

CSR Report 2018

Corporate Social Responsibility Report

Performance Data Book

SEKISUI	
CORPORATO Exception Corporate Exception Report	
SEKISUI CHEMICAL CO, LTD.	

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SEKISUI CHEMICAL CO., LTD.

Prominence in Environment

Environmental Management System

Scope of Tabulation for Environmental Performance Data

* All of Sekisui Chemical's (consolidated) offices (100% of produced sales amounts) are subject to environmental reporting.

Japan

Housing Company

R&D institute One company and one business site

Sekisui Chemical Co., Ltd. Tsukuba R&D Site

Production plants Seven companies and 10 business sites

Hokkaido Sekisui Heim Industry Co., Ltd. / Tohoku Sekisui Heim Industry Co., Ltd. / Sekisui Heim Industry Co., Ltd. / Chushikoku Sekisui Heim Industry Co., Ltd. / Kyusyu Sekisui Heim Industry Co., Ltd. / (Sekisui Board Co., Ltd., etc.)

Sales and construction	25 companies and 126
companies	business sites

Sekisui Heim sales companies

Construction and service companies

33 companies and 137 business sites in total

Urban Infrastructure & Environmental Products Company

R&D institutes One company and one business site

Sekisui Chemical Co., Ltd. Kyoto Research & Development Laboratories

Production plants 26 companies and 19 business sites

Sekisui Chemical Co., Ltd. Shiga-Ritto Plant and Gunma Plant / Chiba Sekisui Industry Co., Ltd. / Sekisui Chemical Hokkaido Co., Ltd. / Toto Sekisui Co., Ltd. Ota Plant / Okayama Sekisui Industry Co., Ltd. / Shikoku Sekisui Co., Ltd. / Nara Sekisui Co., Ltd. / Hanyu Sekisui Co., Ltd. / Yamanashi Sekisui Co., Ltd. / Sekisui Sekie, Ltd. / Sekisui Hinomaru Co., Ltd. etc.

Sales One company and 10 business sites

Sekisui Chemical Co., Ltd. Higashinihon Sales, Nishinihon Headquarters, etc.

26 companies and 30 business sites in total

High Performance Plastics Company

R&D institutes Three companies and three business sites Sekisui Chemical Co., Ltd. Minase Site

Sekisui SoflanWiz Co., Ltd. R&D Division*2, etc.

Production plants 14 companies and 19 business sites Sekisui Chemical Co., Ltd. Musashi Plant, Shiga-Minakuchi Plant and Taga Plant

Sekisui Techno Molding Co., Ltd. / Sekisui Medical Co., Ltd., etc. Sekisui Nano Coat Technology Co., Ltd. / Sekisui Fuller Company, Ltd. Tokuyama Sekisui Industry Co., Ltd. / Sekisui Polymatech Co., Ltd.^{*1} Sekisui SoflanWiz Co., Ltd.^{*2}, etc.

14 companies and 22 business sites in total

Headquarters

R&D institutes One company and one business site Sekisui Chemical Co., Ltd. Development Center

Production plants and headquarters Two companies and three business sites

Sekisui Chemical Co., Ltd. Osaka headquarters and Tokyo headquarters ENAX,Inc. Chubu office

Two companies and four business sites in total

Total: 72 companies and 193 business sites

Note: The total number of companies and business sites do not match, since some companies have two or more business sites, and some business sites are shared by two or more companies.

*1 Scope of summation from September 2017. *2 Scope of summation from January 2018.

Overseas

Housing Company

Sekisui-SCG Industry Co., Ltd.

One business site

Sekisui Polymer Innovations, LLC. Bloomsburg-north Plant Sekisui Polymer Innovations, LLC. Bloomsburg-south Plant Sekisui Polymer Innovations, LLC. Holland Plant Sekisui Eslon B.V. Sekisui Industrial Piping Co., Ltd. Sekisui Rib Loc Australia Pty. Ltd. Sekisui (Wuxi) Plastics Technology Co., Ltd. Sekisui (Shanghai) Environmental Technology Co., Ltd.

Urban Infrastructure & Environmental Products Company

Eight business sites in total

High Performance Plastics Company

Sekisui S-Lec America, LLC. Sekisui S-Lec Mexico S.A. de C.V. Sekisui S-Lec B.V. Film Plant Sekisui S-Lec B.V. Resin Plant Sekisui S-Lec (Thailand) Co., Ltd. Sekisui S-LEC (Suzhou) Co., Ltd. Sekisui Specialty Chemicals America, LLC. Pasadena Plant

*1 Scope of summation from September 2017.

Sekisui Specialty Chemicals America, LLC. Calvert City Plant Sekisui Specialty Chemicals Europe S.L. Sekisui Specialty Chemicals (Thailand) Co., Ltd. S and L Specialty Polymers Co., Ltd. Sekisui Voltek, LLC. Lawrence Plant Sekisui Voltek, LLC. Coldwater Plant Sekisui-Alveo B.V. Sekisui Alveo Ltd. Sekisui Alveo BS G.m.b.H. Thai Sekisui Foam Co., Ltd. Sekisui Pilon Pty. Ltd. Youngbo Chemical Co., Ltd. Youngbo HPP (Langfang) Co., Ltd. Sekisui High Performance Packaging (Langfang) Co., Ltd. Sekisui Medical Technology (China) Ltd. Sekisui Xenotech, LLC Sekisui Diagnostics, LLC. San Diego Sekisui Diagnostics (UK) Ltd. Sekisui Diagnostics P.E.I. Inc. Sekisui DLJM Molding Private Ltd. Greater Noida Plan Sekisui DLJM Molding Private Ltd. Tapukara Plant Sekisui DLJM Molding Private Ltd. Chen nai Plant PT.ADYAWINSA SEKISUI TECHNO MOLDING Sekisui Polymatech (Thailand) Co., Ltd. PT. Polymatech Indonesia Sekisui Polymatech (Shanghai) Co., Ltd.

Total: 33 business sites

Business Sites that Have Received Third-Party Certification for Their Environment Management Systems

Housing Company

Sekisui Chemical Co., Ltd. Tsukuba R&D Site Hokkaido Sekisui Heim Industry Co., Ltd. Tohoku Sekisui Heim Industry Co., Ltd. Sekisui Heim Industry Co., Ltd. Kanto Site Tokyo Site Chubu Site Kinki Site Chushikoku Sekisui Heim Industry Co., Ltd. Kyushu Sekisui Heim Industry Co., Ltd. Sekisui Board Co., Ltd. Minakuchi Plant Sekisui Board Co., Ltd. Gunma Plant Sekisui-SCG Industry Co., Ltd.

- []: Organizations in square parentheses are included in the scope of certification. Some sites not shown above may include related sections that have attained ISO 14001 certification.
 ☆ Eco Action 21; others ISO 14001
- The Sekisui Chemical Co., Ltd. Tsukuba R&D Site and Development Center share a single certification

Urban Infrastructure & Environmental Products Company

Sekisui Chemical Co., Ltd. Shiga-Ritto Plant Sekisui Chemical Co., Ltd. Gunma Plant Sekisui Chemical Co., Ltd. Kyoto R & D Laboratories Chiba Sekisui Industry Co., Ltd. Sekisui Chemical Hokkaido Co., Ltd. Toto Sekisui Co., Ltd. Ota Plant Okavama Sekisui Industry Co., Ltd. Shikoku Sekisui Co., Ltd. Kyushu Sekisui Industry Co., Ltd. Nara Sekisui Co., Ltd. Hanyu Sekisui Co., Ltd. Yamanashi Sekisui Co., Ltd. Sekisui Home Techno Co., Ltd. Sekisui Hinomaru Co., Ltd. Tosu Plant Sekisui Hinomaru Co., Ltd. Kanto Plant Sekisui Seikei, Ltd. Chiba Plant Sekisui Seikei, Ltd. Kanto Plant Sekisui Seikei, Ltd. Hyogo Plant Sekisui Seikei, Ltd. Hyogo-Takino Plant Sekisui Seikei, Ltd. Izumo Plant Sekisui Polymer Innovations, LLC. Bloomsburg Plant Sekisui Polymer Innovations, LLC. Holland Plant Sekisui Eslon B.V. Sekisui Rib Loc Australia Pty. Ltd. Sekisui Refresh Co., Ltd. Sekisui Industrial Piping Co., Ltd. Sekisui (Wuxi) Plastics Technology Co., Ltd. Sekisui (Qingdao) Plastic Co., Ltd. Sekisui (Shanghai) Environmental Technology Co., Ltd.

Headquarters

Sekisui Chemical Co., Ltd. Development Center* ENAX,Inc. Headquarters, Chubu office

High Performance Plastics Company

Sekisui Chemical Co., Ltd. Musashi Plant Sekisui Chemical Co., Ltd. Shiga-Minakuchi Plant [Sekisui Fuller Company, Ltd. Shiga Plant] Sekisui Chemical Co., Ltd. Taga Plant Sekisui Chemical Co., Ltd. Minase Site Sekisui Techno Molding Co., Ltd. Nara Plant Sekisui Techno Molding Co., Ltd. Mie Plant Sekisui Techno Molding Co., Ltd. Aichi Plant Sekisui Fuller Co., Ltd. Hamamatsu Plant Sekisui Medical Co., Ltd. Iwate Plant Sekisui Medical Co., Ltd. Tsukuba Plant Sekisui Medical Co., Ltd. Drug Development Solutions Center 🛠 Sekisui Medical Co., Ltd. Ami Site Sekisui Nano Coat Technology Co., Ltd. Tokuyama Sekisui Industry Co., Ltd. Sekisui S-Lec B.V. Film Plant Sekisui S-Lec B.V. Resin Plant Sekisui-Alveo B.V. Sekisui Alveo Ltd. Sekisui Alveo BS G.m.b.H. Sekisui S-Lec America, LLC. Sekisui Voltek, LLC. Lawrence Plant Sekisui Voltek, LLC. Coldwater Plant Sekisui Specialty Chemicals America, LLC. Pasadena Plant Sekisui Specialty Chemicals America, LLC. Calvert City Plant Sekisui Diagnostics, LLC, San Diego Sekisui Diagnostics P.E.I. Inc. Sekisui Specialty Chemicals Europe, S.L. Sekisui S-Lec Mexico S.A. de C.V. Sekisui S-Lec (Thailand) Co., Ltd. Thai Sekisui Foam Co., Ltd. Sekisui Specialty Chemicals(Thailand) Co., Ltd. Sekisui Pilon Pty. Ltd. Sekisui Diagnostics (UK) Ltd. Youngbo Chemical Co., Ltd. Sekisui DLJM Molding Private Ltd. Greater Nodia Plant Youngbo HPP (Langfang) Co., Ltd. Sekisui High Performance Packaging (Langfang) Co., Ltd. Sekisui S-LEC (Suzhou) Co., Ltd. Sekisui Medical Technology (China) Ltd.

Indicator	Calculation Method
Number of EMS-certified business sites	Number of business sites that received external EMS certification in each fiscal year External EMS certification: ISO 14001, Eco-Action 21, etc.
The proportion of all business sites within the Sekisui Chemical Group that have received external EMS certification	The proportion of all business sites within the Sekisui Chemical Group that have received external EMS certification = Σ [Number of employees at business sites that have received external EMS certification] / Consolidated number of employees: Number of employees on the final day of the relevant fiscal year

Number of Issues Noted by Environmental Auditors During Fiscal Year 2017

		Number of cases	Correction completed	Undergoing correction	
		Issues of concern	44	26	18
Headquarters		Issues to work on	129	50	79
(14 b	ousiness sites)	Proposals	12	8	4
	,	Total	185	84	101
lγ		Nonconformity(major)	8	8	0
bod	Renewal (19 business sites)	Nonconformity (minor)	5	3	2
atior		Observations	93	44	49
tifica		Total	106	55	51
/cer		Nonconformity (major)	0	0	0
(d Di	Surveillance	Nonconformity (minor)	24	15	9
ditir	(31 business sites)	Observations	83	38	45
Au		Total	107	53	54
Int	ternal auditing of	Nonconformity (major)	13	9	4
bu	isiness sites	Nonconformity (minor)	99	63	36
(4)	7 business sites,	Observations	404	289	115
50	audits)	Total	516	361	155

Note: Categories of instructions for Headquarters environmental auditing: Issues of concern: Matters recommended for swift improvement Issues to work on: Matters recommended for planned improvement Proposals: Matters to be considered for improvement, advice

Environment-related Complaints, etc.

		Content	Response
Accident	Fire	Small, contained fires occurring during raw-materials processes	Installation of sprinklers and monitoring cameras
	Leaks	Flow of caustic soda into waterways	Closure of wastewater routes
	Noise	Noise from exhaust blowers	Installation of soundproof wall in exhaust hoods
Complaints	Others	Leaving of weeds growing across the boundary lines into neighboring companies' properties	Periodic weeding

In fiscal year 2017, there were two environment-related accidents and two environment-related complaints; we have implemented measures to prevent reocurrence for each case.

[Scope of Environmental Accounting]

- (1) Summation period: April 1, 2017 to March 31, 2018
- (2) Scope of tabulation: 42 production sites + 5 research facilities + various departments in headquarters + indirect divisions of Companies + 15 housing sales companies

In fiscal year 2015, the scope of tabulation consisted of 45 production sites + 5 research facilities + various departments in headquarters + indirect divisions of Companies + 14 housing sales companies.

Deleted: Sekisui Chemical Co., Ltd. Tokyo Plant (plant closed), Sekisui Aqua Systems Co., Ltd. Shizuoka Plant (plant closed)

Because of the effects of the Kumamoto Earthquake, it was impossible to tabulate data for a housing sales company and Sekisui Heim Kyushu Co., Ltd. in fiscal year 2015.

In fiscal year 2016, the scope of tabulation consisted of 40 production sites + 5 research facilities + various departments in headquarters + indirect divisions of Companies + 15 housing sales companies.

Deleted: Four Sekisui Film production sites (outside the scope of consolidation), Sekisui Medical Co., Ltd. Amagasaki Plant (business transferred)

The business sites added to the scope of tabulation in 2017 are as follows:

Addition: Hanyu Sekisui Co., Ltd. Tohoku Office, Sekisui Medical Co., Ltd. Ami Office

(3) Approach toward summation

•Depreciation amounts are the same as those for financial accounting.

- •Investment amounts are based on budget approvals during the summation period.
- •Expenditures and investments that contain other than environmental conservation activities are distributed pro-rata in 10% increments.

During fiscal year 2017, the number of business sites counted as production sites increased.

Concerning costs, upstream and downstream costs, management activity costs, and R&D costs rose, while social activity and other costs decreased, but total costs amounted to more than in the previous fiscal year.

Meanwhile, in terms of investment, there was increased investment in measures countering global warming and on waste material reductions, and investment in R&D increased; thus the total amount exceeded that of the previous fiscal year.

In terms of economic effects, profit on the sale of valuables increased, as did profits from the sale of mega-solar electricity. Additionally, the amount saved on costs from energy-saving activities decreased, while the amount of costs saved from waste material reduction activities and other efforts increased. The external economic effects from housing equipped with solar power-generation systems and so forth are growing steadily.

Environmental Conservation Costs (Sekisui Chemical Group)

	· · · · · · · · · · · · · · · · · · ·			a di stanla		(1	Millions of yen	
	Items	FY	2015	FY2	2016	FY2017		
Category	Description of main activities	Costs	Investments	Costs	Investments	Costs	Investments	
	Prevention of air, water, and noise pollution, etc.	1,170	229	1,391	265	1,697	99	
1) Costs within business areas	Countermeasures against global warming (energy saving), etc.	442	383	383	706	427	1,312	
	Waste reduction, recycling, disposal, etc.	4,203	119	5,370	80	4,967	2,030	
2) Upstream/downstream costs	Cost increases due to URU, switching to packaging/packing methods involving reduced environmental impact, greener purchasing, etc.	243	0	144	6	218	0	
3) Administrative costs	Environmental education, EMS maintenance, running costs for green action organization, information disclosure, etc.	2,069	1	1,687	5	2,072	0	
4) Research & development costs	Research and development on environmental conservation	5,483	1,369	5,349	804	7,932	1,477	
5) Social activities costs	Social contributions, etc.	337	1	291	0	277	0	
6) Environmental damage costs	Nature restoration, etc.	30	0	27	0	29	32	
	Total	13,977	2,103	14,640	1,866	17,618	4,951	
						_		
Total amount of R&D costs* and in	nvestment in the fiscal period (million yen)	31,693	23,949	34,169	20,220	36,974	18,838	
Ratio of amount related to enviro	nmental conservation activities to total (%)	17.3	8.8	15.7	9.2	21.5	26.3	

* R&D costs are the total for all consolidated companies.

Environmental Conservation Benefits (Sekisui Chemical Group)

		Environm	Environmental performan	California									
Descript	tion of effects	Item	Unit FY2015 FY2016 FY2017 Effect(17-16) Item Unit FY2016 FY2017 Self-eva					Self-evaluation					
	Effects on		(1)Electricity	TJ	1,203	1,124	1,116	-8	(1) Energy usage per		10-10-1		~ y
	invested resources	Amount of energy usage	(2) Fuel	LT	2,260	2,415	2,488	73	(electricity + fuel)	GJ/ton	1.09	1.05	~
Effects within business areas	Effects on environmental impact and waste	(3) CO ₂ emissions (4)Volume of environmentalpollutants discharged ^{*1} (5) Waste generated ^{*2}		Thousandtons	327.5	318.9	317.4	-1.5		1. 	-		×
				Tons	533.7	567.3	649.5	82.1	-	-	-	-	×
				Thousandtons	31.7	37.2	38.3	1.1	(2)Waste generated per unit of output	kg/ton	42.6	42.3	×
		(6) Outsourced disposal *3	Thousandtons	0.02	0.00	0.31	0.31	(3)Outsourced disposal per unit of output	kg/ton	0.00	0.34	×	
Upstream/ downstream effects	Effects related to products/services	CO ₂ reduction by photovoltaic power generation	n, etc. (cumulative)	Thousandtons	394	425	452	27	-	-	_	-	1
NOV 10 - 10		Business sites attaining ISO	New acquisitions	Sites	3	3	2		Business sites	Total number	100	102	and a
Other benefits	Others #6	14001 and other certifications	Renewals	Sites	15	12	19	_	and other certifications*	sites	100	102	X
to environmental O conservation	Others	Number of business sites achieving zero emissions*:		Sites	6	4	0	<u></u>	Number of business sites achieving zero emissions *6	Total number of business sites	162	162	1
		CO ₂ reduction from use of megas	solar facilities	Thousandtons	5.06	5.18	4.96	-0.22				_	127.S

*1 Class I Designated Chemical Substances specified by PRTR Law. *2 Amount discharged + Amount disposed of at price + Amount incinerated within own premises.

*3 Simple incineration + Landfill. *4 Including business sites not subject to environmental accounting summation, such as overseas business sites.

*5 A cumulative total number of sites reviewed for factors, such as consolidation and return of certifications for housing sales companies.

*6A business site affiliated to multiple companies is counted as one.

Economic Benefits of Environmental Conservation Measures (Sekisui Chemical Group)

					(Millions of yen)
	Description of effects	FY2015	FY2016	FY2017	Remarks
	(1) Profit on sales of valuable resources	160	129	291	Profit on sales of valuable resources from promotion of waste segregation and recycling
Revenue	(2) Revenues from sale of electricity	365	379	384	Revenues from sale of electricity generated by megasolar facilities
	(3) Savings from simplified packaging	4	0	4	
Cost	(4) Cost savings through energy-saving activities	974	486	654	
sarings	(5) Cost savings through waste-reduction activities, etc.	1,170	646	677	Including resource-saving activities
	Subtotal (actual effects)	2,673	1,639	2,010	
(6) Contri	bution to envirormental conservation activities*1	6,755	6,694	7,737	Contribution of environmental conservation activities to added value at business sites*2
(7) External economic effect Subtotal (estimated effects)		28,761	30,647	34,982	Monetary conversion of impact from photovoltaic generation systems and No-Dig pipe rehabilitation method
		35,516	37,341	42,719	
	Total	38,189	38,980	44,728	

*1 Excluding housing sales companies

*2 (Added value from business sites) & {(Costs within business areas + Administrative costs)/(Total production costs excluding materials costs)}

Environmental Conservation Costs (by Company)

	(Millions of year												
	Items	Housing C	ompany*1	Urban Infra Enviroi Products	astructure & nmental Company	High Per Plastics (formance Company	Sek Chemica	isui Group *²				
Category	Description of main activities	Costs	Investments	Costs		Costs	Investments	Costs	Investments				
1) Costs within business areas	Prevention of air, water, and noise pollution, etc.	1,186	53	45	16	467	31	1,697	99				
	Countermeasures against global warming (energy saving), etc.	106	148	167	848	144	317	427	1,312				
	Waste reduction, recycling, disposal, etc.	4,356	10	255	6	355	2,014	4,967	2,030				
2) Upstream/ downstream costs	Cost increases due to URU, switching to packaging/packing methods involving reduced environmental impact, greener purchasing, etc.	191	0	12	0	15	0	218	0				
3) Administrative costs	Environmental education, EMS maintenance, running costs for green action organization, information disclosure, etc.		0	313	0	775	0	2,072	0				
4) Research & development costs	Research and development on environmental conservation	67	149	2,110	4	647	31	7,932	1,477				
5) Social activities costs	Social contributions, etc.	182	0	31	0	18	0	277	0				
6) Environmental damage costs	Nature restoration, etc.	0	0	0	0	29	32	29	32				
	Total	6,632	359	2,932	874	2,450	2,425	17,618	4,951				
Total amount of R&E	O costs ⁺³ and investment in the fiscal period (million yen)	4,626	3,675	6,063	5,046	18,933	7,909	36,974	18,838				
Ratio of amount rela	ted to environmental conservation activities to total (%)	1.4	9.8	34.8	17.3	3.4	30.7	21.5	26.3				

*1 Including 42 business sites of housing sales companies. *2 Total of three division companies and departments of headquarters. *3 R&D costs are the total for all consolidated companies.

Environmental Conservation Costs (by Environmental Conservation Measure)

	(Millions of yen)												
	Items	Housing (Company*1	Urban Infrastruct Environmental P	ure & roducts Company	High Performance	Plastics Company	Sekisui Chemical Group *2					
Category	Description of main activities	Costs	Investments	Costs				Costs	Investments				
1. Prevention of global warming	Reduction of CO ₂ emissions, etc.	97	100	171	844	142	233	419	1,177				
2. Ozone layer protection	Reduction of chlorof luorocarbon emissions, etc.	6	47	1	1	9	76	17	124				
3. Conservation of air quality	Prevention of air pollution by reducing polluting substances	386	11	34	10	166	12	586	33				
4. Prevention of noise and vibration	Prevention of noise and vibration pollution	35	19	5	0	13	8	54	27				
Conservation of water environment, soil environment, ground quality	Preservation of water quality, prevention of subsidence	187	2	17	4	330	43	534	49				
6. Waste reduction and recycling	Reduction and treatment of waste, recycling, etc.	4,527	10	262	6	388	2,014	5,177	2,030				
7. Reduction of chemical substances	Risk management of chemical substances, etc.	548	0	2	0	4	0	554	0				
8. Conservation of natural environment	Nature conservation, etc.	91	0	82	0	39	0	245	0				
9. Others	Others	755	169	2,358	9	1,360	39	10,032	1,510				
Total			359	2,932	874	2,450	2,425	17,618	4,951				

*1 Including 42 business sites of housing sales companies. *2 Total of three division companies and departments of headquarters.

Environmental Conservation Benefits (by Company)

	Enviror	mental conservation be	enefits		Ho	using Comp	any*1	Urban Infrastructure & Environmental Products Company			High Perfor	mance Plastic	s Company	Sekisui Chemical Group* ²		
Descri	ption of effects	Items		Unit	FY2016	FY2017	Effect (17-16)	FY2016	FY2017	Effect (17-16)	FY2016	FY2017	Effect (17-16)	FY2016	FY2017	Effect (17-16)
eas	Effects on	Amount of energy usage	(1) Electricity	LΊ	148	151	3	569	573	4	401	383	-18	1,124	1,116	-8
ess ar	resources		(2) Fuel	τJ	120	131	11	95	94	-1	2,198	2,257	59	2,415	2,488	73
busine	Effects on environmental impact and waste	(3) CO ₂ emissions		Thousand tons	28.0	27.7	-0.3	92.0	89.5	-2.5	197.9	198.7	0.8	318.9	317.4	-1.5
Effects within		s on (4) Volume of environmental pollutants discharged ¹³		Tons	1.7	1.5	-0.2	54.7	47.0	-7.7	511.0	601.0	90.0	567.3	649.5	82.1
		(5) Waste generated *4 Th		Thousand tons	10.9	11.2	0.3	7.8	7.9	0.1	18.6	19.0	0.4	37.2	38.3	1.1
		(6) Outsourced disposal' ⁵		Thousand tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.18	0.00	0.31	0.31
Upstream/ downstream effects	Effects related to products/ service	CO ₂ reduction by photo power generation, etc.	ovoltaic	Thousand tons	425	452	27	_	_	_	_	_	_	425	452	27
0		Business sites attaining ISO	New acquisitions	Sites	0	0	-	0	0	-	3	2	-	3	2	-
efits t ental on	Others %	14001 and other certifications	Renewals	Sites	5	1	-	5	10	-	2	8	-	12	19	-
er ben ronme	Others °	Number of business sit zero emissions*7	es achieving	Sites	0	0	-	3	0	-	1	0	-	4	0	-
Othe envin conse		CO ₂ reduction from use megasolar facilities	of	Thousand tons	3.19	3.11	-0.08	0.90	0.80	-0.11	1.08	1.05	-0.03	5.18	4.96	-0.22

*1 Including 42 business sites of housing sales companies *2 Total of three division companies and departments of headquarters.*3 Class I Designated Chemical Substances specified by PRTR Law. *4 Amount discharged + Amount disposed of at price + Amount incinerated within own premises *5 Simple incineration + Landfill *6 Including business sites not subject to environmental accounting summation, such as overseas business sites 7 A business site affiliated to multiple companies is counted as one.

Economic Benefits of Environmental Conservation Measures (by Company)

	(Millions of yen)							
	Description of effects	Housing Company*1	Urban Infrastructure & Environmental Products Company	High Performance Plastics Company	Sekisui Chemical Group *2	Remarks		
Provonuo	(1) Profit on sales of valuable resources	16	193	78	291	Profit on sales of valuable resources from promotion of waste segregation and recycling		
nevenue	(2) Revenues from sale of electricity	238	63	83	384	Revenues from sale of electricity generated by megasolar facilities		
Cost savings	(3) Savings from simplified packaging	0	3	0	4			
	(4) Cost savings through energy-saving activities	9	66	578	654			
	(5) Cost savings through waste-reduction activities, etc.	47	72	558	677	Including resource-saving activities		
Subtotal (actual effects)		310	398	1,298	2,010			
(6) Con	tribution to environmental conservation activities"3	2,716	1,735	3,285	7,737	Contribution of environmental conservation activities to added value at business sites '4		
(7) External economic effect		24,991	9,991	_	34,982	Monetary conversion of impact from photovoltaic generation systems and No-Dig pipe rehabilitation method		
Sub-total (estimated effects)		27,707	11,726	3,285	42,718			
Total		28,017	12,124	4,583	44,728			

*1 Including 42 business sites of housing sales companies *2 Total of three division companies and departments of headquarters. *3 Excluding housing sales companies *4 (Added value from business sites) × {(Costs within business areas + Administrative costs)/(Total production costs excluding materials costs)}

Indicator	Calculation Method
Environmental Accounting	Calculation based on referring to the Ministry of the Environment's "Environmental Accounting Guidelines 2005 Edition" and adding Sekisui's own concepts, such as external economic effects (estimated effects) Among the economic effects attendant with environmental conservation measures, the external economic effect consist of the effects of energy-savings from sales of housing equipped with solar power-generation systems and the effects of non-digging renovation methods for sewers, and so forth, converted to a monetary value

Climate Change

Starting with the current Environmental Medium-term Plan (2017-2019) we have revised the CO_2 emissions coefficient and amount of heat generated per unit of output, resulting in revisions to figures for previous fiscal years.



Greenhouse Gas (GHG) Emissions That Arise from Business Activities

Greenhouse Gas (GHG) Emissions During Manufacturing / Japan



Greenhouse Gas (GHG) Emissions During Manufacturing / Overseas



Energy Usage and per Unit of Output* (Index) During Manufacturing / Japan



Energy Usage and per Unit of Output* (Index) During Manufacturing / Overseas





Breakdown of Greenhouse Gas (GHG) Emissions During Manufacturing / Japan



Breakdown of Greenhouse Gas (GHG) Emissions During Manufacturing / Overseas



Amount of Electricity Purchased During Manufacturing / Japan and Overseas

Amount of electric power (GWh) 1000 800 600 Overseas 400 200 2013 2014 2015 2016 2017

Breakdown of Energy Usage During Manufacturing / Japan



Breakdown of Energy Usage During Manufacturing / Overseas



Amount of Solar Power Generated for In-House Use **During Manufacturing / Japan and Overseas**

Amount of electric power generated (MWh)



GHG Emissions at Research Facilities



Energy Usage and per Unit of Output* (Index) at Research Facilities



Energy Usage and per Unit of Output* (Index) at Offices



Note: For Japan, electricity and fuel for company cars are tabulated, while only electricity is tabulated for overseas.

Indicator	Calculation Method
Greenhouse Gas Emissions	 GHG emissions = Σ[fuel usage, purchased electricity, purchased steam × CO₂ emissions coefficient] + greenhouse gas emissions not arising from energy consumption Greenhouse gas emissions not arising from energy consumption = CO₂ emissions not arising from energy consumption* + Σ[emissions of non-CO₂ greenhouse gases × global warming coefficient] *Includes CO₂ emissions from the burning of non-fuel matter based on the Act on Promotion of Global Warming Countermeasures, both inside Japan and overseas [CO₂ Emissions Coefficient] Purchased Electricity: In Japan, the coefficient provided in notices pursuant to the Act on Promotion of Global Warming Countermeasures is applied to the latest data at the start of each fiscal year Overseas, coefficients obtained from suppliers are applied to the latest data at the start of each fiscal year If a coefficient cannot be obtained in this manner, it is based on the GHG Protocol and EPA eGRID 2014 City Gas and Purchased Steam: Coefficient cannot be obtained in this manner, it is based on the Act on Promotion of Global Warming Countermeasures Fuel Other than the Above: Based on the Act on Promotion of Global Warming Countermeasures Global warming coefficient: An emissions coefficient determined based on a system of greenhouse gas emission calculations, reports, and official disclosures
Energy Usage	Energy usage = Σ[amount of fuel used, amount of electricity purchased, amount of steam purchased × amount of heat generated per unit] [Amount of Heat Generated per Unit] Purchased Electricity: 3.60 MJ/kWh Fuel, Purchased Steam: Based on the Act on the Rational Use of Energy

Transportation Volumes and Energy per Unit of Output* (Index) During Transportation / Japan

CO₂ Emissions During the Transport Stage / Japan





Indicator	Calculation Method
CO ₂ Emissions During the Transport	The calculation is the CO ₂ emissions yielded by combining the fuel method (transport of housing units, etc.) and the metric ton-kilo method (other than transport of housing units, etc.) CO_2 emissions = Σ [fuel usage × CO ₂ emissions coefficient] + Σ [amount transported (metric tons) × distance transported (km) × fuel usage per unit of output × CO ₂ emissions coefficient] Fuel usage per unit of output is the value used in the reporting system for specified freight carriers under the Act on the Rational Use of Energy Domestic distribution (shipment of products) is covered

C-1		Estimated emissions (1,000 tons-CO ₂)							
	Category	FY2013	FY2014	FY2015	FY2016	FY2017			
	Purchased goods and services	1,332	1,521	1,455	2,180	2,336			
	Capital goods	23	31	17	37	171			
E	Fuel- and energy-related activities not included in Scope 1 and Scope 2	119	121	119	127	131			
strea	Transportation and delivery (upstream)	20	24	24	37	46			
Up	Waste generated in operations	47	45	45	46	42			
	Business travel	32	30	29	26	30			
	Employee commuting	5	5	5	5	6			
	Transportation and delivery (downstream)	62	59	53	45	45			
ean	Processing of sold products	44	42	41	43	46			
ustu	Use of sold products	1,295	1,353	1,528	1,542	1,554			
Dow	End-of-life treatment of sold products	236	227	216	310	529			
	Leased assets (downstream)	1	1	1	1	1			
Т	tal (upstream/downstream)	3,216	3,461	3,531	4,400	4,937			

Greenhouse Gas Emissions Throughout Supply Chain (Scope 3)

Note: Since the 2016 fiscal year, the scope of tabulation of purchased products and services has been expanded; this resulted in the emissions increasing substantially from the previous fiscal year following review of the values for the 2016 fiscal year.



Greenhouse Gas Emissions Throughout Supply Chain as a Whole (Classified by Scope)



Note: Since fiscal year 2016, the scope of tabulation of purchased products and services has been expanded in relation to SCOPE 3; this resulted in the emissions known increasing substantially from the previous fiscal year.

Indicator		Calculation Method
	Purchased Products and Services	CO_2 emissions = Σ [(amount of major raw materials used as listed in Material Balance section of this report + estimated values for other raw materials) × emission coefficient (IDEA v 2.2 (a GHG emissions database by the National Institute of Advanced Industrial Science and Technology and the Japan Environmental Management Association for Industry))]
	Capital Goods	CO_2 emissions = Σ [(amount of spending on capital expenditures authorized for the given fiscal year for buildings, structures, mechanical equipment, and transport vehicles) × emissions coefficient (per unit emissions database for calculating organizational greenhouse gas emissions, etc., arising from supply chains (Ver. 2.0) (Ministry of the Environment and Ministry of the Economy, Trade and Industry))]
	Fuel and Energy-Related Activities Not Included in Scopes 1 and 2	CO_2 emissions = Σ [(fuel usage, amount of purchased electricity, and amount of purchased steam) × emissions coefficient] The emissions coefficients used are as follows. For fuel, IDEA v 2.1 (a GHG emissions database by the National Institute of Advanced Industrial Science and Technology and the Japan Environmental Management Association for Industry); for purchased electricity and steam, per unit emission database for calculating greenhouse gas emissions by organizations, etc., arising from supply chains (Ver. 2.0) (Ministry of the Environment and Ministry of the Economy, Trade and Industry). Applicable to production sites, laboratories, and offices both inside Japan and overseas
Greenhouse Gas Emissions throughout Supply Chain	Transport (Upstream)	CO_2 emissions = Σ [amount of major raw materials used as listed in the Material Balance section of this report × transport distance × emission coefficient (IDEA v 2.1 (a GHG emissions database by the National Institute of Advanced Industrial Science and Technology and the Japan Environmental Management Association for Industry))] (Calculated assuming that the uniform transport distance was 200 km)
	Waste Material Generated as Part of Business	CO_2 emissions = Σ [amount of waste materials generated (by type) × emission coefficient (IDEA v 2.1 (a GHG emissions database by the National Institute of Advanced Industrial Science and Technology and the Japan Environmental Management Association for Industry))] Covers major production sites and research facilities in Japan and overseas
	Business Trips	CO_2 emissions = Σ [transportation costs by method of transport × emissions coefficient (per unit emissions database for calculating organizational greenhouse gas emissions, etc., arising from supply chains (Ver. 2.0) (Ministry of the Environment and Ministry of the Economy, Trade and Industry))] (Includes estimates of transportation costs for group companies) Covers group companies in Japan and overseas
	Commuting by Employees	CO_2 emissions = Σ [amount spent on commuting assistance × emissions coefficient (per unit emissions database for calculating organizational greenhouse gas emissions, etc., arising from supply chains (Ver. 2.0) (Ministry of the Environment and Ministry of the Economy, Trade and Industry))] (Calculated based on the assumption that all commuting is done by passenger train) (Group company commuting costs include estimates) Group companies in Japan and overseas all covered

Indicator		Calculation Method
	Transport (Downstream)	The calculation is the total amount of CO_2 emissions yielded by combining the fuel method (transport of housing units, etc.) and the metric ton-kilo method (other than transport of housing unit, etc.) CO_2 emissions = Σ [fuel usage × CO_2 emissions coefficient] + Σ [amount transported (metric tons) × distance transported (km) × fuel usage per unit of output × CO_2 emissions coefficient (value used in the reporting system for specified freight carriers under the Act on the Rational Use of Energy)] (Estimates used for overseas) Covers shipments of products by group companies in Japan and overseas
	Processing of Sold Products	Calculation MethodThe calculation is the total amount of CO2 emissions yielded by combining fuel method (transport of housing units, etc.) and the metric ton-kilo meth (other than transport of housing unit, etc.)CO2 emissions $\geq [fuel usage × CO2 emissions coefficient] + \sum [amouttransported (metric tons) × distance transported (km) × fuel usage per uof output × CO2 emissions coefficient (value used in the reporting systemspecified freight carriers under the Act on the Rational Use of Energy)] (Estimatused for overseas)Covers shipments of products by group companies in Japan and overseasCO2 emissions = \sum [production volume of relevant products (DEA v 2.1 (a GHG emissiondatabase by the National Institute of Advanced Industrial Science and Technoleand the Japan Environmental Management Association for Industry))]Covers products for the automotive industry by group companies in Japan aoverseasCO2, emissions = \sum [number of structures sold as housing during the relevfiscal year × amount of electricity purchased from power companies througha year × 60 years × electricity-based emissions coefficient]The effects of solar power-generation systems are included in the calculationThe amount of electricity purchased from power companies throughut a yearbased on the Sekisui Chemical Co., Ltd. press release (March 13, 2014) "A Surof Electric Power Input-Output Balance of Actual Residences Equipped with ScPower-Generation Systems (2013)." The electricity-based emissions coefficientemployed is the emissions coefficient from the 2018 report produced by theon Promotion of Global Warming Countermeasures reporting system (alternvalue), equal to 0.512 metric tons-CO2/MWh. The calculation is coverCO2, emis$
Greenhouse Gas Emissions throughout Supply Chain	ireenhouse is missions nroughout upply Chain Usage of Sold Products Usage of Sold Products CO_2 emissions = Σ [nu fiscal year × amount of a year × 60 years × elec The effects of solar pow The amount of electrici based on the Sekisui Ch of Electric Power Input- Power-Generation Syst employed is the emission on Promotion of Globa value), equal to 0.512 r the assumption that ho Housing sold within Jac	CO_2 emissions = Σ [number of structures sold as housing during the relevant fiscal year × amount of electricity purchased from power companies throughout a year × 60 years × electricity-based emissions coefficient] The effects of solar power-generation systems are included in the calculation The amount of electricity purchased from power companies throughout a year is based on the Sekisui Chemical Co., Ltd. press release (March 13, 2014) "A Survey of Electric Power Input-Output Balance of Actual Residences Equipped with Solar Power-Generation Systems (2013)." The electricity-based emissions coefficient employed is the emissions coefficient from the 2018 report produced by the Act on Promotion of Global Warming Countermeasures reporting system (alternate value), equal to 0.512 metric tons-CO ₂ /MWh. The calculation is performed under the assumption that housing will be used for 60 years. Housing sold within Japan for the fiscal year relevant to the calculation is covered
	Disposal of Sold Products	CO_2 emissions = Σ [amount of major raw materials used in the products sold during the relevant fiscal year × emission coefficient (IDEA v 2.1 (a GHG emissions database by the National Institute of Advanced Industrial Science and Technology and the Japan Environmental Management Association for Industry))] The calculation assumes that products sold during a given fiscal year are disposed of during the same fiscal year
	Leased Assets (Downstream)	Calculated to cover construction related to the installation of machinery leased by Sekisui CO_2 emissions = Σ [relevant installation units × emission coefficient (IDEA v 2.1 (a GHG emissions database by the National Institute of Advanced Industrial Science and Technology and the Japan Environmental Management Association for Industry))]

Waste Generated by Production Sites

Some past figures have been revised due to improvements in precision.

Waste Generated by Production Sites and per Unit of Output (Index) / Japan



Waste Generated by Production Sites and per Unit of Output (Index) / Overseas



Fiscal 2017 Annual Production Site Waste Generation and Disposal Conditions / Japan



Note: Change over previous year is in () and proportion of total waste generation is in [].



Breakdown of Waste Generated at Production Sites / Japan

Index	Calculation method
Generated waste amount	Amount of waste generated = Amount of waste disposal outsourced + Amount recycled (use of incineration heat + materials recycling + sold at a price) + Amount incinerated in the Company; the items below are excluded: waste generated by demolition of old houses of the clients, left-over materials at construction sites, disposal of facilities, OA equipment, etc., infectious waste generated during medical consultations (medical practices

Waste Generated on Construction Sites of New Housing



Amount of Waste Generated on Construction Sites of New Housing (per Building) / Japan

Note: Because of changes to the waste materials data collection method used by the Housing Company, we are revising the fiscal year 2016 benchmark

Index	Calculation method
Amount of waste generated during construction of new housing	Amount of waste generated during construction of new housing = Amount of waste generated during construction of outer walls (at factory) + Amount of waste generated during assembly (at factory) + Amount of waste generated at construction site of new housing Amount of waste generated per building during construction of new housing = Amount of waste generated during construction of new housing / Number of buildings sold Target: housing business in Japan

Waste Related to Office Work





Waste Disposal Methods / Overseas

Waste Disposal Methods at Production Sites



Attainment of Zero Waste Emissions Activities Targets

Production sites	44 plants in Japan and 12 plants overseas, including those of affiliated companies, achieved the target
Research institutes	All research institutes achieved the target by fiscal 2012
Construction of new housing	All production sites achieved the target by fiscal 2003
Remodeling work	All production sites achieved the target by fiscal 2004
Corporate headquarters buildings in Osaka/Tokyo	Achieved the target by fiscal 2005
Demolition work	Specified construction materials for the 2017 fiscal year Recycling rate (of concrete, wood offcuts, etc.): 99%

Indicator	Calculation Method
Number of production sites that achieved zero emissions	Number of production sites that achieved zero emissions in that year

Conservation of Water Resources

Some past figures have been revised due to improvements in precision.

Water Intake Volume at Production Sites / Japan



Water Intake Volume at Production Sites / Overseas



Water Use by Production Sites in Fiscal 2017

Region	Amount of Water Acquired by Source (thousands of m ³ /year)					Amount of Wastewater Released by Outlet (thousands of m³/year)				
Negion	Public Water Systems	Water for Factory Use	Underground Water		Other	Rivers	Industrial Waterways	The Ocean	Sewers	Other
Japan	651	12,233	1,709	0	1,086	11,449	174	2,503	603	0
China	298	0	0	0	0	0	0	0	287	0
The Rest of Asia plus Oceania	199	853	94	0	71	24	2	0	823	45
Europe	1,837	46	0	0	0	0	0	0	1,874	0
North and Central America	215	1,954	0	0	0	0	0	0	111	1,419
Total	3,200	15,085	1,803	0	1,156	11,473	176	2,503	3,699	1,464

The "other" portion of acquired water consists primarily of water acquired directly from rivers. The "other" portion of wastewater released consists primarily of processing in facilities in industrial parks.

Index	Calculation Method
Water intake volume	Water intake volume = Amount of public water systems + Amount of water for factory use + Amount of underground water taken on site + Amount of rainwater + Other water intake* * Other water intake: Water taken directly from rivers, etc.

COD Emission Volume / Japan



Index	Calculation Method
COD emission volume	Emission volume = Σ [COD concentration (annual average of measured value) x Drainage volume]

Aggregated Results Based on the PRTR Law (Substances Handled at the Business Sites Subject to Assessment with Volume of Handling of 1 Ton or More Are Aggregated)

	_									(Tons)
Govt. ordinan		Transaction		Emission	volume		Transfer volume			
Substance	notification no.	volume	Atmospheric	Public water areas	In-house soil	In-house Iandfill	Sewage system	Transfer in waste disposal	Transfer in waste recycling	Detoxification
Ethyl acrylate	[3]	1.1	0.051	0	0	0	0	0	0.17	0.86
Acrylic acid and aqueous salt solutions thereof	[4]	15.7	0	0	0	0	0	0	1.6	14
n-Butyl acrylate	[7]	233.7	0.30	0	0	0	0	0	2.3	231
Acrylonitrile	[9]	471.0	3.3	0	0	0	0	0	0.010	467
Acetaldehyde	[12]	302.2	0.22	0	0	0	0	0	0	302
Acetonitrile	[13]	112.6	9.0	0	0	0	0	0	104	0
2,2'-Azobisisobutyronitrile	[16]	4.2	0	0	0	0	0	0	0	4.2
Antimony and its compounds	[31]	11.6	0	0	0	0	0	0	1.2	0
lsobutyraldehyde	[35]	47.6	1.5	0	0	0	0	0	0	46
2-Ethylhexanoic acid	[51]	6,336.0	0	0	0	0	0	0	5.4	6,331
Ethylbenzene	[53]	2.4	2.4	0	0	0	0	0	0	0
ε-Caprolactam	[76]	44.2	0	0.014	0	0	0	0	0	44
Xylene	[80]	37.7	2.8	0	0	0	0	0	0.14	35
Vinyl chloride	[Special 94]	105,748.0	0.4	0.12	0	0	0	0	0	105,747
Chloroform	[127]	5.9	0.3	0	0	0	0	0	3.4	0.6
Vinyl acetate	[134]	50.6	4.6	0	0	0	0	0	3.1	43
Inorganic cyanide compounds (not including complex salts and cyanate)	[144]	13.6	0	0	0	0	0	0	0	14
Cyclohexylamine	[154]	7.7	0	0	0	0	0	0	0	7.3
Methylene chloride	[186]	191.2	2.5	0	0	0	0	0	0.36	188
Divinylbenzene	[202]	2.5	0	0	0	0	0	0	0	2.5
2,6-di-t-butyl-4-cresol	[207]	57.8	0	0	0	0	0	0	0	58
N,N-dimethylacetamide	[213]	3.6	0	0	0	0	1.8	0	1.9	0
N,N-dimenthylformamide	[232]	1.1	0	0	0	0	0	0	0	1.1
Organic tin compounds	[239]	124.9	0	0	0	0	0	0	0.54	0
Styrene	[240]	1,288.4	31	0	0	0	0	0	0.010	521
Terephthalic acid	[270]	84.9	0	0	0	0	0	0	0	85
n-Dodecyl alcohol	[273]	21.4	0	0	0	0	0	0	0	21
1,2,4-Trimethylbenzene	[296]	1.5	1.5	0	0	0	0	0	0	0
Toluene	[300]	777.7	357	0	0	0	0	0	38	333
Lead compounds	[Special 305]	608.5	0	0.0005	0	0	0	0	2.7	0
Nickel compounds	[Special 309]	1.4	0	0	0	0	0	0	0.69	0
Phenol	[349]	24.3	0	0	0	0	0	0	0.047	21
Bis-(2-ethylhexyl) phthalate	[355]	134.6	0	0	0	0	0	0	2.1	0
n-Hexane	[392]	251.2	228	0	0	0	0	0	8.2	15
Poly (oxyethylene) = alkyl = ether (C = 12-15 and other blends)	[407]	40.9	0	0	0	0	0	0	0	38
Formaldehyde	[Special 411]	16.4	0.0094	0	0	0	0	0	0	16
Manganese and its compounds	[412]	5.9	0	0	0	0	0	0	5.9	0
Methacrylate	[415]	179.8	1.0	0	0	0	0	0	0.040	179
Methyl methacrylate	[420]	137.4	1.1	0	0	0	0	0	0	136
Methylnaphthalene	[438]	7.1	0.036	0	0	0	0	0	0	7.1
Methylenebis (4,1-phenylene) = diisocyanate	[448]	1,247.2	0	0	0	0	0	0	2.3	0
		118,655.3	648	0.13	0	0	1.8	0	183	114,909

Index	Calculation Method
Volume of chemical substances handled	Volume of handling of substances subject to regulation by the PRTR Law Production sites and research institutes in Japan are subject to assessment
Volume of emissions / transfer of chemical substances	Volume of emission / transfer of chemical substances subject to regulation by the PRTR Law Volume of emissions = Volume of emissions into the air + Volume of emissions into public waters + Volume of emissions into the soil on-site + Volume disposed by burial on-site Transfer volume = Volume transferred to sewers + Volume transferred as waste material Covers production sites and research facilities in Japan
Volume of chemical substances subjected to detoxication	Volume of chemical substances subject to regulation by the PRTR Law subjected to detoxication Amount detoxified = Amount consumed in reaction + Amount consumed through combustion, etc. Covers production sites and research facilities in Japan

Emission and Transfer Volume by Substance (PRTR Law) / Japan



Index	Calculation Method
Volume of emission / transfer of chemical substances	Volume of emission / transfer of chemical substances subject to regulation by the PRTR Law Volume of emission = Volume of emission into the atmosphere + Volume of emission into the public waters + Volume of emission into the soil on site + Volume disposed of as landfill; Volume of transfer = Volume discharged into sewage systems + Volume discharged as waste elsewhere Production sites and research institutes in Japan are subject to assessment

Discharge of Volatile Organic Compounds (VOCs) into the Atmosphere / Japan



Index	Calculation Method
VOC emissions	Volume of emission into the atmosphere of volatile organic compounds (VOC) among the substances subject to regulation by the PRTR Law and Japan Chemical Industry Association

NOx Emissions / Japan



Index	Calculation Method
NOx emissions	NOx emissions = Σ (Amount of exhaust gas airflow per year x NOx concentration x 46/22.4)

Soot and Dust Emissions / Japan



Some past figures have been revised due to improvements in precision.

Index	Calculation Method
Soot emissions	Soot emissions = Σ (amount of exhaust gas airflow per year x soot concentration)

SOx Emissions / Japan



Index	Calculation Method
SOx emissions	SOx emissions = Σ (amount of SOx per year x 64/22.4)

Material Balance

Shows resources and energy used in business activities (input) and substances that constitute environmental impact (output) generated in connection with business activities.

Material balance



*1 The scope of tabulation for environmental performance data in Japan has been set as only those domestic business sites listed as falling within that scope.
*2 The following overseas business sites have been excluded from the scope of tabulation for environmental performance data. Sekisui-SCG Industry Co., Ltd.

Sekisui Specialty Chemicals(Thailand) Co., Ltd.

S and L Specialty Polymers Co., Ltd.

Youngbo HPP (Langfang) Co., Ltd. Sekisui High Performance Packaging (Langfang) Co., Ltd. Sekisui Medical Technology (China) Ltd.

Sekisui Xenotech, LLC.

Sekisui Diagnostics, LLC. San Diego

Sekisui Diagnostics (UK) Ltd.

Sekisui Diagnostics P.E.I. Inc. Sekisui DLJM Molding Private Ltd. Greater Noida Plan

Sekisui DLJM Molding Private Ltd. Tapukara Plant Sekisui DLJM Molding Private Ltd. Chennai Plant PT.Adyawinsa Sekisui Techno Molding

Environment-contributing Products

Net Sales / Proportion of Environment-contributing Products



Revenue from Products That Contribute to the Environment Over Time

(Unit: Billions of yen)

	FY2013	FY2014	FY2015	FY2016	FY2017
Housing Company	306.8	305.8	280.6	290.9	317.6
Urban Infrastructure & Environmental Products Company	99.6	99.8	103.5	90.3	93.7
High Performance Plastics Company	59.1	88.1	99.8	99.4	142.2
Headquarters	1.2	1.4	1.8	0.6	2.4
Company-wide total	466.8	495.1	485.8	481.2	555.9

Index	Calculation Method
Net sales of Environment- contributing Products	 Net sales of Environment-contributing Products = Consolidated sales across the Sekisui Chemical Group of products internally certified as Environment-contributing Products All businesses of the Group in and outside Japan are subject to assessment * See pages 94-95 of CSR Report 2018 for a definition of Environment-contributing Products and the way of thinking behind them.
Proportion in net sales of Environment- contributing Products	 Proportion in net sales of Environment-contributing Products = Net sales of Environment-contributing Products / Consolidated sales All businesses of the Group in and outside Japan are subject to assessment * See pages 94-95 of CSR Report 2018 for a definition of Environment-contributing Products and the way of thinking behind them.

Number of Environment-contributing Products Newly Registered

Number of Environment-contributing Products	Number of registrations as of the end of March
newly registered in FY2017	FY2018
24	142

Results from the JBIB Land Use Score Card[®]

	FY2017
JBIB Land Use Score Card [®]	Increase by 2.6 points

Index	Calculation method
Points of JBIB Land Use	JBIB Land Use Score Card [®] is a tool promoted by JBIB, which evaluates the level of effort to preserve biodiversity with respect to the land owned by the Company. It is a sheet for evaluation of every business site regarding the size and quality of its green space, management system, etc. on a scale from 0 to 100.
Score Card [®]	We implement assessments of every business site for the fiscal year using the JBIB Land Use Score Card [®] and calculate the increase from the number of points it had in fiscal 2016. The index is the average value of the points increase of all business sites.

SEKISUI Environment Week Participation Rate

	FY2017
Participation rate in the SEKISUI Environment Week initiative	84.9%

Index	Calculation method
Proportion of participants in the SEKISUI Environment Week initiative	Total number of participants in the SEKISUI Environment Week initiative / total number of employees in the business sites participating in the initiative x100

Business Sites (Owned, Leased or Managed) in or Adjacent to Protected Areas and in Unprotected Areas of Rich Biodiversity

SEKISUI MEDICAL CO., LTD. Iwate Plant

Address: 4-115 Matsuo, Hachimantai City, Iwate prefecture Surface / subsurface classification: surface Location related to protected area: adjacent to Towada-Hachimantai National Park Business type: manufacturing and production Site area: 0.46km² Value associated with biodiversity: protected area as defined in Japan's Natural Parks Act

Habitats Protected or Restored Within Reporting Period

Kyushu Sekisui Industry Co., Ltd.

Address: 225-1 Yanagishima, Chiyoda-cho, Kanzaki City, Saga prefecture Scale, area: 6,600m² Details on protection or restoration: creation of a biotope which replicates a natural habitat. Protected within the biotope is the gudgeon, an endangered species of fish, and other precious aquatic life indigenous to the local region.

Numbers of IUCN Red List Species and National Conservation List Species with Habitats in Areas Affected by Operations, by Level of Extinction Risk

i. Critically Endangered (CR) IA: 1 species

- ii. Endangered (EN) IB: 2 species
- iii. Vulnerable (VU) II: 7 species
- iv. Near Threatened (NT): 21 species
- v. Least Concern: 0 species

Prominence in CS & Quality

Medium-term Plan

Data Concerning Major Quality

Number of Major Quality Issues



Indicator	Calculation Method
Major Quality Issues	 These refer to product and service quality issues determined by the Division Company president, based on evaluations and judgments by the quality assurance manager, which could cause significant damage to customers, society, or Sekisui Chemical Group and lead to the loss of society's trust in the Group if not thoroughly resolved on an urgent basis including: 1) Problems that could have a serious impact on (or cause severe damage to) society, such as product recalls 2) All serious problems involving human safety and those acknowledged by the Division Company to be serious problems involving the safety of property 3) Compliance-related problems concerning the quality of products or services (e.g., those involving compliance with relevant laws and regulations) 4) Problems that could inflict serious financial damage on customers

Data Concerning External Failure Costs

External Failure Costs





Data Relating to Telephone Support Training

Number of Incoming Calls, etc., from Customers

Telephone Support Training (total number of participants)



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Data Relating to Improving the Supporting Capability of the Customer Consultation Office



Breakdown of incoming calls (Sekisui Chemical)

CS Questionnaire 7-Step Evaluation (Housing Company)

(%)					 Other (Somewhat dissatisfied, Very dissatisfied,
100	1.3	1.0	0.7	0.7	Extremely dissatisfied)
	9.1	7.1	5.8	5.4	Average
80	0.1	18.3	15.0	15.2	 Somewhat satisfied
	21.2	10.5			 Very satisfied
60					
40			75 0	76.6	 Extremely satisfied
	66.0	71.1	7 3.9		
20					
0					
	2014	2015	2016	2017	

Indicator	Calculation Method
Breakdown of incoming calls	 The subjects of incoming calls are recorded on "Insider Net" and categorized as follows: General inquiries: questions about Sekisui Chemical Group product specifications, how to use products, construction methods, stores selling the products, and related matters Incidents during which customers expressed their dissatisfaction or lodged rebukes concerning Sekisui Chemical Group products or support Requests for repairs: Requests for repairs of Sekisui Chemical Group products and calls relating to the repairs hotline Praise: Calls during which praise was received for satisfaction with the Sekisui Chemical Group's products or support Needs and expectations: What customers require of Sekisui Chemical Group products and services (product improvements and new products, etc.), and inquiries relating to business activities, or comments on what is expected of Sekisui Chemical Group Note: "Insider Net": A Sekisui Chemical Group intranet site on which incoming calls to the Customer Consultation Office are released in real-time.

Business Sites That Have Received Third-party Certification for Their Quality Management Systems

Housing Company

High Performance Plastics Company

Sekisui Chemical Co., Ltd. Housing Company (integrated certification) Housing Product Research & Development Department Technology Departments Hokkaido Sekisui Heim Industry Co., Ltd. Tohoku Sekisui Heim Industry Co., Ltd. Sekisui Heim Industry Co., Ltd. Tokyo Site Kanto Site Chubu Site Kinki Site Chushikoku Sekisui Heim Industry Co., Ltd. Kyushu Sekisui Heim Industry Co., Ltd. Sekisui Global Trading Co., Ltd. Sekisui Heim Supply Co., Ltd. Technology Department

Sekisui Board Co., Ltd.

Headquarters

Sekisui Chemical Co., Ltd. R&D Center, LB Project ENAX, Inc.

Urban Infrastructure and Environmental Products Company

Sekisui Chemical Co., Ltd. Gunma Plant Sekisui Chemical Co., Ltd. Shiga-Ritto Plant Sekisui Agua Systems Co., Ltd. Plant Engineering Division/Water Supply & Drainage Division Sekisui Aqua Systems Co., Ltd. Water Supply & Drainage Division Sekisui Home Techno Co., Ltd. Hanyu Sekisui Co., Ltd. Sekisui Seikei, Ltd. Yamanashi Sekisui Co., Ltd. Sekisui Chemical Hokkaido Co., Ltd. Toto Sekisui Co., Ltd. Headquarters, Ota Plant Chiba Sekisui Industry Co., Ltd. Okavama Sekisui Industry Co., Ltd. Shikoku Sekisui Co., Ltd. Kyushu Sekisui Industry Co., Ltd. Sekisui Pipe Renewal B.V. Sekisui Polymer Innovations, LLC. Bloomsburg Plant Sekisui Polymer Innovations, LLC. Holland Plant Sekisui Rib Loc Australia Pty. Ltd. Sekisui Eslon B.V. Sekisui Refresh Co., Ltd. Sekisui (Shanghai) Environmental Technology Co., Ltd. Sekisui (Wuxi) Plastics Technology Co., Ltd. Sekisui (Qingdao) Plastic Co., Ltd. Sekisui Industrial Piping Co., Ltd.

Sekisui Chemical Co., Ltd. Musashi Plant PT.ADYAWINSA Sekisui Techno Molding Sekisui Chemical Co., Ltd. Shiga-Minakuchi Plant Sekisui Chemical Co., Ltd. Taga Plant Sekisui Chemical Co., Ltd. Tsukuba Site / IM Project Sekisui Techno Molding Co., Ltd. Aichi Plant Sekisui Techno Molding Co., Ltd. Nara Plant Sekisui Techno Molding Co., Ltd. Mie Plant Sekisui Polymatech Co., Ltd. Sekisui Nano Coat Technology Co., Ltd. Tokuyama Sekisui Industry Co., Ltd., Sekisui Fuller Company, Ltd. (integrated certification) Hamamatsu Plant Shiga Plant Tokyo Office Osaka Office Sekisui Medical Co., Ltd. Headquarters Sekisui Material Solutions Co.,Ltd. Sekisui High Performance Packaging (Langfang) Co., Ltd. Sekisui Voltek, LLC. Lawrence Plant Sekisui Voltek, LLC, Coldwater Plant Sekisui Alveo(integrated certification) Sekisui Alveo A.G. Sekisui Alveo G.m.b.H. Sekisui Alveo (Benelux) B.V. Sekisui-Alveo S.A. Sekisui Alveo S.r.L. Sekisui Alveo BS G.m.b.H. Sekisui Alveo Ltd. Sekisui-Alveo B.V. Youngbo Chemical Co., Ltd. Thai Sekisui Foam Co., Ltd. Sekisui Pilon Plastics Pty. Ltd. Sekisui S-Lec America, LLC. Sekisui S-Lec B.V. Sekisui S-Lec (Suzhou) Sekisui S-Lec (Thailand) Co., Ltd. Sekisui S-Lec Mexico S.A. de C.V. Sekisui Diagnostics,LLC. Sekisui Diagnostics,LLC. San Diego Sekisui Diagnostics P.E.I Inc. Sekisui Diagnostics (UK) Ltd. Sekisui Specialty Chemicals America, LLC, Calvert City Plant Sekisui Specialty Chemicals America, LLC, Pasadena Plant Sekisui Specialty Chemicals America, LLC. Dallas HQ Sekisui Specialty Chemicals Europe, S.L. Tarragona Plant Sekisui Medical Technology (China) Ltd. Sekisui Polymatech (Shanghai) Co., Ltd. Sekisui Polymatech (Thailand) Co., Ltd. PT. SEKISUI Polymatech Indonesia S and L Specialty Polymers Co., Ltd. Sekisui DLJM Molding Pvt. Ltd Chennai Sekisui DLJM Molding Pvt. Ltd Gr. Noida Sekisui DLJM Molding Pvt. Ltd Tapukara

Other Data

	FY2016	FY2017
Number of participants in the Development Risk Prevention Seminar	302	418
Number of participants in the DR Reviewer Training Seminar	166	259
Participants in employee grade-based training system for managers in production departments	2,252	2,768

	FY2016	FY2017
Number of people with QC Certification	4,103	4,228

Prominence in Human Resources

Building a Diverse Organizational Structure

Educational Programs on Diversity Management Implementation

	FY2016	FY2017
Number of participants in programs	1,168	1,723

Career Plan Training by Age

	FY2016	FY2017
Number of participants at career plan training	1,276	1,429

Project to Develop a Workplace in Which All Employees Can Excel

	FY2017
Number of organizations engaged in activities	159 organizations

Allowing Diverse Human Resources to Excel (Depending on the Individual Career Orientation)

Results from Main Recruitment-type Training Programs

Name of Training Program	Numbers of attendees in FY2015	Numbers of attendees in FY2016	Numbers of attendees in FY2017
The Saijuku School	34	33	37
Innovation School	70	72	58

Follow-up Training for New, Mid-career Employees

	FY2016	FY2017	
Number of training participants	45	87	

Results of Intra-Group Job Postings

	FY2016	FY2017	Cumulative total since FY2000
Number of recruitment cases	44	46	431
Number of employees recruited	149	130	1,078
Number of applicants	83	98	1,733
Number of employees transferred	12	18	343

Career Path Support System

(Number of people)

		FY2017
Course conversion system	Men	14
Course conversion system Wom		2
Dermanant full time ampleuse conversion system	Men	5
Permanent, run-time employee conversion system	Women	11

Number of Women in Management Positions and Percentage of Women Hires

Number of Women Directors and Managers

	FY2017
Number of women directors	2 (Sekisui Chemical Group)
Number of women in management positions	138 (Sekisui Chemical Group in Japan)

Percentage of Women Hires

	Entered in FY2015	Entered in FY2016	Entered in FY2017
Percentage of women hires (%)	27	31	30

New Female Hire Assignment Support Seminar

	FY2016	FY2017
Number of seminar attendees	114	105

Female Subordinate Management Seminar

	FY2016	FY2017
Number of training attendees	144	234

Career Development Program for Women

		FY2016	FY2017
Number of program	Women	90	58
attendees	Superiors	77	44

Main Systems Allowing Various Workstyles and Their Use

(Number of people)

Name of system	Main content		FY2015	FY2016	FY2017
	Can be taken until the end of the month in		18	22	30
Childcare leave	which the child reaches three years of age. (The statutory end date is until the child	Men	12	14	20
	reaches 18 months of age.)	Total	30	36	50
Shortened	Can be extended until the child starts fourth	Women	30	30	34
working hours	grade. (The statutory end date is until the child	Men	0	0	0
for childcare	reaches three years of age.)	Total	30	30	34
	Times of starting and finishing work may be		3	6	8
Use of flexible working hours	moved earlier or later by up to 60 minutes until the child reaches junior high school age.	Men	0	1	6
		Total	3	7	14
	Up to a total of 93 days for each individual		1	0	1
Nursing careeligible for careleave(Up to a maximum of one year for the first individual eligible for care)	Men	0	2	3	
	Total	1	2	4	
Shortened	Two days per week or 4.5 hours per day for	Women	0	0	0
working hours	a maximum of three years for each individual	Men	0	1	2
for nursing care	for nursing care eligible for care	Total	0	1	2
	Three days of special care leave per vear	Women	40	43	48
Family leave	granted until the child or grandchild starts	Men	73	77	101
high school.		Total	113	120	149

Employees whose babies were newborns in FY2017		14
		101
	Total	115
	Women	11
Employees who took childcare leave in FY2017	Men	17
		28
Ratio of those who took childcare leave in FY2017 (excludes those who are taking maternity leave) (%)		100
		16.8
		12
Employees who returned to work after childcare leave in FY2017	Men	19
	Total	31
Ratio of those who returned to work after childcare leave		100
in FY2017 (%)	Men	100
Retention rate after one year of those who returned to work after having taken childcare leave in FY2016 (%)		100
		100

Allowing Diverse Human Resources to Excel (People with Disabilities)

Employment Ratio of People with Disabilities (Sekisui Chemical) *Including Special Provision Subsidiary (as of March 2018)



Indicator	Calculation method
Employment ratio of	(Number of regular workers who have physical or
people with disabilities	mental disabilities ÷ Number of regular workers) ×100

Brainstorming Sessions on Employment of People with Disabilities

Number of Participating Companies	46 companies
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Number of Elderly Employees Reemployed and Reemployment Rate (Sekisui Chemical)

	FY2015	FY2016	FY2017
Number of elderly employees reemployed	104	65	21
Reemployment rate(%)	82.5	83.3	63.6

Note: The reemployment rate for applicants is 100%.

Indicator	Calculation method
Reemployment of elderly employees	(Number of reemployed elderly employees ÷ number who have reached mandatory retirement age) × 100 (Number who have reached mandatory retirement age includes those who do not wish to be reemployed)

Career Plan Training by Age

	Young employees	In their 30s	40s	50s	57	Total number of participants
Number of participants in FY2017	107	311	360	535	116	1,429

Breakdown of Number of Employees (Sekisui Chemical Group)

		(Number of people)
Numb	per of employees	26,080
Break	down by Region	
	Japan	18,935
	North America, South & Central America	1,482
	Europe	961
	Asia/Pacific (including China)	4,702

Number of Japanese Global Talent Employees



Indicator	Calculation method
Global talent employees	Japanese employees with overseas assignment experience

Number of Participants in the Global Trainee Program

	FY2017
Number of participants	10

Average Hours per FTE of Training and Development in FY2017 (Sekisui Chemical)

	FY2017
Average hours per FTE of training and development	9.87 hours

Note: Educational programs held at Sekisui Chemical's Human Resources Department at Headquarters

Training Programs Common to Entire Company to Improve Group-wide Human Resources Capabilities

(Number of people)

New employee induction training	944
Employee rank-based training system	267
Training for newly appointed managers	972

Number of New-graduate Hires / Percentage of Women Among New-Graduate Hires (the Sekisui Chemical Group in Japan)



Employee Turnover Rate in First Three Years of Employment (Sekisui Chemical)

	Entered in FY2013	Entered in FY2014	Entered in FY2015
Employee turnover rate in first three years of employment (%)	10.7	7.4	8.0

Indicator	Calculation method
Employee turnover rate in first three years of employment (%)	Employee turnover rate in first three years of employment for each fiscal year

All Consolidated Subsidiaries in Japan

		FY2014	FY2015	FY2016
	Men (number of people)	15,556	15,472	15,601
Employees	Women (number of people)	4,252	4,288	4,379
	Ratio of women (%)	21.5	21.7	21.9
	Men (number of people)	462	453	395
New graduates hired	Women (number of people)	136	176	145
	Ratio of women (%)	22.7	28.0	26.9
	Men (number of people)	2,794	2,763	2,831
Managerial positions (section chiefs)	Women (number of people)	66	84	89
	Ratio of women (%)	2.3	3.0	3.0
Managerial positions (department managers and above)	Men (number of people)	1,531	1,512	1,508
	Women (number of people)	13	18	22
	Ratio of women (%)	0.8	1.2	1.4
	Men (number of people)	4,325	4,275	4,339
Managerial positions	Women (number of people)	79	102	111
	Ratio of women (%)	1.8	2.3	2.5
	Men (number of people)	201	203	165
Management personnel (frontier leaders)	Women (number of people)	2	1	3
	Ratio of women (%)	1.0	0.5	1.8
	Men (number of people)	213	160	181
Employees newly appointed to managerial positions	Women (number of people)	8	15	7
	Ratio of women (%)	3.6	8.6	3.7

Note: Data for fiscal year 2017 is calculated based on current statistics as of July 2018.

Sekisui Chemical

		FY2015	FY2016	FY2017
	Men (number of people)	3,233	3,239	3,290
Employees *1	Women (number of people)	445	490	533
	Ratio of women (%)	12.1	13.1	13.9
	Men (number of people)	2,991	2,955	3,005
Permanent, full-time employees * ²	Women (number of people)	403	441	483
	Ratio of women (%)	11.9	13.0	13.8
Average years of continuous	Men (number of people)	19.9	18.1	17.7
employment * ²	Women (number of people)	15.4	14.3	13.7
	Men (number of people)	74	77	90
New graduates hired * ³	Women (number of people)	39	35	39
	Ratio of women (%)	34.5	31.3	30.2
Employees hired mid-career * ³	Men (number of people)	40	39	70
	Women (number of people)	3	5	6
	Ratio of women (%)	7.0	11.4	7.9
	Men (number of people)	697	696	689
Managerial positions (section chiefs)	Women (number of people)	21	24	27
	Ratio of women (%)	2.9	3.3	3.8
Managerial positions	Men (number of people)	602	597	612
(department managers and	Women (number of people)	11	11	14
above)	Ratio of women (%)	1.8	1.8	2.2
Managerial positions	Men (number of people)	1,299	1,293	1,301
	Women (number of people)	32	35	41
	Ratio of women (%)	2.4	2.6	3.1
	Men (number of people)	46	46	53
Employees newly appointed to managerial positions	Women (number of people)	5	1	6
	Ratio of women (%)	9.8	2.1	10.2

*1 Workers with direct employment relationships with the Group (including permanent, full-time employees and non-regular employees as well as workers on loan from the Group to other companies but excluding workers on loan from other companies to the Group)

- *2 Employees with no determined period of employment (including workers on loan from the Group to other companies but excluding workers on loan from other companies to the Group)
- *3 Number of employees, who joined the Group from April to March of the following year

Age Composition of Permanent, Full-time Employees* in Fiscal Year 2017 (Sekisui Chemical)

		Less than 30 years old	30 to 39 years old	40 to 49 years old	50 to 59 years old	60 and above
Number of	Men	400	516	1,162	910	17
employees* by age	Women	144	93	140	103	3

* Employees with no determined period of employment (including workers on loan from the Group to other companies but excluding workers on loan from other companies to the Group)

Number of People, who Left Employment in Fiscal Year 2017*¹ (Sekisui Chemical)

	Men	Women
Number of people, who left employment* ²	32	12

*1 Excluding those, who retired after reaching the mandatory retirement age and those, who moved to another company of the Group

*2 Employees with no determined period of employment (including workers on loan from the Group to other companies but excluding workers on loan from other companies to the Group) Working Environment

Amount of Overtime Work (Sekisui Chemical)

	FY2015	FY2016	FY2017
Monthly average per employee (hours)	17.5	19.2	19.9

Paid Vacation Day Utilization Rate (Sekisui Chemical)

	FY2015	FY2016	FY2017
Average per employee (%) (Excluding managers)	46.4	45.9	51.1

Average Number of Paid Vacation Days Taken

	FY2015	FY2016	FY2017
Average per employee (days) (Excluding managers)	8.8	8.7	9.6

Stress-Check Implementation Rate

	FY2016	FY2017
Implementation Rate (%)	72.0	81.9

Note: Scope: Companies that are members of the Sekisui Health Insurance Association (including some affiliates)



Safety Performance

Japan

Aggregate scope: 44 production sites and 5 research centers in Japan

Number of Occupational Accidents



Number of Facilities Accidents



Indicator	Calculation Method
	The number of occupational
Number of	accidents (both those resulting in lost
occupational	time and those not) occurring during
accidents	a given fiscal year (April through the
	following March)

Indicator	Calculation Method
Number of Facilities Accidents	 The number of incidents of malfunctioning (fires, leaks, etc.) of facilities that fulfill at least one of the following criteria (Sekisui Chemical Group criteria), from (1) to (3), occurring during a given fiscal year (April through the following March) (1) Human harm: An accident causing at least 30 days' lost work (2) Material harm: 10,000,000 yen or greater (3) Opportunity loss: 20,000,000 yen or greater
Number of Facilities Accidents	 occurring during a given fiscal year (April through the following March) (1) Human harm: An accident causing at least 30 days' lost work (2) Material harm: 10,000,000 yen or greater (3) Opportunity loss: 20,000,000 yen or greater

Number of Long-term Sick Leave



Indicator	Calculation Method
	Describes leave of 30 days or more
	consecutively for sickness or injury
	occurring in a Japanese production
	site or research center during the
Number of	given fiscal year (April to the following
Long-Term	March), and which is newly-occurring.
Sick Leave	Recurrences within 6 months of the
	start of work attendance are not
	counted. However, absences caused by
	industrial accidents are not classified as
	long-term sick leave.

Number of Commuting Accidents



Indicator	Calculation Method
Number of commuting accidents	The number of accidents occurring during commutes to Japanese production sites and research center during a given fiscal year (April to the following March); includes injury to others, injury to the commuter, him or herself, damage to the commuter's own vehicle, and physical damage occurring while operating an automobile or other vehicle

Frequency Rate Over Time

1.5



* Source of information for Japanese manufacturing industry: Ministry of Health, Labour and Welfare, Survey on Occupational Accidents

Indicator	Calculation Method			
Frequency rate	The total number of injuries, illness and fatalities in occupational accidents with lost time per 1,000,000 hours of total time worked during a given fiscal year (April through the following March) Formula for calculation: (Number of injuries, illness and fatalities in occupational accidents with lost time / total number of man-hours worked) × 1,000,000			

Severity Rate Over Time

0.2



* Source of information for Japanese manufacturing industry: Ministry of Health, Labour and Welfare, Survey on Occupational Accidents

Indicator	Calculation Method	
Severity rate	The total number of days of work lost per 1,000 hours of total time worked during a given fiscal year (April through the following March) Formula for calculation: (Number of days of work lost / total number of man-hours worked) × 1,000	

Lost Time Injury Frequency Rate (LTIFR)



Indicator	Calculation Method
Lost Time Injury Frequency Rate	(Number of accidents causing sick leave / total number of man-hours worked) × 1,000,000

Occupational Illness Frequency Rate (OIFR)



Indicator	Calculation Method	
Occupational Illness Frequency Rate	(Occupational illnesses / total number of man-hours worked) x 1,000,000 Occupational illnesses as defined by the Ministry of Health, Labour and Welfare, including heat stroke, lower back pain, and intoxication by chemical substances	

Safety Performance in the Housing Company's Construction Sites



Indicator	Calculation Method
Safety performance in the Housing Company's construction sites	The number of occupational accidents (both those resulting in lost time and those not) occurring in construction sites under the jurisdiction of the Housing Company during a given fiscal year (April through the following March)

Safety Performance in the Urban Infrastructure & Environmental Products Company and Other Construction Sites



Indicator	Calculation Method
Safety performance in the Urban Infrastructure & Environmental Products Company and other construction sites	The number of occupational accidents (both those resulting in lost time and those not) occurring in construction sites under the jurisdiction of the Urban Infrastructure & Environmental Products Company or the Sekisui Chemical company headquarters during a given fiscal year (April through the following March)

Overseas

Aggregate scope: 46 production sites and 1 research center overseas

Number of Occupational Accidents

(Accidents) 4 ┌─ China - Asia/Oceania Europe North America/ Mexico

Note: Past fiscal year data has been partially revised in line with the details survey of overseas business sites.

Indicator	Calculation Method
Occurrence of	The number of occupational
occupational	accidents (both requiring and not
accidents	requiring time off from work)
at overseas	occurring at overseas production
production sites	sites and research centers during
and research	a given fiscal year (April through
centers	the following March)

Health and Safety / Accident Prevention Costs

Aggregate Scope: 42 Domestic Japanese Production Sites and 5 Research Facilities, Headquarters, Back Offices of Division Companies

Health and Safety / Accident Prevention Costs

			(Millions of yen)
Item		The Sekisui Chemical Group	
Classification	Details	Expense amount	Investment amount
1) Costs within business site areas	Health and safety measures, rescue and protective equipment, measurement of work environment, health management, workers' accident compensation insurance, etc.	931	3,790
2) Administrative costs	Establishment and implementation of OHSMS, safety education, personnel costs, etc.	1,870	-
3) Other	Safety awards, etc.	5	-
Total		2,806	3,790

Costs and Investments Over Time



Indicator	Calculation Method		
Amount invested	The amount invested in health and safety and accident prevention-related measures authorized during a given fiscal year (April through the following March)		

Loss Costs Over Time



Indicator	Calculation Method	
Loss costs	The costs of responding to, and the labor costs incurred due to, occupational accidents, facilities accidents, commuting accidents, and long-term sick leave due to illness occurring within a given fiscal year (April through the following March)	

Employees Using the e-learning System Over Time

Employees Using the e-learning System Over Time



List of Results Relating to Compliance Training

Fiscal Year 2017 List of Results Relating to Compliance Training

Training Training content		Trainees	Attendance
Regular	Training for new employees	New employees of Sekisui Chemical and the Sekisui Chemical Group	191
training	Training for new managers	New managers of Sekisul Chemical and the Sekisul Chemical Group	244
	Newly appointed senior management training	Sekisul Chemical and Group companies	48
Testeland	Newly appointed assistant manager training	Sekisul Chemical and Group companies	184
specific	Training for those responsible for management	Sekisul Chemical Group companies	15
employee ranks	Training for new managers	Sekisul Chemical Group companies	20
	Newly appointed operating officer training	Sekisul Chemical	6
	Affiliated company full-time directors training	Sekisul Chemical Group companies	34
	Compliancetraining	Sekisul Chemical and Group companies	2128
	Harassment prevention training	Sekisul Chemical and Group companies	171
	Labor management training	Sekisul Chemical Group companies	648
Area-specific training	Safe driving course	Sekisul Chemical Group companies	102
	Act against Delay in Payment of Subcontract Proceed, etc. to Subcontractors training	Sekisul Chemical and Group companies	222
	Copyright training	Sekisul Chemical Group companies	19
	Unfair Competition Prevention Act training	Sekisul Chemical Group companies	7

Training	Training content	Trainees	Attendance
	Information management training	Sekisul Chemical Group companies	464
	R&D ethics committee training	Sekisul Chemical Group companies	111
Area-specific	Training in Act against Unjustifiable Premiums and Misleading Representations	Sekisul Chemical Group companies	60
training	Promotion code training	Sekisul Chemical Group companies	247
	Act on the Protection of Personal Information training	Sekisul Chemical Group companies	19
	Export controls training	Sekisui Chemical and Group companies	141
	Training for personnel posted overseas	Employees engaged in work related to overseas business	11
Clobal training	Compliance training	Sekisul Chemical and Group companies	80
Giobai training	Anti-harassment training	Sekisui Chemical and Group companies	30
	Antimonopoly law and anti-bribery and corruption prevention	Sekisul Chemical and Group companies	135
Open seminars	Legal affairs seminar	Sekisui Chemical and Group companies	1040

Number of Whistleblowing Cases and Consultations

Fiscal Year 2017 Number of Whistleblowing Cases and Consultations

Reports/consultations	Number of cases		
Power harassment	28		
Working conditions	17		
Sexual harassment	6		
Workplace environmental concerns	5		
Misuse of expenses	1		
Sales methods related	0		
Misrepresentation of work performance	2		
Incidents with business partners	1		
Others	11		
Total number of complaints	71		

Governance	
tisk Management	

Data on the Number of Organizations Engaged in Risk-Management Activities

Number of Organizations Engaged in Risk-Management Activities



Data Relating to the Sufficiency Rate for Disaster-Preparedness Systems

Disaster-Preparedness Sufficiency Rate (Average for Japanese Business Sites) Over Time



Social Contribution Activities

Social Contribution Activities

Major Activities Contributing to the Environment Conducted or Participated in During Fiscal Year 2017

	Business site involved in the activities	Program		
	Hokkaido Sekisui Heim Industry Co., Ltd.	Life observation event at the on-premises biotope		
	Tohoku Sekisui Heim Industry Co., Ltd.	Minamizao beech tree-planting activities		
	Sekisui Heim Industry Co., Ltd. Tokyo Office	Greenery Trust Kurohamanuma-Area Meeting		
	Sekisui Chemical Co., Ltd. Musashi Plant	(Children's Nature Observation)		
	Sekisui Heim Industry Co., Ltd. Kanto Office	Sekisui Children's Nature Academy (Aquatic Insect Observation and Water Quality Survey)		
Activities at business sites in Japan	Sekisui Heim Industry Co., Ltd. Chubu Office	Ometahama environmental conservation activities with the local children's association (sand-drift prevention)		
	Kyushu Sekisui Heim Industry Co., Ltd.	Tidal life observation event with the local children's association		
	Hokkaido Sekisui Heim Co., Ltd.	Forest conservation activities at Mt. Shirahata		
	Sekisui Heim Tohoku Co., Ltd.	Revitalization of Tohoku-region coastal forests / Growing Quercus serrata seedlings with children		
	Tokyo Sekisui Heim Co. Ltd.	Conservation of mountain ecosystem around Tama Zoologoical Garden		
	Sekisui Heim Tokai Co., Ltd.	Volunteering for the Mt. Fuji environment (eradicating specified invasive species)		
	Sekisui Heim Kinki Co., Ltd.	Conservation of human settlement-adjacent mountain ecosystem in Kaseyama (city of Kizugawa)		
	Sekisui Heim Chubu Co., Ltd.	Conservation of human settlement-adjacent mountain ecosystems in the Higashiyama neighborhood of Nagoya		
	Sekisui Heim Chuushikoku Co., Ltd.	Forest conservation activities in the city of Akaiwa		
	Sekisui Heim Kyushu Co., Ltd.	Forest conservation activities involving Sinomenium acutum around rice paddies in the city of Ukiha		
	CHIBA SEKISUI INDUSTRY CO., LTD.	"Moist Forest" mountain ecosystem-building project		
	SHIKOKU SEKISUI CO., LTD.	Eradication of invasive grasses in the Shinmachi River		
	Hanyu Sekisui Co., Ltd.	Whaterwheel plant conservation activities in Hozoji pond		

	Business site involved in the activities	Program		
	SEKISUI SEIKEI, LTD. Kanto Plant	Conservation activities with an NPO at the Watarase Reservoir		
	SEKISUI SEIKEI, LTD. Hyogo Plant	Tojo River cleanup		
	SEKISUI SEIKEI, LTD. Izumo Plant	Izumo Children's Nature Academy (flora and fauna observation event)		
	SEKISUI NANO COAT TECHNOLOGY, CO., LTD.	"Ho-no-Kuni Everyone's Forest" conservation activities in the Toyo River headwaters		
	TOKUYAMA SEKISUI CO., LTD.	"Sekisui Forest" forest management activities		
Activities at business sites in Japan	Sekisui Chemical Co., Ltd. Shiga-Ritto Plant	Yurikago Rice Paddy Project		
	Sekisui Chemical Co., Ltd. Gunma Plant	Gunma Children's Nature Academy (winter nature observation event)		
	Sekisui Chemical Co., Ltd. R&D Institute	Minase Children's Nature Academy (wildfowl observation and nest box making)		
	Sekisui Chemical Co., Ltd. Tsukuba Office	Tree-planting in the Kasumigaura headwaters in the Mt Tsukuba foothills		
	Joint endeavor by Kansai-area business sites	Kyoto "Sen-no-Mori" woodland conservation activities		
	Sekisui Chemical Co., Ltd. Tokyo Headquarters	Participation in the Tokyo Bay Cleanup Campaign		
	Sekisui Chemical Co., Ltd. Osaka Headquarters	Yodo River Niwakubo river pond conservation activities		

	Business site involved in the activities	Program		
Activities at overseas business	SEKISUI CHEMICAL(THAILAND) CO.,LTD SEKISUI SPECIALTY CHEMICALS (THAILAND) CO., LTD. SEKISUI S-LEC (THAILAND) CO., LTD. THAI SEKISUI FOAM CO., LTD. S AND L SPECIALTY POLYMERS CO., LTD. SEKISUI SYSTEMBATH INDUSTRY(THAILAND) CO., LTD. SEKISUI PLANT (THAILAND) CO., LTD. SEKISUI SOUTHEAST ASIA CO., LTD.	Chonburi mangrove tree-planting activities (Thailand)		
	SEKISUI MEDICAL TECHNOLOGY (CHINA) LTD. SEKISUI (DALIAN) HOUSING TECHNOLOGY CO., LTD. SEKISUI HIGH PERFORMANCE PACKAGING (LANGFANG) CO., LTD SEKISUI (SHANGHAI) INTERNATIONAL TRADING CO., LTD. SEKISUI CHEMICAL (CHINA) CO., LTD. Youngbo HPP Co., Ltd.	Tree-planting activities in Beijing (China)		
	SEKISUI POLYMER INNOVATIONS, LLC.	Beach-cleaning activities (USA)		
sites	SEKISUI SPECIALTY CHEMICALS MEXICO, S.DER.L.DE C.V.	Tree-planting activities (Mexico)		
	SEKISUI SPECIALTY CHEMICALS EUROPE S.L.	Tree-planting activities (Spain)		
	SEKISUI DIAGNOSTICS (UK) LIMITED	Tree-planting activities (UK)		
	SEKISUI DLJM MOLDING PRIVATE LTD.	Tree-planting activities (India)		
	SEKISUI PILON PTY.LTD.	Coast and promenade cleanup activities (Australia)		
	Youngbo Chemical Co., Ltd.	Beautification of streets and rivers surrounding the office (South Korea)		
	SEKISUI MEDICAL TECHNOLOGY (SUZHOU) LTD.	Environmental beautification activities in the area surround the Suzhou factory (China)		

Major Activities Contributing to Society During Fiscal Year 2017 ("Next-Generation" and "Local Communities")

Program		Fiscal Yea	ar 2017 Performance			Perfor	mance to Date	
Heart+Action	Number of sessions	3	Number of participants	56	Cumulative number of sessions	54	Cumulative number of participants	942
	Number of business		Number of meals		Number of Eusiness sites participating 12		Number of meals given as food aid to newly emerging economies	182,182
TABLEFORTWO	sites participating	12	to newly emerging economies	28,204		Monetary amount for food aid for the Tohoku region *	649,910 yen	
TABLE FOR TWO Vending Machines for Disaster Preparedness	Number of business sites participating	1	Number of meals given as food aid to newly emerging economies	5,588	Number of Eusiness sites participating	1	Number of meals given as food aid to newly emerging economies	20,191
"Housing and Environment" Learning Program	Number of schools participating	17	Number of student participants	1,840	Cumulative number of schools participating	139	Cumulative number of student participants	Approx. 16,600
Chemistry Classrooms	Number of sessions	29	Number of student participants	2,532	Cumulative number of sessions	226	Cumulative number of student participants	26,024
BOOK MAGIC	Number of sessions	6	Amount donated	68,490 yen	Cumulative number of sessions	115	Amount donated	1,026,534 yen

 \star Food aid for the Tohoku region was given between April 2013 and December 2014

Details of Donation Activities (Sekisui Chemical Group)

Type of Donation	Total Amount		
Donations	150,003		
Employee volunteers	216,832		
Donations of goods	3,483		
Administrative costs	12,538		

(Unit: thousands of yen)

Breakdown of Cash Donations



SEKISUI CHEMICAL CO., LTD.

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CSR Report 2018 (PDF) has been reviewed for assurance by an independent third party and as a result has been granted the sustainability report review and registration logo.

This demonstrates that this report satises the necessary criteria established by the Japanese Association of Assurance Organizations for Sustainability Information (J-SUS; http://www.j-sus.org/) for the use of this logo, intended to assure the reliability of sustainability information.