■2023 Environmental Action Plan Scope of operations and period covered: Chugai Group in Japan, January 1, 2023 to December 31, 2023

	items	Mid-Term Environmental Goals 2 0 3 0 ∕ KPI (Base year 2019)	2022 Plan	2022 results	
Climate Change Countermeasures (prevention of global warming)	Scope 1+2 CO ₂ emissions	40% reduction by 2025 60–75% reduction by 2030 Zero emissions by 2050	Monitoring and information disclosure for 40% reduction by 2025	CO2 emissions (Scope 1&2) of 61,344 tons (45.6% reduction compared to 2019)	
	Scope 1+2 Energy consumption	5% reduction by 2025 15% reduction by 2030 (Per total floor area excluding leased properties)	Monitoring and information disclosure for 5% reduction per 2025 total floor area	Energy consumption of 2,301 TJ Energy consumption per total floor area : 5.3MJ/m² (31.8% reduction compared to 2019)	
	Scope 3 reduction of CO ₂ emissions	30% reduction by 2030	Monitoring and information disclosure for 30% reduction by 2030	CO2 emissions (Scope 3) of 2,251,205 tons (133.1% increase compared to 2019)	C
	Sustainable electricity ratio	100% by 2025	Monitoring and information disclosure for 100% reduction by 2025	Sustainable electricity ratio of 81.3%	ŧ
	Halogenated hydrocarbons	25% reduction by 2025 100% reduction by 2030 (base year 2020)	Monitoring and information disclosure for 25% reduction by 2025	Halogenated hydrocarbons usage of 53,529 tons (20.2% increase compared to 2020)	
	Fuel consumption by MR vehicles	35% reduction by 2025 75% reduction by 2030	Monitoring and information disclosure for 35% reduction by 2025	Fuel consumption by MR vehicles of 22,770GJ (47.6% reduction compared to 2019)	
Use of Renewable/Recyc led Resources (resource conservation, waste management)	Industrial waste reduction	5% reduction by 2025 10% reduction by 2030 (Per total floor area excluding leased properties)	Monitoring and information disclosure for 5% reduction by 2025 (Per total floor area excluding leased properties)	Industrial Waste Generated of 4,112 tons Industrial Waste Generated per total area : 9.5kg/m² (9.3% reduction compared to 2019)	
	Improvement of industrial waste recycling ratio	_	Monitor and disclose information on more than 99% of Chugai group facilities	Achieve recycling rate of 99% or more at 4 facilities	
	Plastic waste reduction	5% reduction by 2025 10% reduction by 2030 (Per total floor area excluding leased properties)	Monitoring and information disclosure for 5% reduction by 2025 (Per total floor area excluding leased properties)	Plastic Waste generated of 588 tons Plastic Waste generated per total area : 1.4kg/m² (23.4% increase compared to 2019)	R
	Decrease final disposal ratio		final disposal ratio of industrial waste: less than 2%	Final disposal ratio of industrial waste of 0.1%	
	Verify waste disposal contractors	_	Conduct on-site verification of contracted waste disposal facilities of 100% or more in 3 years (2021 - 2023)	On-site verification of waste disposal contractor facilities: 78% in 2 years	
	Water resource conservation (water withdrawal)	15% reduction by 2030 (Per total floor area excluding leased properties)	Monitoring and information disclosure for 15% reduction by 2030 (Per total floor area excluding leased properties)	Water withdrawal generated of 1,740 tons Water withdrawal generated per total area : 4.0kg/m² (41.4% reduction compared to 2019)	
	Chemical substance management (SVHC)	After 2021, manufacturing processes without using SVHC-listed chemicals are established for all Chugai original candidate molecules by commercial productions.	Establish in-house guidelines for using SVHC	Established in-house guidelines for using SVHC	
	Hazardous waste reduction	5% reduction by 2025 10% reduction by 2030 (Per total floor area excluding leased properties)	Monitoring and information disclosure for 5% reduction by 2025 (Per total floor area excluding leased properties)	Hazardous waste generated of 1,129 tons Hazardous waste generated per total area : 2.6kg/m² (2.4% reduction compared to 2019)	
	Water pollution prevention	_	Conduct WET (Whole Effluent Toxicity) test at 5 facilities (once a year)	Conducted WET (Whole Effluent Toxicity) tests to measure wastewater (five sites once a year)	
	Reduction of the amount of chemical substances (phosphorus, nitrogen, etc.) in wastewater	_	Comply with internal regulation	Complied with internal regulation	bı
	Introduction of comprehensive environmental impact assessment	_	Consider introduction of evaluation impact assessment including Roche method	Considered introduction of comprehensive environmental impact assessment method	
Environmental Management System	Qualitative improvement of Chugai group environmental management system	_	Carry out EHS internal audit at 4 facilities	Carried out EHS internal audit at 5 facilities	
	Improvement of external evaluation	_	CDP Climate Change: A scoring CDP Water Security: A scoring	CDP Climate Change: A scoring CDP Water Security: A ⁻ scoring	
	Join ed RE100	_	Join RE100	Cancellation of Induction	
	Expansion of environmental performance data calculation range	-	Expand the boundary of environmental performance data to overseas sales branches in order to 100% coverage	Expanded the boundary of environmental performance data to overseas sales branches 100% coverage of environmental performance data	

Items		Mid-Term Environmental Goals 2 0 3 0 / KPI (Base year	2023 Plan
		2019)	
	Scope 1+2 CO ₂ emissions	40% reduction by 2025 60–75% reduction by 2030 Zero emissions by 2050	Monitoring and information disclosure for 40% reduction by 2025
	Scope 1+2 Energy consumption	5% reduction by 2025 15% reduction by 2030 (Per total floor area excluding leased properties)	Monitoring and information disclosure for 5% reduction per 2025 total floor area
Climate Change Countermeasures	Scope 3 reduction of CO ₂ emissions	30% reduction by 2030	Monitoring and information disclosure for 30% reduction by 2030
(prevention of global warming)	Sustainable electricity ratio	100% by 2025	Monitoring and information disclosure for 100% reduction by 2025
	Halogenated hydrocarbons	25% reduction by 2025 100% reduction by 2030 (base year 2020)	Monitoring and information disclosure for 25% reduction by 2025
	Fuel consumption by MR vehicles	35% reduction by 2025 75% reduction by 2030	Monitoring and information disclosure for 35% reduction by 2025
	Industrial waste reduction	5% reduction by 2025 10% reduction by 2030 (Per total floor area excluding leased properties)	Monitoring and information disclosure for 5% reduction by 2025 (Per total floor area excluding leased properties)
Use of	Improvement of industrial waste recycling ratio	_	Monitor and disclose information on more than 99% of Chugai group facilities
Renewable/Recycled Resources (resource conservation,	Plastic waste reduction	5% reduction by 2025 10% reduction by 2030 (Per total floor area excluding leased properties)	Monitoring and information disclosure for 5% reduction by 2025 (Per total floor area excluding leased properties)
waste management)	Decrease final disposal ratio	_	final disposal ratio of industrial waste: less than 2%
	Verify waste disposal contractors	_	Conduct on-site verification of contracted waste disposal facilities of 100% or more in 3 years (2021 - 2023)
	Water resource conservation (water withdrawal)	15% reduction by 2030 (Per total floor area excluding leased properties)	Monitoring and information disclosure for 15% reduction by 2030 (Per total floor area excluding leased properties)
	Chemical substance management (SVHC)	After 2021, manufacturing processes without using SVHC-listed chemicals are established for all Chugai original candidate molecules by commercial productions.	Conduct monitoring for SVHC guidelines
	Hazardous waste reduction	5% reduction by 2025 10% reduction by 2030 (Per total floor area excluding leased properties)	Monitoring and information disclosure for 5% reduction by 2025 (Per total floor area excluding leased properties)
Biodiversity Protection	Water pollution prevention	_	Conduct WET (Whole Effluent Toxicity) test at 5 facilities (once a year)
(environmental burden mitigation)	Reduction of the amount of chemical substances (phosphorus, nitrogen, etc.) in wastewater	_	Comply with internal regulation
	Protect water resources through forest maintenance at production site	_	Carry out Forest maintenance activities conducted at least once a year
	Introduction of comprehensive environmental impact assessment	_	Consider introduction of evaluation impact assessment including Roche method
	Qualitative improvement of Chugai group environmental management system	_	Carry out EHS internal audit at 4 facilities Establishment of EHS external audit system
Environmental Management System	Improvement of external evaluation	_	CDP Climate Change: A scoring CDP Water Security: A scoring
	Expansion of environmental performance data calculation range	_	Expansion of the scope of third-party assurance for environmental performance data

^{*} The total floor area in 2022 temporarily increased because both Chugai Life Science Park Yokohama, which was completed in 2022, and the Kamakura Research Laboratories and Fuji Gotenba Laboratories, which are scheduled to closed in 2023, are both in operation, resulting in a temporary decrease in the actual results per total floor area in 2022.