Biodiversity Information Disclosure

July 2025

一期一会
ICHIGO

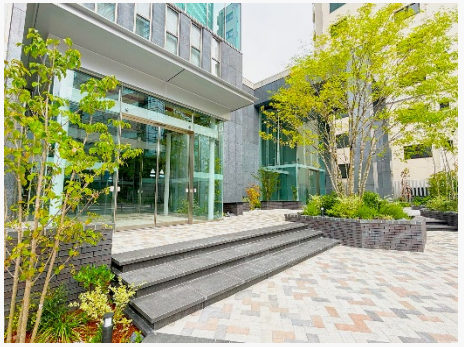
Make The World
More Sustainable

Ichigo's Biodiversity Approach

Ichigo stipulates "Biodiversity and Ecosystem Preservation" under Article 8 of its Ichigo Sustainability Policy developed to accelerate its sustainability initiatives. Biodiversity exists in natural resources such as forests, land, water, and atmosphere, and refers to the individuality of all living things on earth, including humans, animals, plants, and fungi, and the connections between them. Comprising species diversity and genetic diversity of earth's animals, plants, and microorganisms making up the earth's ecosystem, and ecosystem diversity, biodiversity provides resilience against natural disasters such as floods and droughts. It also supports the earth's fundamental processes such as the carbon and water cycle, and soil formation, and maintains the health and stability of natural resources.

Biodiversity underpins ecosystem services, which are an important part of human life on earth, and are divided into water and genetic material supply services, atmosphere and weather adjustment and maintenance services, and cultural services providing protection of natural landscapes and tourist opportunities. Ichigo's businesses exist due to nature's plentiful bounty, which allow for the stable operation of its managed real estate assets and renewable energy power plants with its associated earnings stability and supply of necessary water resources. Ichigo protects biodiversity and the ecosystem via its businesses.

Ichigo's Real Estate Assets & Solar/Wind Power Plants

(References) Ministry of the Environment "Environment White Project" www.env.go.jp/policy/hakusyo/h08/10009.html (Japanese only)
"Learn About and Protect Biodiversity" www.biodic.go.jp/biodiversity/about/about.html (Japanese only)
"Biodiversity Guidelines for Private Businesses, Third Edition" www.env.go.jp/content/000125803.pdf (Japanese only)

Ichigo's Initiatives

Ichigo's core Sustainable Real Estate business applies its technologies and expertise to conduct seismic reinforcements, renovations, and energy efficiency improvements of existing real estate assets. This approach leverages intrinsic value, lengthens useful life and reduces environmental impacts. Under its Clean Energy business, Ichigo works with local communities and operates its power plants in harmony with the surrounding natural environments and ecosystems. Ichigo believes these businesses significantly contribute to reducing the effects of climate change and protecting biodiversity and ecosystems, and will continue to disclose information on its biodiversity initiatives and contribute to a sustainable society.

Evaluation Methods for This Biodiversity Disclosure

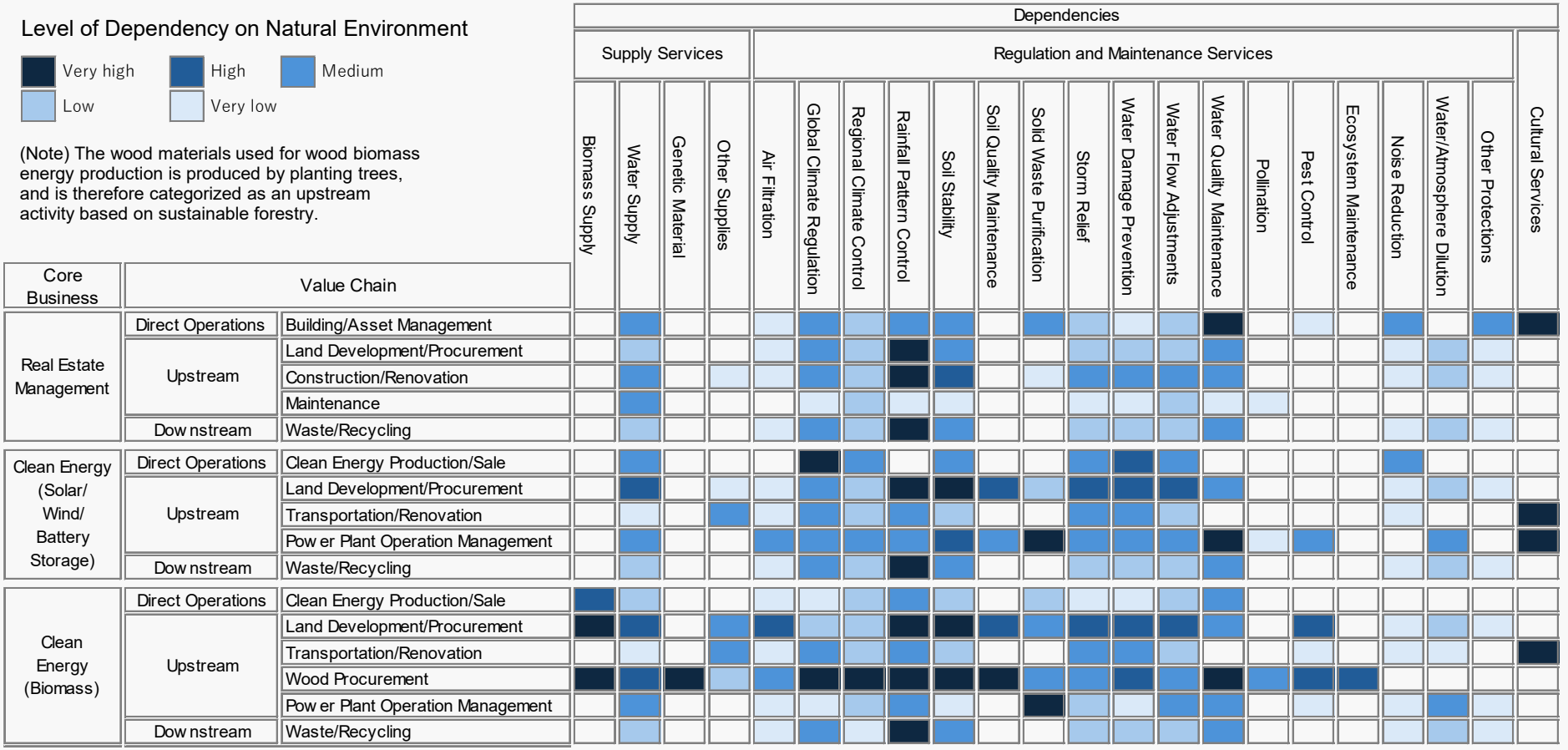
Based on the Taskforce on Nature-related Financial Disclosures (TNFD) framework, Ichigo identified and evaluated nature-related issues across its key business segments: Sustainable Real Estate business (including its Hotel business which focuses on creating new value for existing real estate assets), Real Estate Management business (including its Asset Management business), and Clean Energy. In 2024, the first year applying the framework, Ichigo utilized the TNFD LEAP approach to create a heatmap using the official ENCORE tool to understand the dependence and impact on the natural environment.
In creating the heatmap, Ichigo identified each business' upstream to downstream processes, extracted the items that are most relevant to each business, and weighted and evaluated dependence and impact using ENCORE.

LEAP Approach and Disclosure Scope

(Note 1) Ichigo performed its assessment for this disclosure in line with asset characteristics.
(Note 2) LEAP Approach: A TNFD-recommended approach to identify and evaluate nature-related issues
(Note 3) ENCORE: An online tool used to identify and visualize dependencies and impact of economic activities on the natural environment
(Note 4) Value chain: A series of business activities undertaken by companies. A framework to analyze how business activities ultimately produce value.
(Reference) Ministry of the Environment www.env.go.jp/content/000212545.pdf (Japanese only)

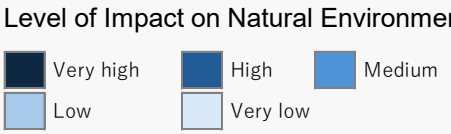
Heatmap (Dependencies)

In applying the LEAP approach, Ichigo created a heatmap (dependencies) using ENCORE to identify its core businesses' dependencies on its natural environment. As a result, Ichigo identified that its real estate management and clean energy businesses are dependent on regulation and maintenance services such as rainfall pattern control, global climate regulation, and soil stability, water-related services such as water quality maintenance, as well as cultural services providing natural landscape recreation.



Heatmap (Impacts)

In line with the heatmap (dependencies), Ichigo identified the impacts of its core businesses on the natural environment using ENCORE. Ichigo identified that its real estate management and clean energy businesses produce noise/light pollution, hazardous pollutants, and GHG emissions, and its clean energy business impacts forest land and freshwater development.



(Note) The wood materials used for wood biomass energy production is produced by planting trees, and is therefore categorized as an upstream activity based on sustainable forestry.

Core Business	Value Chain		Impacts												
			Change in Use of Land/Fresh Water/Ocean			Pollution				Resource Use			Climate Change	Other	
			Land Use Zones	Freshwater-Use Areas	Ocean Areas	Air Pollutants	Nutrient Pollutants	Hazardous Pollutants	Waste	Water Usage	Use of Biological Resources	Use of Abiotic Resources	GHG Emissions	Invasive Species	Noise/ Light Pollution
Real Estate Management	Direct Operations	Building/Asset Management													
	Upstream	Land Development/Procurement													
		Construction/Renovation													
		Maintenance													
	Dow nstream	Waste/Recycling													
Clean Energy (Solar/ Wind/ Battery Storage)	Direct Operations	Clean Energy Production/Sale													
	Upstream	Land Development/Procurement													
		Transportation/Renovation													
		Pow er Plant Operation Management													
	Dow nstream	Waste/Recycling													
Clean Energy (Biomass)	Direct Operations	Clean Energy Production/Sale													
	Upstream	Land Development/Procurement													
		Transportation/Renovation													
		Wood Procurement													
		Pow er Plant Operation Management													
	Dow nstream	Waste/Recycling													

7 Biodiversity Risks & Opportunities

Category	Type	Real Estate Management Business	Clean Energy Business	Effects
Risks	Physical / Acute	●	●	・Increase in construction costs due to delays and suspensions of demolition site preparation and construction work caused by increase in extreme weather events. ・Increase in costs related to disaster recovery and noise and light pollution control due to more frequent natural disasters such as storms. ・Decline in revenue due to the operational shutdown of managed properties and power plants caused by an increase in natural disasters.
			●	・Increase in procurement costs and operational shutdowns due to a reduced supply of wood, a material used for wood biomass, caused by wind and flood damage and forest fires resulting from an increase in extreme weather events.
	Physical / Chronic	●	●	・Decrease in available development sites due to an increase in natural disasters such as typhoons and floods. ・Increase in operational costs due to an increase in natural disasters. ・Increase in costs associated with securing water resources due to a decline in water availability.
			●	・Increase in procurement costs and operational shutdowns due to a reduced supply of wood, a material used for wood biomass, caused by changes in the natural environment. ・Decrease in revenue from solar and wind power plants due to changes in solar radiation, precipitation, and wind directions associated with climate change.
	Transition / Policy/ Legal	●	●	・Increase in costs associated with compliance with government policies and regulations related to the conservation of biodiversity. ・Decrease in available development sites due to the implementation of regulations aimed at ensuring biodiversity conservation. ・Costs incurred for the restoration and remediation in the event of water or soil contamination.
		●		・Increase in compliance costs due to the strengthening of carbon pricing mechanisms, such as carbon tax burdens, and additional labor costs required for emissions trading schemes.
	Transition / Market	●	●	・Decline in revenue resulting from a lack of consideration for biodiversity and inability to meet market demand for nature-based business solutions. ・Increase in procurement costs due to rising biodiversity-related compliance costs across the supply chain.
		●		・Decline in property competitiveness resulting from insufficient measures addressing biodiversity.
	Transition / Technology	●	●	・Decline in competitiveness resulting from delays in adopting technologies to preserve biodiversity. ・Increase in costs associated with the adoption of construction techniques and installation of equipment designed to minimize impacts on biodiversity.
	Transition / Reputation	●	●	・Damage to corporate reputation resulting from ecosystem degradation, water and soil contamination, and noise and light pollution caused by demolition site preparation, construction, and operational activities by the company and its suppliers without due consideration for the natural environment and ecosystems. ・Criticism from clients, investors, and stakeholders and reputational damage due to insufficient measures to preserve biodiversity.
	Transition / Liabilities	●	●	・Litigation risk and liabilities for damages arising from the release of pollutants, hazardous substances, or noise caused by demolition site preparation, construction, and operations by the company or its supply chain without adequate consideration for ecosystems.

Biodiversity Risks & Opportunities

Category	Type	Real Estate Management Business	Clean Energy Business	Effects
Opportunities	Resource Efficiency	●		・Reduction of operational costs through the efficient use of natural resources.
			●	・Stable procurement of raw materials through ecosystem-conscious planned logging and timber sourcing, which promotes ecosystem cycles and ensures the sustainable use of forest resources.
	Products	●	●	・Increased earnings, asset value, and asset size through the construction and operation of real estate and power plants with due consideration for biodiversity that meet customer needs.
	Financing	●	●	・Improved financing capabilities through improved external evaluations resulting from proactive biodiversity initiatives.
	Reputation	●	●	・Enhanced corporate image and improved external evaluations through the promotion of biodiversity- and ecosystem-conscious business activities and information disclosures.
			●	・Enhanced shareholder value through the promotion of ecosystem cycles and the generation of renewable energy with consideration for ecosystems. ・Securing business opportunities via partnerships with local communities utilizing abundant local natural resources and promoting ecosystem conservation.
	Resilience	●	●	・Strengthened resilience through the planning of demolition site preparation, construction, and operations that take irregular climate patterns into account.
			●	・Enhanced business resilience by the stable procurement of raw materials through planned timber sourcing with due consideration for ecosystems.

9 Biodiversity Risks & Opportunities

With respect to its businesses, Ichigo recognizes that important biodiversity issues include addressing climate change, securing water resources, and appropriate land use, and implements company-wide and business-specific initiatives to reduce risks and create opportunities. Ichigo will continue to grow its businesses in line with market needs and contribute to society via its biodiversity initiatives and efforts to preserve the natural environment.

Addressing Biodiversity Risks

- Real Estate Management/Clean Energy
  Risks associated with the elevated costs for disaster preparedness and recovery, alongside reduced earnings due to operational disruptions caused by more frequent and intense extreme weather events and typhoons resulting from climate change (acute/chronic risks)

  Introduction of Susport, a Real-Time Reporting System in Case of Emergencies

  Ichigo developed Susport, an internal real-time reporting system that alerts Ichigo employees about an occurrence of natural disasters and the conditions of Ichigo real estate assets and power plants. Susport allows for the quick identification of assets affected by the disaster and provides a chronological history of the condition of each asset, thus allowing for appropriate personnel to be rapidly deployed to the affected area to help minimize any damages. The system has significantly increased the speed of initial disaster response times and contributed to reductions in damage repair costs and disaster prevention costs.

  Developing Asset Records

  Ichigo develops tailored renovation plans for each managed asset to assess the building and its facilities' conditions and evaluate how to reduce environmental impact. Through these assessments and disaster prevention measures, Ichigo has implemented preventative measures such as waterproofing and developing rules for cleaning rooftop drains to reduce impact from wind and flood damage from typhoons.

- Real Estate Management/Clean Energy
  Risks associated with reduced earnings opportunities due to inadequate consideration of biodiversity, coupled with the inability of businesses to harness natural resources to capture market needs (market risk)

  Setting Environmental KPIs, Joining Third-Party Global Initiatives

  Ichigo believes companies exist to serve society, and has set three Ichigo 2030 KPIs to address environmental issues and realize a sustainable society: 1) Ichigo climate positive: CO_2 reduction > emissions; 2) RE100: 100% renewable electricity across all operations by 2025; and 3) CDP Leadership levels for climate change and water security: A. To achieve these KPIs, Ichigo has implemented ESG and biodiversity initiatives such as joining global initiatives such as RE100 and Science Based Targets (SBT) and setting targets to reduce energy use, greenhouse gas emissions, water usage, and waste.

  Clean Energy Business Developed & Operated With Consideration for Local Natural Environments & Ecosystems

  When developing and constructing its power plants, Ichigo complies with laws and regulations and aims to minimize the impact on the local ecosystem by focusing on preserving local vegetation and maintaining the local environment. In its wood biomass business, Ichigo developed plans that incorporate supply amounts of the wood materials used for power generation.

Addressing Biodiversity Opportunities

- Real Estate Management
  Reduction in operational costs due to the efficient use of resources (driving resource efficiency)

  Initiatives Related to Managed Assets
  With respect to its use of water resources, Ichigo has set quantitative targets to reduce water usage at its offices and managed assets, and has conducted tenant surveys on sanitation facilities at its assets to save water and reduce fuel usage. At hotels where water usage is particularly high, Ichigo has conducted detailed third-party water-saving and fuel reduction surveys and installed water-saving equipment. Ichigo has also implemented water-saving initiatives at offices through the installation of automatic faucets.

- Real Estate Management/Clean Energy
  Increase in earnings from capturing client needs via the construction and operation of real estate assets and power plants with consideration of biodiversity, asset value increase, and portfolio growth (products)

  Management of Real Estate Assets With Consideration of Biodiversity & Ecosystems via Value-Add
  Under its Sustainable Real Estate business, Ichigo extends the useful life of buildings, reduces the environmental impacts of buildings, efficiently uses resources, and drives asset value via seismic reinforcements, building renovations, and improving energy efficiencies, instead of the prevailing model to scrap and rebuild buildings.

  Clean Energy Production via Business Diversification
  In addition to its existing solar and wind power plants, Ichigo is planning to launch a biomass business in cooperation with local governments and communities addressing issues related to aging forests, implementing forest conservation measures, and contributing to community revitalization, and a battery storage business that makes effective use of surplus power, stabilizes renewable energy supply, and contributes to reducing environmental impacts. Ichigo aims to drive earnings via growing its clean energy portfolio.

Realizing Ichigo’s 100-Year Real Estate

(Value-Add on Managed Real Estate Asset)

Ichigo conducted value-add on a hotel in Shinjuku in Tokyo to create THE KNOT TOKYO Shinjuku. THE KNOT TOKYO Shinjuku is a boutique hotel rooted in the local Shinjuku community and where different lifestyles mingle, thereby promoting diversity, one of Ichigo’s core values.

Ichigo transformed a 40-year-old hotel into a boutique hotel that will last another 50 years, conducting full-scale renovations including seismic reinforcements, water system and HVAC upgrades, and guest room renovations, and reducing the hotel’s greenhouse gas emissions and environmental burden via the efficient use of resources.

Bay Village Farm by grow, Ichigo’s City Farm Project

(Initiatives Contributing to Environment & Ecosystems)

The global food security problem has become more serious, with a vegetable shortage forecast to occur by 2030. Globally, local communities have been accelerating farm-to-table urban farming initiatives creating farms on building rooftops and community farms and replacing mass production and large-scale disposal of food to produce only what is necessary.

Urban farming not only drives food self-sufficiency, but further contributes to the environment and to biodiversity. It also revitalizes local communities and improves food and agriculture education. Ichigo created a farm on the premises of its large-scale office building, Tradepia Odaiba.

Organized by Ichigo Estate, Operated by PLANTIO, Inc.