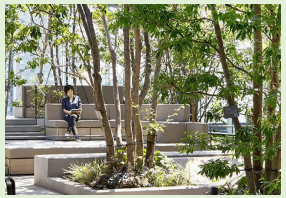
TNFD Report

- Contributions to Nature Positive by the Tokyu Fudosan Holdings Group -

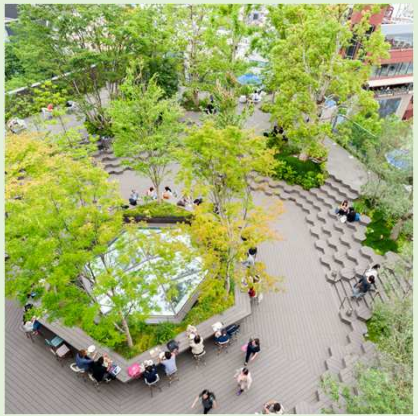
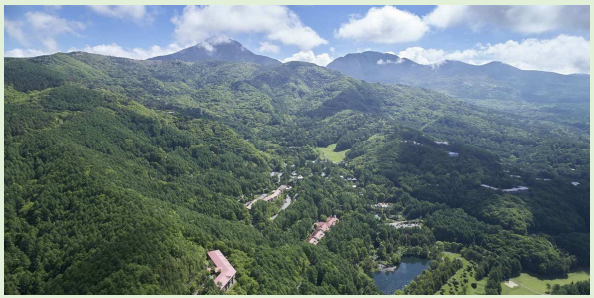
（3rd edition）　July 31, 2024

TOKYU FUDOSAN HOLDINGS








INTRODUCTION

Introduction -Nature Positive as a Global Goal-

Amid increasing international recognition of how important it is to halt and recover natural loss (See *1), at the 15th Meeting of the Conference of the Parties to the UN Convention on Biological Diversity (COP15) that convened in December 2022, the “Kunming-Montreal Global Biodiversity Framework” (GBF) was adopted as the first international targets for biodiversity since the Aichi Biodiversity Targets of 2010.

Under the GBF, based on the **2050 vision of “Living in harmony with nature,”** the mission of **striving for “nature positive”*2** as defined by “taking urgent action to halt and reverse biodiversity loss to put nature on a path to recovery” **by the year 2030** was set forth along with 23 concrete targets. Those targets include the assessment and disclosure of risks, dependencies and impacts on biodiversity by corporations in their operations in order to reduce negative impact on biodiversity and expand positive impact.

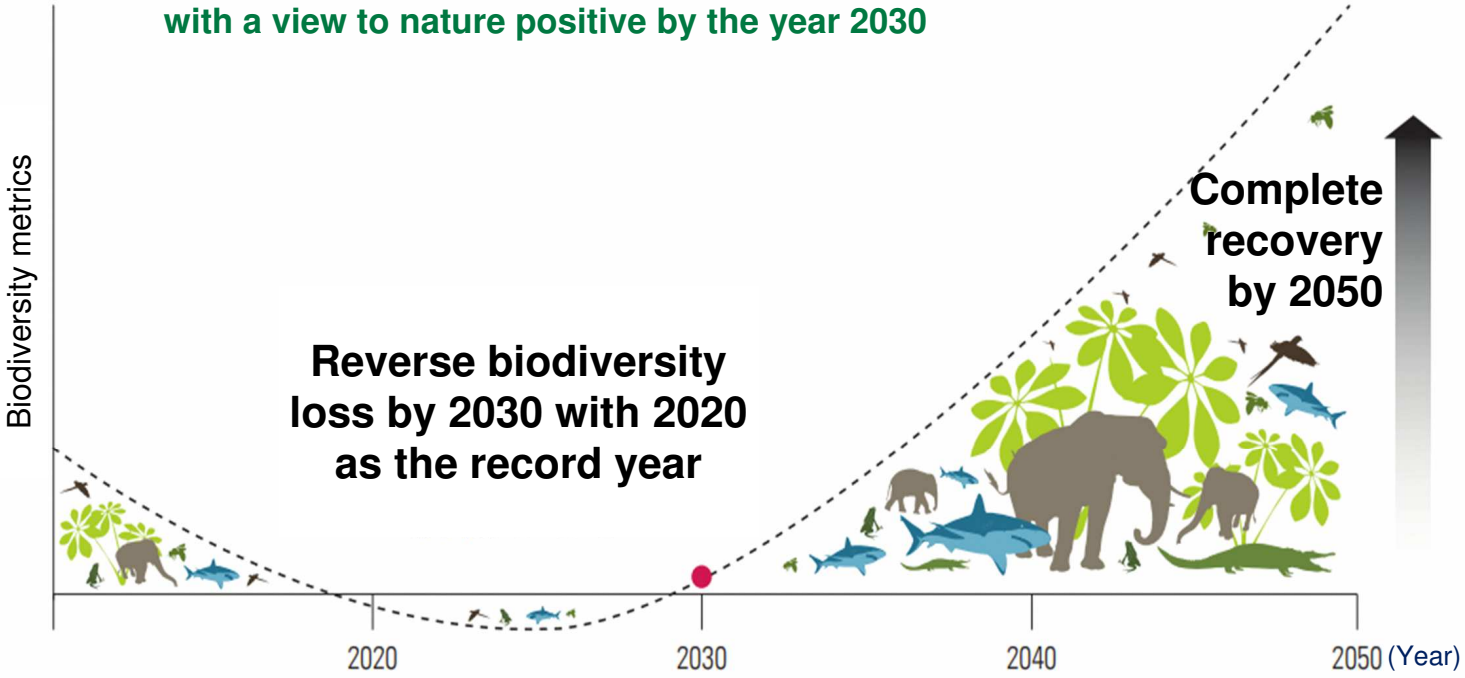
Based on this, we identify nature-related issues related to our business and our contribution to nature positive.

***1: Excerpt from World Economic Forum** (References 1)

Ranking of severity of risks in the next decade	
1	Extreme weather events
2	Critical change to Earth systems
3	**Biodiversity loss and ecosystem collapse**
4	**Natural resource shortages**
5	Misinformation and disinformation
6	Adverse outcomes of AI technologies
7	Involuntary migration
8	Cyber insecurity
9	Societal polarization
10	Pollution

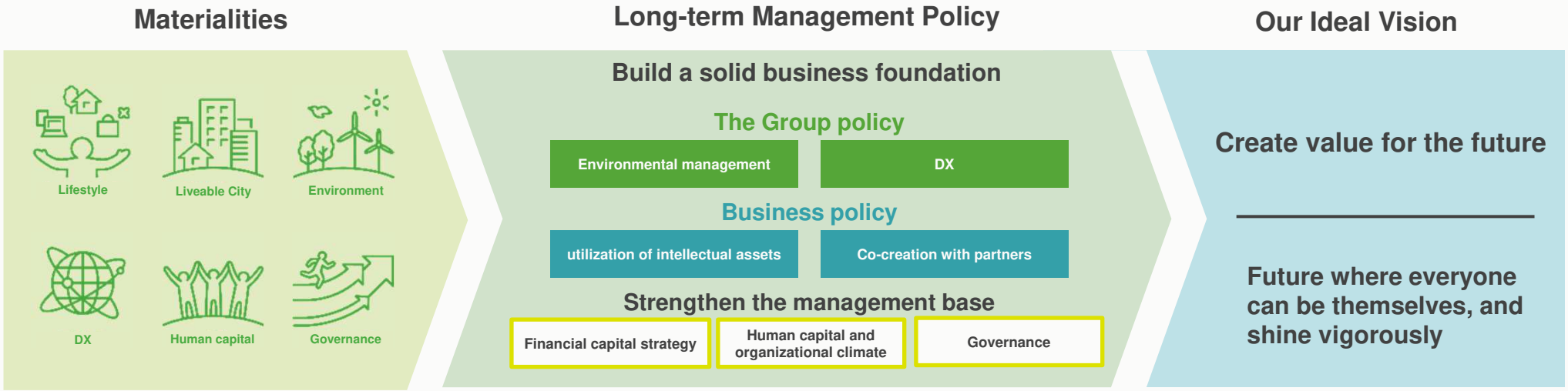
***2: Measurable global goals for nature with a view to nature positive by the year 2030**

Source: WWF



Environmental Management at Tokyu Fudosan Holdings and Positioning of TNFD Report

- The Group has established materialities based on social challenges and has set forth a long-term management policy with environmental management as one of its group policies. We will promote this long-term management policy and realize our ideal vision.



- In our long-term vision and our Medium-Term Management Plan 2025, having positioned environmental management as a group policy, we will strive to expand business opportunities with the environment as the starting point through our efforts in tackling the priority challenges of a **Decarbonized society, Recycling-based society, and Biodiversity**. With regard to biodiversity in particular, having adopted the goal of contributing to nature positive based on regional characteristics, we currently developing, operating and managing real estate with the objectives of promoting people-and nature-conscious greening that connects the green dotting the cities in urban areas and coexisting with ecosystem services in countryside areas.
- This TNFD Report (“Report” below) discloses dependencies, impacts, risks and opportunities pertaining to the natural capital of the Group using the “Recommendations of the Taskforce on Nature-related Financial Disclosures” by the Taskforce on Nature-related Financial Disclosures (“TNFD” below) as a reference. Note that the Company, working with **MS&AD InterRisk Research & Consulting, Inc.** and **Think Nature Inc.**, has examined, analyzed and organized nature-related information within the Group’s businesses.

Architecture of the TNFD Disclosure Framework

The TNFD Framework consists of **14 disclosure recommendations organized into four pillars** and **six "general requirements,"** which are basic concepts that apply across the four pillars, and recommends disclosure on these items.

Overview of TNFD Disclosure Framework

General requirements	
1. Application of materiality	4. Integration with other sustainability-related disclosures
2. Scope of disclosures	5. The time horizons considered
3. Location of nature-related issues	6. Engagement with Indigenous Peoples, Local Communities and affected stakeholders

Governance	Strategy	Risk & impact management	Metrics & targets
Disclose the organisation's governance of nature-related dependencies, impacts, risks and opportunities.	Disclose the effects of nature-related dependencies, impacts, risks and opportunities on the organisation's business model, strategy and financial planning where such information is material.	Describe the processes used by the organisation to identify, assess, prioritise and monitor nature-related dependencies, impacts, risks and opportunities.	Disclose the metrics and targets used to assess and manage material nature-related dependencies, impacts, risks and opportunities.
A) Board Oversight of Nature-Related Dependencies, Impacts, Risks, and Opportunities B) Management's role in assessing and managing nature-related dependencies/impacts, risks, and opportunities C) Stakeholder engagement in assessing and responding to nature-related dependencies/impacts, risks, and opportunities	A) Identified nature-related dependencies/impacts, risks, and opportunities B) Effects of dependencies/impacts, risks/opportunities on strategy and financial planning C) Resilience of the strategy to risks/opportunities based on scenarios D) Locations of assets and activities that meet criteria for priority areas	A) Processes for identifying, assessing, and prioritizing dependencies, impacts, risks, and opportunities in the direct operations/upstream and downstream value chains B) Process for managing dependencies, impacts, risks, and opportunities C) Processes for identifying, assessing, and managing nature-related risks integrated into enterprise-wide risk management	A) Metrics used to assess and manage material nature-related risks/opportunities B) Metrics used to assess and manage dependencies/impacts C) Targets used to manage nature-related dependencies/impacts and risks/opportunities and the performance against these.

TNFD Framework and LEAP Approach

The table below summarizes which of the 14 disclosure recommendations shown on the previous page corresponds to each of the LEAP phases of the TNFD. In this report, the results of our review with reference to the LEAP approach are disclosed in accordance with the General Requirements and the TNFD Disclosure Recommendations. **The corresponding disclosure pillar and each phase of the LEAP are indicated by icons in the upper right-hand corner of each slide.**

Overview of the LEAP Approach and its relationship to disclosure recommendations

Locate The interface with nature	Evaluate Dependencies & impacts	Assess Risks & opportunities	Prepare To respond & report
L1 Span of the business model and value chain	E1 Identification of environmental assets, ecosystem services and impact drivers	A1 Risk and opportunity identification	P1 Strategy and resource allocation plans
L2 Dependency and impact screening	E2 Identification of dependencies and impacts	A2 Adjustment of existing risk mitigation and risk and opportunity management	P2 Target setting and performance management
L3 Interface with nature	E3 Dependency and impact measurement	A3 Risk and opportunity measurement and prioritisation	P3 Reporting
L4 Interface with sensitive locations	E4 Impact materiality assessment	A4 Risk and opportunity materiality assessment	P4 Presentation
● Screening of areas in the value chain where dependencies and impacts on nature are important ● Identification of ecosystems with which the company's sites and other locations in the value chain with significant dependencies/impacts have contact ● Identification of ecologically sensitive areas	● Identification of the ecosystem services on which the business depends and the impacts it is having at each location in the value chain ● Assessment of the degree of significant dependencies/impacts using a variety of indicators	● Identification and materiality assessment of nature-related risks/opportunities based on dependencies/impacts ● Identification of high priority risks/opportunities ● Review of risk and opportunity management processes	● Consideration of response strategies to be taken based on what has been evaluated ● Consideration of targets ● Consideration of content of disclosure
Disclosure recommendations corresponding to LEAP			
● Strategy D)	● Strategy A) D) ● Risk & Impact management A) B) ● Metrics & targets B)	● Strategy A) C) D) ● Risk & Impact management A) B) C) ● Metrics & targets A) B)	● Governance A) B) C) ● Strategy B) C) ● Metrics & targets C)

NEW

[Summary] Changes and Additions in This Report: Disclosure Concerning Resort Facilities, Among Others.

In this report, a **detailed evaluation of dependencies and impacts** was conducted on the **"Tokyu Resort Town Tateshina," which represents 13 areas, including resort facilities,** among **previously specified priority locations,** using a **LEAP analysis that considers location characteristics**.

NEW Newly added pages in this report are on the top left

Previous investigations and disclosures

Understanding the overview of dependencies and impacts of all businesses

An overview of the dependencies and impacts of all businesses was determined, considering tools such as ENCORE (see glossary).

Selection of priority locations

An analysis of indicators associated with nature integrity and importance, as well as water stress on the locations of properties owned and operated by our group, was conducted with the " **Greater Shibuya area** (*)" and "**13 areas such as the resort facilities that are represented by 'Tokyu Resort Town Tateshina'**" ("**13 areas (e.g., resort facilities)**") as priority locations.

LEAP analysis with focus on Greater Shibuya area

A detailed investigation of the dependencies, impacts, risks, and opportunities of the priority location "Greater Shibuya area" was conducted according to the LEAP approach presented in TNFD, based on the location's characteristics.

Main additions

LEAP analysis with focus on Tokyu Resort Town Tateshina

Of the 13 priority locations for resort facilities, **Tokyu Resort Town Tateshina was selected** as a **large-scale and core resort facility that includes a hotel, golf courses, ski areas, and vacation homes** and a **representative location that is highly important in terms of our group's business and its dependencies and impacts on nature.** The dependencies, impacts, risks, and opportunities were investigated using the LEAP approach.

(*) Greater Shibuya area refers to the area within a 2.5-km radius of Shibuya Station, as defined in the Tokyu Group's Shibuya Urban Development Strategy.

[Summary] TNFD Framework and Main Information Disclosed

As the Group's businesses are founded on the premise of depending on and impacting nature in a variety of aspects, over time, the Group has continuously implemented initiatives to limit its negative impact on and exert a positive impact on nature.

In preparing this report, we followed the four pillars of the TNFD Recommended Disclosure as well as conducted examinations for each pillar in line with the **LEAP** approach provided by the TNFD,

TNFD Recommended Disclosure	TNFD Recommended Items for Disclosure	Information disclosed recently (TNDF disclosure at the Company)
Governance	● **Governance structure** for nature-related dependencies, impacts, risks and opportunities that includes oversight structure for Board of Directors, and roles of management ● Stakeholder Engagement	● Governance structure for the Company's nature-related issues ● Human rights policy and stakeholder engagement
Strategy	● **Identified nature-related dependencies/impacts and risks/opportunities** ● Effects of risks and opportunities on businesses, strategy and financial plans ● Resilience of strategy with scenarios taken into consideration ● **Priority locations in organization**	● **Overview of nature-related dependencies and impacts in Group overall** ● **Priority locations at sites directly operated by the Company** ● **Nature-related dependencies/impacts and risks/opportunities with focus on priority locations below :** **1. "Greater Shibuya area"** **2. "Tokyu Resort Town Tateshina," which represents 13 areas, including resort facilities (hereinafter called "Tokyu Resort Town Tateshina,")** ● Nature-related risks and opportunities envisioned at current point in time, including those in other businesses
Risk & Impact Management	● **Process for identifying, evaluating and managing** nature-related dependencies, impacts, risks and opportunities and actions taken in light of management process ● Integration of above process with group risk management process	● Relationship between process of Group identifying, evaluating and managing nature-related dependencies, impacts, risks and opportunities and group-wide risk management
Metrics & targets	**Measured metrics and targets** for evaluating and managing nature-related dependencies, impacts, risks and opportunities and **performance relative to targets**	● Metrics and targets of Group

[Summary] Overview of Dependencies and Impact on Nature and Setting of Priority Locations

STEP 1) Assess dependencies/impacts on nature for Group overall

Based on tools such as ENCORE (see Glossary), we reviewed an overview of dependencies and impacts in our entire business.

Segment	Business activities	Sales volume	Value chain	Impacts on nature								Dependencies on nature					
				Terrestrial ecosystem use	Freshwater/ Marine ecosystem use	Resource use: Water	Resource use: Other resources	GHG emissions	Pollutant	Waste	Other	Provisioning services: Water resources	Provisioning services: Other resources	Regulating and maintenance services: Alleviation of impacts	Regulating and maintenance services: Climate regulation	Regulating and maintenance services: Other	Cultural services
Urban development	Offices and commercial facilities/condominiums and rental housing, etc.		Building and development	VH			M	H	M	H	H		M	L			
			Operation	VH		H		H		H		H		L	L		H
Strategic investment	Renewable energy facilities (Solar power/wind power/biomass)		Building and development	VH			M	H	M	H	H		M	L			
			Fuel production	H				H	H			VH					
			Operation	VH		H	H	H	H	H	M	M	VH	L	VH		
	Logistics facilities		Building and development	VH			M	H	M	H	H		M	L			
			Operation	VH				H		H	H			L	L		M
Property management and operation	Condominium management Environment and greening management		Management, renovation and construction	VH							H						
	Hotel, golf course, ski resort, etc.		Building and development	VH	VH		M	H	M	H	H		M	L			
			Production of ingredients, etc.	VH	VH	VH		H	H			VH	VH	VH	VH	VH	
			Operation	VH	VH	H	M	H		H	H	H	M	L	M	H	VH
	Healthcare, etc.		Building and development	VH			M	H	M	H	H		M	L			
			Operation and use	VH		H		H		H		H		L	L		H

Impacts

Land modification/occupation, etc. upon real estate development and operation
Terrestrial ecosystem use

Dependencies

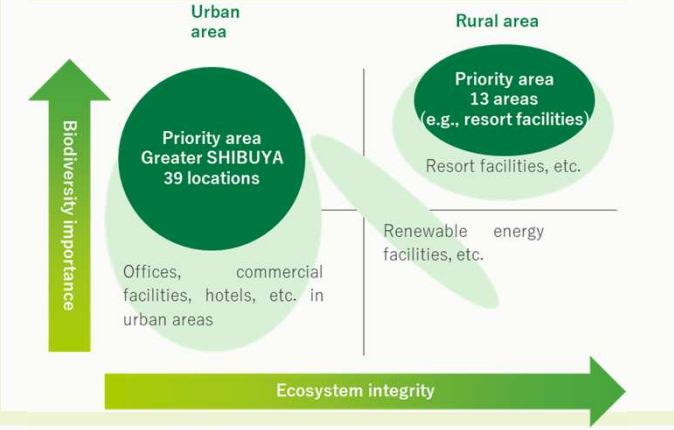
Supply services for resources, etc.
and **cultural services** for nature-based comfort, landscapes, etc.

+

Business scale (Sales volume)

STEP 2) Analyze importance at addresses of each property

We analyzed various metrics regarding the intactness and biodiversity importance and water stress as they pertain to the addresses of properties held and operated by the Group. Then we selected the "Greater Shibuya area" and "13 areas including resort facilities" as our priority locations.



Conduct detailed analysis at the locations below:

1.Greater Shibuya area
(Disclosed in FY2023)

2.Tokyu Resort Town Tateshina
(Disclosed in FY2024)

[Summary] Contributed to Nature Positive in our Urban Development Business in the Greater Shibuya Area

LEAP
L E A P

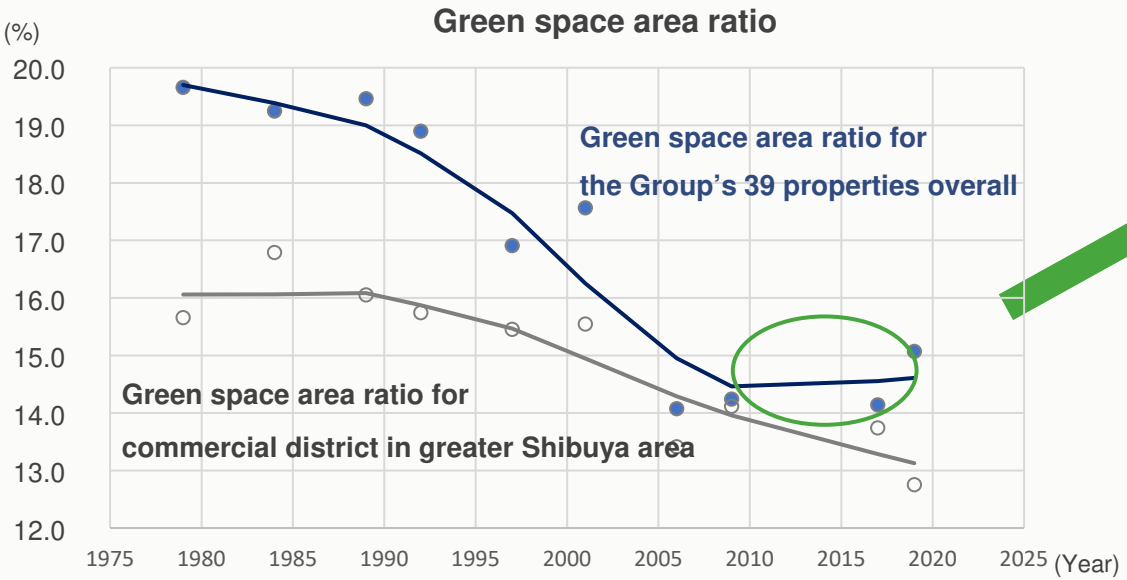
Dependencies and impacts of Greater Shibuya area

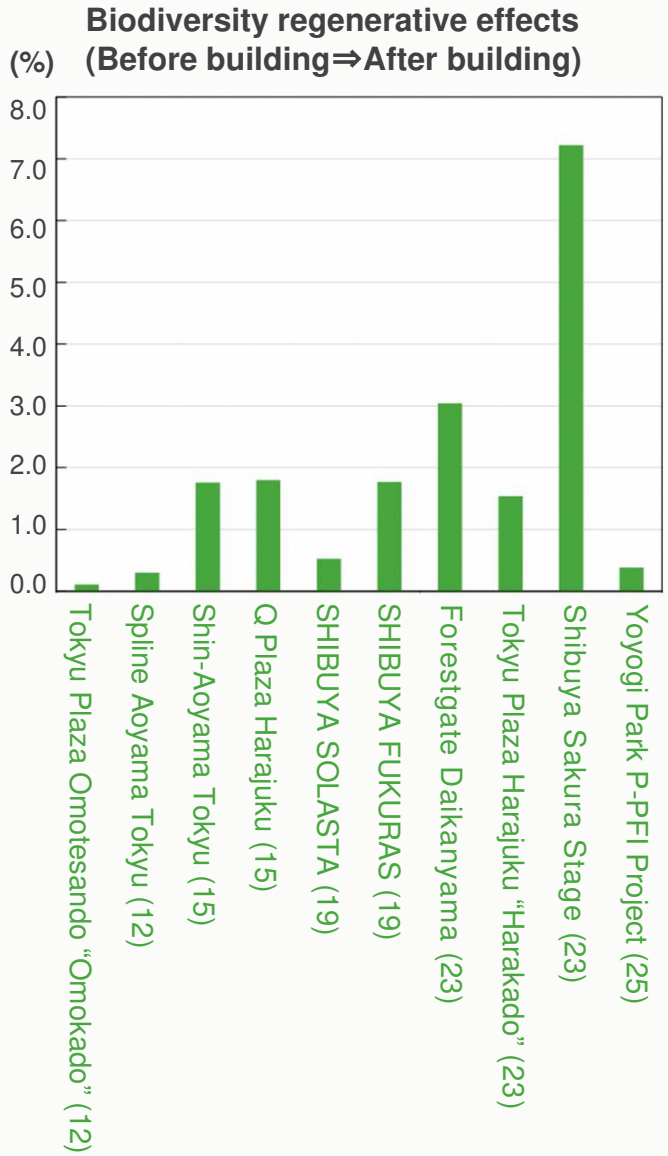
Our businesses in "Greater Shibuya area", one of the priority locations, has various impacts, such as land alteration and occupation, as well as dependencies on nature, such as mitigation of flooding and heat island effects, and the healing and aesthetic aspects of nature.

Of these, the impacts of land use and building greening on nature were quantitatively analyzed using the analysis tools of Think Nature Inc.

As a result of performing quantitative analysis using Think Nature's analysis tools, we found that **biodiversity regenerative effects before and after the building of Group properties in the greater Shibuya area turned positive starting with properties from FY2012 and beyond**. At properties completed in recent years, initiatives aimed at ensuring the quantity and quality of greening, such as securing green space area largely through urban redevelopment systems and selecting native species of trees for planting, have shown positive effects, and the community planning efforts of the Group have been recognized as **contributing to nature positive.**

In particular, the quantity and quality of greening at target properties under our Redevelopment Business have been trending highly relative to facilities up to this point. Going forward, we will continue to promote the planning of communities that coexist with nature.





*Year in parentheses is the year of completion

NEW

LEAP

L E A P

[Summary] Contributions to Nature Positive in Tokyu Resort Town Tateshina

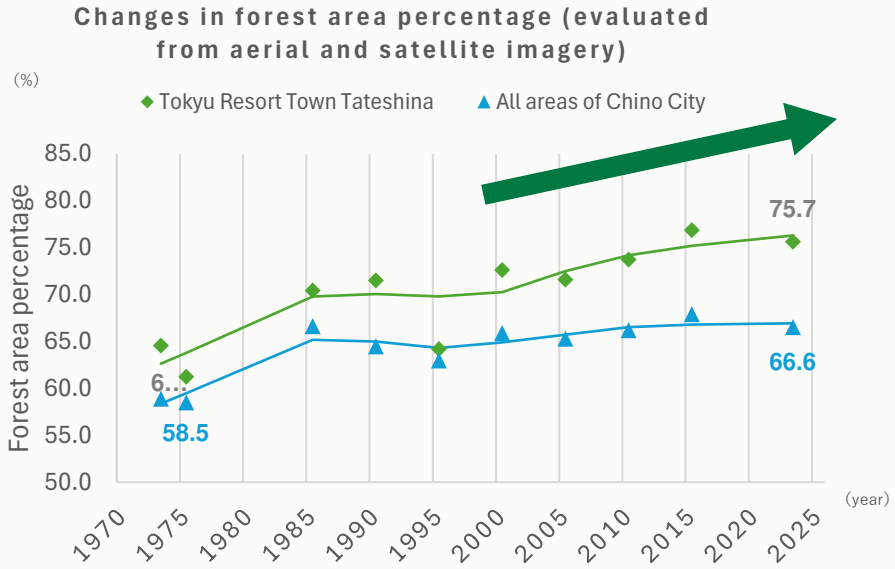
Dependencies and impacts in Tokyu Resort Town Tateshina

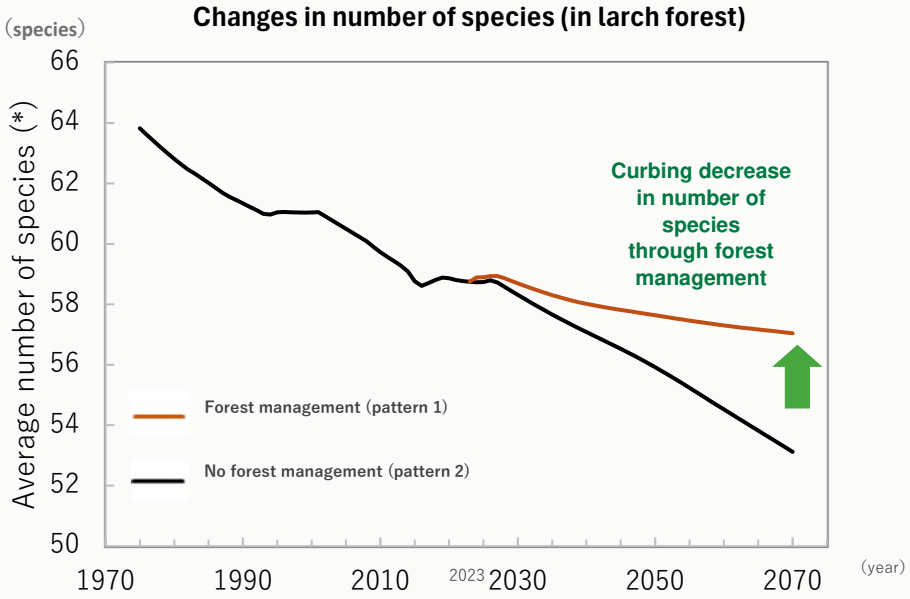
Our businesses at “Tokyu Resort Town Tateshina”, analyzed as a priority location, has various dependencies on nature, such as tourism resources, recreational functions, climate control, and disaster mitigation. Despite the potential negative impacts, such as land alteration and occupation, through the value chain, there are positive impacts through initiatives such as forest management. Focusing on one of these important impacts, that is, land alteration and occupation through facility development and operation, this impact was measured as an indicator via **quantitative evaluation of the changes in forest area percentage since development initiation in collaboration with Think Nature Inc**..

Analysis of forest area from aerial and satellite images showed that, although the forest area has declined due to the construction of golf courses and vacation homes, **the overall trend is toward recovery**, and that the **current status is that the area is in its most recovered state**, as well as the fact that the business operations, which have simultaneously maintained and recovered forests, are **contributing to nature positive as a result of our group's resort development and operations** (upper right figure).

Additionally, "Tokyu Resort Town Tateshina" is engaged in **forest management, such as thinning based on a forest management plan**. Currently, given the advanced age of the trees that constitute the forests, going forward, thinning will be continued while considering forest management that includes a partial clear-cutting of aged larch forests and replanting.

Even when conducting a quantitative evaluation on the potential impacts of forest management on biodiversity and conducting a "management method of clear-cutting and reforesting two hectares a year," **the decline in the number of species in the forest was greatly suppressed** compared with the case of not conducting forest management and leaving the process to natural transitions (lower right figure). These results will be used as a reference to continue promoting efforts to preserve biodiversity with appropriate forest management.





[Summary] Risks and Opportunities／Joint Endeavors with Supply Chain／Looking towards the Future

LEAP
L E A P

Nature-related risks and opportunities based on dependencies and impacts

Based on the dependency/impact analysis, we have summarized the nature-related physical and transition risks and opportunities that we currently consider to be particularly important for our business. We found that while various nature-related risks are expected, we also expect to capture many business opportunities.

Initiatives geared towards risks, opportunities and impacts in supply chain

In the business of real estate that the Group is involved in, given the process between development and operation spans a long period of time and that numerous parties have involvement in that process, we believe that it is necessary to work together with our stakeholders to tackle nature-related issues in our entire supply chain.

● Sustainable Procurement Policy

To complement “combatting climate change,” “biodiversity protection” as well as “compliance with and respect for international human rights and labor standards,” the Company has also set forth at “Sustainable Procurement Policy” that covers consideration towards the environment, and is promoting initiatives across its entire supply chain.

● Initiatives for zero forest destruction

With respect to plywood panels for concrete formwork used upon building, it may be pointed out that environmental destruction in the forest of origination, the usurping of land from indigenous people or something similar may be involved. In cooperation with construction companies, the Group has set a usage ratio of sustainability-minded lumber (FSC- or PEFC-certified lumber as well as domestically produced lumber, etc.) of 100% by FY2030.

Concrete initiatives by the Company aimed at nature-related impacts, etc.

Item	Initiatives
Urban Development Business	Community planning, greening technology, planting management, etc.
Hotel and Leisure Business	Forest management, protection of rare species, etc.
Other	Invasive alien species countermeasures, contamination and waste reduction, resource circulation, water usage reduction, etc.

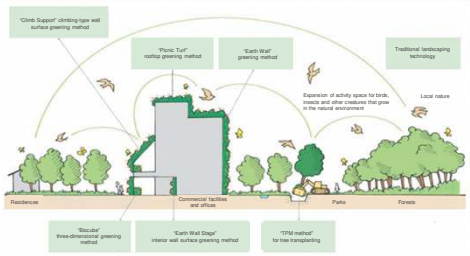


Image representation of building greening

Looking towards the future

We intend on performing more detailed analysis of dependencies, impacts, risks and opportunities. Especially, based on a scenario analysis approach, we will further deepen analysis of the importance of risks and opportunities and the impacts on the businesses and finances of the Group as well as examine the ideal form of nature-related metrics and targets based on international trends as we move forward.

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INTRODUCTION

Nature-Related Information Disclosure in line with TNFD

Nature-Related Information Disclosure in line with TNFD

General Requirement

General Requirement (1)

The TNFD presents six "general requirements" that should be applied across the disclosure, and recommends that companies clarify their position on these items and apply them across the disclosure. Our basic position on each of the General Requirements is described below.

1. Application of materiality

To formulate the **Long-term Management Policy**, the Group identified materialities based on their **importance to the Group's management and to its stakeholders.** One of these is "Create a Sustainable Environment," which includes nature-related themes, and this report discloses information focusing on nature-related issues.

Regarding dependencies and impacts on nature, we explain what is considered material from the perspective of the Group's management and stakeholders. Risks and opportunities are described in terms of what is considered important from the perspective of the impact on the Group's management.

2. Scope of disclosures

In this disclosure, we provide an overview of dependencies and impacts on nature, risks and opportunities for **all business areas and major value chain stages**, as well as a review of priority locations for all locations where we directly own and operate properties. In the priority locations, the Greater Shibuya area and “Tokyu Resort Town Tateshina,” which represents 13 areas including resort facilities, we provide a more detailed explanation of dependencies, impacts, risks and opportunities based on our analysis of the area.

Among the items recommended for disclosure, scenario analysis is not included in this disclosure. We plan to deepen our consideration of risks and opportunities based on scenarios in the future.

3. Location of nature-related issues

We recognize that **nature-related issues vary from region to region.** Therefore, for the Greater Shibuya area and Tokyu Resort Town Tateshina, which we have identified as a region of particular priority in terms of nature-related issues for the Group, **we have examined dependencies, impacts, risks and opportunities based on the characteristics of the region and the nature involved**.

4. Integration with other sustainability-related disclosures

We recognize that **nature-related issues are closely related to various other sustainability issues such as climate change, human rights, and relationships with local communities**. For example, preservation of forests and urban greenery can lead to adaptation to the effects of climate change, such as the severity of disasters and the heat island effect, and to climate change mitigation through the absorption of greenhouse gases. Recognizing the relevance of these nature-related issues to other sustainability issues, we will consider how to understand nature-related issues and how to disclose them in an integrated manner.

5. The time horizons considered

In this disclosure, we examine dependencies, impacts, risks, and opportunities **over short- and medium- to long-term time horizons**. As we continue to expand and deepen our region-based analysis, we will further consider what time horizon should be set to appropriately capture the Group's nature-related issues.

6. Engagement with Indigenous Peoples, Local Communities and affected stakeholders

As explained in the "Governance" pillar, we have developed a human rights policy and have identified key human rights issues, including the rights of local communities, including indigenous peoples, and are working to prevent or mitigate human rights impacts by promoting the "Sustainable Procurement Policy" to suppliers. In addition, we strive to respect the human rights of stakeholders related to our business activities in new project candidates and existing operations, and **we engage with local stakeholders in our nature-related initiatives**.

Governance

Governance

Under “governance” by the TNFD, it is recommended that corporations explain oversight by the Board of Directors and the roles of management as they pertain to nature-related dependencies, impacts, risks and opportunities.

The nature-related governance framework at the Company is as follows.

Main roles of Organization

- The Group established the Sustainability Committee with the president & CEO (Chair) and operating officers as its members. This committee devises plans and verified results with respect to climate change and other material sustainability issues.
- The board of directors receives reports from the Sustainability Committee on material climate-related issues and the results of deliberations and oversees progress as well as conducts regular reviews.

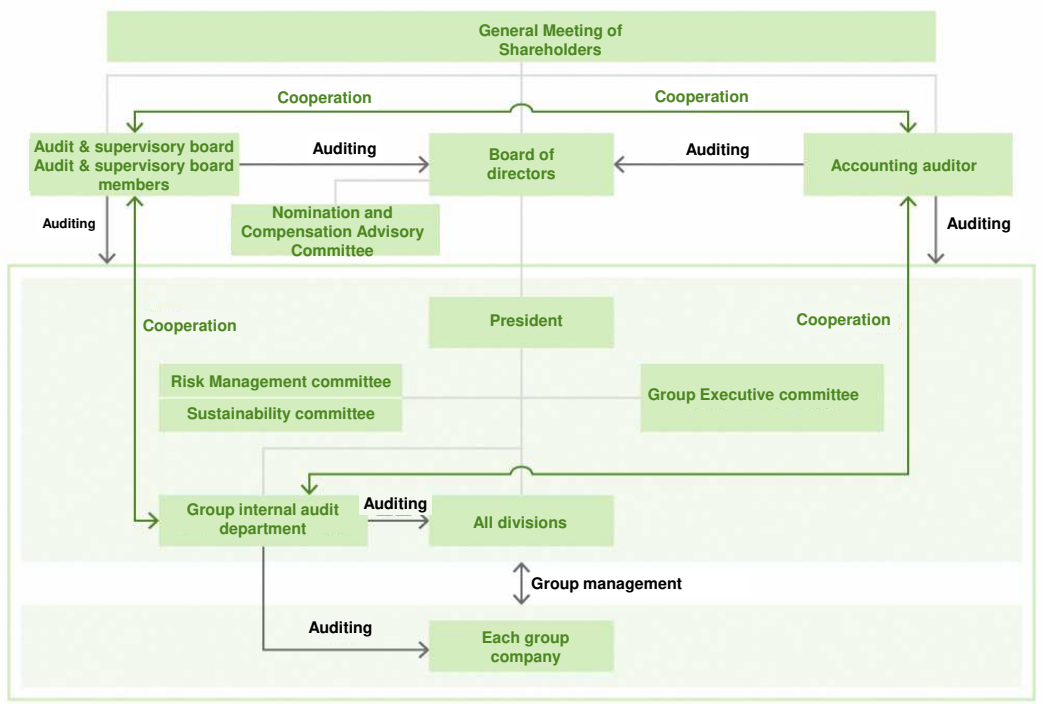
Having espoused “environmental management” as a group policy as part of its long-term management policy
the Company is carrying out environmental initiatives through its businesses with a “decarbonized society,” a “recycling-based society,” and “biodiversity” under its Medium-Term Management Plan.

Environmental Management

Decarbonized Society | **Recycling-based Society** | **Biodiversity**

Organizational Chart

- The Group executive committee and the Sustainability Committee work in tandem to formulae policies, targets (KPI) and action plans related to environmental management, with oversight provided by the board of directors.
- The monitoring of KPI progress and the management of results is conducted by the sustainability committee.



Human Rights and Stakeholder Engagement (1)

TNFD emphasizes the importance of effective and meaningful engagement with indigenous peoples, local communities, and affected stakeholders with a high connection to nature in assessing and managing nature-related dependencies, impacts, risks, and opportunities, and recommends that this be disclosed in the "Governance" aspect of our work. Below we present our engagement with local communities as it relates to our relationship with nature through our operations including the supply chain.

Respect of Human Rights

The Group recognizes that respecting the human rights of employees and all stakeholders involved in its businesses is an essential requirement of a company with global operations and an expectation placed in all companies. Then, we formulated the “Tokyu Fudosan Holdings Group Human Rights Policy”. It is based on this belief that we support the Universal Declaration of Human Rights and other international human rights doctrines and conduct with our suppliers to carry out business activities that fully respect human rights.

We have identified several key human rights issues, including the rights of local communities and indigenous peoples, and forced labor and child labor, including in the supply chain, and are working to establish a human rights due diligence mechanism and to prevent and mitigate human rights risks.

For potential new projects or existing operations, we continuously assess risks related to respect for human rights in accordance with our risk management process to ensure that we respect the human rights of stakeholders involved in the project itself or in our business activities in the community. In procurement, we have established a "Sustainable Procurement Policy" and require our suppliers to respect human rights, as well as promote the procurement of sustainable timber formwork.

Stakeholder Engagement

Because of the significant impact on local communities and stakeholders through its wide-ranging business operations, the Group believes it is necessary to work closely with a variety of stakeholders and promotes dialogue with its employees, local communities, business partners, customers, and other stakeholders. Specific examples of engagement are presented on the next page.

Human Rights and Stakeholder Engagement (2)

Engagement in urban area

In the Greater Shibuya area, Tokyu Land Corporation, as the secretariat of the Shibuya Area Management Council consisting of the public and private sectors, is engaged in rule-making and community development activities related to community development, including the formulation of local rules for outdoor advertising, disaster and crime prevention measures, information dissemination, and the creation of a lively atmosphere.

In particular, in terms of natural disasters, taking into account the unique characteristics of Shibuya Station, public and private sector stakeholders regularly conduct flooding drills at the underground plaza to guide customers to evacuate and confirm flood countermeasures in case of an emergency. In this way, we are creating a system and rules for peace of mind in the event of a natural disaster.

The company has also concluded a “Comprehensive Collaborative Agreement on Local Disaster Prevention in Shibuya Ward” with Shibuya Ward, and is working to improve the local disaster preparedness in Shibuya Ward. Shibuya Ward, which aims to create a disaster-resistant Shibuya community, and the company, which aims to create a sustainable and diverse community, are working together in a public-private partnership to realize their mutual goals and enhance the value of the Shibuya community.

Flooding drills as a countermeasure against heavy rain disasters

Rule-making in case of disaster (measures to help those who have difficulty going home)


“Comprehensive Collaborative Agreement on Local Disaster Prevention in Shibuya Ward (Shibuya Ward,Tokyo)

Engagement in countryside area

Tokyu Land Corporation, Tokyu Resorts & Stays Co., Ltd., Chino City, Nagano and the Suwa Regional Decarbonization Innovation Association entered into a comprehensive cooperation agreement intended to contribute to carbon-neutral community planning through the creation of a sustainable, circular and ecological decarbonized society (Regional Circular and Ecological Sphere), and are implementing associated efforts alongside location communities.

To build long-term relationships with local communities and work together to address local issues, Tokyu Land Corporation serves as the Representative Director and Chairman of The Association for Reciprocal Revitalization of Renewable Energy and Region (FOURE) and actively engages in dialogue by giving lectures at municipal councils, prefectural government-sponsored workshops, and other events.

“Comprehensive Collaborative Agreement on Regional Circular and Ecological Sphere(Chino City, Nagano)

Human Rights and Stakeholder Engagement (3)

Sustainable Procurement Policy

In the business of real estate that the Group is involved in, given the process between development and operation for residences, office buildings, commercial facilities, hotel and leisure facilities and so forth spans a long period of time and that numerous parties have involvement in that process, we believe that it is necessary to work together with our stakeholders (design and construction companies, customers, etc.) to tackle nature-related issues in our entire supply chain.

The Company has **set forth at "Sustainable Procurement Policy"** that covers consideration towards the environment in the form of "compliance with and respect for international human rights and labor standards," as well as "combatting climate change," "biodiversity protection," "effective use of resources," "proper water use" and "ensure appropriate use of forest resources," and is promoting i**nitiatives for biodiversity conservation across its entire supply chain**.

The following initiatives are cited in the "Sustainable Procurement Policy" with respect to the preservation of the natural environment.

- In material procurement and other business activities, reduce the impact on the surrounding natural environment, biodiversity, and ecosystems.
- Do not use raw materials derived from endangered species of animals and plants for which measures have not been taken to conserve resources and ensure reproduction.
- Work to use resources in business activities effectively.
- Support the conservation of forests with high biodiversity and preservation value, while also respecting the cultures, traditions and economies of communities that coexist with forests. Comply with relevant laws and regulations in logging countries and territories and strive to procure forest products produced in a sustainable manner, including recycled and certified wood.

Supply chain due diligence

For the building companies that constitute our suppliers, we set forth compliance with our Sustainable Procurement Policy as a condition upon placing orders for building work, and regularly carry out due diligence questionnaires to verify the situation at each of those companies. We aim to establish a responsible supply chain by cooperating with building companies to respond to issues when they are present. In FY2023, in addition to obtaining responses from 97 companies through our regular questionnaire survey, **we held individual meetings for two of those companies to remedy problematic areas, share leading cases**, and so forth.

Implementation of supplier engagement

Human Rights and Stakeholder Engagement (4)

Initiatives toward eliminating forest destruction

Many of the concrete formwork plywood panels used in construction are made from tropical timber, which may be produced due to the environmental destruction of native forests and land confiscation from indigenous peoples. Our group has collaborated with construction companies that are the primary suppliers and set the target of achieving a **use rate of sustainable timber (FSC and PEFC-certified timber, domestic timber)** among **raw materials for concrete formwork plywood used in building construction** of **100% by 2030**. The following types of initiatives were advanced to that end:

[Examples in residences]

- In FY2022, PEFC-certified materials were used for formwork plywood in the construction project of one condominium building (Brands Chiyoda Fujimi). The origin and legality are also confirmed to the extent possible for non-certified wood products used in interior materials and other parts. Additionally, in June 2023, construction began on "COMFORIA Shibaura 4-chome (tentative name)". This was planned as a wooden hybrid structure building that incorporates formwork wood and sustainable wood (domestic or PEFC-certified material) in the RC structure.
- Tokyu Re-Design is participating in the Carbon Neutral Solid Wood Group and collecting information on wood products used in residences.

[Examples in office buildings and commercial facilities]

- COERU SHIBUYA (completed June 2022), located in Greater Shibuya area, used SGEC-certified Nagano Prefecture-based larch wood as a wood hybrid fire-resistant laminated lumber; legal wood from Finland was used for wood-steel kumiko panels (earthquake-resistance braces).
- The TENOHA building in Forestgate Daikanyama is an activity hub that collaborates with businesses and governments engaged in circular economy activities and connect regions and cities. Consistent with its status as an activity hub, the building uses structural materials made from thinned wood from Nishiawakura Village, Okayama Prefecture, which is a forest under the Group's conservation program. (see "Other initiatives: Resource circulation" for details).


Brands Chiyoda Fujimi


COMFORIA Shibaura 4-chome (tentative name)


COERU SHIBUYA


TENOHA DAIKANYAMA

Revisions to Biodiversity Policy

In 2011, the year after the COP10 in 2010, the Group **formulated its Biodiversity Policy**.

In addition to promoting the planning of communities that coexist with nature, we endorsed the 30 by 30 initiative by the Ministry of the Environment in March 2022, joined the TNFD Forum in June 2023, and otherwise set our sights on **domestic and international social and policy trends and frameworks** that include the “Kunming-Montreal Global Biodiversity Framework” (GBF); the National Biodiversity Strategy, the Machizukuri (Urban Development) GX Strategy and guidelines by the Japanese government, and so forth. Based on **the Group’s history of environmental consideration and coexistence with nature up to this point,** we took this examination based on TNFD disclosure as an opportunity to revise the Group’s Biodiversity Policy in the following manner. Based on this, we will promote initiatives aimed at biodiversity going forward.

Biodiversity Policy (Summary)

<Commitment>

While respecting international goals that seek to realize “Living in harmony with nature” and “nature positive” as set forth in the “Kunming-Montreal Global Biodiversity Framework” (GBF), working together with our stakeholders, we will promote initiatives to circumvent and minimize our negative impact on biodiversity and expand our positive impact on biodiversity.

- Assessing the dependencies and impacts on biodiversity through our businesses, reducing/preventing negative impact on nature and extracting positive impact on nature
- Assessing ecosystems in local communities under the development, operation and management of real estate, circumventing and minimizing loss, and promoting land utilization that achieves harmony with the conservation and regeneration of biodiversity and the improvement of people’s comfort and resilience
- Promoting the preservation of ecosystems based on the GBF target of preserving 30% of land and sea areas
- Improving resource utilization efficiency based on sustainable resource procurement conscious of the environment and human rights and a circular economy approach
- Proactive engagement with stakeholders
- Education end enlightenment activities aimed at improving literacy regarding biodiversity and ecosystem services for various stakeholders as a whole

Strategy

Strategy Framework

Under “strategy” by the TNFD, it is recommended that corporations explain the nature-related dependencies, impacts, risks and opportunities that they identified, the effects those exert on companies’ businesses, strategies and financial plans, the resilience of strategies based on scenarios, and priority locations for business activities and value chain.

In the Report, the below information is examined as it pertains to the Group’s business, with an accompanying explanation given between pp. 26-63.

The impact of nature-related risks and opportunities on the Group’s business and finances will be further examined, taking into account the concept of scenario analysis.

Recommended disclosures for “Strategy”	Information examined for this report	Pages featured on
Explanation of dependencies and impacts on nature	Group overall: Overview of dependencies and impacts on nature	p.27
	Quantitative and qualitative examination of dependencies and impacts in line with LEAP Approach	
	Greater Shibuya area (priority location)	pp.32-41
	Tokyu Resort Town Tateshina (priority location)	pp.45-58
Explanation of nature-related risks and opportunities and their impacts on businesses, strategy, etc.	Group overall: Identification of envisioned risks and opportunities based on dependencies and impacts on nature	p.63
	Identification of risks and opportunities based on examination of dependencies and impacts	
	Greater Shibuya area (priority location)	pp.42-43
	Tokyu Resort Town Tateshina (priority location)	pp.59-61
Explanation of priority locations	Examination of priority locations from standpoint of nature at addresses of properties held and operated	pp.28-29

Appearance of Dependencies and Impacts on Nature in Group Overall

Using TNFD classification as a reference, we examined a summary of the nature of dependencies and impacts according to business and value chain steps and their qualitative importance. Additionally, using the sector-specific ratings in the tools ENCORE, which was developed by the UN Environment Programme (UNEP), and SBT for Nature as a reference[*1], we sorted out the importance of dependencies and impacts according to four steps between Very High and Low. The results of that analysis are as follows.[*2]

Impacts

- "Terrestrial ecosystem utilization" was especially high from aspects such as land modification/occupation, etc. upon real estate development and operation.
- The likes of water use and the introduction of alien species was also high at the stages of GHG emissions, waste emissions and operation.

Dependencies

- In addition to supply services for the likes of water resources and building materials upon operation, cultural services such as landscape improvement and comfort were also high.
- At hotel and leisure facilities, the likes of water supply, pollinator and climate regulation were high at the production stage for ingredients, etc. at the upstream of the value chain.

VH Very High（とても高い） H High（高い） M Medium（中程度） L Low（低い）

Segment	Business activities	Sales volume	Value chain	Impacts on nature							Dependencies on nature					
				Terrestrial ecosystem use	Freshwater/ marin ecosystem use	Resource use: Water	Resource use: Other resources	GHG emissions	Contamination	Waste	Other	Provisioning services: Water resources	Provisioning services: Other resources	Regulating and maintenanceservices: Alleviation of impacts	Regulating and maintenanceservices: Climate regulation	Regulating and maintenanceservices: Other	Cultural services
Urban development	Offices and commercial facilities/condominiums and rental housing, etc.		Building and development	VH			M	H	M	H	H		M	L			
			Operation	VH		H		H		H		H		L	L		H
Strategic investment	Renewable energy facilities (Solar power/wind power/ biomass)		Building and development	VH			M	H	M	H	H		M	L			
			Fuel production	H				H	H			VH					
			Operation	VH		H	H	H	H	H	M	M	VH	L	VH		
	Logistics facilities		Building and development	VH			M	H	M	H	H		M	L			
			Operation	VH				H		H	H			L	L		M
Property management and operation	Condominium management Environment and greening management		Management, renovation and construction	VH							H						
	Hotel, golf course, ski resort, etc.		Building and development	VH	VH		M	H	M	H	H		M	L			
			Production of ingredients, etc.	VH	VH	VH		H	H			VH	VH	VH	VH	VH	
			Operation	VH	VH	H	M	H		H	H	H	M	L	M	H	VH
	Healthcare, etc.		Building and development	VH			M	H	M	H	H		M	L			
			Operation and use	VH		H		H		H		H		L	L		H

*1: For ratings at the stage of building and development under all businesses and at the stage of operation for properties other than the Renewable Energy and Hotel and Leisure Businesses, we examined importance while making supplements and adjustments as necessary based on "real estate" in each tool.
For ratings at the stage of operation under the Renewable Energy Business, we used "renewable energy" in each tool as the basis. For ratings at the stage of operation of leisure facilities, we used "hotels, resorts and cruises" in each tool as the basis. For ratings at the stage of production of biomass fuel, ingredients, etc., we used subindustries under "forest products" and "agriculture" in each tool as the basis.
*2: With regards to the segment "Real Estate Agents," given that the importance of dependence and impacts at the stage of direct operation is not high and that indirect dependencies and impacts are similar to other real estate businesses, said segment has been omitted from this table.

Evaluation of Priority Locations based on Address of Group Properties (1)

As the importance of the relationship with nature at the development to operation stages at Group properties is believed to particularly high within the value chain, we evaluated priority locations for properties at 267 main sites under the Urban Development business and Property Management & Operation Business (offices/commercial facilities, hotels, leisure facilities, renewable energy facilities, etc./March 2024) based on the address of the properties. The priority locations were selected based on the indicators in the table below, which refer to the TNFD's perspective of ecologically sensitive locations, as well as the importance of the company in terms of dependency, impact, risk and opportunity.

Metrics and information used for location prioritization

Evaluation perspectives In the TNFD Framework	Metrics referred to
Ecosystem integrity[*1]	Evaluated according to how high the Biodiversity Intactness Index[*2] is
Biodiversity importance	Evaluated with the below metrics taken into total consideration Status of proximity of protected regions with Key Biodiversity Area (KBA) STAR Index[*4] Conservation priority level[*5]
Water stress	Evaluated according to how high Baseline Water Stress[*6] is

*1: Established as the degree to which the composition, structure and functions of the ecosystem are within the scope of natural fluctuation.

*2: Metric denoted as a percentage (%) that indicates the extent to which species are remaining relative to cases where the ecosystem has only been subject to the minimum disturbance. (Source: References[2)])
(For the Biodiversity Intactness Index, 100% is assigned to so-called “untouched nature.” Otherwise, this index indicates the degree to which biological species are remaining after the ecosystem of the land in question has been “touched”)

*3: Significant regions serving as a key to the conservation of biodiversity as selected according to international standards.

*4: Metric representing a quantification of the possibility that activities to reduce threats to species in that area contribute to the reduction of extinction risk around the world as a whole.

*5: Metrix indicating priority level based on the prevention of the extinction of biological species and the conservation of biodiversity in light of information on the distribution of biological species. (Source: References[3)])

*6: Metric indicating level of stress on water at basins based on percentage of water consumption relative to water supply volumes at the basins. (Source: References[4)])

Evaluation of Priority Locations based on Address of Group Properties (2)

Ecosystem integrity: The sites of urban offices, commercial facilities, and urban hotels have low ecosystem integrity, while those of rural resort hotels, leisure facilities, and renewable energy facilities have moderate to high integrity.

Biodiversity importance: Of all sites, 114 (March 2024) were in proximity to protected areas. Many areas with high preservation priority regardless of urban or rural area classification. Scoring is conducted based on indicators, with relative importance within our group being mapped.

Water stress: There are no properties in areas with very high (or high) water stress.

The areas that should be given special priority investigation (priority locations) in terms of our group's nature-related risks and opportunities were summarized together with the analysis results of each indicator in the figure below after considering the results in P. 27 of investigating the all-nature dependencies and impacts of our group.

A detailed investigation on the nature dependencies, impacts, risks, and opportunities was conducted on the **urban development business in "Greater Shibuya area" and hotel and leisure business in "Tokyu Resort Town Tateshina"** using LEAP, an approach that provides TNFD (pp.30–62).

Priority location (1) : Greater Shibuya area (39 properties)

*Area within 2.5 km radius of Shibuya Station

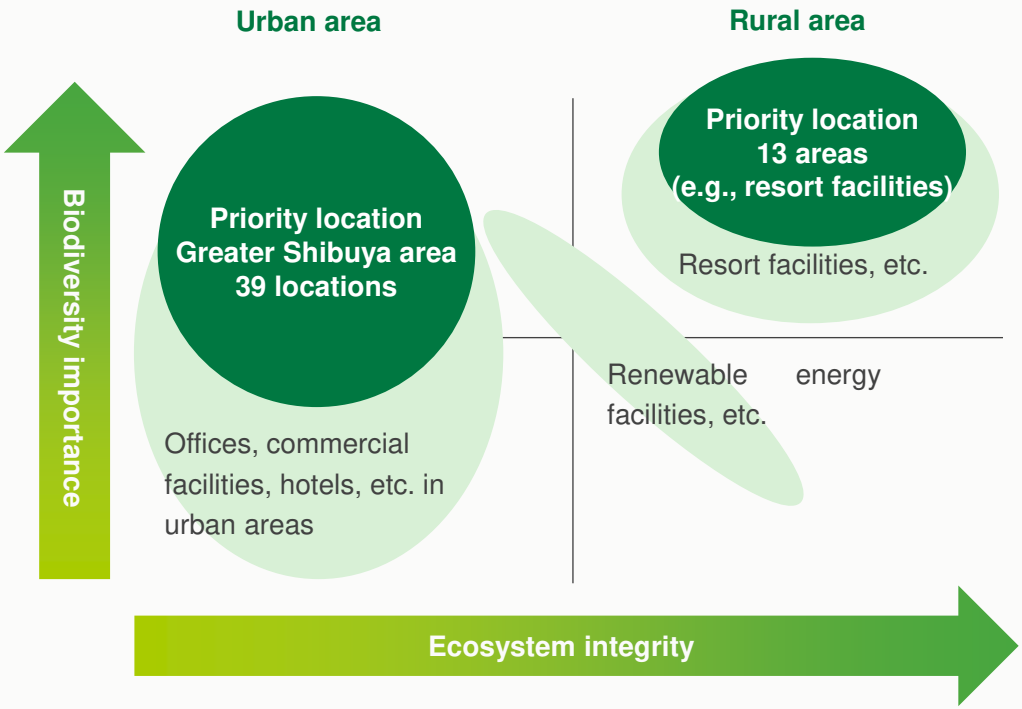
Based on the dependencies and impacts analysis in P. 27, when considering **business scale (sales volume)** , it is thought that the urban development business has a **particularly large nature impact**.

Among these, "Greater Shibuya area" was selected as the priority location due to its importance in terms of nature-related risks and opportunities after considering that it is an area of focus where a large number of our group's properties are accumulated. Biodiversity importance here is particularly high among urban areas (see P. 32), and **surveys and research on ecosystems have been continuously conducted** here in the past.

Priority location (2) : 13 areas (e.g., resort facilities)

Although the relative importance impact after considering business scale is not as large as the urban development business, **"13 areas (e.g., resort facilities)," which have high importance in terms of ecosystem integrity and biodiversity importance**, were selected as a priority location.

Of those areas, **Tokyu Resort Town Tateshina was selected for its status as a large-scale and core resort facility** that includes a hotel, golf courses, ski areas, and vacation homes, **and as a representative location that is highly important in terms of its dependencies and impacts on our group's business and nature**. A detailed evaluation was then conducted.



LEAP Approach in Greater Shibuya Area and Tokyu Resort Town Tateshina

Based on the LEAP Approach presented by the TNFD, we performed a more detailed **examination** of **dependencies and impacts on nature and accompanying nature-related risks and opportunities as they pertain to the greater Shibuya area and Tokyu Resort Town Tateshina, which we established as a priority location**. More specifically, we examined the below information.

Locate

Discovery of the interface with nature

- Priority locations (pp.27～28)
- Assessment of **state and importance of nature** with which businesses in the Greater Shibuya area and Hotel and leisure business have points of contact

Evaluate

Evaluation of dependencies and impacts

- Qualitative organization of **dependencies and impacts through the value chain** in urban development in the Greater Shibuya area and Tokyu Resort Town Tateshina
- **Quantitative evaluations** in cooperation with Think Nature Inc.

Assess

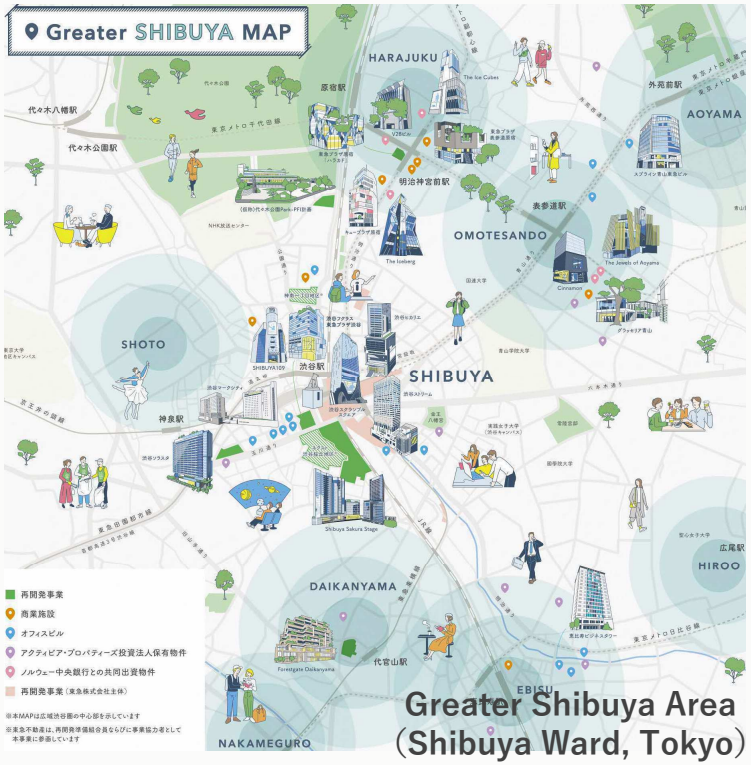
Assessment of risks and opportunities

- Organization of external environmental factors
- **Examination of risks and opportunities** in Urban Development Business centered in the greater Shibuya area and hotel and leisure business

Prepare

Preparation for response and reporting

- **Examination and organization of existing initiatives** for risks and opportunities



Greater Shibuya Area (Shibuya Ward, Tokyo)

Tokyu Resort Town Tateshina（Chino City,Nagano）

Strategy : LEAP Approach in Greater Shibuya Area

State and Importance of Nature in Greater Shibuya Area

Ecosystem integrity

The greater Shibuya area is an ecosystem type centered on “the city and industries.” It is not a region with high ecosystem integrity.

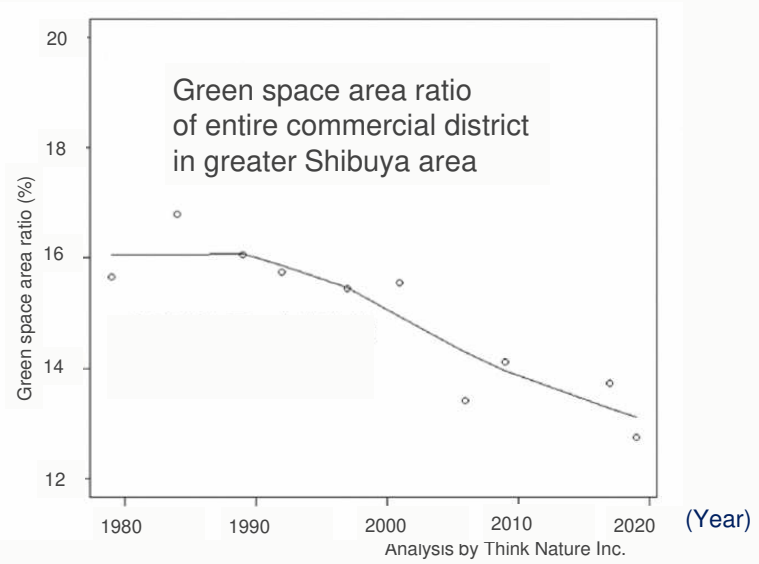
At the same time, since the 1980s, the green space area ratio of the entire commercial district in the greater Shibuya area has continued to decrease (as calculated according to aerial photographs). It is likely that the region’s **ecosystem integrity is trending further downwards**.

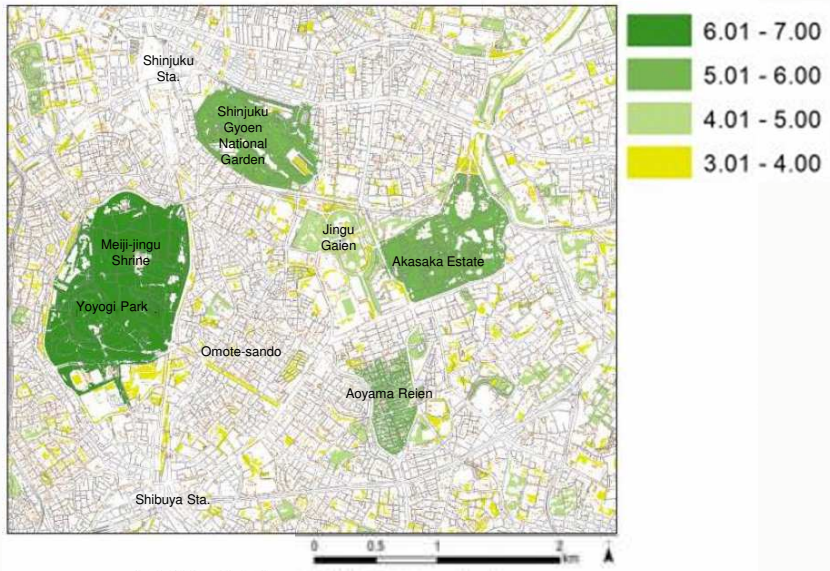
Biodiversity Importance

Between FY2016 and FY2018, three parties, TOKYO CITY UNIVERSITY and Group members ISHIKATSU EXTERIOR INC. and Tokyu Fudosan R&D Center Inc., performed a collaborative investigation and research[6)] on the ecosystem in the greater Shibuya area. The greater Shibuya area is surrounded by large-scale green spaces that include **Meiji-jingu Shrine/Yoyogi Park, Shinjuku Gyoen National Garden and the Akasaka Estate**. Meanwhile, the downtown area that has large-scale green spaces surrounding it is widely dotted with smaller pockets of green. This and other characteristics make it an area that **coexists with nature, a rarity for a city center**.

It is believed that new and endangered species as well as plant and animal species not commonly found in urban areas inhabit those large-scale green spaces. The greater Shibuya area is therefore believed to be a **key region in forming an ecological network that links together such large-scale green spaces**.

- **Ecological network**
  An organic network of regions centered on those that host superior natural conditions. An ecological network yields the following effects: By making it possible to conduct foraging, nesting, breeding and other inhabiting stages within the region, this network contributes to preventing the extinction of populations and drops in genetic diversity. The establishment of relationships among various species also links to a recovery in the diversity of species in the region as a whole.





Distribution of green coverage area in greater Shibuya area
(Indicates the logarithmic value (Log 10) of the area of green coverage extracted using a Normalized Difference Vegetation Index (NDVI) of >=0.25)

Dependencies and Impacts (Overall Picture)

An overall picture of dependencies and impacts through the value chain in the Urban Development Business in the greater Shibuya area is shown in the below diagram.

At the procurement stage for building materials, that business exerts dependencies and impacts on **building materials, lumber and other resources**. At the development and operation stage for real estate, while there is a possibility that the business will exert negative impact such as land modification and occupation, the business is dependent on nature from the standpoint of **regulating services[*1] such as the mitigation of the heat island effect and disasters and cultural services[*2] such as comfort, stress mitigation and recreation**. Also, aside from negative impact, the business, largely through its building greening initiatives, is also believed to exert a positive impact on ecosystems, such as by providing habitats for living things.Dependencies and impacts that are believed to carry especially high importance are explained in detail starting on the next page.

Dependencies and impacts on nature in value chain *Bolded items are dependencies and impacts that are believed to carry especially high importance

Procurement of building materials

Negative Impacts

- Utilization of building materials, lumber and other resources

Dependencies

<Provisioning services>
- Services for supplying building materials, lumber, etc.

Development and operation

Negative Impacts

- **Land modification/occupation**
- Soil contamination
- Air contamination/GHG emissions
- Waste discharge
- Introduction of alien species

Positive Impacts

<Contributions to nature and local community>
- **Provision of habitats through building greening, etc.**
- **Formation of ecological network**

Dependencies

<Regulating and maintenance services>
- **Climate regulation (Mitigation of heat island effect, etc.)**
- **Mitigation of disasters (Rainwater infiltration, mitigation of infiltration, etc.)**
- Decontamination and mitigation of noise/landscape impacts

<Cultural services>
- **Recreation, landscapes, stress mitigation, richness/leeway, improvement of wellness asset value, etc.**

Natural capital with relationships (“Environmental assets” under TNFD)

Mineral / energy resources | **Land** | **Terrestrial ecosystems** | **Air systems** | **Water resources**

*1: Regulating and maintenance services: Services that control the environment through biodiversity. Examples are the effects gained through climate regulation, the mitigation of localized disasters, the inhibition of soil erosion, and the containment of pests and sickness within the ecosystem.

*2: Cultural services: Cultural services that people can obtain by coming into contact with nature and that impact them from aesthetic, spiritual, physiological and other aspects.

Positive Impact Through Provision of Habitats (1)

Investigation of growth/habitat services in greater Shibuya area

As part of the collaborative research[7)] conducted by TOKYO CITY UNIVERSITY, ISHIKATSU EXTERIOR INC. and Tokyu Fudosan R&D Center Inc., an investigation of butterfly species was conducted in the greater Shibuya area that targeted three biodiversity-considerate properties with rooftop gardens placed and their peripheral area. As a result, the presence of butterfly species was verified in the rooftop green spaces of each of those properties. **Of particular note is how it became clear that building greening by the Group may be functioning as part of an ecosystem network connecting Meiji-jingu Shrine to Harajuku and Omote-sando** to exert a positive impact on peripheral ecosystems through providing habitats.

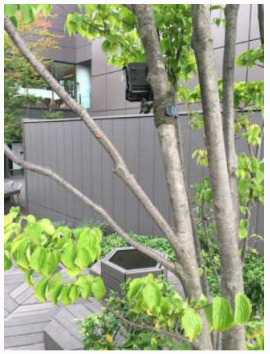
Ongoing implementation of biological monitoring in greater Shibuya

<Method of investigation>

- Bird species study (Observational study/fixed-point photography and filming study)
  - ✓ For a total a three times in June, September and January, the “Omohara Forest “was arbitrarily surveyed, and the species names, population, behavior, etc. of bird species whose presence was verified based on visual observation, bird calls, etc. were recorded.
  - ✓ Using birdbaths use frequently by birds as the focus, birds were automatically photographed and filmed in flight with sensing cameras and video cameras.
- Insect species survey (Arbitrary observational study)
  - ✓ For a total a three times in June, August and September, the “Omohara Forest” was arbitrarily surveyed, and the species names, population, behavior, etc. of insect species whose presence was verified based on visual observation, insect calls, etc. were recorded.

Tokyu Plaza Omotesando “Omohara”

Observational study



Fixed-point photography and filming study of bird species

At “Tokyu Plaza Omotesando “Omokado”,” which is located in the greater Shibuya area, **monitoring studies of bird and insect studies at the “Omohara Forest” rooftop garden** have been conducted yearly since FY2012 (except for certain periods such as the COVID-19 pandemic) to assess changes in the inhabiting and flying situation of living creatures there[8)].

*Continued on next page

Positive Impact Based on Provision of Habitats (2)

Ongoing implementation of biological monitoring in greater Shibuya area

Regarding bird species, between FY2012 and FY2019, the presence of 10 to 16 species was verified every year, or 22 species cumulatively.

For example, *Parus minor*, pairs of *Passer montanus* and the like were verified to nest in next boxes, and various species of bird such as *Turdus naumanni* were verified to drink in birdbaths, feed/forage through planting, rest, and so forth. This made it clear that a number of bird species use “Omohara Forest” as a habitat on a constant basis.

Regarding insect species, between FY2012 and FY2019, the presence of 40 to 64 species was verified every year, or 151 species cumulatively.

In particular, the presence of 9 species that include *Papilio xuthus*, which has superior mobility; *Hyalessa maculaticollis*, whose source of food lies inside rooftop green spaces; and *Graphium sarpedon*, was continuously verified over that 8-year period.

Based on monitoring results as well, it is inferred that **building greening efforts, particularly those in “Omohara Forest,” are exerting a positive impact on the ecosystem through the provision of habitats for living creatures in the greater Shibuya area.**

The Company intends to keep on assessing the condition of nature by continuing monitoring going forward.

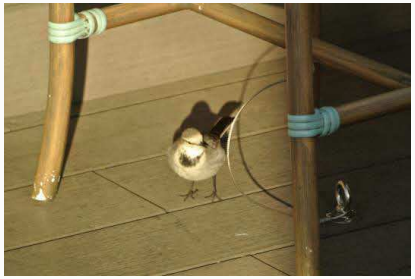
Omohara Forest

List of bird species over time and observation photographs (verification survey)

No.	Order Name	Family Name	Species Name	
			Japanese Name	Scientific Name
1	Columbidae	Columbidae	Kijibato	*Streptopelia orientalis*
2	Suliformes	Phalacrocoracidae	Kawau	*Phalacrocorax carbo*
3	Ardeidae	Pelecaniformes	Aosagi	*Ardea cinerea*
4	Accipitridae	Accipitridae	Ohtaka	*Accipiter gentilis*
5	Picidae	Picidae	Kogera	*Dendrocopos kizuki*
6	Passeriformes	Corvidae	Onaga	*Cyanopica cyanus*
7			Hashibosogarasu	*Corvus corone*
8			Hashibutogarasu	*Corvus macrorhynchos*
9		Shijukara	Shijukara	*Parus minor*
10		Tsubame	Tsubame	*Hirundo rustica*
11		Hiyodori	Hiyodori	*Hypsipetes amaurotis*
12		Mejiro	Mejiro	*Zosterops japonicus*
13		Mukudori	Mukudori	*Spodiopsar cineraceus*
14			Komukudori	*Agropsar philippensis*
15		Turdidae	Tsugumi	*Turdus naumanni*
16			Jobitaki	*Phoenicurus auroreus*
17			Ezobitaki	*Muscicapa griseisticta*
18		Passeriformes	Passeriformes	*Passer montanus*
19		Motacillidae	Hakusekirei	*Motacilla alba*
20		Fringillidae	Kawarahiwa	*Chloris sinica*
21	(Columbidae)	(Columbidae)	Kawarabato (Dobato)	*Columba livia*
22	Psittaculidae	Psittaculidae	Wakakehonseiinko	*Psittacula krameri manillensis*
7 Orders/16 Families/22 Species				

Note 1: Species names and classifications are in accordance with the “Check-List of Japanese Birds (7th Ed.)” (Ornithological Society of Japan, 2012).

Passer montanus (Nesting in pairs)



Hakusekirei

Graphium sarpedon

Shijukara

Turdus naumanni (Birdbath)

Coccinella septempunctata

Quantitative Evaluation of Impacts Based on Building Greening (Methods)

Among the impacts on nature with a high degree of importance that were examined on p.33, the impacts on the ecosystem based on land occupation and building greening of Group properties were quantitatively analyzed with the cooperation of Think Nature Inc.

Overview of quantitative analysis

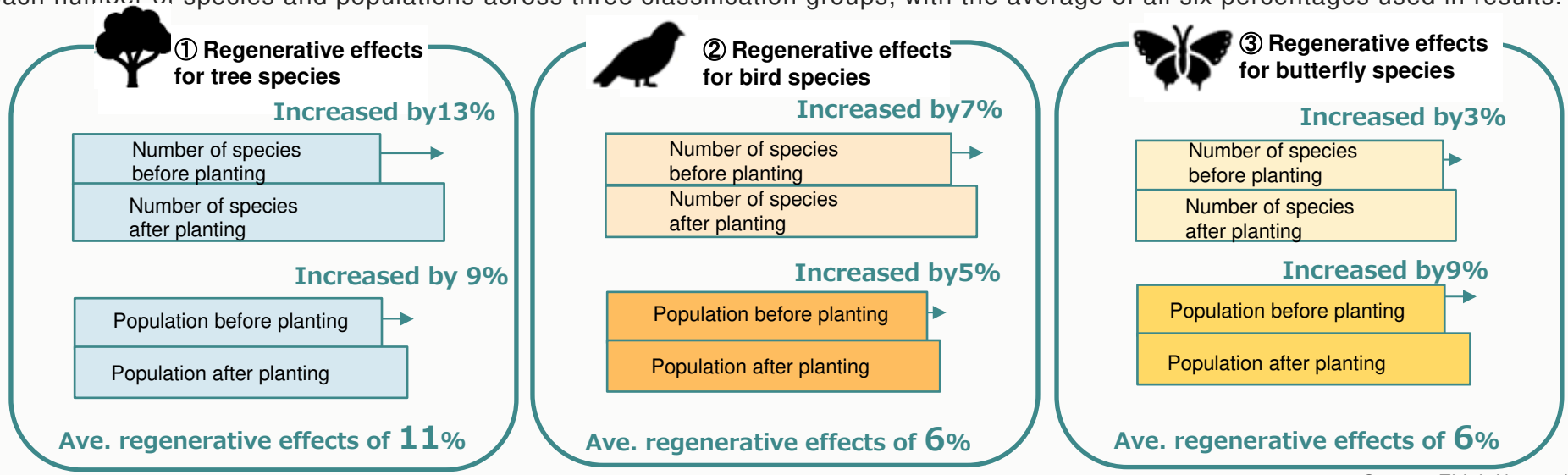
- Target: **39 Group office and commercial facility properties in the greater Shibuya area**
- Method: **Quantitatively analyzed biodiversity regenerative effects based on planting before and after the building of the properties**based on **Think Nature Inc.'s big data on biodiversity** while factoring in the quantified planting situation before building (tree species and number) and the current planting situation at each property (tree species and number) based on aerial photographs.

SHIBUYA SOLASTA

Biodiversity regenerative effects

The below diagram indicates the approach behind Think Nature Inc.'s analysis methods.

Based on the **relationship between planted tree species and the birds/butterflies that use them**, the percentage by which living creatures that inhabit the inside of a 1-km grid at the construction site increased or decreased before and after building was calculated for each number of species and populations across three classification groups, with the average of all six percentages used in results.



Source: Think Nature Inc.

Averaging ①, ② and ③ comes to **regenerative effects of 7%**

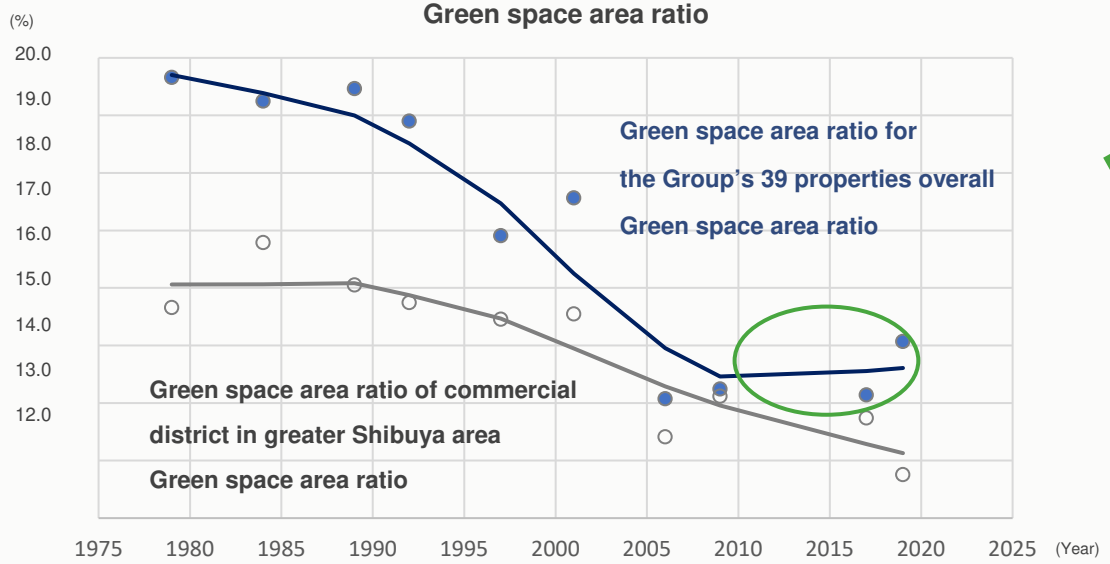
Quantitative Evaluation of Impacts Based on Building Greening (Results)

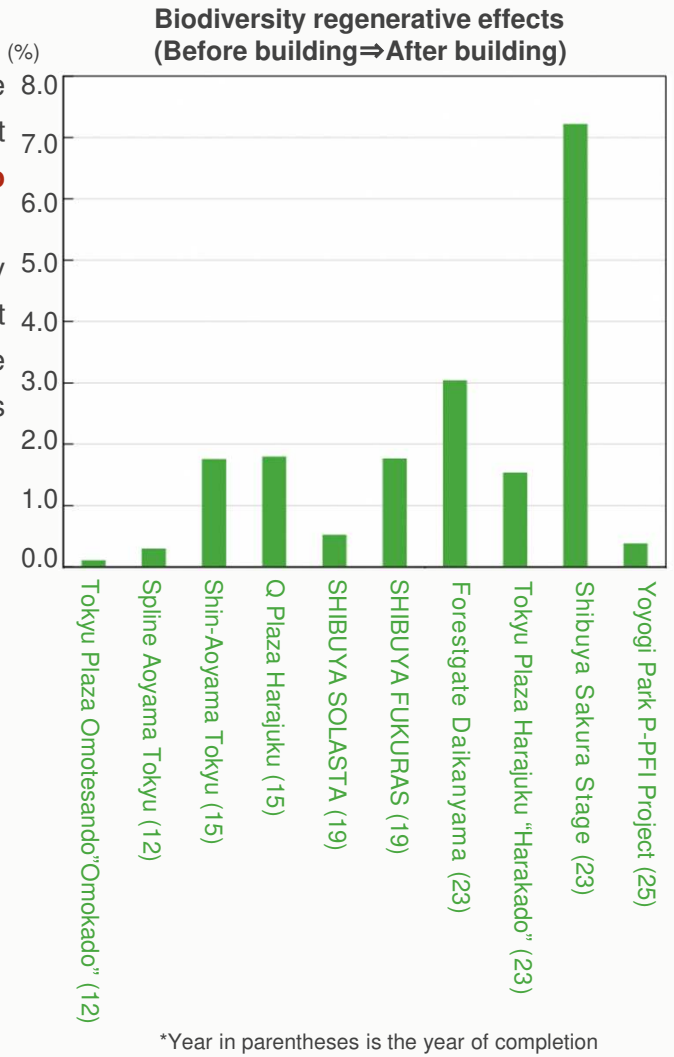
Contributions to nature positive in greater Shibuya area

Since the 1980s and particularly from 1990 up through the 2000s, the green space area ratio had been trending downwards before and after building. However, for the Group's 39 properties overall, the ratio has been t**rending above the average for the entire commercial district.** Furthermore, since 2010, which represents a global turning point that included the holding of the 10th meeting of the Conference of the Parties to the Convention on Biological Diversity (COP10), **biodiversity loss was reversed to put nature on a path to recovery (nature positive)**.

Regarding biodiversity regenerative effects, said effects before and after building were positive at 15 properties out of all 39. In particular, biodiversity regenerative effects at properties completed in FY2012 and beyond are high. We believe these are **contributing to the recovery of biodiversity in the greater Shibuya area as a whole.**

In the Group's forte of planning communities that coexist with local communities, particularly those focused on target facilities under our Urban Development Business, we believe that engaging in development and operation that achieve a harmony between the securing of the quality and quantity of green space and the comfort of community visitors and facility users have linked to the high biodiversity regenerative effects shown in recent years.





*Year in parentheses is the year of completion

Quantitative Evaluation of Impacts Based on Building Greening (Results)

Making the greater Shibuya area an environmentally advanced city from the aspect of biodiversity as well

The results of analysis performed by Think Nature Inc. on the species capture rate through planting at all 39 properties (the percentage of species inhabiting the entire greater Shibuya area that can be called to green spaces at Group properties) showed that planting efforts by those properties were capable of calling approx. 60% of bird species and approx. 90% of butterfly species. In particular, **properties where we conduct planting based on native trees** indicated a high capture rate, **The quality of green there is also contributing to higher biodiversity regenerative effects.**

For example, at **"Shibuya Sakura Stage,"** the planting of numerous tree species in large number, including species native to Tokyo, make it possible to call a large number of bird and butterfly species. This has led to a high species capture rate and **high regenerative effects (7.2%).**

As it is now clear that greening that includes the likes of the planting of native species, particularly that conducted at properties built in recent years, contributes to the regeneration of biodiversity, we believe that it is crucial for us to continue tackling greening that is conscious of the quality of green space as we move forward.

Shibuya Sakura Stage (Completed in Nov. 2023)

At Sakuragaoka located adjacent to Shibuya Station, we are pushing forward with the development of "Shibuya Sakura Stage," a large-scale complex to serve as a new landmark for Shibuya.

At this property, we have established "HAGUKUMI STAGE" as a richly-green relaxation sport to **promote three-dimensional greening that utilizes the ground, roof, wall surfaces and other elements** and also contributes to heat island countermeasures. In addition, we are also tackling the reduction of our environmental footprint through means such as using solar power generation and other forms of renewable energy and introducing next-generation technology.

Distant view of Shibuya Sakura Stage

Hagukumi STAGE

List of species analyzed by Think Nature Inc.

Planted tree species		Birds that can be called		Butterflies that can be called
Name of tree species	Number of trees	Determination of kind of native species	Species Name	Species Name
Aucuba japonica	1362	Species native to region	*Hiyodori*	*Polygonia c-aureum*
Vaccinium sect.	85		*Mukudori*	*Graphium sarpedon*
Cyanococcus	32	Species native to Japan	*Tsugumi*	*Arhopala japonica*
Acer pycnanthum	32	Species native to Japan	*Onaga*	*Papilio protenor*
Fraxinus griffithii	32		*Kijibato*	*Eurema hecabe*
Cornus kousa	32		*Turdus pallidus*	*Curetis acuta*
Magnolia grandiflora	28		*Mejiro*	*Lampides boeticus*
Lagerstroemia indica	26		*Eophona personata*	*Vanessa indica*
Acca sellowiana	26		*Shijukara*	*Argyreus hyperbius*
Cornus florida	24	Species native to region	*Passeriformes*	*Papilio bianor*
Quercus myrsinifolia	23	Species native to Japan	*Kawarahiwa*	*Hestina japonica*
Ulmus parvifolia	17	Species native to Japan	*Bambusicola thoracicus*	*Pieris rapae*
Ilex buergeri Miq.	16	Species native to region	*Phasianus versicolor*	*Pseudozizeeria maha*
Albizia julibrissin	16	Species native to region	*Coccothraustes*	*Celastrina argiolus*
Distylium racemosum	16	Species native to region	*coccothraustes*	*Papilio machaon*
Fatsia japonica	16	Species native to prefecture	*Lanius bucephalus*	*Parnara guttata*
Machilus thunbergii	16	Species native to Japan	*Hashibosogarasu*	*Anthocharis scolymus*
Fraxinus lanuginosa	16	Species native to Japan	*Bombycilla garrulus*	*Papilio macilentus*
Ilex latifolia	16		*Turdus chrysolaus*	*Lycaena phlaeas*
Stewartia monadelpha	16		*Garrulus glandarius*	*Potanthus flavus*
Callistemon speciosus	16		*Sittiparus varius*	*Colias erate*
Myrtus communis	16		*Komukudori*	*Vanessa cardui*
Viburnum tinus	16		*Spinus spinus*	*Cupido argiades*
Vitex agnus-castus	16		*Fringillidae*	*Pelopidas mathias*
Acer palmatum	6	Species native to region	*Emberiza spodocephala*	*Kaniska canace*
Cinnamomum camphora	2	Species native to region	*Jobitaki*	*Papilio memnon*
Cerasus jamasakura	1	Species native to region	*Periparus ater*	*Neptis philyra*
Neolitsea sericea	1	Species native to region	*Picus awokera*	*Antigius attilia*
Zelkova serrata	1	Species native to region	*Ficedula narcissina*	*Ypthima argus*
Lavandula	918		*Turdus celaenops*	*Argynnis paphia*
Rhododendron obtusum	492		*Turdus cardis*	*Byasa alcinous*
var. sakamotoi	459		*Turdus obscurus*	*Parantica sita*
Salvia microphylla	459		*Bombycilla*	*Nymphalis xanthomelas*
Thymus vulgaris	437		*japonicaBombycilla*	*japonica*
Mahonia confusa	328	Species native to Japan	*japonica*	*Neptis sappho*
Enkianthus perulatus	10			*Narathura bazalus*
Westringia fruticosa				

Quantitative Evaluation of Impacts Based on Land Utilization/Greening

Evaluation of ecological network formation

With the help of Regional Environmental Planning, Inc., an environmental consulting company that assists with biodiversity initiatives, **we analyzed the current situation of the formation of an ecological network in the greater Shibuya area and the direction of that formation.**

Based on analysis of the current situation surrounding topography and green space, it was verified that the topography of the greater Shibuya area has the lowlands of the valleys of the Shibuya River and Meguro River intertwining with the Musashino Plateau, and that much green space remains on slopes facing the valley formation and valley areas.

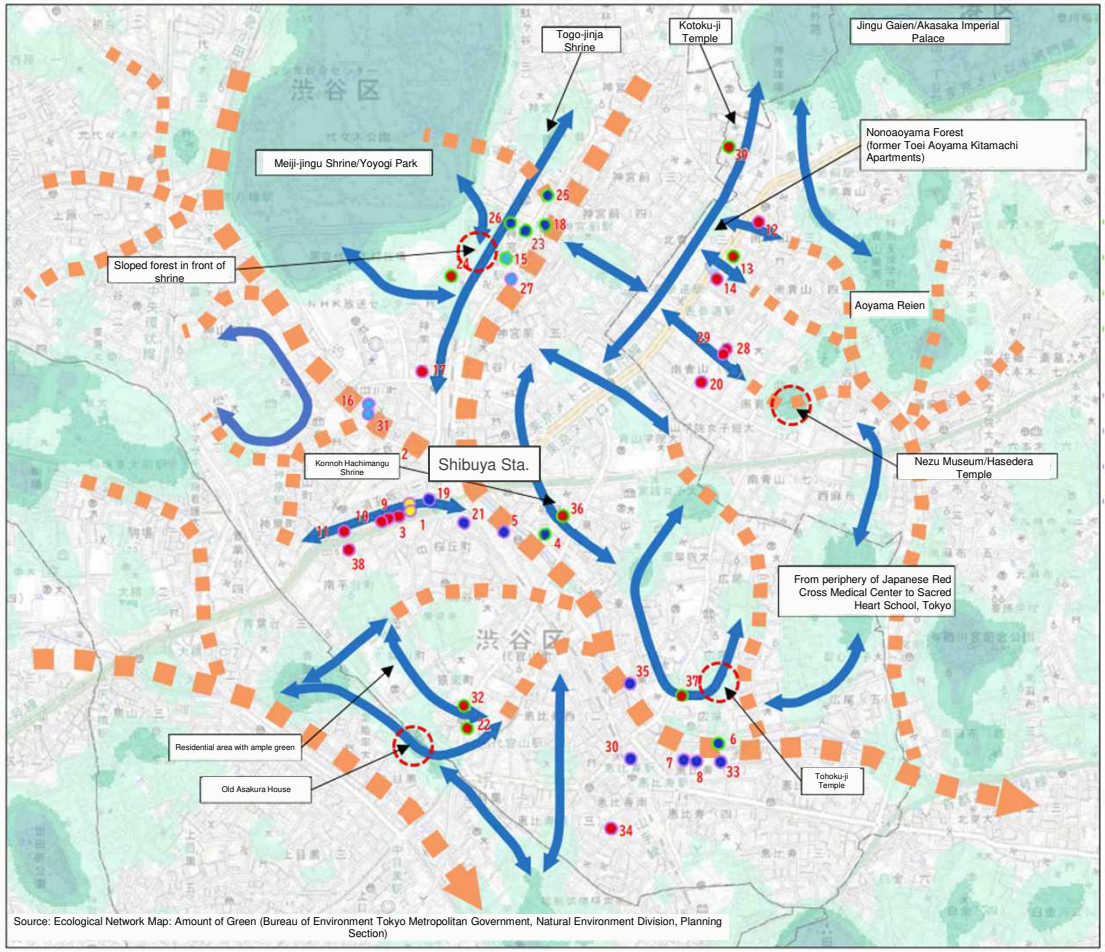
Additionally, the Company's properties are located at the red circles on the map to the right, which also constitute locations where fellow properties of ours are in proximity to each other or are concentrated.

We have found that focusing on the following three areas will likely prove beneficial for the purpose of further enhancing our future ecological network,

① Locations with large amounts of green are in proximity to each other
② Valleys, slopes along the valleys, etc. are topographically connected
③ Target properties are in proximity to each other/concentrated together

We plan to give consideration to the maintenance of green space according to the characteristics of the site, and will continue to conduct biological monitoring.

Connection of valley configuration in greater Shibuya area and direction of ecological network formation



: Main peripheral green spaces located in valley areas and on slopes

: Axis of connection of valley configuration

: Axis of reinforcement/enhancement of ecological network

(Source: Regional Environmental Planning, Inc. (2023) "Survey on Ecological Networks that Contribute to Biodiversity in Greater Shibuya Area")

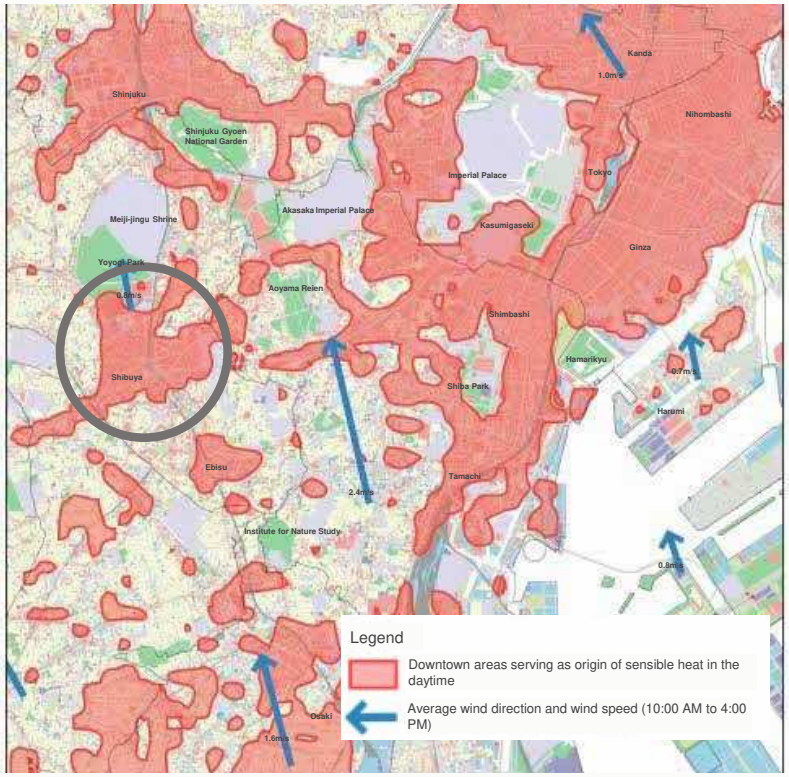
Dependencies on Regulating and Maintenance Services

Importance of climate regulation, disaster mitigation, etc. (regulating and maintenance services in cities)

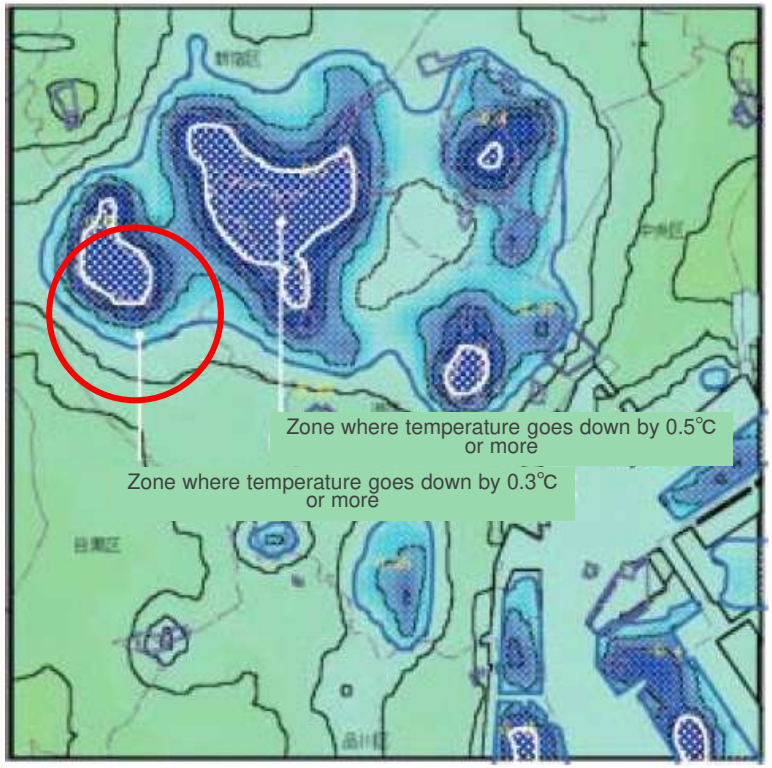
In the National Biodiversity Strategy and Machizukuri (Urban Development) GX Strategy by the Japanese government and the Regional Biodiversity Strategy by the Tokyo Metropolitan Government, functions such as t**he mitigation of the heat island effect through nature and the reduction of flood damage** are emphasized as key ecosystem services in cities. From the standpoint of dependencies, these ecosystem services for disaster mitigation and climate regulation are believed to be crucial. According to the Ministry of Land, Infrastructure Transport and Tourism, while the area surrounding the greater Shibuya area (the area circled on the map) is an origin of heat, it is believed to be a region that can be expected to drop in temperature should green space preservation and greening measures be comprehensively taken.

Additionally, under Shibuya City's "Green Development Policy," it is established that forming connections with large-scale green areas through building greening and other means contributes to the **creation of cool spots** that serve to mitigate the heat island effect in cities. This is believed to be important from the aspect of exerting a positive aspect on such regulation services as well as the aspect of dependencies.

Source of heat in daytime



Lowered temperature difference when green space/greening measures are taken



Source: Ministry of Land, Infrastructure Transport and Tourism
"Heat Island Effect Mitigation Effects through Promotion of Green Space Preservation and Greening"

(Circles added by the Company)

Dependencies on Cultural Services

Functions for nature-based stress mitigation and comfort (cultural services)

As part of the new “GREEN WORK STYLE” that it is promoting at its office buildings, the Group performed scientific verifications of **the impacts and effects that green (vegetation and nature) have on people.** For example, following a verification of the effects of breaks taken in rooftop spaces containing green, we found that stress levels after taking breaks where green was present were 6.0 points lower than those for indoor locations with no green present, and that levels of concentration rose considerably as well.

Based on these results, we can also conclude that in cities, the greater Shibuya area included, the importance of cultural services is high from the aspects of the effects on wellness in the form of **better landscapes, stress mitigation and comfort**; **improved productivity** coming from the likes of inspiration, invigorated communication and boosts in motivation for working individuals; and the appeal and higher asset value of office, commercial and other facilities.

- **Overview of demonstration experiment**

Purpose: To verify the impacts that taking breaks in spaces with vegetation have on stress and intellectual productivity following breaks

Subjects: 14 individuals (4 males in their 30s/3 males in their 40s; 4 females in their 30s/3 females in their 40s)/Date and time: Saturday, June 2, 2018

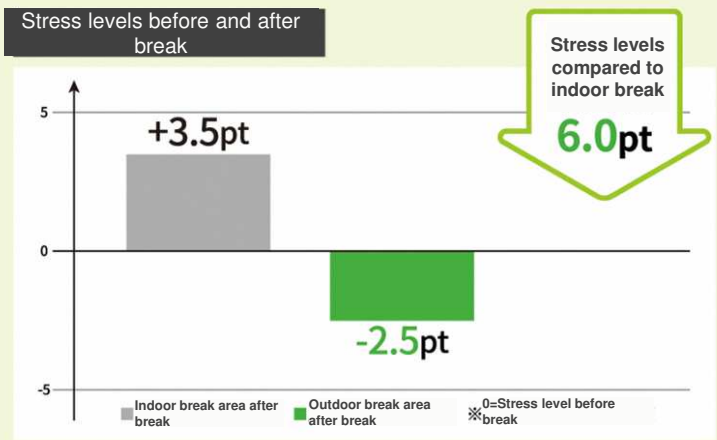
Location of implementation: Hibiya Park Front (Conference Room/Rooftop Terrace)

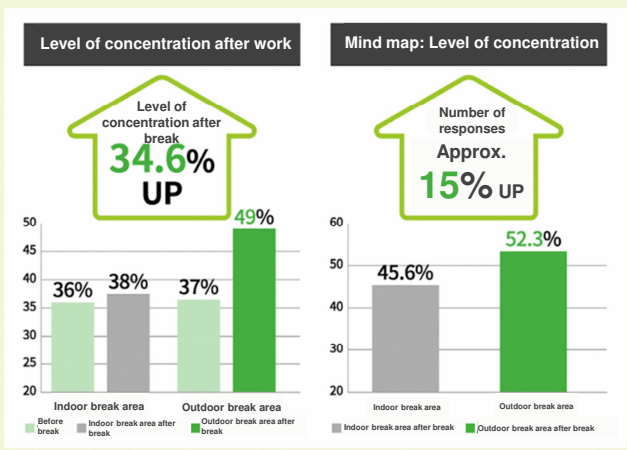
Data gathered: Brain waves, EEG, number of responses and correct answer rate for tasks for work purposes, and subjective evaluations

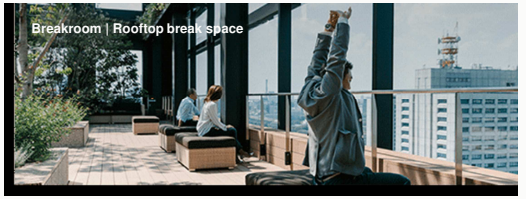
Equipment used: KANSEI Analyzer (© Dentsu Science Jam)

Details: After performing tasks for work purposes, subjects were asked to take a break in ① <Space with vegetation> or ② <Space with no vegetation>.
After taking a break, subjects were asked to perform tasks for work purposes once more,
and a verification was performed to see if there were visible differences in the stress values obtained from the KANSEI Analyzer and the impacts of work on task efficiency between ① and ②.

GREEN WORK STYLE







Hibiya Park Front

Important Risks and Opportunities in Urban Development Business Centerd on the Greater Shibuya Area

Based on dependencies/impacts on nature at the Group, after referring to information on the external environment such as related social trends and the direction of national government policy as well, we examined risks and opportunities envisioned in our Urban Development Business. Risks and opportunities believed to be important following a qualitative examination are as follows.

While physical risks due to the degradation of ecosystem services that we are dependent on, transition risks due to changes in regulations and the market environment and other risks are envisioned, we found that as shown on the next page, there is potential for **numerous nature-related opportunities** to arise.

Risk classification		Main dependencies and impacts	Description of risks in Urban Development Business
Physical risks	Acute/ Chronic	Mitigation of heat island effects (Dependencies on regulation services)	● Increase in A/C costs, etc. and deterioration of living/stay environment in cities due to worsening of heat island effect in line with land development by the Company and its stakeholders
		Recreation; visual amenities (Dependencies on cultural services)	● Deterioration of landscapes and other drop in appeal of community and fall in its asset value due to natural degradation in line with land development by the Company and its stakeholders
Transition risks	National policies/ laws	Procurement of building materials, lumber and other resources(Impacts on nature)	● Shortage in building materials, lumber, etc. and increase in procurement costs due to stronger regulations related to land modification and resource extraction for the sake of protecting nature
		Land modification and occupation due to development and operation of offices, commercial facilities, and other properties (Impacts on terrestrial ecosystem)	● Increase in costs to accommodate regulations due to stronger regulations calling for improved greening ratios at properties
			● Increase in handling costs due to introduction and/or reinforcement of regulations/national policies calling for enhancement of green quality, such as through consideration towards ecological network formation or planting of native species
	Market		● Growth in preferences of customers and tenants towards properties that exert positive impact on nature through limited negative impact on nature/enhanced quantity and quality of green, ecological network formation, etc. (risk)
	Technology	Utilization of water, building materials, etc. (Impacts from resource utilization)	● Increase in costs for introducing building technology with high resource/energy efficiency and low environmental footprint
	Reputational	Negative impact from land modification/occupation, contamination, waste discharge, introduction of alien species, etc.	● Criticism and/or litigation addressing development and/or operation that exerts negative impact on the community's ecosystem or landscape or on its cultural services involving nature

Important Risks and Opportunities in Urban Development Business Centerd on the Greater Shibuya Area

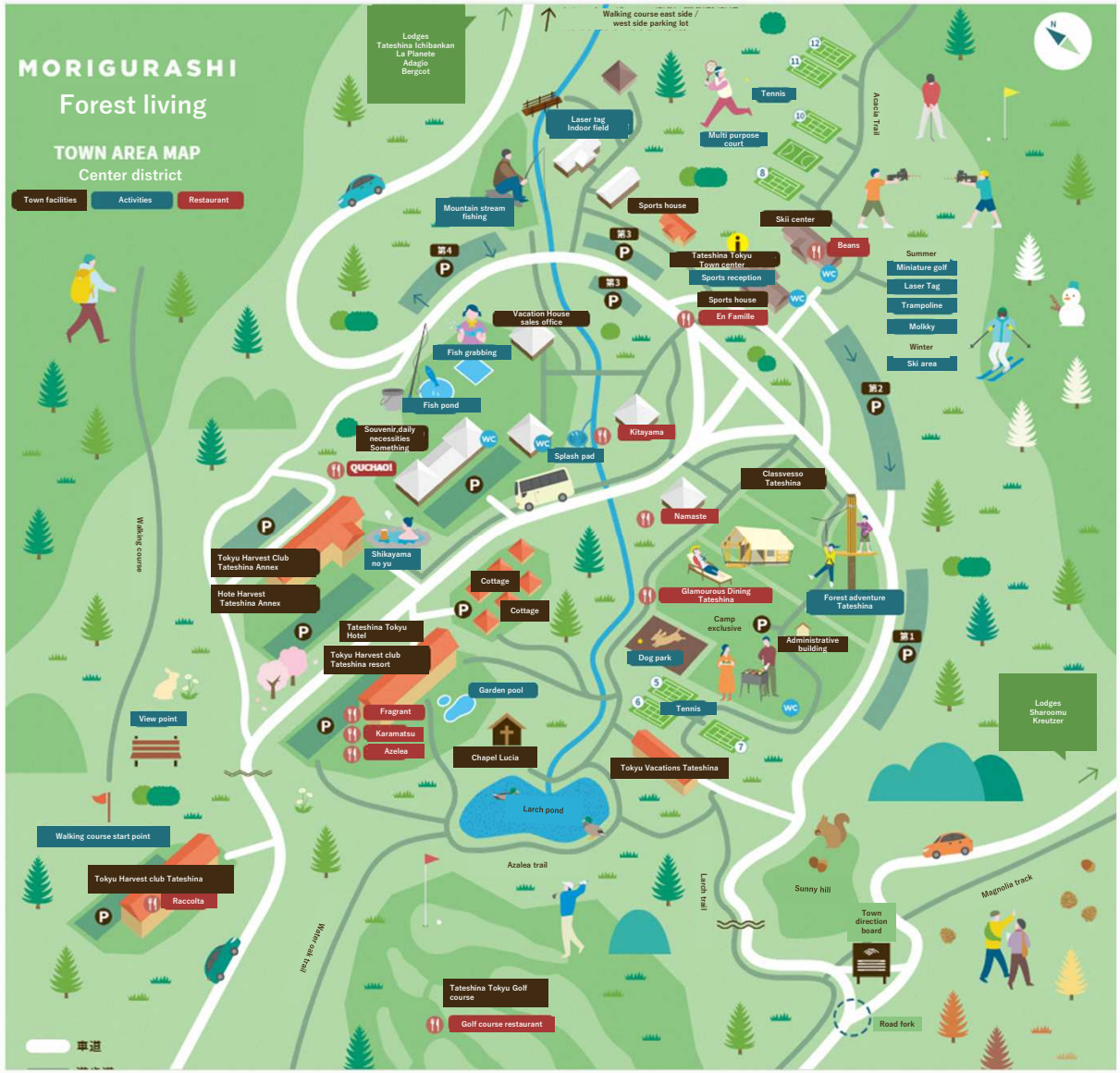
Classification of opportunities			Main dependencies and impacts Impacts	Description of opportunities in Urban Development Business
Opportunities	Market	Customers/tenants	Lowering of negative impact such as land modification/occupation, contamination and waste discharge Positive impact on ecosystems (and ecosystem services) such as provision of habitats through greening and ecological network formation	● Growth in preferences of customers and tenants towards properties that exert positive impact on nature through limited negative impact on nature/enhanced quantity and quality of green, developments in greening technology, ecological network formation, etc.
		National policies/ laws		● Gaining of national policy-based support and incentives for quality and quantity of green spaces under Urban Development Business
		Capital flow/ finance		● Increase in investments in real estate that exert positive impact on nature through limited negative impact on nature/enhanced quantity and quality of green, ● developments in greening technology, ecological network formation, etc.
	Reputational Capital	Corporate value		● Improvement in Company's reputation and corporate value through businesses activities that reduce negative impact on nature and exert positive impact through ecosystem-conscious real estate development, sustainable resource procurement, the reduction of contamination, etc.
		Engagement/ community value		● Improvement in relationships with local community through development and operation efforts that exert positive impact on nature through development/operation with limited negative impact on nature/enhanced quantity and quality of green, developments in greening technology, ecological network formation, etc.
				● Increase in appeal of entire community and improvement in its brand value and asset value through business operation that draws out the appeal of the nature in the community

Strategy : LEAP Approach in Tokyu Resort Town Tateshina

About Tokyu Resort Town Tateshina

"Tokyu Resort Town Tateshina" is a large-scale resort complex located almost in the center of Tateshina Plateau in the northeastern part of Chino City, Nagano Prefecture, at an elevation of 1,100–1,800 m and a total site area of approximately 660 ha (approximately 140 Tokyo Domes' worth). The complex includes Tokyu Harvest Club Tateshina, a members-only resort hotel, as well as a hotel with 250 rooms, golf courses (18 holes), ski areas, vacation homes (detached houses, resorts, villas), approximately 2,300 plots, a hot springs facility, restaurants, and shops. It was constructed in 1974, with the opening of the Tateshina Tokyu golf course and the first phase of sales of vacation homes starting in 1978, after which the ski area, tennis courts, and hotels were opened. There are several facilities and services where customers can enjoy abundant nature, including a diverse array of activity, healing, and workcation options.

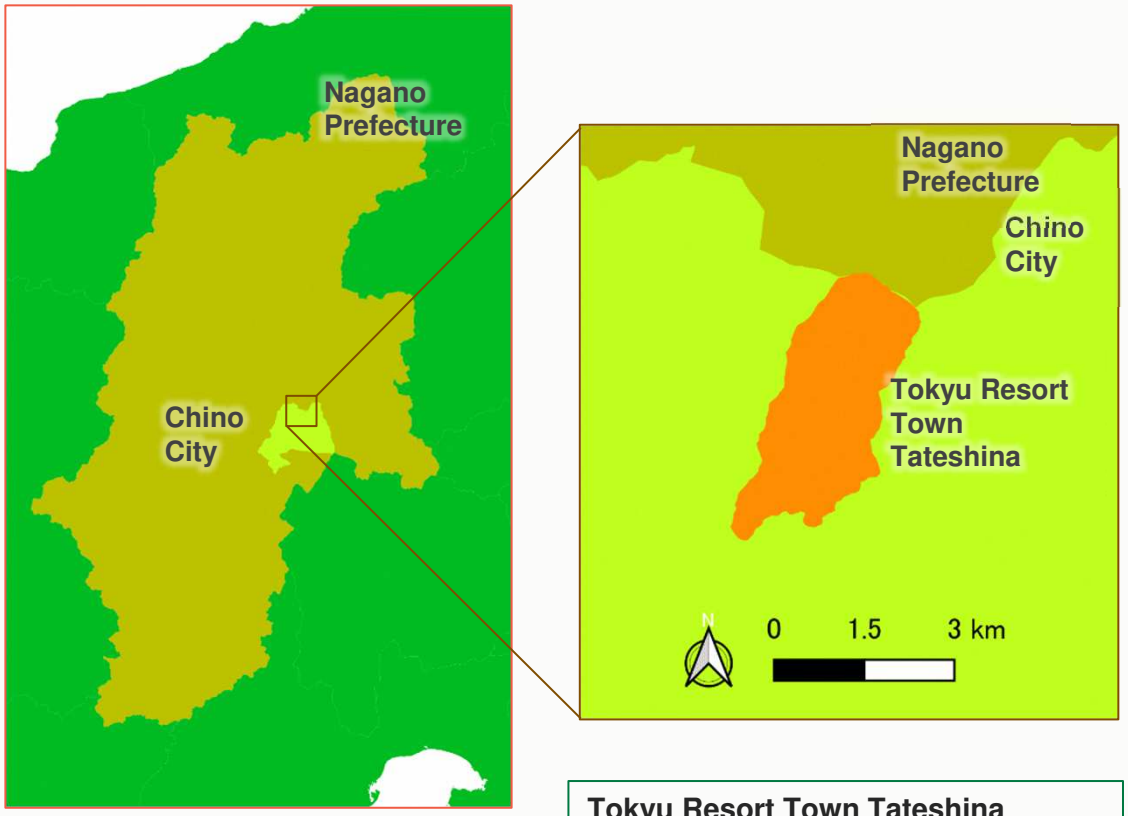
Visitors can see the Yatsugatake mountain range from within the town. Summers are comfortable, with minimum temperatures sometimes even dipping below 10 ºC from July to August. The refreshing, low-humidity climate provides a natural environment suited to avoiding the heat.



[URL] Tokyu Resort Town Tateshina | Relaxing in and enjoying nature (Tateshina, Nagano) (tateshina-tokyu.com)

Characteristics of the Nature in Tokyu Resort Town Tateshina

"Tokyu Resort Town Tateshina" is a large-scale resort complex that includes a hotel, golf courses, ski areas, and vacation homes. This site also includes a **vast forest spanning approximately 588 ha**, of which **over 30% are larch forests planted for lumber in the post-war period**. The large presence of **oaks, such as water oak,** is a characteristic of the forest.

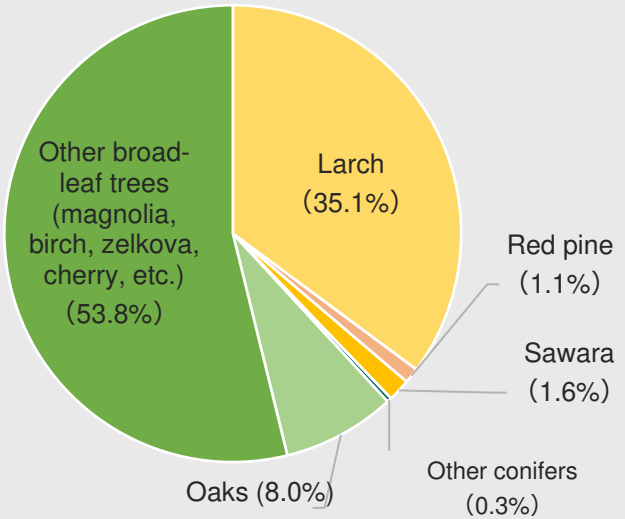


Tokyu Resort Town Tateshina

Site area: approx. 660 ha

Forest area: approx. 588 ha

"Tokyu Resort Town Tateshina" forest composition

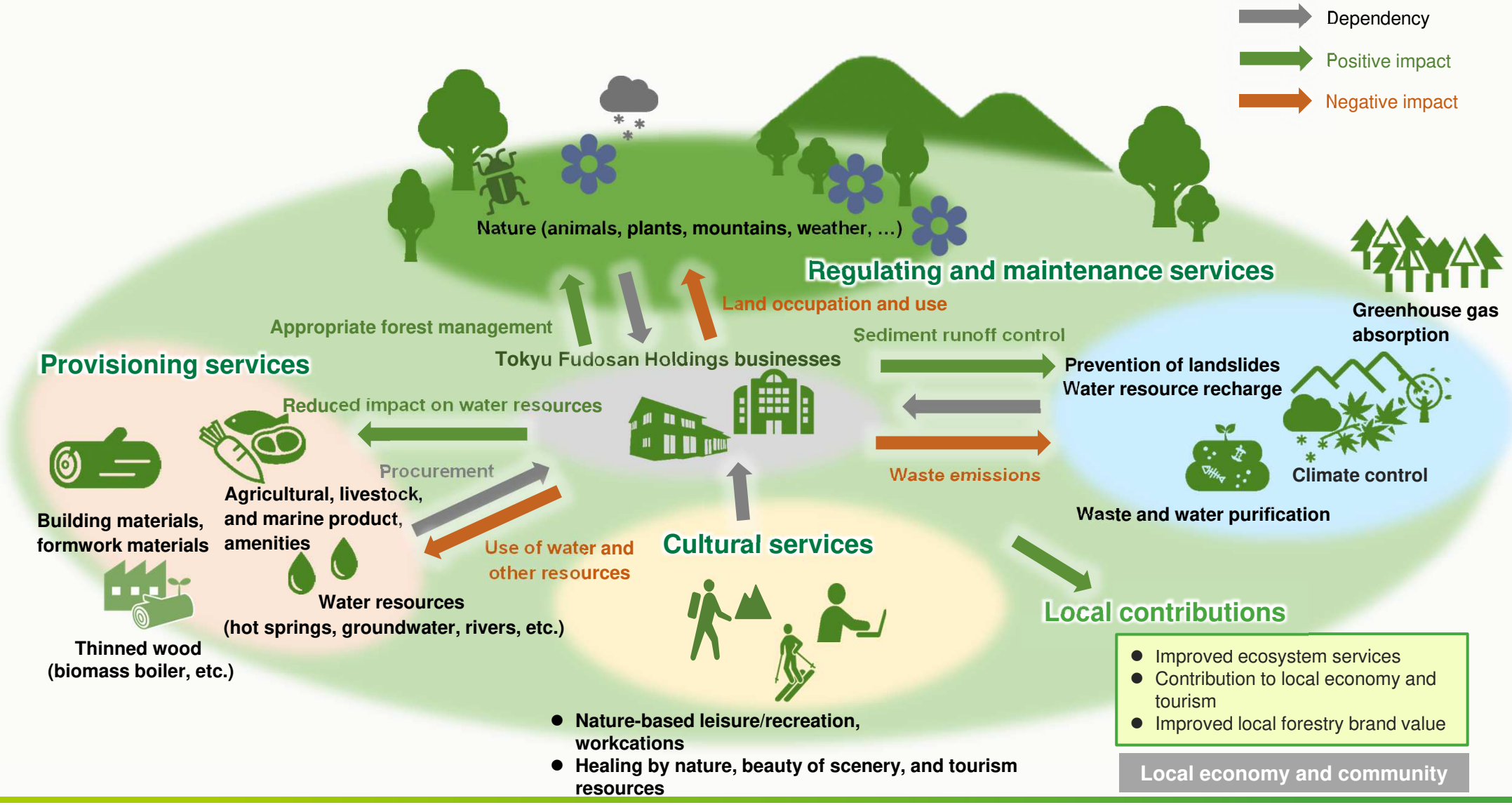


Constituent tree species		Area	
		Hectares	Percentage
Conifers	Larch	207	35.1%
	Red pine	6	1.1%
	Sawara cypress	9	1.6%
	Other conifers	2	0.3%
Broad-leaf trees	Oaks	47	8.0%
	Other broad-leaf trees	317	53.8%

*Forest area and composition tabulated from forest registers owned by our company or published by Nagano Prefecture.

Overall Picture of Nature Dependencies and Impacts Through Business (1)

As shown in the figure below, business at “Tokyu Resort Town Tateshina” **has various nature and ecosystem service dependencies. Nature and its bounties are particularly important in terms of operation. Both negative and positive nature impacts** are given.



Overall Picture of Nature Dependencies and Impacts Through Business (2)

The overall picture of dependencies and impacts through value chains in the business at “Tokyu Resort Town Tateshina” is as shown in outlined below.

At the procurement stage, there are various resource dependencies through food, building materials, and wood materials, and there are also impacts. At the development and operation stage, there is the possibility of **negative impacts, such as land alteration and occupation**, and **positive impacts due to initiatives such as forest management**. There are also **dependencies** on **cultural services such as tourism resources and recreational activities, and regulating and maintenance services, such as climate control and disaster mitigation**. Details on particularly important dependencies and impacts are explained in the following page.

Nature dependencies and impacts in value chain

*Bold text refers to particularly important dependencies and impacts

Procurement of raw materials and supplies

Negative impacts

Resource use for food/amenities, building materials, wood materials, etc.

Dependencies

<Provisioning services>

- Agricultural, livestock, and marine products
- Thinned wood
- Resources used as amenities and building materials

<Regulating and maintenance services>

- Pollination, climate control, soil retention, etc.

Development and operation

Negative impacts

- **Land alteration and occupation**
- Use of freshwater ecosystems
- Use of water resources
- Atmospheric pollution and GHG emissions
- Discharge of waste such as food and plastics
- Threats to flora and fauna, and potential introduction of invasive species

Positive impacts

- **Improve carbon absorption** through appropriate forest management
- **Positive impact on ecosystems** through appropriate forest management and preservation of rare and other distinctive species
- **GHG emissions reductions** through the use of thinned wood (biomass)
- Efficient use of water resources, water source recharge function through forest management
- Food waste reduction, plastic reduction, and resource circulation
- Reduction of water pollution through sewage treatment and drainage within the town
- Eradication of invasive species

Dependencies

＜Regulating and maintenance services＞

- **Climate control (cool and comfortable weather, snowfall, shifts of the four seasons, and carbon absorption)**
- **Disaster mitigation (e.g., landslides, strong winds, and heavy rains)**
- **Maintenance of habitat populations and habitat environments** for providing appealing activities
- Purification of wastewater and waste

＜Cultural services＞

- **Provision of various recreational activities and experiences** that use nature, such as skiing, golf, mountain climbing, trekking, bird-watching, mountain stream fishing, forest adventures, glamping, and workcations
- **Beauty of natural scenery, such as abundant forests, mountain ranges, plateaus, and lakes, healing and stress relief from forests and cool weather, and tourism resources, such as the shifts of the four seasons and natural phenomena**

Natural capital with relationships (“Environmental assets” under TNFD)

Mineral / energy resources | **Land** | **Terrestrial ecosystems** | **Air systems** | **Water resources**

Evaluation of Nature Dependencies as Tourism Resource (Methods)

"Tokyu Resort Town Tateshina", which is surrounded by abundant nature, **has various natural resource dependencies as a tourism attraction**.
Therefore, a detailed analysis on the nature dependencies of "Tokyu Resort Town Tateshina" as a tourism resource was conducted **in collaboration with Think nature Inc. and centering on an analysis of species**.

Source: Think Nature Inc.

Overview of analysis

- **Characteristics as tourism resources:**
  - ✓ Many visitors who enjoy the **fall foliage, which represents the golden fall foliage of the larch species,** that are abundant in the forest in the town, as well as **fresh greenery** in the spring and early summer.
  - ✓ Many visitors year-round with the aim to **mountain climb or trek**, taking advantage of the site location at the foot of the Yasugatake mountain range.
- **Distinctive vegetation**
  - ✓ **Larch forest**: Distinctive vegetation in the area, and is highly regarded as "Larch Gold" for its beautiful fall foliage.
  - ✓ **Water oak community**: Common vegetation in the area and includes many species with excellent fall foliage.
  - ✓ **Lingonberry-Pumila pine community**: Common alpine vegetation in the area and meets the needs of mountain climbers.
- **Quantitative evaluation of dependencies**
  - ✓ Whether this distinctive vegetation is abundant even at a national scale is quantitatively determined by analyzing the **characteristic (i.e., abundant) species**, mainly the above vegetation, in and around Tokyu Resort Town Tateshina, based on the organism distribution big data of Think Nature Inc.. Specifically, the "lift values" on the right were calculated.

- **Determination of characteristic species due to lift value**
  - ✓ Value that shows how many times the population of the species in the analyzed area ("Tokyu Resort Town Tateshina" and Chino City) is larger than the population of the species in all of Japan.
  - ✓ **A Value > 1** indicates **many areas that are suited as habitats compared to all of Japan**.

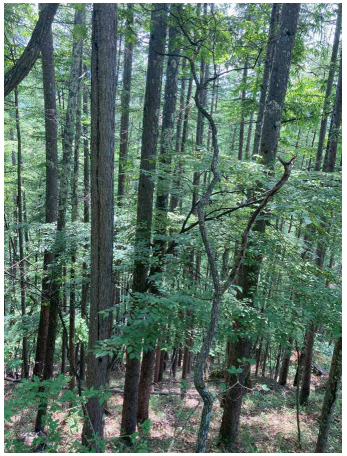
Name	Tokyu Resort Town Tateshina	Chino City
Larch	14.2	11.2
Panicle hydrangea	4.1	4.0
Wild vine	3.7	3.0
Goldenrod	3.4	3.2
Water oak	1.5	0.8
Redvein maple	4.2	3.8
Pumila pine	10.2	9.7
Lingonberry	9.8	10.1
Rowan	12.6	11.8
Erman's birch	5.7	4.6

Evaluation of Nature Dependencies as Tourism Resource (Results)

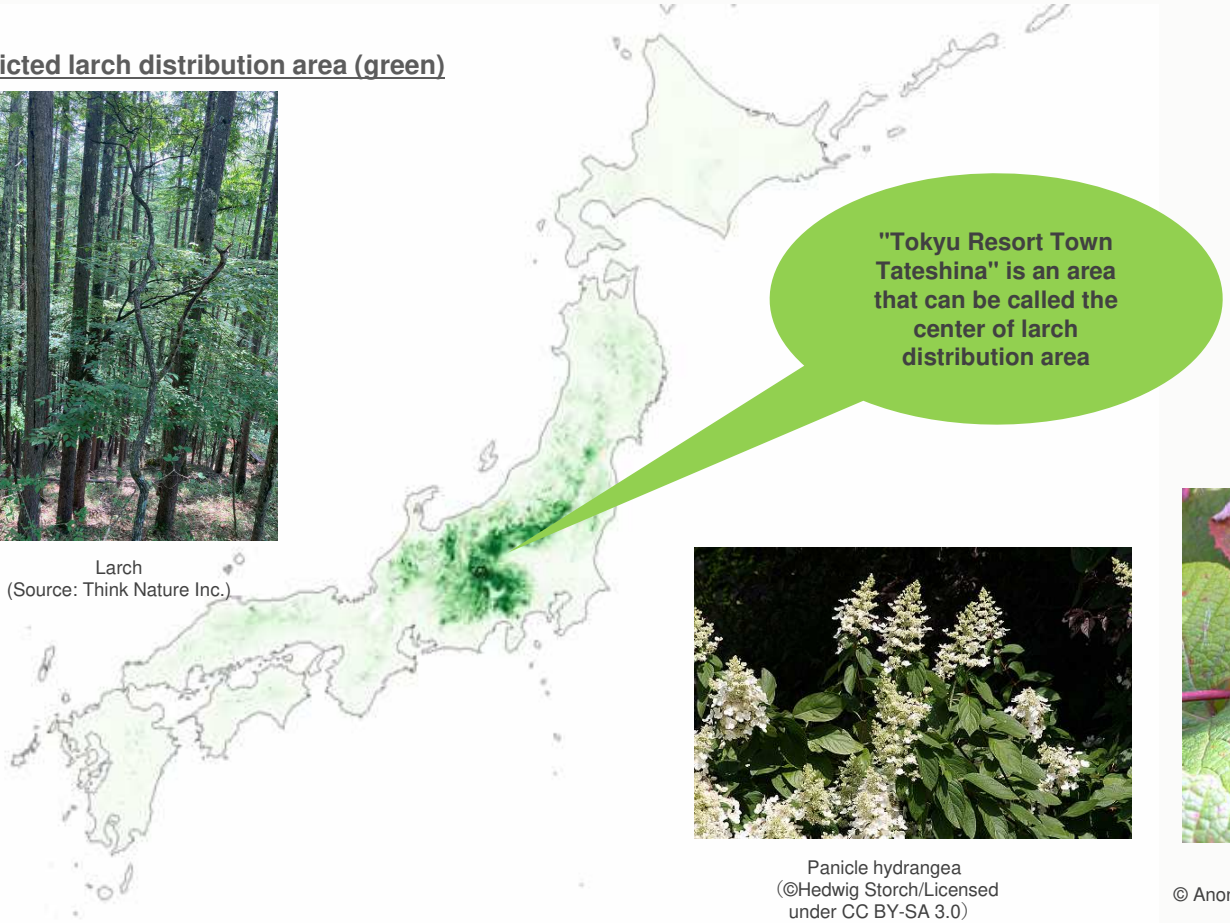
Analysis result (1): Larch forests

"Tokyu Resort Town Tateshina" has **abundant larch,** even at a national level, **to the extent that the site could be called the center of the larch distribution area**. Larch is an **endemic species in Japan** and is the only deciduous conifer; hence, fresh greenery can be enjoyed in the spring, and fall foliage can be enjoyed in the autumn. Characteristic vegetation in larch forests also included plants that bring color to the foothills, such as panicle hydrangea, wild vine, and the beautiful flowering goldenrod. These **abundant vegetation** and their resulting **beautiful scenery increase the appeal of** "Tokyu Resort Town Tateshina" **as a tourist site** and support the business in terms of the **maintenance and increase of the exchange population of visitors and related populations**.

Predicted larch distribution area (green)



Larch
(Source: Think Nature Inc.)



(Source: Think Nature Inc.)

Larch fall foliage (Larch Gold)

Panicle hydrangea
(©Hedwig Storch/Licensed under CC BY-SA 3.0)

Wild vine
© Anonymous Powered /Licensed under CC BY-SA 3.0

Goldenrod
(Source: Regional Environmental Planning Inc.)

Evaluation of Nature Dependencies as Tourism Resource (Results)

Analysis result (2): Water oak

Results for water oak showed that, although not necessarily a predominant species in Chino City, it was the predominant species in “Tokyu Resort Town Tateshina”. Water oak communities have an **abundance of vegetation with colorful foliage**, including maples such as redvein maple as well as oaks. As with the larch in the previous page, the **abundant vegetation** and resulting **beautiful scenery** are one of the appeals that support the business at ”Tokyu Resort Town Tateshina” as a tourist site.

Predicted water oak distribution area (green)

Water oak
(Source: Think Nature Inc.)

(Source: Think Nature Inc.)

Redvein maple

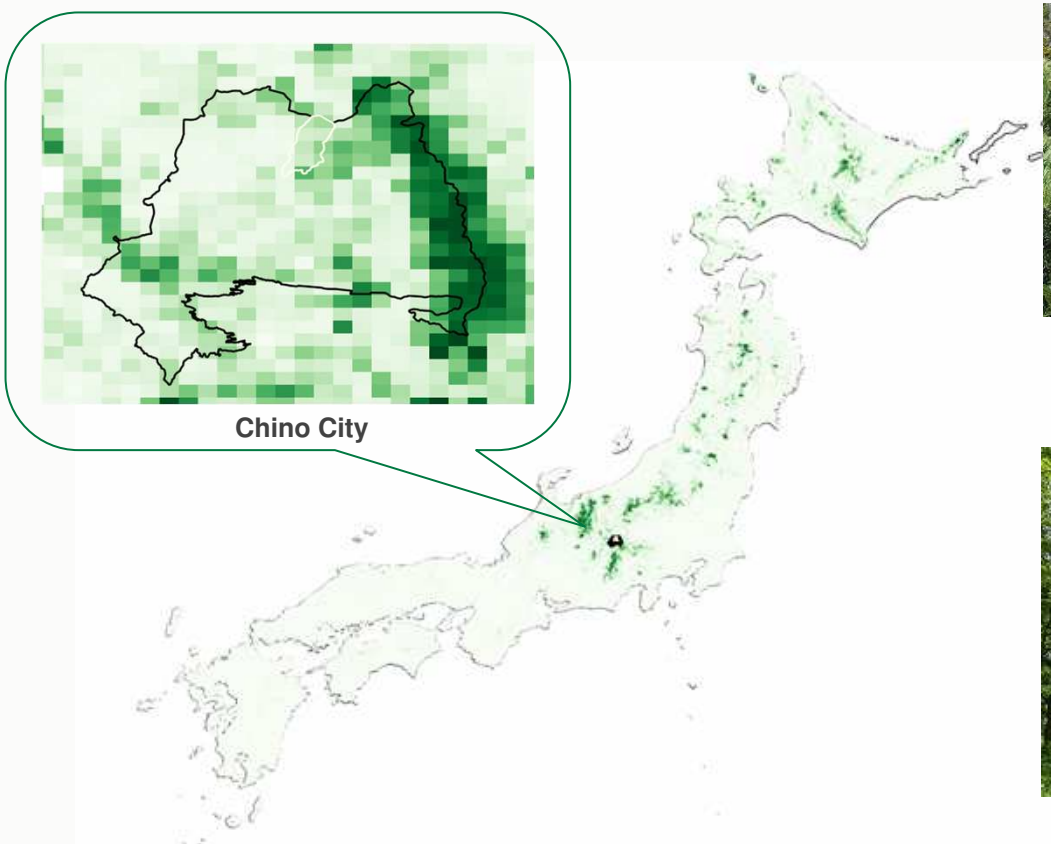
Fall foliage at Tokyu Resort Town Tateshina

Evaluation of Nature Dependencies as Tourism Resource (Results)

Analysis result (3) Pumila pine

Areas with high Pumila pine habitat suitability were distributed in sync with the ridgeline of the Yasugatake mountain range, and the habitats of the alpine vegetation Pumila pine were abundant even at a national level in Chino City (near Tokyu Resort Town). Furthermore, there were abundant habitats of not only vegetation related to the lingonberry-Pumila pine community, but also vegetation with fall foliage properties, such as Erman's birch. This alpine vegetation is thought to be one of the appeals for hikers.

Predicted Pumila pine distribution area (green)



(Source: Think Nature Inc.)

Pumila pine
(©Σ64/Licensed under CC BY-SA 3.0)

Lingonberry
(Source: Regional Environmental Planning Inc.)

Erman's birch
(©Agnes Monkelbaan/Licensed under CC BY-SA 4.0)

Fall foliage of Erman's birch
(©Sten Pores/Licensed under CC BY-SA 3.0)

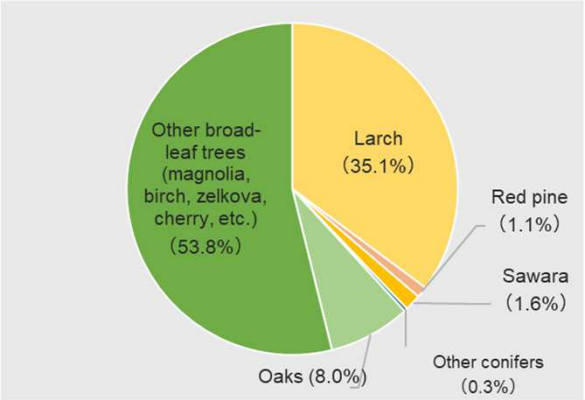
Quantitative Evaluation of Dependencies on Carbon Absorption Function (Methods)

The amount of CO_2 absorption through the forest in “Tokyu Resort Town Tateshina” was calculated to determine the “forest carbon absorption function”, one of the dependent nature functions.

Overview of analysis

- Target: “Tokyu Resort Town Tateshina” forests (forest area: approx. 588 hectares)
- Method: Use of Forestry Agency’s “Carbon dioxide absorption and fixation amount ‘visualization’ calculation sheet”
- Data sources: Forest registers and forest plans owned by our company or disclosed by Nagano Prefecture

Forest composition



Overview of visualization sheet

Item	Details
Creation and disclosure	Forestry Agency
Characteristics	◆ Calculate and display CO_2 absorption amount through forest preservation, such as J-Credit system or prefectural certification ◆ Calculate CO_2 absorption amount by inputting site location, tree species, age class (forest age: 5-year units), area, etc.
Formula	Annual CO_2 absorption amount per hectare ＝① Annual trunk growth per hectare × ② Expansion factor × （1＋③ Underground ratio） × ④ Bulk density × ⑤ Carbon content × ⑥44/12
Definitions of factors	① Annual trunk growth per hectare: the volume that tree trunks in one hectare grows per year (m^3/ha) ② Expansion factor: factor for adding volume of tree branches ③ Underground ratio: ratio of tree root volume to aboveground volume (trunk + branches) ④ Bulk density: factor for converting the volume of wood to weight (t/m^3) ⑤ Carbon content: percentage indicating the amount of carbon per ton of wood weight ⑥ 44/12: factor for converting carbon amount to carbon dioxide amount

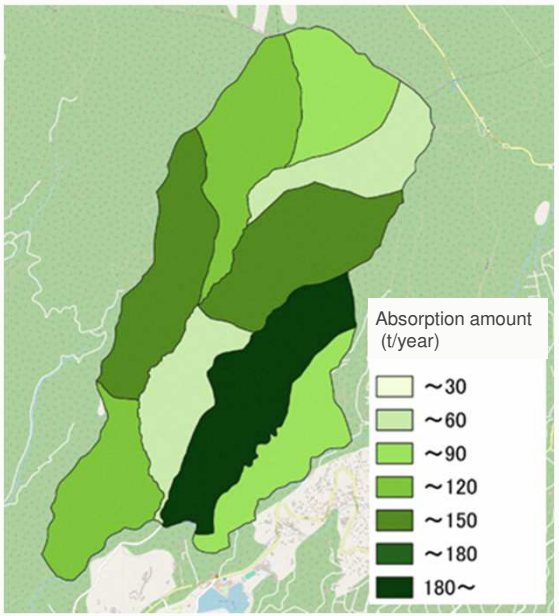
Quantitative Evaluation of Dependencies on Carbon Absorption Function (Results)

CO_2 absorption amount by forests (single year)

Analysis results showed that, **per year,** the entire forest of “Tokyu Resort Town Tateshina” **absorbs 892 t of CO_2**, equivalent to the annual household emissions of **approximately 240 general households** (*).

CO_2 absorption amount	Absorption amount by species		Total
	Larch	Other species	
Annual estimated value ($t\text{-}CO_2/yr$)	340	552	892
Annual estimated value per hectare ($t\text{-}CO_2/ha/yr$)	1.6	1.4	1.5

CO2 absorption amount (by area)



Absorption amount varies even within each location due to different tree species and age compositions in each area.

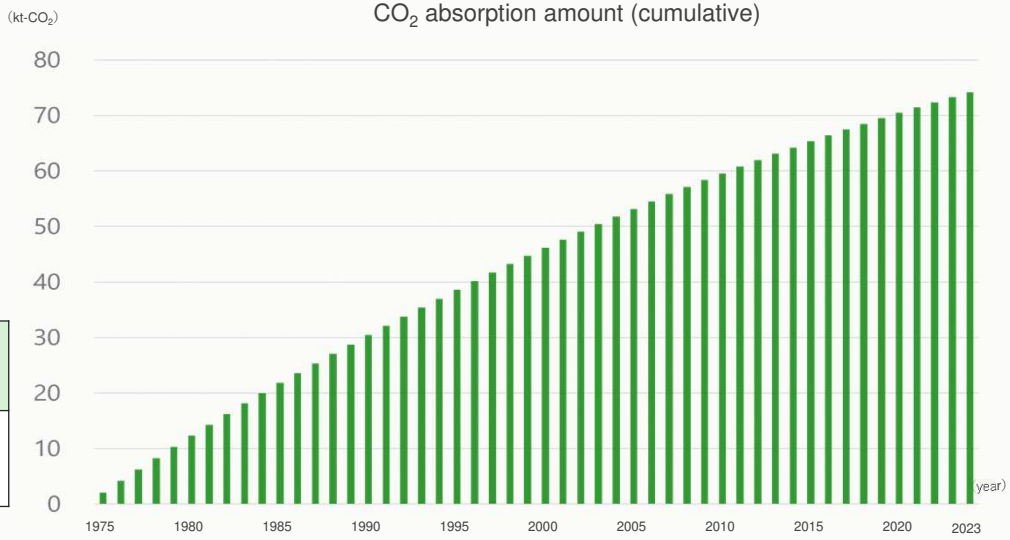
Forest CO_2 absorption amount (cumulative)

Based on the assumption that the forest area and species composition remain unchanged, with the tree age changing over time, the previous status of the forest was estimated, and the cumulative CO_2 absorption amount from development (around 1974) to 2023 was calculated.

Calculation results showed that **a cumulative total of approximately 74,000 t of CO_2 was absorbed** in the entire forest of “Tokyu Resort Town Tateshina.” This is equivalent to an annual average of approximately 1,480 t of CO_2, which is equivalent to the annual emissions of approximately 400 households.

Cumulative CO_2 absorption amount	Absorption amount by species		Cumulative total
	Larch	Other species	
Estimated cumulative amount from 1974 to 2023 ($t\text{-}CO_2$)	31 k	43 k	74 k

CO_2 absorption amount (cumulative)



* Calculated from amount of CO_2 emissions per household from “Japan Greenhouse Gas Inventory (FY2021)”

Quantitative Evaluation of Impacts Due to Land Use (Methods)

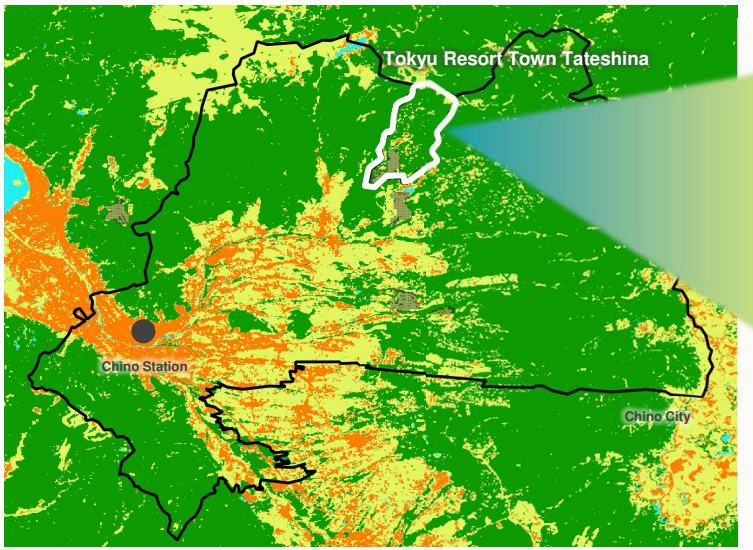
Among the impacts due to the business summarized on pp. 46–47, **the impact of land alteration and occupation from facility development and operations** was evaluated as an important impact that may influence ecosystem services and change forest ecosystems and scenery. Specifically, a **quantitative analysis** of the **change in forest areas since the start of development** by our company was conducted in collaboration with Think Nature Inc..

Overview of quantitative analysis

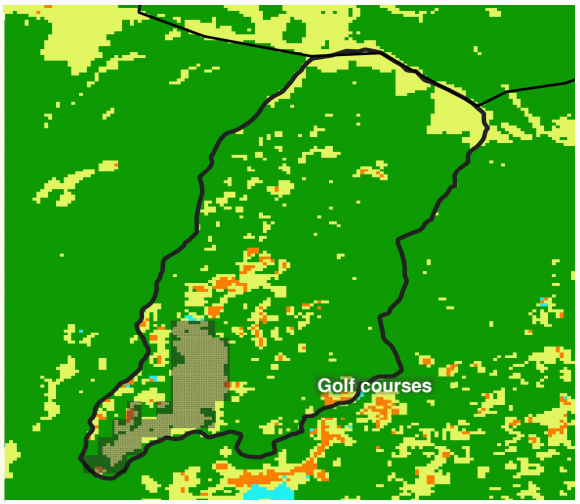
Source) Think Nature Inc.

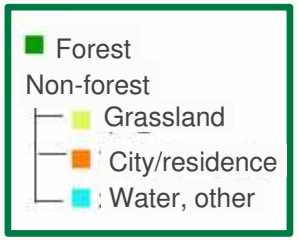
- Target: Tokyu Resort Town Tateshina
- Method: High-accuracy aerial images from 1973 and 1975 and satellite images from 1985 onwards were used alongside machine learning* with AI to **provide an estimated classification of forests and non-forests** and the trends in forest area change were quantitatively analyzed.

Estimation of forest area from satellite images (entirety of Chino City) (2023)



Tokyu Resort Town Tateshina site (2023)





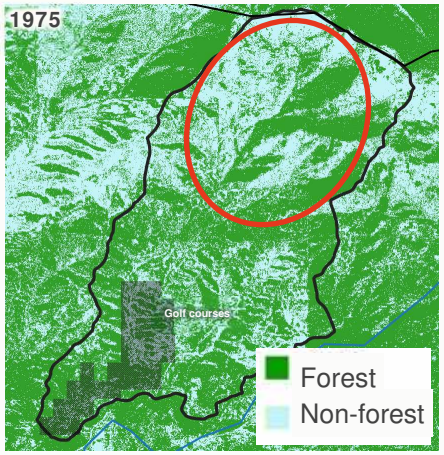
Shaded area: area identified as golf courses on 1991 land use map

*Machine learning: Method of data analysis where a computer uses a large quantity of data to learn rules and make predictions and decisions based on those results.

Quantitative Evaluation of Impacts Due to Land Use (Results)

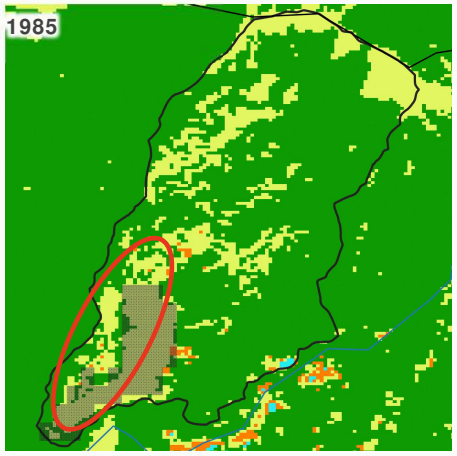
The change in forests over time is as shown in the figures below. **Around 1975, at approximately the time of land acquisition, there were many non-forest areas centered in the north of the site**. The state of the forest **changed due to forest recovery,** as well as **the development of facilities and vacation homes**.

Source) Think Nature Inc.

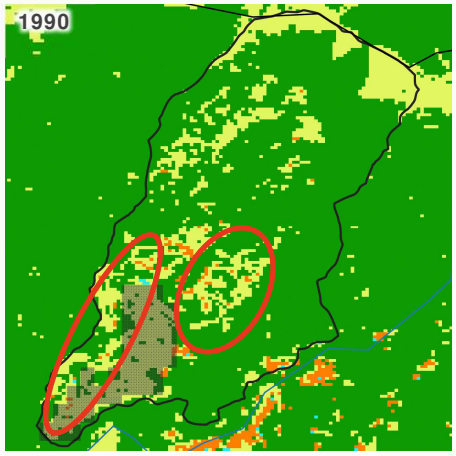


The area was used as a grass-cutting field in the pre-WWII and WWII periods and as a reforestation and afforestation site for timber in the post-WWII period*.
Around 1975, at approximately the time of development, non-forest areas were noticeable due to the impact of felling for firewood and charcoal (in the circled area).

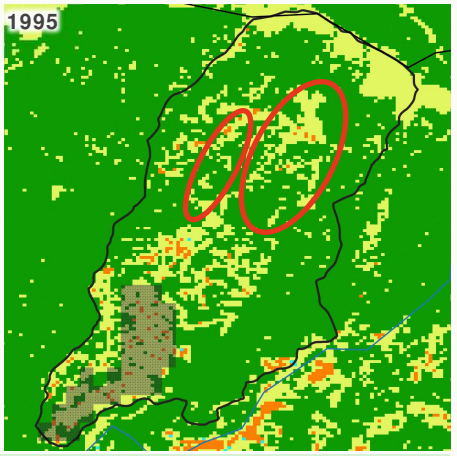
*From references 9) and 10)



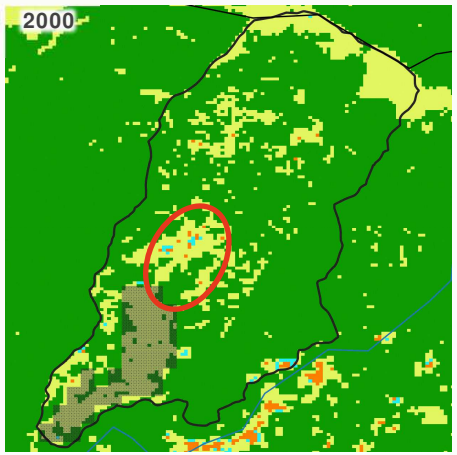
Construction of vacation homes and development around golf courses proceed in the circle, while forest recovery proceeds in the north.

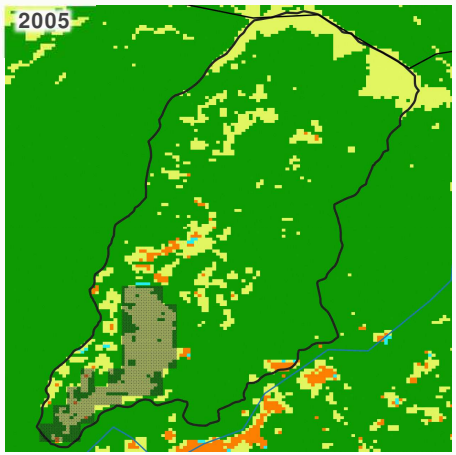


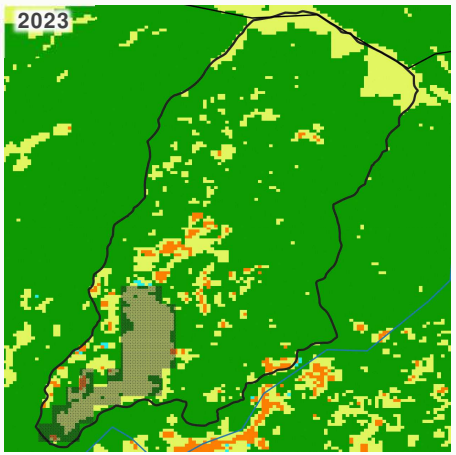
Construction of vacation homes and villa proceeds in the circles, as well as forest recovery in the northwest area and golf courses.



The construction of vacation homes and villas in the circles led to road construction as well as forest decline.







Forest
Non-forest
Grassland
City/residence
Water, other

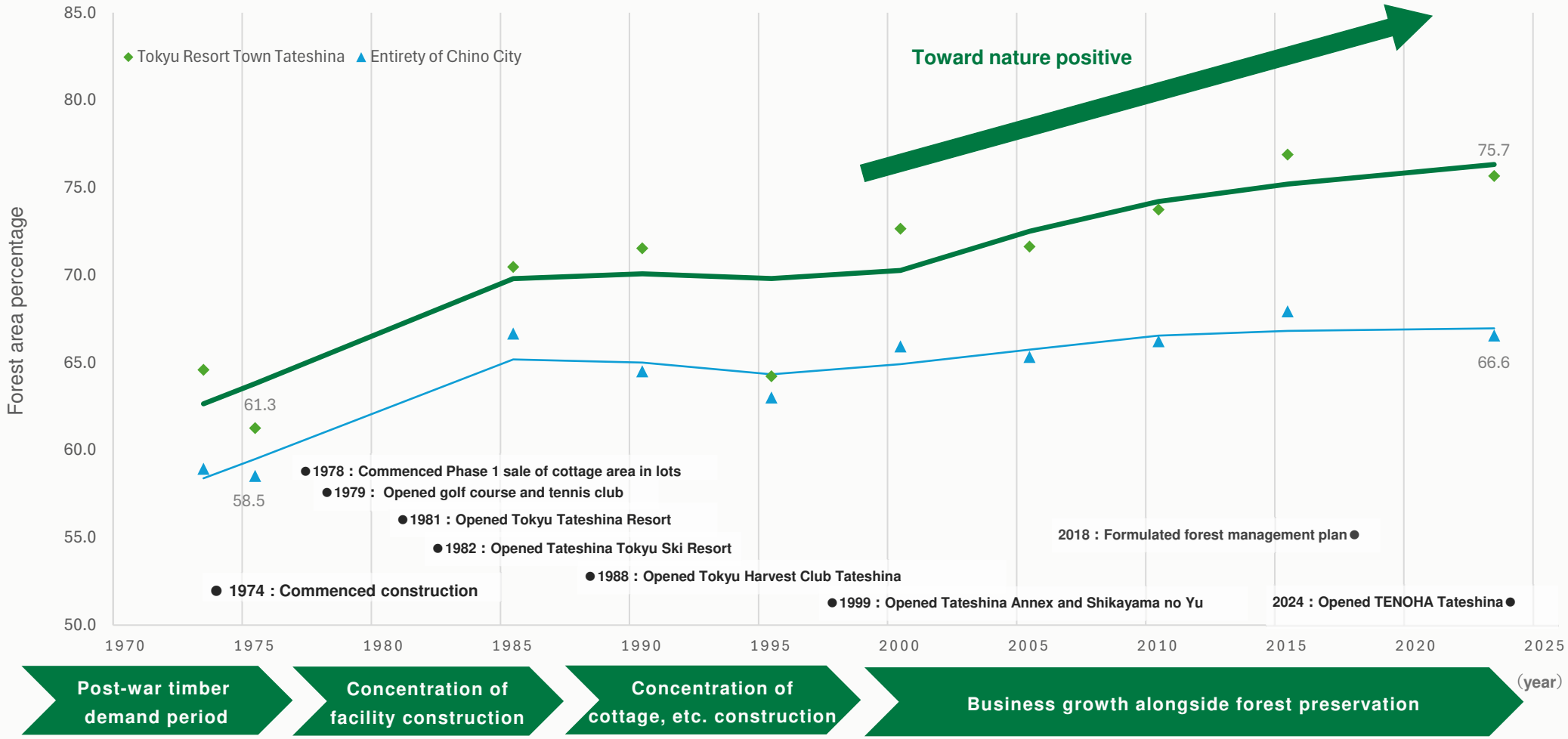
Construction of hotels and other structures continued within the circle in the 2000 image, but a subsequent tendency toward forest area recovery was confirmed.

Quantitative Evaluation of Impacts Due to Land Use (Results)

Results of analyzing the forest state showed that the **change in forest area percentage in Tokyu Resort Town Tateshina** was as follows: although the forest area has declined due to the construction of golf courses and vacation homes, **the overall trend is toward recovery**, and the current status is that the area is in its most recovered state, as well as the fact that the business operations, which have simultaneously maintained and recovered forests, are **contributing to nature positive as a result of our company's resort development and operations**.

Changes in forest area percentage (Evaluated from aerial and satellite images)

Source) Think Nature Inc.



Quantitative Evaluation of Positive Impacts Due to Forest Management (Methods)

Our group has **formulated a forest management plan at Tokyu Resort Town Tateshina in 2018** based on the forest management plan of Chino City and is engaged in **thinning- and reforestation-based forest management**. Meanwhile, given the increasing age of the trees that constitute the forests, our group is considering forest management that incorporates not only thinning and reforestation, but also partial clear-cutting of old-growth larch forests and their reforestation. Therefore, a quantitative evaluation was conducted on the impact of future forest management on biodiversity.

Specifically, a quantitative analysis was conducted in collaboration with Think Nature Inc. of the “number of species”, which is an indicator of the state of forest biodiversity, while considering the forest vegetation and management state to examine shifts from the past and the **impact of forest management on the number of species**.

A comparative analysis was conducted on a pattern of forest preservation activities where 2 ha of old-growth forest is clear-cut every year and reforested, and a pattern of no thinning or clear-cutting and leaving the process to natural transitions, for a larch forest.

Overview of quantitative analysis

- An analysis was conducted on how the number of species changes in the future due to the following two management method patterns in a larch forest based on biodiversity big data of Think Nature Inc. :

Pattern	Assumed future management	What will be learned
1. **Forest management:** Clear-cutting of some old-growth forests and reforestation, forming a mixed broadleaf forest	Clear-cutting of 2 ha of old-growth forest (at least 80 years old) every year and planting broadleaf trees to slowly transition to mixed forest	Impact of small-scale clear-cutting and reforestation over long-term on biodiversity
2. **No forest management:** Left to natural transition (left alone)	No forest management (no thinning or clear-cutting) and leaving to natural transition	Impact of absence of human influence and leaving forest as is on biodiversity

*Felling: cutting down unnecessary trees.
*Thinning: felling some trees depending on crowding extent to reduce competition between trees being grown.
*Clear-cutting: felling a certain group of trees that constitute a forest all at once.

Quantitative Evaluation of Positive Impacts Due to Forest Management (Results)

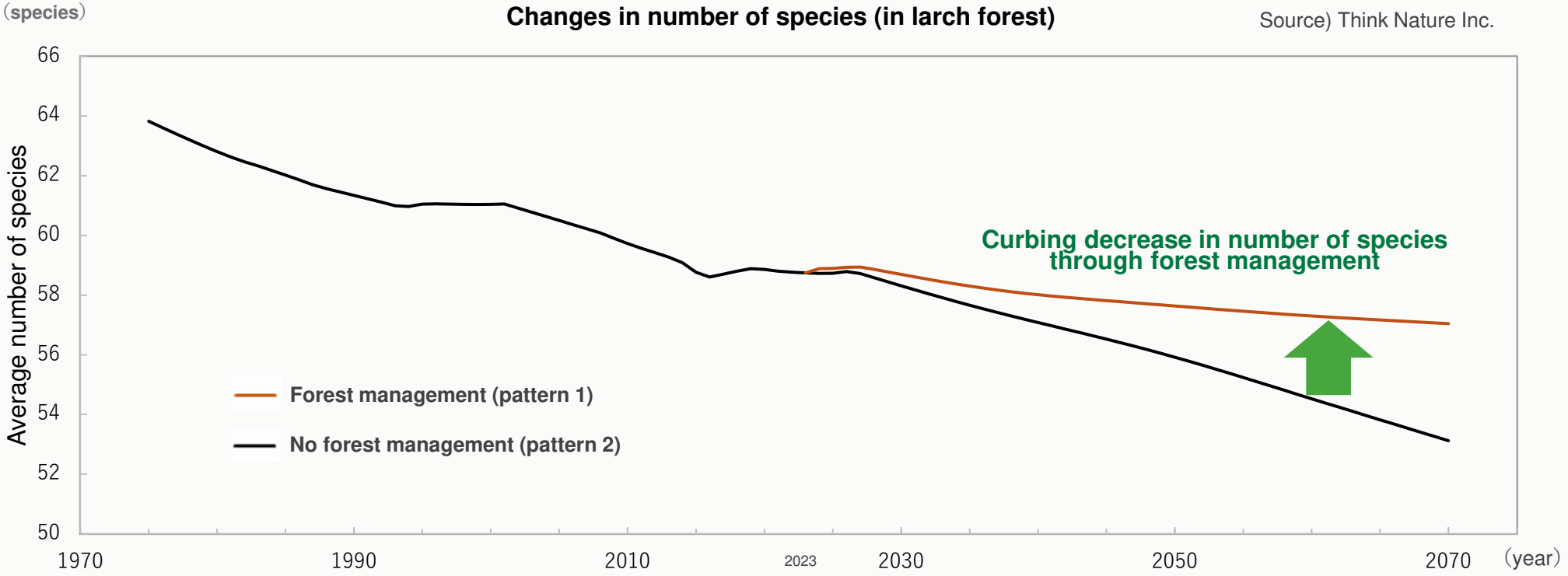
Evaluation of biodiversity impacts through forest management

Normally, the aging of forest trees over time decreases the number of species in a forest. Although **forests have been created with abundant fall foliage and excellent scenery** due to **our company's development that limits deforestation and our planting and preservation of larch forests since the start of development**, there has been progressive aging of forests, with an average age of at least 80 years, entering a **phase of declining number of species** (figure below, until 2023).

Meanwhile, as shown in the figure below, in the larch forest, the management method of **clear-cutting and reforesting some old-growth trees to form a mixed broadleaf forest** (pattern 1) could **suppress the decline in the number of species** more than the method of not conducting forest management and leaving the process to natural transitions (pattern 2) (figure below, from 2023 onwards). These results will also be used as a reference to strive toward the preservation of biodiversity in the future through appropriate forest management, such as the continuation of thinning, but also partial clear-cutting and reforestation.

Changes in number of species (in larch forest)

Source) Think Nature Inc.



*Average number of species: value determined by dividing the larch forest into 30 m square grids (frames), analyzing the number of species contained within each grid, and calculating a simple average for all grids.

Important Risks and Opportunities in the Hotel and Leisure Business (Including Tokyu Resort Town Tateshina) (1)

The expected risks and opportunities in the hotel and leisure business were considered based on the considerations at the “Tokyu Resort Town Tateshina”.The results of qualitatively examining the importance of risks and opportunities to our group’s business are as follows:

Risks, such as as **physical risks due to the degradation of dependent ecosystem services** and **transition risks due to changes in regulations and market environments,** are expected; however, as shown on the next page, **many nature-related opportunities** may also emerge.

Risk classification		Main dependencies and impacts	Risk content
Physical risk	Acute / chronic	Dependencies on water resources	● Shortages in water resources due to contamination of rivers caused by development by other entities or decreased water recharge abilities of forests that serve as water sources
		Dependencies on water supply, pollination, and climate control	● Price hikes in food at hotels and restaurants due to the occurrence of water shortages, poor or abnormal weather, or disasters at the agricultural and livestock production sites or livestock feed production sites ● Fish shortages and price hikes due to decreased catches resulting from degradation of marine and river ecosystems
		Dependencies on soil and sediment retention, storm mitigation, and climate control	● Increased landslide and flood risk due to degradation of forests accompanying development by other companies in the surrounding area ● Landslide and flood risks due to degradation of forests in the area caused by insufficient forest maintenance and management ● Increase in damage to facilities, visitors, and users due to a climate change-induced increase in wind and flood disasters
		Dependencies on climate control, maintenance of habitat populations and environments, and cultural services	● Impacts on our group’s net-zero transition plan due to decreased CO_2 absorption capacity of forests ● Loss of important natural phenomena that are important for scenery of the four seasons and tourism resources and decreased appeal as resort areas due to climate change-induced increases in temperature ● Impacts on ski area operations due to climate change-induced decline in snowfall and shortened snowfall season ● Decreased biodiversity of birds, fish, and plants, among others, due to climate change, human impacts such as development, and insufficient forest maintenance and management, resulting in decreased appeal of activities that involve nature (e.g., hiking and bird watching) ● Worsened scenery due to the increase of invasive species and animal damage in the area and within facilities, and the resulting decrease in appeal of tourism, various activities, and healing ● Decreased tourism appeal due to decreased river and lake water quality caused by human activity, such as corporate development

Important Risks and Opportunities in the Hotel and Leisure Business (Including Tokyu Resort Town Tateshina) (2)

Risk classification		Main dependencies and impacts	Risk content
Transition risks	Policies and laws	Other resource use and waste	● Increased costs for measures such as substituting plastics and reducing food loss due to plastic resource circulation and further strengthened regulations against food waste
		Water resource use	● Restrictions on water use rights for conserving river water resources
		Water contamination	● Enforced regulations relating to wastewater
		Terrestrial ecosystem use, other resource use	● Price hikes in agricultural, livestock, and fishery products served at resort facilities and restaurants due to regulations for nature conservation (e.g., restricted fishing catches), regulations on land conversion both in and outside of Japan, and increased demands for sustainable agriculture
	Technologies	CO_2 emissions and water resource use	● Increases costs due to the introduction of technologies that increase energy efficiency and new equipment and technologies that increase efficient water resource use and water conservation, such as small-scale decentralized water circulation systems
	Markets	Resource use	● Increases in procurement costs due to increased demand for the use of sustainable certified products in hotels and restaurants, and sustainably produced foods (agricultural, livestock, and fishery products) and amenities ● Price hikes due to increased demand from certified products or sustainable alternatives (e.g., biomass plastics)
	Reputation	Terrestrial ecosystem use, alteration, and water resource use	● Worsened reputation due to land development and occupation, as well as large-scale water resource use by facilities
		Introduction of foreign species and ecosystem disturbance	● Worsened reputation due to the introduction and spread of invasive plants and animals, as well as negative impacts on plants and animals

Important Risks and Opportunities in the Hotel and Leisure Business (Including Tokyu Resort Town Tateshina) (3)

Opportunity classification			Main dependencies and impacts	Opportunity content
Opportunities	Markets	Resource efficiency	Reduction of negative impacts, such as land alteration and occupation, contamination, resource use, and waste discharge Positive impacts on ecosystems (and ecosystem services) through appropriate forest management, as well as monitoring and conservation of organisms	● CO_2 reduction and energy cost reduction through use of biomass boiler that uses thinned wood, and cost reductions through introduction of technologies that increase water use efficiency
		Capital and funding		● Acquisition of J-Credits through carbon absorption from appropriate forest management
		Products and services		● Sales of wood products and original aroma goods that use larch wood resulting from thinning
	Reputation capital	Corporate value		● Positive impacts, such as maintenance and increase in flora and fauna due to appropriate forest maintenance and management, certification as a nature-friendly site, and improved reputation due to biodiversity conservation initiatives ● Improved resource circulation and reputation regarding sustainable resource use, such as the introduction of composting and utilization of plant-based materials for amenities
		Local engagement, local appeal, and economic value		● Improved relationships with local communities and reputation due to consideration toward reduction in impacts to surrounding natural environment during facility development ● Improved relationship with local governments due to contributing to circular and ecological sphere ● Improved revenue and reputation through business activities that utilize the unique appeal of nature in the area (including increased awareness of the area, increased appeal as a tourist site, and increased number of tourists) ● Improved reputation due to contributing to the regional forestry industry's brand value and revenue stemming from the expanded application of thinned larch wood
	Nature conservation, recovery, and regeneration			● Contribution to improved ecosystem services, such as water recharge function and landslide prevention functions resulting from appropriate forest maintenance and management ● Conservation of nature through the eradication of invasive plants and animals ● Indirect positive impacts on nature due to facility users' public awareness of nature and the environment through various activities at the facility (e.g., staying in the forest, glamping, walks, and birdwatching)

Important Risks and Opportunities in Business Areas Other Than Those Listed Earlier

There are also expected nature-related risks and opportunities, including those shown below, for businesses other than the urban development business and hotel and leisure business after considering an overview of dependencies and impacts. Although there are various risks, there are also potential business opportunities.

Risk and opportunity classification		Business risk and opportunity content
Physical risks	Acute and chronic	● Increased disaster risk of wind and flood damage, landslides, etc., due to degradation of nature accompanying development by our company and other stakeholders [strategic investment business, management and operation business] ● Shortages of water resources due to degradation of ecosystems in water sources [strategic investment business, management and operation business] ● Decreased power generation efficiency due to a decrease in natural climate control, biomass fuel shortages, and price hikes due to the degradation of ecosystems at production sites [strategic investment business]
Transitional risks	Policies and laws	● Strengthening of regulations related to land alteration for nature conservation and building greening [strategic investment business, management and operation business] ● Biomass fuel shortages and price hikes due to regulations for forest conservation [strategic investment business] ● Shortages of building materials, lumber, etc., and increased procurement costs due to land alteration for nature conservation and strengthening of resource extraction-related regulations [strategic investment business, management and operation business]
	Reputation	● Lawsuits and criticism against development activities that may have negative impacts on local ecosystems and ecosystem services [strategic investment business, management, and operation business] ● Criticism of negative impacts on ecosystems due to power plants [strategic investment business]
Opportunities		● Increased customer preference for properties that have less impact on nature and have a positive impact on nature and ecosystems [strategic investment business, management and operation business] ● Improved relationships with local communities, positive impact on consensus building during project promotion, and improved corporate reputation and brand value through business operations with less impact on nature and a positive impact on nature and ecosystems [strategic investment business, management and operation business]

Risk and Impact Management

Identification and Evaluation Process

Under “risk and impact management” by TNFD, it is recommended that corporations integrate processes for identifying, evaluating and managing nature-related dependencies, impacts, risks and opportunities with companywide risk management processes, take concrete action in light of those management processes, and explain the involvement of stakeholders who are impacted.

An explanation of processes, specific initiatives and stakeholder engagement is provided below based on that.

Identification and evaluation process for dependencies, impacts, risks and opportunities

Regarding dependencies and impacts, after sorting out an overview of dependencies and impacts for each group business and value chain and their quantitative importance, in our Urban Development Business in the greater Shibuya area and Hotel and Leisure Business including “Tokyu Resort Town Tateshina”, we performed evaluations of quantitative and qualitative dependencies and impacts based on information unique to the local community.

Based on those dependencies and impacts as well as information on our external environment such as the National Biodiversity Strategy by the Japanese government and the Regional Biodiversity Strategy by the Tokyo Metropolitan Government, we identified nature-related risks and opportunities in our Urban Development Business in the greater Shibuya area and Hotel and Leisure Business including “Tokyu Resort Town Tateshina”. We disclose these risks and opportunities as those which are believed to bear a particularly high level of importance for the Group from a qualitative standpoint.

Going forward, we will continue to examine the ideal nature of scenario analysis and evaluations of the importance of risks and opportunities based on that analysis.

Analysis of dependencies and impacts

- Assessment of overview of dependencies and impacts in all businesses and value chain
- Detailed evaluation of dependencies and impacts in greater Shibuya area and Tokyu Resort Town Tateshina

Gathering of information regarding external environment

- Gathering of information on external environment such as direction of national policy

Identification of risks and opportunities

- Identification of risks and opportunities based on dependencies and impacts
- Identification of items with high qualitative importance

Management Process

Management process for dependencies, impacts, risks and opportunities

Tokyu Fudosan Holdings established a “Tokyu Fudosan Holdings Sustainability Committee” directly under the President & CEO that devises plans for nature- and biodiversity-related challenges and other material issues, verifies the results of those plans, and reports those results to the Board of Directors.

The Group Sustainability Promotion Department acting as the secretariat for the Tokyu Fudosan Holdings Sustainability Committee and each business department set targets for nature- and biodiversity-related issues, manage their results, share associated information and, in doing so, conduct proper reporting based on related laws and regulations. Simultaneously, they endeavor to reduce negative impact and expand the positive impact on nature and biodiversity through business activities.

Additionally, having formulated the “Sustainable Procurement Policy” in January 2021, outside of our business activities, we also work together with upstream and downstream shareholders in our value chain to address the reduction of the negative impact on nature and biodiversity.

Integration of nature-related risks into group risks

Tokyu Fudosan Holdings manages risks using the below individual risk units with risks that materially impact management set forth as particularly “main risks.”

- **Main risks**

① Investment risks ② Financial capital risks ③ Personnel affairs and labor risks ④ Legal affairs and compliance risks
⑤I IT strategy risks ⑥ Information leakage risks ⑦ Crisis management response ⑧ Climate change risks

The Company centrally manages ESG risks that include nature- and biodiversity-related issues as a subcategory of “main risks.”

- **Examples of ESG risks**

Climate change, biodiversity conservation, environmental contamination, reduction and appropriate disposal of waste, resource utilization, water resource conservation, protection of human rights and prevention of child labor Contributions to local communities and society, employee health, safety and human rights, corruption and bribery, corporate governance, etc.

Metrics and Targets

Metrics and Targets Regarding Dependencies and Impacts on Nature

The Group has **formulated the below targets** with respect to nature-related dependencies and impacts.
Going forward, we will continue to examine the ideal nature of metrics and targets for managing nature-related dependencies, impacts, risks and opportunities in the Group based on TNFD's final recommendations and trends in SBT for Nature as well.

KPI (GROUP VISION 2030)

Targets related to land use	Building greenery (rooftop, wall surfaces, etc.)* 100% by FY2030 *Newly-built large-scale office building/commercial facility properties of Tokyu Land Corporation
Targets related to waste emissions	Reduce waste emissions at our business sites and in the real estate portfolio in our possession by 11% over FY2019 by FY2030
Targets related to water resources	Reduce water resource utilization per floor area at business sites and in real estate portfolio on year-on-year basis until FY2030
Targets related to resource procurement	Formwork wood materials containing 100% certified timber by FY2030
Targets related to forest preservation	3,000 ha by FY2030

Trends in main environmental metrics

	(Unit)	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
CO2 emissions (Scopes 1 & 2)	Thousand t-CO_2	228.3	234.8	210.7	233.0	227.5	230.5	283.3	256.1	257.0	139.9
Basic unit	kg-CO_2/m^2	98.6	101.9	98.4	106.7	101.0	96.1	86.8	75.1	74.6	47.6
CO2 emissions (Scope 3)	Thousand t-CO_2	—	—	821.9	682.1	585.9	1,295.5	1,913.0	1,618.8	1,801.7	1,705.7
(Categories 1/2/11)	Thousand t-CO_2	—	—	—	—	—	—	1,792.5	1,511.2	1,700.9	1,597.1
Water use	Thousand m^3	3,042	3,141	2,811	2,650	2,548	2,612	5,751	4,582	4,867	5,087
Basic unit	m^3/m^2	1.33	1.39	1.32	1.23	1.14	1.10	1.8	1.3	1.4	1.7
Waste emissions	t	14,189	18,796	18,908	25,127	25,569	22,932	29,251	27,637	27,827	21,181
Basic unit	kg/m^2	10.3	10.2	10.1	12.5	12.6	10.2	9.6	8.3	8.5	7.4

・Scope changed starting in FY2019 due to setting of SBT-certified targets
・FY2022 for CO2 emission is prior to third-party verification. Will be disclosed on our website once updated.

(as of March 31, 2023)

For more information, visit the Sustainability website (ESG data) https://tokyu-fudosan-hd-csr.disclosure.site/en/esg-data

Initiatives Regarding Nature-related Risks and Opportunities, Dependencies and Impacts

Initiatives Regarding Nature-related Risks and Opportunities, Dependencies and Impacts

Specific initiatives in our group to date regarding risks, opportunities, and impact are presented below. The following are some of the major initiatives we have undertaken.

(1) Urban development: : Community planning, greening technology and planting management
(2) Hotel and leisure business : Forest management and marine conservation, nature coexistence in Tateshina
(3) Other: : Invasive alien species countermeasures, contamination reduction, waste reduction, resource circulation and water utilization reduction, extending lifespan of buildings

(1) Urban development: Community planning

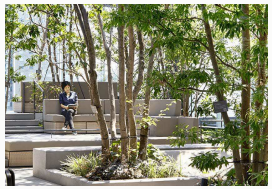
Community planning in greater Shibuya area

In the greater Shibuya area, which has Shibuya Station at its center, we further evolved upon and deepened our “Greater SHIBUYA 1.0” concept for the area to formulate our new community planning strategy “Greater SHIBUYA 2.0.” In addition to bringing together the three elements of workplaces, residences and entertainment, we will promote initiatives for “digital” and “sustainable” as the foundation of that strategy. Regarding “sustainable,” through efforts such as **developing richly-green environments**, promoting decarbonization and reinforcing resilience, we are engaging in the planning of a community in which anyone can spend time in safety, security and comfort, one that has cutting-edge environmental measures in place and will grow on a continuous basis.

GREEN WORK STYLE (previously described)

At our office buildings, we are currently expanding “GREEN WORK STYLE,” through which we seek to realize improved corporate value and the realization of worker well-being from the dual aspects of “the workplace” and “office solutions” through diverse green power while being mindful of health, safety, the environment, and sustainability. By realizing a work style through which workers interact with green, we will alleviate their day-to-day stress and draw out the productivity of each individual member to the fullest while also contributing to the smooth formation of a community.

SHIBUYA SOLASTA: A green terrace for tenants has been placed on every office floor of this facility. By having workers feel green and fresh air, which is normally lacking in an office environment, in their immediate surroundings, we will contribute to reducing their stress and improving their productivity. Additionally, at the top floor of the facility, we have set up a sky terrace and lounge (shown in photo to the right) that takes advantage of the rooftop space to provide “a place to work under the refreshing sky.”



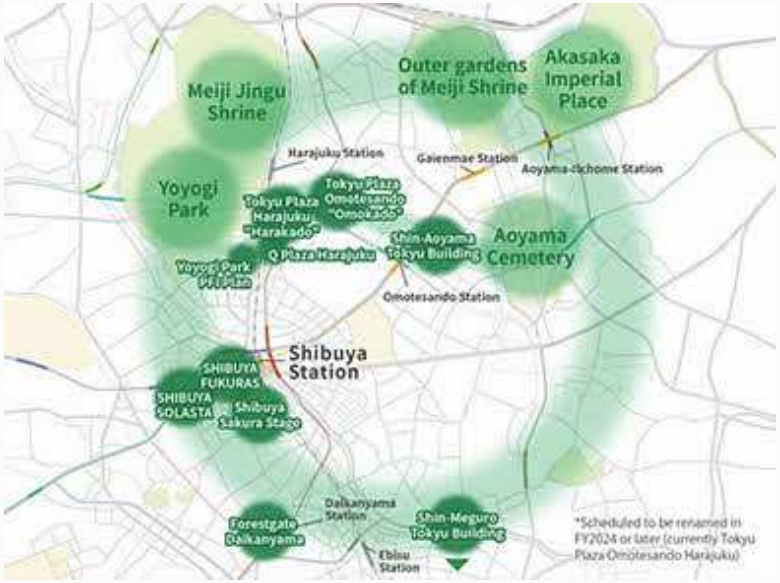
Rooftop sky terrace

Initiatives in Urban Development: Community Planning

Formation of ecological network in greater Shibuya area and configuration of KPI for FY2030

Given the importance of biodiversity-conscious urban greening, in the greater Shibuya area, we are actively promoting the greening of areas such as rooftops and wall surfaces at our business sites in order to preserve the ecosystem. By connecting the green in the vicinity and acting as a relay point for the living creatures that inhabit those areas, we are tackling the formation of an ecological network in the greater Shibuya area.

In particular, when we develop large-scale properties with considerable impact on the local community, we carry out ecosystem studies in the peripheral area at the planning stage, perform greening using vegetation that takes the bird and inspect species that inhabit the area into consideration, and pursue biodiversity conservation in that community.

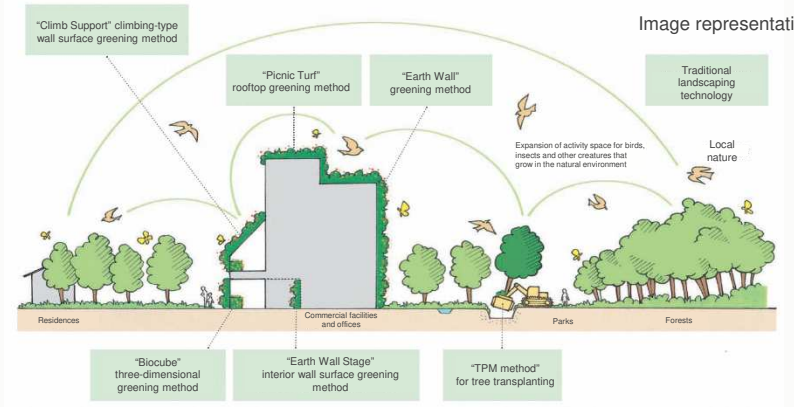


Targets

Building greenery (rooftop, wall surfaces, etc.)* 100% by FY2030

*Newly-built large-scale office building/commercial facility properties

Image representation



The name of each process is the technique name at ISHIKATSU EXTERIOR INC.

Biological monitoring

At the "Omohara Forest" rooftop terrace at the "Tokyu Plaza Omotesando "Omokado"" commercial facility, with the help of natural environment conservation specialist Regional Environmental Planning, Inc., we perform regular living creature studies throughout the year in order to assess trends in the ecosystem of the green space there. (Previously described)

Scene from living creature study

Participation in biodiversity certification systems

For properties that are especially surrounded by numerous natural environments and also have ample green space secured on site, we encourage the acquisition of certifications such as ABINC to back the securing of biodiversity.

SHIBUYA SOLASTA (ABINC-certified)

Initiatives in Urban Development: Community Planning

Planning of community that coexists with nature at TOKYO PORTCITY TAKESHIBA

In the Takeshiba area located in Tokyo's Minato City, which constitutes a national strategic economic growth area, we are pursuing community planning that takes advantage of industry-academia cooperation and technology and are moving forward with **long-term continuous initiatives to enhance the appeal and vitality of the area of the whole**, including its environment (sustainability).

The office town serving as the core piece of the project is a large-scale complex with a total floor area of approx. 180,000m^2, 40 floors above ground, and two floors below ground. The higher floors consist of an office area, with the lower floors hosting a commercial area. The office lobby on the sixth floor provides a space that incorporates water and green and is in harmony with the local community.

On the southeast side of the second through sixth floors, the spacious "SKIP TERRACE" has been erected in a staircase pattern. There, the **"Eight New Views of Takeshiba"** made up of eight scenes represented by the sky, bees, a rice paddy, a vegetable garden, aromas, water, an island and rain are presented as a "**Satoyama"-like landscape**. By forming an ecological network linked to the Hamarikyu Gardens, the Kyu-Shiba Imperial Gardens and the rich green of the surrounding area, we aim to contribute to the biodiversity of the local community.

At the "Rice Paddy Scene" containing a 145m^2-wide rice paddy and the "Vegetable Garden Scene" where vegetables and fruits are grown, students at the nearby preschool, tenant-related individuals and people who reside in the residence tower can take part in rice-planting or harvesting events, which will be tied into **environmental education for stakeholders**.

Additionally, at the "Bees Scene" where beehives are placed and the "Sky Scene" with of nest boxes placed on wall surfaces that are hard for people on the fifth, eight, tenth and twelfth floors to catch sight of, **habitats for honeybees and raptor species such as falcons and kestrels will be supplied**. Through these, we will contribute to biodiversity in the city center.

TOKYO PORTCITY TAKESHIBA
Office Tower

Office lobby

Takeshiba Shin Hakkei (SKIP TERRACE)

Rice-planting featuring resident participation (Rice Paddy Scene)

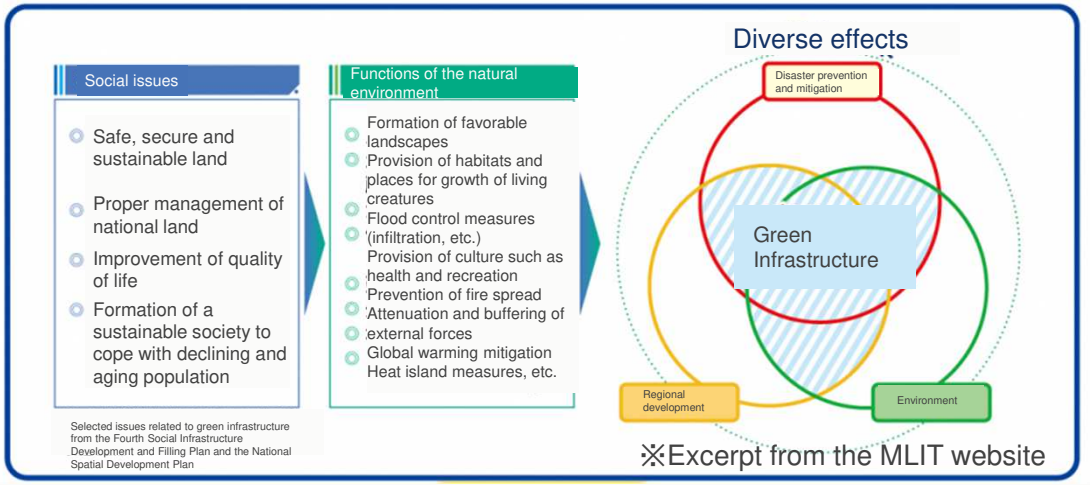
Initiatives in Urban Development: Greening Technology, Planting Management, Green Infrastructure

Greening and planting management by diverse technologies based on the concept of green infrastructure

Based on the concept of **green infrastructure** (see note), ISHIKATSU EXTERIOR INC., which handles the Group's Environmental and Greening Management Business, has been engaged in **disaster prevention and mitigation**, protection and preservation of nature and biodiversity, sustainable urban development, and contracted management of various green spaces by utilizing various technologies, including urban greening technologies such as rooftop greening and wall greening.

Note : What is Green Infrastructure?

Green infrastructure is a concept that aims to utilize the various benefits of the natural environment, such as disaster prevention, disaster mitigation, and environmental preservation, to solve various social issues, through its functions of mitigating global warming, providing places for organisms to grow, shaping landscapes, and providing cultural services. The Ministry of Land, Infrastructure, Transport and Tourism's GX Strategy for Urban Development includes a call for public-private partnerships to further promote the quality and quantity of urban green spaces with diverse functions as green infrastructure, and the importance and attention to this issue is increasing.



※Excerpt from the MLIT website

Greentect
ISHIKATSU GREEN STANDARD

About the technology of ISHIKATSU EXTERIOR INC.

The company will reorganize the environmental greening technology and know-how it has promoted in its landscaping and greening business based on the concept of green infrastructure, formulate a green infrastructure menu that can be deployed to customers and various stakeholders, and apply it to all its businesses as "Greentect," a system to promote initiatives to realize green infrastructure. The menu visualized by the system lists a wide range of technologies and know-how in landscaping and greening-related fields, and is classified into eight major categories. The system is designed to use the menu at the sales stage of each project to determine the technological items to be adopted and incorporate them into the design, construction, management, and operation of the project.

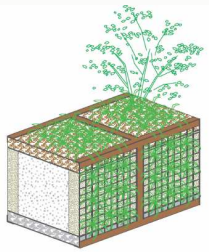
Ex.: Trans Planting Machine method

Short for "Trans Planting Machine," TPM is a technique that involves the use of specialized proprietary equipment by ISHIKATSU EXTERIOR, of which only two machines exist in the world, to enable the transplanting of large-diameter trees, which was considered difficult in the past. TPM enhances the degree of freedom of greening plans while protecting large trees as assets of the local community.

Ex: Three-dimensional greening method (Biocube)

This technique is used to perform planting on multiple surfaces in a three-dimensional shape. Involving a box-shaped configuration that makes it easy to handle, Biocube realizes multisided greening while also saving space.


Transplanting work using a TPM machine


Biocube

Initiatives in Urban Development: Greening Technology, Planting Management, Green Infrastructure

Eight major categories of green infrastructure menu

1 **Planned Land Preservation** Preservation of precious resources. Conserve and incorporate into the planning of the development site's favorable greenery and environment.	Transplanting in the field (trees) Use of relocated in-situ planting bases Utilization of existing objects (landscaping), etc.	
2 **Disaster Prevention and Mitigation** Protecting Lives. We propose measures to reduce rising temperatures and flood damage, disaster prevention and disaster preparedness	Permeable pavement Rain gardens (reservoirs, streams), disaster prevention stoves, etc.	
3 **Plants and Animals** Enriching and Comfortable Living Environments. We propose greenery and environments that contribute to biodiversity in the project site space.	Biotope Utilization of native species (compensatory vegetation) Rooftop greening, etc.	
4 **Earth retaining and other structures** We propose gaps of various shapes to provide shelter for animals.	Natural material earth retaining walls, etc.	
5 **Environmentally friendly materials** Environmental preservation, reduction of CO2. We propose the use of environmentally friendly materials (products).	Recycled materials Low-carbon materials, etc.	
6 **Wellness** Proposals for health maintenance and promotion. We propose facilities for comfortable spaces in contact with the natural environment that contribute to good health.	Indoor greening Farms, herb gardens, etc. Pergolas, awnings, etc.	
7 **Management and operation** We propose maintenance, cultivation, management, and operation plans to make green spaces pleasant and comfortable.	Biodiversity Improvement Plan Tree and soil diagnosis Management and operation of parks, etc.	
8 **Other environmental technologies** We actively adopt and propose environmentally friendly technologies.	Sheet Pipe Method Re bunker Thermal imaging cameras, etc.	

Example of menu

1.Planned land preservation
Transplanting in field

TPM method(*)

2.Disaster prevention and mitigation
Rain garden

3.Plants and animals
Utilization of native species (compensatory vegetation)

4.Earth retaining
Natural material earth retaining

6.Wellness
Pergolas, awnings

7.Management and operation
Tree and soil diagnosis

GREEN AGENDA：Planting management for planning and cultivating green landscapes

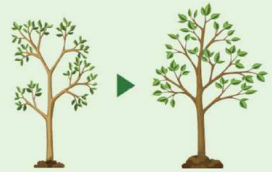
In condominiums, ISHIKATSU EXTERIOR INC. plans and constructs **greenery to realize a living environment that nurtures life**, create planting management plans (agendas) to connect them to the future, and promote **"GREEN AGENDA," which integrates planning and management based on management plans and visualization technology.**

In order to realize greenery for homes that meets the demands of the environmental age, it is committed to "visualizing" planting over the medium to long term, and to promoting its customers' "interest" and "sympathy" toward green.
It aim to provide sustainable landscaping support services that contribute to the conservation and restoration of biodiversity in urban development by developing its existing landscaping technologies.

Green create & support
GREEN AGENDA
Trademark registration pending

BRANZ Jiyugaoka　Image of future goal

Image representation of standard maintenance, control and management



Management method intended to “maintain and control” trees without significantly changing their value or height or horizontal spread from the time condominium construction is complete and with consideration accorded to stable maintenance and management costs

Image representation of GREEN **AGENDA** development management

Management method that aims to enhance green services by nurturing green

Contributes to biodiversity with improved shade and amounts of green
Fixes amount of CO2 for growth purposes
Mitigates heat island effects through shade and transpiration
Improved biophilia: “Green that you can really feel”
Contributes to enhancing image of local community

NEW

Initiatives in Hotel and Leisure Business –Policy Formulation–

FY2030 goals for wellness business

To promote environmental management in our group, the wellness business, which includes hotels and leisure, **is formulating target values in the wellness business area, which includes the hotel and resort business and healthcare business, by FY2030** while considering three key environmental issues.

"Biodiversity": **conserve 40% of project site area** in wellness business **by F2030**[*1]

"Circular society": reduce waste in wellness business by 11% relative to FY2030 levels[*2]

"Decarbonized society": reduce CO_2 in wellness business by 46.2% relative to FY2030 levels[*2]

*1: Conservation areas refer to the following: ①area of land that is subject to OECM certification or other environmental certification for biodiversity and green space conservation, ② areas that fall within the boundaries of national parks, quasi-national parks, and natural parks, and (3) areas of forests that are subject to the creation of a forest management plan based on the Forest Act.

*2: Based on target figures of the Tokyu Fudosan Holdings Group.

Thinning

Thinned forest in town

Converting the resort facility to an "experience-based sustainable resort"

To achieve the above-mentioned vision, it is important for visitors to the resort facility and stakeholders to **experience the importance of coexisting with the community and nature and provide opportunities to increase awareness of the environment in daily life,** which are unique to the resort facility, **not only during facility development but also during sales and operation**.

Tokyu Resorts & Stay, which operates the resort facility, has devised the concept of "Morigurashi®," which incorporates harmony with forests, which are a locally shared resource, and sustainability through forest activities and glamping workcations, and promoted community problem-solving and nature conservation where local residents and employees work in an integrated manner. Furthermore, **in 2024, the new slogan of "Happy 'encounters' in the community through the power of resorts"** was devised. The aim is to provide an "**experience-based sustainable resort**" based on the three themes of "fostering biodiversity," "creating a local future," and "utilizing local energy" to provide facility visitors with a sustainable space, experience, and activities that are enjoyable and kind to the earth and community.

Event information and value for each resort facility are also sent out with the "ENJOY GREEN GUIDE" website.

(URL：https://www.tokyu-green-resort.com/)

NEW

Initiatives in Hotel and Leisure Business: Monitoring and OECM Certification

Support for 30 by 30 and Other Effective area-based Conservation Measures (OECM)

Our group **supports 30 by 30**, an international goal with the aim to effectively conserve at least 30% of terrestrial and marine areas as healthy ecosystems by 2030.

At the “Tokyu Resort Town Tateshina”, as part of our efforts to achieve 30 by 30, we have participated in the MoE-certified “Other Effective area-based Conservation Measures” (a system that certifies areas where biodiversity conservation is being implemented through private initiatives) research project in FY2022, **and in February 2024, the resort facility, including the ski area and golf course, received its first “Other Effective area-based Conservation Measures” certification**.

Forest management and **biological monitoring surveys** are being conducted to protect the abundant biodiversity. As of 2023, 1,699 floral and faunal species have been confirmed, with 32 **rare species that are included in the Red Lists** of MoE and Nagano Prefecture being confirmed.

There were 605 floral species confirmed, of which 10 were rare species such as *Corydalis decumbens*. There were 65 bird species, including 4 rare species, such as *Emberiza fucata*, and 1,018 insect, reptile, and amphibian species, including 18 rare species, such as *Ochodaeus maculatus*. The area has been highly regarded for its characteristic and diverse habitats, including those for grassland flora and fauna.

Corydalis decumbens (Red List)

Emberiza fucata (Red List)

Ochodaeus maculatus (Red List)

Biodiversity Action Plan (BAP)

Our group has formulated a BAP for areas of particular conservation importance within our project areas, where biodiversity conservation efforts are being conducted. At “Tokyu Resort Town Tateshina”, **monitoring surveys of floral and faunal habitats and growth environments have been conducted in the vacation home sites and its surrounding forests**. Measures are being considered if threats to the habitats and growth environments of the rare floral and faunal species are present, and there are plans to utilize such measures for green space management plans.

NEW

Initiatives in Hotel and Leisure Business: Nature Coexistence in Tateshina

Forest management initiatives

In “Tokyu Resort Town Tateshina,” **a forest management plan has been established since 2018**, where **conservation thinning** has been conducted. These actions promote forest growth, such as by encouraging undergrowth and strengthening tree roots, and prevent natural disasters, such as landslides, by strengthening the ground. Efforts such as **processing thinned wood into wood chips and utilizing them as fuel for biomass boilers** have also been conducted as efforts to contribute to nature and biodiversity conservation as well as local production and consumption of energy. A **CO_2 absorption/fixation device has been introduced** in the biomass boiler, and golf tees, as well as bottles and sleeves, are made from the CO_2 contained in the flue gas, which is then provided to guests.

Biomass boiler

CO_2 absorption / fixation device

Appropriate thinning also promotes tree growth and increases CO_2 absorption amount. In 2022, our group became **the first general developer to receive J-Credit certification based on forest management activities** under the J-Credit system, in which the Japanese government certifies the CO_2 reductions made by companies as credits.

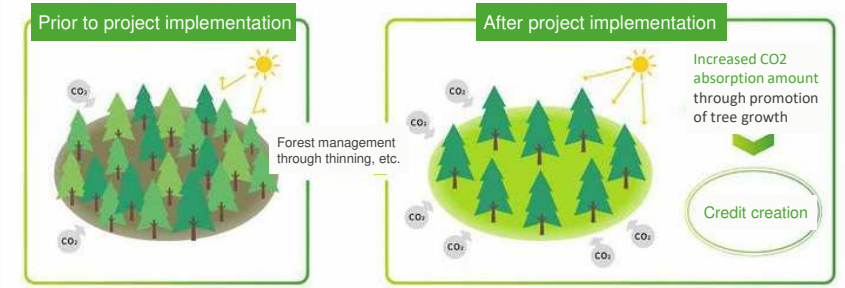
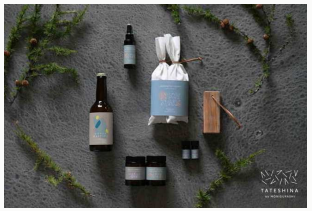


Illustration of credit creation based on forest management activities

Utilization of thinned larch wood

Our group has collaborated with Forest Mori no Kobo Akanesha, a welfare service provider in Suwa City, Nagano Prefecture, and Araki Sewing Co., Ltd. in Shimo-Suwa to sell larch sachets that can be used as a shoe dryer and desiccant, forest candles and wood diffusers that utilize larch scents, and larch outdoor sprays that serve as a naturally-scented insect repellent, which were sold as part of the “ordinary” series. A special craft beer, Larch HAZY IPA, was also sold as part of the “special” series.



Original aroma

Additionally, in the Tokyu Fudosan BRANZ Gallery Omotesando, an integrated condominium gallery of BRANZ, which is our group’s new condominium brand that opened in September 2023, **the thinned wood that was generated as a result of forest conservation activities** in Tokyu Resort Town Tateshina **has been used as flooring and designer furniture**.

Flooring that utilizes thinned wood

NEW

Initiatives in Hotel and Leisure Business: Nature Coexistence in Tateshina

Clean-up and walking activities: “Morikomichi”

“Tokyu Resort Town Tateshina” has a large number of visitors year-round, and invasive plants have naturally infiltrated the area. Morikomichi, which has been held regularly since FY2021, involves people **picking up trash** while enjoying walks along the five “Komichi (trails)” in “Tokyu Resort Town Tateshina,” **weeding invasive species that may damage the ecosystem** of Tateshina, and removing branches and fallen leaves.

Weeding invasive species

Hosting of “Morigurashi Event” through “bushcraft”

This event was held to utilize the Nagano Prefecture subsidized project “Prefectural Citizen Collaboration-based Satoyama Development and Utilization Project,” deepening understanding of forests and the natural environment among locals and bringing forward a beautiful and healthy forest into the future. Under the theme of “bushcraft and tree planting experience,” local children experienced making fires and planting trees, while vacation homeowners and local residents experienced “tree management courses,” where they mainly learned the proper way to use a chainsaw and make firewood.

(Sponsor: Chino City Shikayama District Morigurashi Promotion Regional Council, in collaboration with Yaso Co., Ltd., and Konoha Co., Ltd.)

Children carrying firewood

Working in the forest: “Work Lab Morigurashi”

The “Seseragikan,” which used to be a vacation homeowner’s lounge, was renovated and re-opened as a working facility under the brand name “Work Lab,” which is being developed in Chino City. The town is equipped with a variety of accommodations and outdoor facilities, and users can conduct **workcations while enjoying the resort**, whether they stay overnight or just on a day trip. The furniture in the free space is semi-private sofas and modular sofas so that each user can work while relaxing, and there are also conference rooms and private booths for online meetings, allowing for a variety of working styles.

Workcation free space

NEW

Initiatives in Hotel and Leisure Business: Nature Coexistence in Tateshina

Planning Tateshina Darwin Tour, a customer-participation biological survey event

"Tokyu Resort Town Tateshina" is home to many flora and fauna, including rare species. Our group has **planned Tateshina Darwin Tours, a customer-participation biological survey event**, in collaboration with Biome Co., Ltd., where participants use Biome, an organism collection app developed by the eponymous company that can identify the name of organisms by taking a photograph with a smartphone camera and feel closer to biodiversity initiatives. The use of Biome by customers will allow them to connect to the abundant nature in the area, while the collected data can simultaneously be utilized as town monitoring data, and they will be utilized for promoting initiatives toward nature restoration in Tateshina.

Participants searching for organisms

Turning abandoned farmland into wine vineyards! Grape seedling planting experience event

A wine grape seedling planting experience event was held in the fields of the winery "Oreilles de Chat," which was opened in 2023 in Chino City, Nagano Prefecture. **This was an initiative to convert abandoned farmland**, which has increased in area across Japan **and is becoming a social issue**, to vineyards, and the utilization of abandoned farmland allows for the addressing of environmental and local issues. Approximately 720 grape seedlings were planted while imagining a bountiful harvest three years from now.

District disaster prevention plan-based drills

The town has previously experienced landslides due to heavy rain, and in March 2015, the town was designated as a "landslide hazard zone and special hazard zone" under the Landslide Disaster Prevention Act. Given these circumstances, our group has prioritized the safety of users above all else and sought to raise awareness of district disaster prevention plans and confirm group-based actions by **conducting drills on information transmission and instructions, patrols and reports, and evacuation guidance in collaboration** with the town center, as well as facilities in the town such as the hotel and golf course.

Disaster prevention drills

Initiatives in Hotel and Leisure Business: Nature Coexistence in Tateshina

“Edible garden,” where users can learn and experience the food and forest cycle

at “Tokyu Resort Town Tateshina,” had its grand opening in August 2023, where users can **learn and experience the food and forest cycle through the cultivation and harvesting of vegetables, herbs, fruits, and edible flowers**.

In the town, a “composter” (food waste processor) was introduced in March 2023, where food waste from the hotel restaurant in the town is turned into high-quality compost and provided to local farmers, thereby **achieving environmental conservation, food circulation, and local collaboration**.

The “edible garden” is an experience-based spot where customers can experience the cultivation and harvest of foods, such as vegetables, and eat freshly picked produce to learn and experience food and forest cycles while enjoying coexistence with nature.

Edible garden

Coexistence between local community and environment through “TENOHA Tateshina”

In “Tokyu Resort Town Tateshina,” **TENOHA Tateshina** was opened in July 2024 as a base for creating and transmitting the values of “local collaboration” and “consideration of the environment.” Since the first phase of vacation home sales in 1978, this town has long continued to coexist with nature, where conservation thinning has been conducted to suppress the densification of the forest. All the walls, furniture, and fixtures in TENOHA Tateshina are made from thinned wood from within the town, and these furniture and fixtures are produced with the cooperation of local sawmills and workshops that share the concept of TENOHA Tateshina, achieving a form of local collaboration.

Furthermore, the plaza adjacent to TENOHA Tateshina uses an abundance of Nagano Prefecture-based wood to ensure local production and consumption of the lumber. The plaza entrance gate is made from lumber, local stone, and glass blocks made from upcycled glass waste from construction, serving as the representation of the circle of local circulation. The Town Opening Marche, which is the opening event, marked its first step as a hub for local community creation.

TENOHA Tateshina exterior

TENOHA Tateshina interior

NEW

Initiatives in Hotel and Leisure Business: Marine Conservation and Respect for Culture

Coexistence with nature and local community at Palau Pacific Resort

The Palau Pacific Resort is a **full-fledged beach resort** opened in the Republic of Palau in 1984, **where visitors can fully experience the nature and culture of Palau**. Users can overlook spectacular sunsets year-round from the approximately 250-m private beach, with the vast grounds including a tropical garden decorated with tropical plants, and in the lush, wooded mountain behind the resort, users can see 89 plant species and 35 bird species, including endemic species of Palau, such as the Biib (Palau fruit dove), which is the national bird and a small, colorful pigeon.

From the start of its development, the resort has been based on the concepts of “balancing environmental conservation and development” and “contributing to the local community and being accepted by the local people.”

Rock Islands of Palau, designated as wildlife sanctuary

Biib, national bird

Initiatives toward ocean regeneration

The coast in front of the resort, where coral habitats struggled due to mud runoff, was successfully **regenerated to a marine environment with abundant organisms** by conducting beach restoration work involving coral transplantation based on thorough research, and presently, **the resort has been designated as a marine life sanctuary by the state of Koror in the Republic of Palau**. The resort also continues to support environmental protection groups and coral research facilities in the Republic of Palau and has engaged in **initiatives toward marine and community conservation while working with local people.**

Beach in front of hotel

Contribution to local society

Approximately 80% of the employees at the Palau Pacific Resort are Palauan, and the resort has contributed to local society by **creating jobs for Palauans** and providing human resource training in hotel and tourism industries.

The development of the resort has also **respected local culture**, with the roof being modeled after a traditional Palauan abai (meeting hall), and the interior incorporating motifs from Palauan culture and legends.

Hotel employees

NEW

Other Initiatives: Reducing Water Resource Use

Reducing negative impact of water resource use

Our group has collaborated with stakeholders such as design companies, construction companies, customers, and local communities to engage in water resource conservation initiatives through appropriate management and efficient water resource use according to the unique water resource issues of each region.

Target To reduce water resource usage per floor area at project locations and real estate portfolios compared with the previous fiscal year by FY2030

Reduction in water usage by the introduction of water-saving equipment

"Tokyu Harvest Club Atami Izuyama & VIALA," which opened in 2013 as a resort hotel in harmony with nature, has engaged in **water resource conservation initiatives**, such as reducing tap water usage through the adoption of water-saving toilets. "Tokyu Harvest Club Hakone Koshien" and "Tokyu Harvest Club VIALA Hakone Tateshina" have also promoted efficient water use, such as the use of well water within the premises.

Tokyu Harvest Club VIALA Hakone Tateshina

Water resource conservation at Palau Pacific Resort

Public tap water in the Republic of Palau is not suitable for drinking due to the aging of pipes over the years, and the region also suffers from serious water shortages from January to April. The Palau Pacific Resort has constructed its own water infrastructure system to supply safe water in a stable manner. The resort has installed a **seawater desalination device** as a measure against dry periods as well as other **unique water purification systems** while using **well water and stream water on the premises as its main water source** to **secure drinking water and protect water resources**.

Palau Pacific Resort

Other Initiatives: Invasive Alien Species Countermeasures and Contamination/Waste Reduction

Invasive alien species countermeasures

Under the Invasive Alien Species Act (Ministry of the Environment), invasive alien species refers to species of plant or animal that do not originally inhabit Japan and entered national boarders either with or without intention through human activity. These may harm or otherwise impact the ecosystem of local communities. In its endeavors to preserve the ecosystem of those communities, the Group has established a manual and set forth ways of dealing with highly invasive alien species when they are spotted.

(Invasive plant species) *Erigeron annuus*

(Invasive plant species) *Coreopsis lanceolata*

(Invasive alien species) *Parasa lepida*

Reduction of negative impact cause by contamination

Working together with design and construction companies and other stakeholders, the Group endeavors to reduce the effects of contaminants on the environment by preventing their discharge and refraining from using materials that cause that discharge.

Waste reduction

The Group also jointly tackles the reduction of waste discharge in collaboration with design and construction companies, customer users, and other stakeholders.

Targets	Reduce waste emissions at our business sites and in the real estate portfolio in our possession by 11% over FY2019 by FY2030

Other Initiatives: Resource Circulation

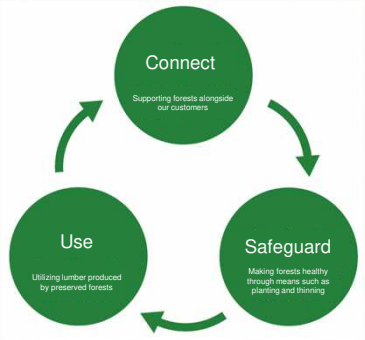
Resource circulation

Recognizing the need to effectively utilize the resources that go into its businesses, in collaboration with design and construction companies, customer users and other stakeholders, the Group endeavors to utilize resources properly and effectively.

The Green Connection Project to form a cycle of circulation in wood resource utilization

The Green Connection Project is an **initiative through which the Group preserves forests alongside its various stakeholders**. Linking up with the forest preservation activities conducted by the Village of Nishiawakura in Okayama Prefecture, which is currently pursuing the “100-Year Forest Concept,” we work to preserve forests in accordance with various forms of stakeholder use, such as a condominium purchase, property management, use of office, hotel or leisure facilities, or use of our real-estate sales agents for existing residences. The Group provides forest preservation funds in accordance with the sales results that it posts. An example would be funds to preserve 10m^2 worth of forest for each sale of a residential unit. In recent years, the Group is simultaneously purchasing J-Credits generated from the management of forests by the Village of Nishiawakura, thereby helping to popularize forest J-Credits. **Up to this point, the Group has successfully preserved over 2,000 hectares of forest,** and manages its progress yearly in this regard in the form of KPI with the goal of preserving 3,000 hectares of forest by FY2030.

The timber produced by the preserved forests is utilized in a number of Group businesses, then provided to customers to form a cycle of circulation. We are also proactively carrying out other initiatives in the form of purchasing thinned wood generated through the Village of Nishiawakura’s forest preservation activities and utilizing it in building work. In FY2022, we purchase 38m^3 of thinned wood from FSC CoC-certified vendors who engage in the processing and sale of FSC-certified timber from the applicable local forests, which we used as interior materials for renovation work on residences and three commercial facility buildings.



Locally-produced timber for local consumption

At Tokyu Harvest Club VIALA Kinugawa Keisui, which opened in December 2022, trees cut down in the development site were used in elements such as furniture in the common areas.


Shin-Aoyama Tokyu Bldg.


Abeno Q's Mall


COMFORIA Takashimadaira


Tokyu Harvest Club VIALA Kinugawa Keisui

Circular economy initiatives at Forestgate Daikanyama

Our Forestgate Daikanyama property will consist of two buildings: the MAIN Building, which will house rental housing, share offices and a commercial facility, and the TENOHA Building, which will provide a sustainable lifestyle experience. This complex is slated to open in late October 2023.

The TENOHA Building, in turn, will be made up of a cafe and event space. **In addition to providing a sustainable lifestyle experience, it will serve as a site of activity that bridges the local community and the city in cooperation with business operators who conduct circular economy activities and the local government.** While supplying points of contact with sustainable endeavors to consumers, we will link up with various stakeholders to realize a circular economy. The building itself is a **wooden construction** containing **thinned wood from the Village of Nishiawakura in Okayama Prefecture**, which contains one of the forests targeted by Tokyu Fudosan Holdings for preservation, as the building's structural materials.

MAIN Bldg.

TENOHA Bldg.

Promotion of circulatory construction and renovation

Through the implementation of regenerative and conservative construction, reforms and renovations, Tokyu Land Corporation, TOKYU LIVABLE and Tokyu Re・design contribute to the reduction of waste and resource circulation.

Exterior of Kudan-Kaikan Terrace (preserved area)

Banquet room

NEW

Other Initiatives: Extending Lifespan of Buildings

Reduced use of resources through lengthened cycles of large-scale renovations

Tokyu Community sells a long-term warranty product called CHOICE, which can extend the cycle of large-scale renovation work on condominiums from the conventional 12 years to up to 18 years.

Improvements in the specifications and construction methods used in large-scale renovation work allow for the warranty period for building exterior-related work, such as waterproofing and painting, to be extended by 1.5 to 2 times compared with the conventional period. This has enabled a reduction in the frequency of large-scale renovation work before reaching the second stage of 60 years of building age. **Reducing the frequency of large-scale renovation work** also contributes to the reduction of resources used through the life cycle of the condominiums as well as a reduction of total life cycle costs.

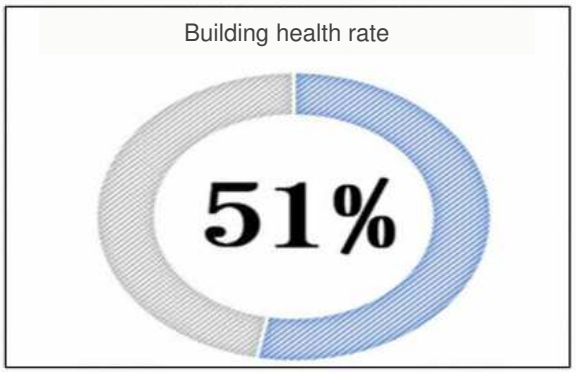
EM checkup: utilization of buildings through comprehensive building diagnosis

EM checkups are a system that performs analyses and surveys not conducted in normal building and equipment inspections of office buildings, summarizes survey results in an easily visualized and understandable single sheet, and provides these results to customers based on the concept of “Enchanted in 1 minute.”

Diagnosing the energy-saving performance at present through EM checkups allows for the determination of the BELS certification level based on our company’s unique analysis results, and the proposal and support of appropriate management and repair work in the future.

An additional aim is to propose measures to improve building safety and asset value by helping customers understand the multifaceted building management and operation issues and raising their awareness and interest in such topics. The EM checkup will enable the **increased environmental value of building assets without rebuilding, as well as appropriate proposals and support for obtaining ZEB and BELS certification**.

Overview of EM checkup



EM checkup building health rate

Terms and Explanations

TNFD	Abbreviation for “Taskforce on Nature-related Financial Disclosures.” Launched in 2021 by four institutions: the United Nations Development Programme, the World Wildlife Fund, the United Nations Environment Programme - Finance Initiative and Global Canopy. Calls for the adequate assessment and disclosure of nature-related dependencies/impacts and risks/opportunities.
LEAP	Abbreviation for “Locate, Evaluate, Assess, Prepare.” Approach recommended by the TNFD to assist corporations and financial institutions with evaluating their nature-related risks/opportunities. Comprised of the four steps of “Locate” (locate the interface with nature), “Evaluate” (evaluate dependencies and impacts), “Assess” (assess material risks and opportunities) and “Prepare” (prepare to respond and report).
ENCORE	Tool for financial institutions developed by the UNEP Natural Capital Finance Alliance, or NCFA for short. Enables the assessment of the importance of dependencies and impacts on nature according to business category and the analysis of data such as distributions of ecosystem services.
SBT for Nature	Abbreviation for “Science Based Targets for Nature.” Initiative calling for the setting of targets with time limits that can be measured and executed based on the best available science with respect to the setting of nature capital-related goals by corporations.
Ecosystem integrity	Degree to which the composition, structure and functions of the ecosystem are within the scope of natural fluctuation.
KBA	Abbreviation for “Key Biodiversity Area.” Significant area serving as key to biodiversity conservation as selected according to international standards.
Biodiversity Intactness Index	Metric indicating remaining degree of biodiversity before and after land modification in the natural world when land utilization by humans and the accompanying effects on biodiversity are taken into consideration
Conservation priority level	Metric indicating level of conservation priority from the standpoint of biodiversity.
Water stress	Metric indicating level of stress on water at basins based on percentage of water consumption relative to water supply volumes at the basins.

Terms and Explanations

Ecological network	The concept of positioning areas with excellent natural conditions as biodiversity bases (core areas) and connecting core areas with ecological corridors to allow for the movement and dispersion of wild animals.
Cultural services	Cultural services that are aesthetically, spiritually, and psychologically influential that humans obtain from being in contact with nature.
Control and maintenance services	Services that control and maintain the environment through biodiversity, such as climate control, mitigation of local disasters, suppression of soil erosion, and suppression of harmful organisms and diseases within the ecosystem.
Forest management plan	Plans created by forest owners or entities that are entrusted with forest management regarding forest management and conservation for the managed forests.
Thinning	Felling some trees depending on crowding extent to reduce competition between trees being grown.
Clear-cutting	Felling a certain group of trees that constitute a forest all at once.
BAP	"**B**iodiversity **A**ction **P**lan": an action plan for biodiversity conservation by countries, companies, or other organizations. In the case of countries, contracting parties to the Convention on Biological Diversity (CBD) are required to formulate a BAP under Article 6.
30 by 30	Goal of conserving 30% of Earth's terrestrial and marine areas by 2030. Listed as Goal 3 of the Kunming-Montreal Global Framework for Biodiversity adopted at the 15th Conference of the Parties to the Convention on Biological Diversity (COP15) held in 2022.
OECM	"**O**ther **E**ffective area-based **C**onservation Measures": Areas certified by the Ministry of the Environment as areas where biodiversity conservation is being promoted regardless of the original purpose through various entities, such as businesses, private organizations, individuals, and local governments and their efforts.
Urban redevelopment system	Tokyo Metropolitan Government system seeks to improve the urban environment by relaxing form restrictions specified in the Building Standards Act, such as floor area ratio and setback restrictions, for building plans that make public contributions, such as securing public open space.

References

1) “Global Risk Report 2024,” World Economic Forum (2024)

2) Newbold et al. (2016) “Global map of the Biodiversity Intactness Index, from Newbold et al. (2016)”

3) Japan Biodiversity Mapping Project, Think Nature Inc.

4) WRI Aqueduct (See June 2023)

5) Tokyu Fudosan R&D Center Inc., ISHIKATSU EXTERIOR INC. and TOKYO CITY UNIVERSITY, Faculty of Environmental Studies (Yokota/Kitamura/Yoshizaki/Iijima)
(2019) “Guide to building greening for ecological network formation in greater Shibuya area”

6) Tokyu Fudosan R&D Center Inc., ISHIKATSU EXTERIOR INC. and TOKYO CITY UNIVERSITY, Faculty of Environmental Studies (Yokota/Kitamura/Yoshizaki/Iijima)
(2016) “Basic survey for ecological network formation in greater Shibuya area”

7) ISHIKATSU EXTERIOR INC. (2020) “Fiscal 2019 Tokyu Plaza Omotesando Harajuku “Omokado:” Report on Biological Survey”

8) Regional Environmental Planning, Inc. (2020) “Survey on Ecological Networks that Contribute to Biodiversity in Greater Shibuya Area”

9) Serigasawa Topography Editorial Board (1990) ”Serigasawa Topoglaphy”

10) Chino City (1988) “Chino City history last volume”

11) Regional Environmental Planning, Inc.(2024) “Tokyu Resort Town Tateshina basic survey for application for certification as OECM site, conservation and utilization of natural resources”

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Revision History

Version	Issue date	Revision content
Ver. 1	8/25/2023	• First edition issued based on TNFD disclosure recommendations beta version V0.4
Ver. 2	1/19/2024	• Revision and addition of the following text based on changes in the official version of the TNDF disclosure recommendations announced in September 2023: ✓ Addition of disclosure regarding “general requirements” ✓ Addition of a detailed explanation of stakeholder engagement as part of “governance” • Improvements in the following texts to promote comprehension: ✓ Addition of a description of the relationship between the disclosure network and LEAP ✓ Addition of green infrastructure initiatives (Ishikatsu Exterior)
Ver. 3	7/31/2024	• Addition of the following content regarding Tokyu Resort Town Tateshina: ✓ Overall picture of nature dependencies and impacts ✓ Quantitative analysis regarding nature dependencies (tourism resources and carbon absorption) ✓ Quantitative analysis regarding nature impacts (land use and forest management) ✓ Important risks and opportunities, as well as initiative examples • Addition of the following initiative examples: ✓ Initiatives in the hotel and leisure business ✓ Initiatives regarding resource and water source use reduction

Note regarding future prospects

Statements regarding the future, such as business performance forecasts, contained in this document are based on information available to our company as of July 2024 and certain assumptions that our company has deemed reasonable. They are not intended to guarantee that such forecasts will be achieved. Actual business performance may greatly differ based on various factors.

WE ARE GREEN

Tokyu Fudosan Holdings

WE ARE GREEN — We strive to merge the power of various forms of green deployed by our Group to create a future where everyone can be themselves and shine vigorously.

Group Sustainability Promotion Department, Tokyu Fudosan Holdings Corporation https://www.tokyu-fudosan-hd.co.jp