reputation changes resulting from changes in consumer preferences and behaviors). Details on how we conducted our analysis are provided below.

# (2) Physical Risks

We analyzed the financial impact of flood risks resulting from increased abnormal weather on our railway business' facilities and equipment. For this analysis, we used a flood risk assessment model\*1 and a climate forecast database\*2 to evaluate the extent of the physical impact flooding would have on our individual railway business assets (station buildings, tracks, electrical facilities, etc.). Based on past weather data, we calculated the cost of damage which would be caused by the occurrence of a once-in-a-century-level disaster on all of our train lines. We also roughly calculated the impact on revenue which would occur in the event a disaster resulted in disruptions to transit operations.

As a result, with regard to the impact of flood risks on our entire railway business, we found that for both SSP1 and SSP3, there would be a risk of the cost of damage becoming greater than present, but the cost of damage would be relatively less for SSP1. Accordingly, Tobu Group recognizes that realizing a sustainable society and keeping the increase in temperature under 2°C is also important from the perspective of reducing the risk of flooding in the operation of its businesses.

Tobu Group is also engaging in measures to reduce damage from natural disasters, including strengthening facilities by reinforcing slopes and bridges and elevating transformer substations, etc., and formulating a vehicle evacuation plan. Together with initiatives to reduce our environmental burden, we will be working to reduce our risks going forward.

- \*1: An assessment model for virtually recreating tens of thousands of precipitation possibilities on a computer based on past weather data.
- \*2: A large-scale climate forecast database using data from, among other sources, the Ministry of Education, Culture, Sports, Science and Technology's Program for Risk Information on Climate Change.

#### (3) Transition Risks and Opportunities

In SSP1 there is a risk of energy and material procurement costs increasing, and in turn of our financial burden increasing, due to factors such as the introduction of a carbon tax and strengthened regulations to promote decarbonization. At the same time, Tobu Group perceives the development of clean energy technologies and the growth of other next-generation technologies, particularly existing measures being implemented by Tobu Group such as MaaS and automated train operation experiments, to be opportunities. In addition to the possibility of reducing costs related to railway operation and increasing operational efficiency, it has been predicted that the maintenance of the environmental advantage of railways will provide opportunities for increased revenue, such as a shift to railways away from alternate forms of transportation, etc.

#### (4) Impact on Revenue

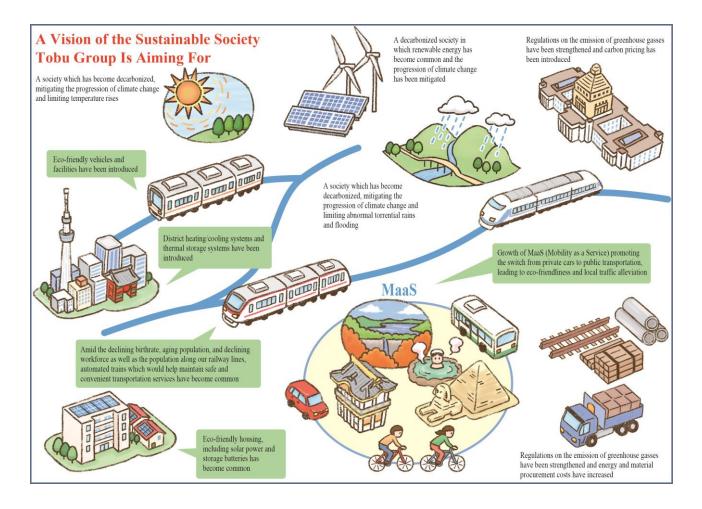
As an element which should be taken into consideration in addition to physical risks and transition risks, we analyzed the impact of future demographic changes on railway revenue. The anticipated demographic trends for Japan are a decreasing birthrate, and an aging and declining population. However, in contrast with SSP1, a scenario in which society provides an improved environment for

child rearing, SSP3 is expected to result in an even greater population decline due to factors such as economic stagnation.

As a result, we found that between SSP1 and SSP3, SSP3 would result in a significantly greater decline in the railway income in fiscal 2050. Accordingly, Tobu Group recognizes that realizing a sustainable society and keeping the increase in temperature under 2°C is also important from the perspective of securing future revenue in the operation of its businesses.

Tobu Group will continue to aim for sustainable growth together with local communities and, based on the above, believes it important to seek to realize SSP1 in the operation of its businesses. Going forward, Tobu Group will continue to promote a variety of initiatives concerning climate change.

For more information about the risks and opportunities extracted via the above scenario analysis as well as assessments and measures for each, please see the reference material attached herewith.



# 3. Indices and Targets

Tobu Group perceives the reduction of its environmental burden, through means such as further improving its environmental advantage, as a key issue to resolve. Tobu Group expects to achieve a reduction of approximately 50% reduction in CO<sub>2</sub> emissions from its railway business by fiscal 2030 (compared with fiscal 2013). In order to do so, it is implementing a variety of initiatives to reduce its environmental burden, such as switching to energy-saving vehicles as well as the optimization of the

number of vehicles in Tobu Group's possession; switching to LED lighting in its stations and vehicles, etc.; and switching to highly efficient power transformers.

Of particular note, Tobu Group is positioning the Nikko-Kinugawa area as "International Eco Resort Nikko," and is aiming for zero CO<sub>2</sub> emissions from its business activities in this area. As part of this, from April 2022, Tobu Group has replaced the equivalent amount of electricity used for railroad transportation in the Nikko-Kinugawa area, as well as for express trains running from central Tokyo to the area, with electricity derived from renewable energy sources, thereby achieving net zero CO<sub>2</sub> emissions for railway transportation in the area.

In order to achieve net zero CO<sub>2</sub> emissions by 2050, Tobu Group will continue to promote initiatives to reduce its environmental burden.

# (Reference Material)

Class.	Main risks/opportunities	Details	Assessment			Impact Pe		Pe	riod	Macaura
			Risk	Орр.		SSP1	SSP3	Short	Long	Measures
Physical	Increased abnormal weather	Impacts caused by abnormal weather	0		Possibility of railway facilities and operation being impacted by abnormal weather such as flooding, typhoons and landslides	Med.	Large	•	•	Aiming for railways which can withstand natural disasters, Tobu Group is strengthening its facilities to reduce damage (reinforcing slopes and bridges, elevating transformer substations, etc.) and is also preparing material and equipment which will aid rapid restoration (securing crushed stone and spare facility parts, etc.). Tobu Group is also implementing natural disaster preparedness and reduction measures, including projecting damage using specially-prepared hazard maps, formulating planned suspensions and a vehicle evacuation plan to reduce damage, and comprehensive emergency drills.
Transition	Strengthened regulations	Introduction of carbon pricing	0		Possibility of financial burden increasing due to carbon tax and other strengthened greenhouse gas emission regulations	Large	Med.		•	Tobu Group is aiming to achieve approximately 50% reduction in CO <sub>2</sub> emissions from its railway business by fiscal 2030 (compared with fiscal 2013) and is implementing a variety of initiatives to reduce its environmental burden with a focus on the following measures.  1) Switch to energy-saving vehicles and optimize the number of vehicles 2) Switch to LED lighting in stations and vehicles, etc. 3) Switch to highly efficient power transformers Tobu Group also continues to work to reduce CO <sub>2</sub> and its reliance on fossil fuels through means such as utilizing renewable energy from solar power plants it owns.
	Increased energy and resource prices	Increased material procurement costs due to increased resource prices	0		Possibility of energy and material procurement costs increasing due to strengthened decarbonization regulations	Med.	Small		•	As a corporation owning large amounts of infrastructure, Tobu Group is promoting increased conservation of energy through means such as replacing vehicles and updating facilities. Together with this, Tobu Group is also optimizing and reviewing facilities with the aim of controlling procurement costs.  In fiscal 2021, we launched full-scale 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 trains. This is used to help optimize train schedules and is also utilized to save energy in train operation.  We are also introducing high efficiency vehicles. Our new model of limited express Spacia scheduled to be introduced in 2023 cuts CO <sub>2</sub> emissions by up to 40% compared to the current model. With regard to facilities, we are also planning on switching lighting at all of our stations to LEDs.  Alongside the above, we have installed solar panels at five transformer substations and utilize renewable energy as auxiliary power.
	Growth of next- generation technologies	Development and prevalence of clean energy technologies		0	Possibility of cost of introducing energy-saving vehicles and renewable energy facilities, etc. decreasing; and energy-related costs for railway operation, etc. decreasing thanks to the development and prevalence of clean energy and energy-saving technologies	Large	Small	•	•	
		Development and prevalence of automated train operation technologies		0	Possibility of increased operational efficiency thanks to technology evolving and the development and prevalence of automated train operation technologies in a sustainable society	Med.	Small		•	We are planning to start verifying the implementation of automated operation with attendants (GoA3) on the Tobu Daishi Line from fiscal 2023.
		Increased demand for public transportation thanks to the prevalence of MaaS		0	Possibility of the realization of seamless transport services and increased demand for railways and other public transportation thanks to the prevalence of MaaS	Med.	Small	•	•	In October 2021, Tobu Group launched Japan's first eco-friendly MaaS for tourism, "NIKKO MaaS" service in the Nikko area of Tochigi Prefecture. NIKKO MaaS aims to ease traffic congestion in the Nikko area by encouraging visitors to switch from their own cars to trains when visiting the Nikko area, as well as to become a leading model for a decarbonized society by promoting the use of the latest EV cars and the installation of RE100 chargers.  Tobu Group will continue to perceive MaaS and other changes in mobility as opportunities. Tobu Group will promote the transition to a decarbonized society and the revitalization of communities through means such as the stimulation of area tourism, meeting needs that are growing ever more diverse and sophisticated.
	Improved/ worsened reputation	Worsened reputation due to delayed response to climate change	0		Possibility of response to climate change being judged insufficient and receiving criticism from customers and investors, etc.	Med.	Small			Tobu Group is positioning the Nikko-Kinugawa area as "International Eco Resort Nikko," and is aiming for zero $CO_2$
		Improved reputation thanks to innovative response to climate change		0	Possibility of environmental advantage being positively received and customers actively preferring railways as a means of public transportation  Possibility of evaluation from investors, etc. improving, accelerating inflow of funds from ESG investing	Med.	Small	•	•	emissions from its business in this area. As a specific initiative in this area, from April 2022, Tobu Group has replaced the equivalent amount of electricity needed for trains and station facilities in the area, as well as for express trains running from central Tokyo to the area, with electricity derived from renewable energy sources, thereby achieving net zero CO <sub>2</sub> emissions for railway transportation in the area.