

Environmental Performance Data

Category	Item	Scope of Data	Unit	2017/3	2018/3	2019/3	2020/3
Environmental Accounting							
Environmental preservation cost	Investment	Daicel's business sites	100 million yen	1	15	40	49
	Expense	Daicel's business sites		7	14	67	61
	Economic benefit associated with environmental preservation activities			Daicel's business sites	2	3	25
Global Warming Prevention							
Energy consumption	Daicel's business sites		thousand kL	462	436	411	383
	Domestic Group companies			95	105	111	95
	Overseas Group companies*			276	293	299	308
Energy intensity index (base year: FY2010/3)		Daicel's business sites	%	86	79	78	80
Greenhouse gas(GHG)emissions							
Scope 1		Daicel's business sites	thousand t-CO ₂	1,655	1,596	1,597	1,498
Scope 2		Daicel's business sites		80	61	47	41
Total emissions (Scope 1 and 2)		Daicel's business sites		1,735	1,657	1,644	1,539
Total CO ₂ emissions		Daicel's business sites		1,571	1,489	1,484	1,381
Energy-related CO ₂ emissions		Daicel's business sites		1,331	1,216	1,195	1,081
Non-energy-related CO ₂ emissions		Daicel's business sites		240	273	289	301
Methane (CH ₄)		Daicel's business sites		1	1	1	1
Nitrous Oxide(N ₂ O)		Daicel's business sites		158	162	156	157
HFC		Daicel's business sites		3	3	1	0
Energy intensity index (base year: FY2006/3)		Daicel's business sites		%	100	92	90
Total CO ₂ emissions (Scope 1 and 2)		Domestic Group companies	thousand t-CO ₂	260	249	213	180
Energy-related CO ₂ emissions		Domestic Group companies		260	249	213	180
Non-energy-related CO ₂ emissions		Domestic Group companies		0	0	0	0
Total CO ₂ emissions (Scope 1 and 2)		Overseas Group companies*		602	629	637	650
Energy-related CO ₂ emissions		Overseas Group companies*		602	629	637	650
Scope 3		Daicel's business sites		—	—	—	1,264
Category 1: Purchased goods and services		Daicel's business sites		—	—	—	981
Category 2: Capital goods		Daicel's business sites Domestic Group companies Overseas Group companies		—	—	—	136
Category 3: Energy-related activities outside Scope 1 and 2		Daicel's business sites		—	—	—	110
Category 4: Transportation and distribution (upstream)		Daicel's business sites		17	18	17	16
Marine transport			7.6	7.9	7.4	6.8	
Rail transport			0.4	0.4	0.3	0.3	
Road transport			8.9	9.3	9.2	8.9	
Category 5: Waste generated in operations		Daicel's business sites	—	—	—	10	
Category 6: Employee business travel		Daicel's business sites Domestic Group companies	—	—	—	8	
Category 7: Employee commuting		Daicel's business sites	—	—	—	2	

* Due to the change of boundaries, previous years' values are revised.

Category	Item		Scope of Data	Unit	2017/3	2018/3	2019/3	2020/3
Industrial Waste Reduction								
Industrial waste	Waste generated		Daicel's business sites	thousand t	138.6	137.4	135.6	160.7
			Domestic Group companies		7.8	8.9	9.1	8.6
			Overseas Group companies*		21.9	18.5	22.1	21.7
	Landfill		Daicel's business sites	thousand t	1.5	1.8	1.5	3.1
			Domestic Group companies		0.0	0.0	0.0	0.0
			Overseas Group companies*		8.2	5.8	6.7	6.4
	Final landfill disposal rate		Daicel's business sites	%	1.1	1.3	1.1	1.9
			Domestic Group companies		0.0	0.0	0.4	0.1
			Overseas Group companies*		37	31	30	29
Water Resources and Water Quality								
	Water consumption		Daicel's business sites	million t	92.6	91.4	91.4	88.1
			Domestic Group companies		7.3	7.1	6.7	6.4
			Overseas Group companies*		5.1	8.2	15.6	12.6
	Water discharge		Daicel's business sites	million t	88.0	88.7	90.8	89.7
			Domestic Group companies		5.3	5.1	4.8	4.8
			Overseas Group companies*		2.5	2.7	2.6	2.7
	COD (BOD) emissions		Daicel's business sites	t	802	800	804	823
			Domestic Group companies		46	45	49	33
	Total phosphorous emissions		Daicel's business sites	t	83	81	85	88
		Domestic Group companies	6		4	2	1	
Total nitrogen emissions		Daicel's business sites	t	199	183	170	170	
		Domestic Group companies		15	14	17	7	
Atmospheric Emissions								
	SOx emissions		Daicel's business sites	t	559	187	248	229
			Domestic Group companies		43	23	2	1
	NOx emissions		Daicel's business sites		701	577	601	592
			Domestic Group companies		182	94	41	44
	Soot and dust emissions		Daicel's business sites		52	32	28	22
			Domestic Group companies		38	14	3	1
VOC emissions		Daicel's business sites	1,531	1,430	1,065	900		
Substances Subject to the PRTR Act								
	Released	Amount released to air	Daicel's business sites	t	25	26	26	16
			Domestic Group companies		9	15	11	7
		Amount released to water	Daicel's business sites		9	19	40	21
			Domestic Group companies		0	0	0	0
	Total	Daicel's business sites	34		45	66	37	
		Domestic Group companies	9		15	11	7	
	Transferred		Daicel's business sites		61	58	59	47
			Domestic Group companies		14	16	23	37

* Due to the change of boundaries, previous years' values are revised.

Environmental Load Data

The environmental load data from Daicel's business sites, Domestic Group Companies and Overseas Group companies for FY2020/3 are as follows.

1) Daicel's business sites

Item	Energy consumption	Greenhouse gas emissions	SOx emissions	NOx emissions	Soot and dust emissions	COD(BOD) emissions	PRTR substances		Landfill	Water consumption
	Crude oil equivalent kL	thousand t-CO ₂	t	t	t	t	Released	Transferred		
							t	t	t	thousand t
Aboshi Plant	171,095	505	160	199	8	351	4	3	1,783	31,409
Ohtake Plant	158,623	929	60	336	13	416	18	3	350	40,989*
Arai Plant	22,049	49	4	44	1	47	1	2	335	14,744
Harima Plant	10,494	19	5	8	0	0	1	6	7	290
Hirohata Plant	11,740	21	0	1	0	1	7	1	58	370
Kanzaki Plant	7,696	13	0	4	0	8	6	30	546	222
Innovation Park	1,297	2	0	0	0	0	0	2	13	39

* Includes 34,190 thousand tonnes of seawater.

2) Domestic Group companies

Item	Energy consumption	Greenhouse gas emissions	SOx emissions	NOx emissions	Soot and dust emissions	COD(BOD) emissions	PRTR substances		Landfill	Water consumption
	Crude oil equivalent kL	thousand t-CO ₂	t	t	t	t	Released	Transferred		
							t	t	t	thousand t
Polyplastics Co., Ltd. Fuji Site	90,179	173	0	42	1	32	7	2	2	5,847
Dainichi Chemical Corp.	1,025	3	0	2	0	0	0	34	0	365
DM Novafoam Ltd.	2,221	5	1	1	0	0	0	0	0	54
Daicel Pack Systems Ltd.	682	0	0	0	0	0	0	0	3	150
Daicel Pyrotechnics Ltd.	119	0	0	0	0	0	0	0	0	2
Daicel Logistics Service Co., Ltd.	357	0	0	0	0	0	0	0	0	3

3) Overseas Group companies (from January to December 2019)

Item	Water consumption	Greenhouse gas emissions
	thousand t	thousand t-CO ₂
Ningbo Da-An Chemical Industries Co., Ltd.	711	95
Daicel Nanning Food Ingredients Co., Ltd.	126	12
Xi'an Huida Chemical Industries Co., Ltd.	214	65
Shanghai Daicel Polymers, Ltd.	26	3
Daicel Safety Systems (Thailand) Co., Ltd. / Daicel Safety Technologies (Thailand) Co., Ltd.	147	17
Special Devices (Thailand) Co., Ltd.	8	2
Daicel Safety Systems (Jiangsu) Co., Ltd.	91	21
Daicel Safety Systems Americas, Inc.	36	23
Daicel Safety Systems Europe Sp. z o. o.	6	3
Daicel Safety Systems Korea, Inc.	4	2
Chiral Technologies, Inc.	0	1
Chiral Technologies Europe S.A.S.	0	1
Daicel Chiral Technologies (China) Co., Ltd.	5	1
Daicel Chiral Technologies (India) Private Ltd.	2	1
Polyplastics Taiwan Co., Ltd. *	698	69
Polyplastics Asia Pacific Sdn. Bhd. *	1,483	228
PTM Engineering Plastics (Nantong) Co., Ltd. *	736	87
Polyplastics (Nantong) Ltd. *	39	4
LCP Leuna Carboxylation Plant GmbH *	502	10
TOPAS Advanced Polymers GmbH *	7,758	13

* More companies are added due to the change of boundaries.

Social Performance Data

Item		Unit	Scope of Data	2017/3	2018/3	2019/3	2020/3	
Employees								
Number of employees	Number of employees		Consolidated	11,556	12,309	12,319	11,606	
	Number of employees* ¹	Male		2,732	2,832	2,886	2,925	
		Female		279	305	320	333	
		Total		3,011	3,137	3,206	3,258	
	Full-time employees* ²	Male		Persons	2,504	2,596	2,652	2,665
		Female			228	248	264	281
		Total			2,732	2,844	2,916	2,946
		Ages 18 and 19			35	31	33	31
		Ages 20 to 29			451	481	476	492
		Ages 30 to 39			548	599	658	684
		Ages 40 to 49			871	808	778	758
		Ages 50 to 59			827	925	971	981
	Contract employees	Male		Non-consolidated	228	236	234	260
		Female			51	57	56	52
		Total			279	293	290	312
	Temporary staff	Male		Non-consolidated	44	38	49	13
		Female			54	53	67	40
		Total			98	91	116	53
	Average age	Labor union members		Age	38.5	38.6	38.7	38.8
		Managers			50.3	50.5	50.6	50.9
		Male			41.8	41.9	42.0	42.1
		Female			41.1	41.4	41.6	41.9
		Total			41.8	41.8	41.9	42.1
Number of managerial staff	Male	Persons	20	27	28	31		
	Female		3	0	7	2		
	Total		23	27	35	33		
New graduates recruitment	Male	Persons	81	79	65	51		
	Female		12	10	9	14		
	Total		93	89	74	65		
Mid-career recruitment	Male	Persons	71	79	70	44		
	Female		11	13	11	22		
	Total		82	92	81	66		
Human Resource Development								
Participation in position-specific training		Persons	Non-consolidated	282	364	406	341	
Participation in engineering ethics training				—	44	54	54	
Participation in overseas language training				72	73	56	66	
Diversity								
Ratio of female employees	Staff members	%	Non-consolidated	9.1	9.6	9.1	11.3	
	Managers			2.0	2.1	3.1	3.7	
Employment of persons with disabilities		Persons	Non-consolidated	62.5	68.0	64.0	70	
Ratio of employees with disabilities		%		2.07	2.16	2.02	2.12	
Ratio of post-retirement reemployment* ³		%		98.0	96.9	97.1	91.2	
Number of foreign nationals in the workforce	Male	Persons		12	12	12	14	
	Female		2	2	2	3		
	Total		14	14	14	17		

Item		Unit	Scope of Data	2017/3	2018/3	2019/3	2020/3
Work-Life Balance							
Average length of service	Male	Years	Non-consolidated	18.0	18.0	16.9	16.8
	Female			15.0	14.5	16.6	15.9
	Total			17.7	17.6	16.9	16.4
Employee turnover rate		%		1.0	1.1	1.0	1.0
Ratio of employees taking annual paid leave	Labor union members			70.0	70.5	76.4	79.4
	Managers			43.8	46.3	54.4	57.2
	Male			61.7	64.1	70.7	73.8
	Female			68.2	66.7	70.2	71.3
Total	63.2			64.4	70.6	73.6	
Number of employees taking childcare leave	Male			Persons	0	25	19
	Female	1			2	7	11
	Total	1			27	26	50
Ratio of employees taking childcare leave	Male	%		0.0	29.8	22.6	42.4 ^{*4}
	Total			100	100	100	100
	Total			1.1	33.3	28.6	48.5
Number of employees using shorter working hours for childcare	Male	Persons		0	0	0	0
	Female			10	1	11	13
	Total			10	1	11	13
Number of employees using teleworking system ^{*5}	Male	Persons		—	6	84	279
	Female			—	18	62	108
	Total		—	24	146	387	
Number of employees taking nursing care leave	Male	Persons	0	0	0	0	
	Female		0	0	0	0	
	Total		0	0	0	0	
Number of employees using shorter working hours for nursing care	Male	Persons	0	0	0	0	
	Female		0	0	0	0	
	Total		0	0	0	0	
Number of labor union members			1,970	2,069	2,122	2,166	
Ratio of labor union members		%	65.6	66.0	72.8	72.9	
Occupational Safety and Health							
Number of occupational accidents	Cases	Daicel's business sites and on-premise partner companies	12	12	17	23	
		Domestic Group companies	4	3	9	13	
		Overseas Group companies	28	25	26	39	
Occupational accident frequency rate ^{*6}	—	Daicel's business sites and on-premise partner companies	1.10	1.07	1.56	2.19	
		Domestic Group companies	1.43	1.03	3.00	4.20	
		Overseas Group companies	2.43	1.94	2.10	3.36	
Physical and Mental Health							
Ratio of employees taking health checkups	Male	%	Non-consolidated	100	100	100	100
	Female			100	100	100	100
	Total			100	100	100	100
Research and Development							
Research and development expenses		100 million yen	Consolidated	168	188	207	213
Number of research and development staff		Persons		1,128	1,183	1,318	1,376

*1 Excludes directors, subordinate directors, and loaned staff. Includes full-time employees and contract employees. Contract employees are full-time employees working under a fixed-term contract, and excludes part-time employees.

*2 Includes employees on loan to Group companies and companies outside the Group.

*3 Ratio of employees using the reemployment system after mandatory retirement.

*4 Figures are as of March 31, 2020.

*5 The system was introduced in April 2017, and eligibility was expanded to all employees in October 2018.

*6 Occupational Accident Frequency Rate = (number of people involved in an occupational accident / total actual working hours) × 1 million hours

Governance Data

Item		Scope of Data	Unit	2017/3	2018/3	2019/3	2020/3
Corporate Governance							
Number of Directors*	Male	Non-consolidated	Persons	7	7	8	9
	Female			1	1	0	1
	Total			8	8	8	10
Ratio of female directors*			%	12.5	12.5	0.0	10.0
Number of External Directors (number of independent directors)	Male		Persons	2(2)	3(3)	4(4)	4(4)
	Female			1(1)	1(1)	0(0)	1(1)
	Total			3(3)	4(4)	4(4)	5(5)
Term of Directors			Years	1	1	1	1
Frequency of meetings of the Board of Directors			Times	14	14	15	14
Attendance at Board of Directors meetings	External Directors		%	97.6	96.3	96.7	100
	Outside Audit & Supervisory Board Members	95.2		97.6	95.6	100	
Number of Audit & Supervisory Board Members*	Male	Persons	5	5	5	5	
	Female		0	0	0	0	
	Total		5	5	5	5	
Ratio of female Audit & Supervisory Board Members*		%	0.0	0.0	0.0	0.0	
Number of Audit & Supervisory Board Members (number of independent officers)	Male	Persons	3(3)	3(3)	3(3)	3(3)	
	Female		0(0)	0(0)	0(0)	0(0)	
	Total		3(3)	3(3)	3(3)	3(3)	
Term of Audit & Supervisory Board Members		Years	4	4	4	4	
Frequency of meetings of the Audit & Supervisory Board		Times	14	14	14	14	
Attendance of Audit & Supervisory Board Members	Outside Audit & Supervisory Board Members	%	95.2	97.6	100.0	100.0	
Compliance							
The number of cases reported via the whistleblowing systems		Consolidated	Cases	16	31	52	51
Of the above, the number of reports that had an impact on management			Cases	0	0	0	0
The number of E-learning participants on Compliance			Persons	—	4,744	4,868	4,925
Ratio of E-learning attendance on Compliance			%	—	99	99	98
Political contribution			million yen	—	0.04	0.05	0.13
Corporate tax. etc			million yen	16,272	16,607	14,623	9,820

* Number of persons and ratios are as of the end of each fiscal year.