

Environmental Accounting (Detailed Data: FY2012-FY2016)

Environmental Conservation Effects

Content of Environmental Conservation Effects		Classification of Index to Measure Environmental Conservation Effects		In Japan					Outside Japan				
				FY2012	FY2013	FY2014	FY2015	FY2016	FY2012	FY2013	FY2014	FY2015	FY2016
Effects resulting from business area cost	Effects related to resource input into business operations	Total energy input (kL: converted into crude oil quantity)	10,676 ¹⁾	10,715	10,483	10,116	10,231	15,169	17,051	18,838	18,820	23,515	
		Water input (m ³)	113,451	104,890	101,060	93,989	87,772	608,441	612,757	663,961	698,704	703,515	
	Effects related to environmental impact and waste released from business operations	CO ₂ (t-CO ₂ /year)	16,033 ¹⁾	16,033	15,659	15,117	22,298 ²⁾	25,545	28,034	31,085	30,993	55,741 ³⁾	
		NOx (kg/year)	2,023	2,031	2,046	2,020	2,155	3,147	3,329	3,603	2,894	5,276	
		SOx (kg/year)	9	8	8	8	8	72	81	88	72	123	
		Generation of waste	2,023	1,937	2,302	1,998	1,702	4,073	4,362	4,851	5,766 ³⁾	6,105	
	Landfill waste (t)	0	0	0	0	0	2	5	2	1	121		

¹⁾ The figures were reviewed retrospectively at the time of reporting FY2014.

²⁾ In FY2016, the CO₂ emission factors were changed from the values in accordance with the Act on Promotion of Global Warming Countermeasures to the values based on the international standards.

³⁾ The calculated values for FY2016 using the emission factors of the Act were 15,305 in Japan and 38,720 outside Japan.

⁴⁾ For Brother Industries (Philippines), Inc., some wastes were found to have been omitted from the scope of aggregation in FY2015. Thus, the amount of waste generation for FY2015 has been updated.

Economic Effects Derived from Environmental Conservation Measures

(Unit: millions of Yen)

Content of Economic Effects		In Japan					Outside Japan				
		FY2012	FY2013	FY2014	FY2015	FY2016	FY2012	FY2013	FY2014	FY2015	FY2016
Income	Operating income from recycling of waste generated from main business operations	4.7	6.8	6.9	2.9	2.5	38.0	41.5	55.6	81.3	46.6
Cost reduction	Reduction in energy cost by energy-saving	1.1	1.4	3.0	8.2	18.0	24.3	26.3	25.3	12.8	20.6
	Reduction in waste treatment cost due to resource-saving and recycling	27.5	29.3	31.7	27.6	32.9	51.1	31.9	11.3	29.7	24.8
Other	Publicity effects, such as newspaper reporting, calculated in terms of advertising expenses	0.8	3.7	2.3	3.1	1.4	16.5	3.1	17.2	13.9	0.4
Total		34.0	41.2	43.9	41.8	54.8	130.0	102.9	109.4	137.7	92.4

Environmental Conservation Costs

(Unit: millions of Yen)

Classification of Environmental Conservation Costs		Details of Main Implementation and the Effects		In Japan					Outside Japan				
				Investment Amount					Expense Amount				
				FY2012	FY2013	FY2014	FY2015	FY2016	FY2012	FY2013	FY2014	FY2015	FY2016
1. Business area costs: Costs for reducing direct environmental impacts occurring within the facility area		8	113	124	141	332	181	167	168	208	342		
Breakdown:	(1) Pollution prevention cost	0	3	4	24	2	44	29	20	21	25		
	(2) Global environmental conservation cost	8	109	120	117	329	60	61	63	83	160		
	(3) Resource circulation cost	1	1	0	0	1	76	77	85	104	157		
2. Upstream/downstream cost: Costs incurred to reduce environmental impact when procuring parts and materials and after selling products		0	5	0	0	0	114	99	95	89	60		
3. Administration cost: Costs incurred by activities that contribute indirectly to reducing the environmental impact of business operations		179	98	155	33	101	328	323	358	329	349		
4. R&D cost: R&D costs for reducing environmental impact		14	2	58	10	12	124	132	145	152	149		
5. Social activity cost: Costs of environmental conservation that is not directly linked with corporate activities		0	11	0	0	0	10	12	13	12	10		
6. Cost to deal with environmental damage: Costs incurred to restore the natural environment (including soil remediation)		0	0	0	0	0	2	3	3	4	3		
Total		201	229	337	184	445	760	737	782	794	913		

Classification		Details of Main Implementation and the Effects		Outside Japan					Expense Amount				
				Investment Amount					Expense Amount				
				FY2012	FY2013	FY2014	FY2015	FY2016	FY2012	FY2013	FY2014	FY2015	FY2016
1. Business area costs: Costs for reducing direct environmental impacts occurring within the facility area		53	169	137	115	42	92	70	165	237	119		
Breakdown:	(1) Pollution prevention cost	0	0	0	49	6	34	34	84	86	66		
	(2) Global environmental conservation cost	53	169	137	66	36	34	5	25	92	15		
	(3) Resource circulation cost	0	0	0	0	0	23	30	56	59	38		
2. Upstream/downstream cost: Costs incurred to reduce environmental impact when procuring parts and materials and after selling products		0	0	0	0	0	1	1	2	15	0		
3. Administration cost: Costs incurred by activities that contribute indirectly to reducing the environmental impact of business operations		0	0	0	0	0	26	42	55	35	31		
4. R&D cost: R&D costs for reducing environmental impact		0	0	0	0	0	0	0	0	4	5		
5. Social activity cost: Costs of environmental conservation that is not directly linked with corporate activities		0	0	0	0	0	2	3	11	4	3		
6. Cost to deal with environmental damage: Costs incurred to restore the natural environment (including soil remediation)		0	0	0	0	0	0	0	0	0	0		
Total		53	169	137	115	42	122	116	233	295	158		

Scope of aggregation

Fiscal year	Target Period	Name of Site	
		In Japan	Outside Japan
FY2012	April 1, 2012–March 31, 2013	Head office, Mizuho Manufacturing Facility, Hoshizaki Manufacturing Facility, Minato Manufacturing Facility, Momozono Manufacturing Facility, Kariya Manufacturing Facility, Research & Development Center, Logistics Center ¹⁾	Brother Industries (U.K.) Ltd., Brother Industries (Slovakia) s.r.o., Taiwan Brother Industries, Ltd., Zhuhai Brother Industries, Co., Ltd., Brother Machinery Xian Co., Ltd., Brother Industries (Shenzhen), Ltd., Brother Technology (Shenzhen) Ltd., Brother Industries Technology (M) Sdn. Bhd., Brother Industries (Vietnam) Ltd.
FY2013	April 1, 2013–March 31, 2014	Head office, Mizuho Manufacturing Facility, Hoshizaki Manufacturing Facility, Minato Manufacturing Facility, Momozono Manufacturing Facility, Kariya Manufacturing Facility, Research & Development Center, Logistics Center ¹⁾	Brother Industries (U.K.) Ltd., Brother Industries (Slovakia) s.r.o., Taiwan Brother Industries, Ltd., Zhuhai Brother Industries, Co., Ltd., Brother Machinery Xian Co., Ltd., Brother Industries (Shenzhen), Ltd., Brother Technology (Shenzhen) Ltd., Brother Industries Technology (M) Sdn. Bhd., Brother Industries (Vietnam) Ltd., Brother Industries Saigon, Ltd.
FY2014	April 1, 2014–March 31, 2015	Head office, Mizuho Manufacturing Facility, Hoshizaki Manufacturing Facility, Minato Manufacturing Facility, Momozono Manufacturing Facility, Kariya Manufacturing Facility, Research & Development Center, Logistics Center ¹⁾	Brother Industries (U.K.) Ltd., Brother Industries (Slovakia) s.r.o., Taiwan Brother Industries, Ltd., Zhuhai Brother Industries, Co., Ltd., Brother Machinery Xian Co., Ltd., Brother Industries (Shenzhen), Ltd., Brother Technology (Shenzhen) Ltd., Brother Industries Technology (M) Sdn. Bhd., Brother Industries (Vietnam) Ltd., Brother Industries Saigon, Ltd., Brother Machinery Vietnam Co., Ltd.
FY2015	April 1, 2015–March 31, 2016	Head office, Mizuho Manufacturing Facility, Hoshizaki Manufacturing Facility, Minato Manufacturing Facility, Momozono Manufacturing Facility, Kariya Manufacturing Facility, Research & Development Center, Logistics Center ¹⁾	Brother Industries (U.K.) Ltd., Brother Industries (Slovakia) s.r.o., Taiwan Brother Industries, Ltd., Zhuhai Brother Industries, Co., Ltd., Brother Machinery Xian Co., Ltd., Brother Industries (Shenzhen), Ltd., Brother Technology (Shenzhen) Ltd., Brother Industries Technology (M) Sdn. Bhd., Brother Industries (Vietnam) Ltd., Brother Industries Saigon, Ltd., Brother Machinery Vietnam Co., Ltd., Brother Industries (Philippines), Inc.
FY2016	April 1, 2016–March 31, 2017	Head office, Mizuho Manufacturing Facility, Hoshizaki Manufacturing Facility, Minato Manufacturing Facility, Momozono Manufacturing Facility, Kariya Manufacturing Facility, Research & Development Center, Logistics Center ¹⁾	Brother Industries (U.K.) Ltd., Brother Industries (Slovakia) s.r.o., Taiwan Brother Industries, Ltd., Zhuhai Brother Industries, Co., Ltd., Brother Machinery Xian Co., Ltd., Brother Industries (Shenzhen), Ltd., ²⁾ Brother Technology (Shenzhen) Ltd., Brother Industries Technology (M) Sdn. Bhd., ¹⁾ Brother Industries (Vietnam) Ltd., Brother Industries Saigon, Ltd., Brother Machinery Vietnam Co., Ltd., Brother Industries (Philippines), Inc.

¹⁾ For Logistics Center and Brother Industries Technology (M) Sdn. Bhd. in FY2016, only "Environmental Conservation Effects" was aggregated.

²⁾ Brother Industries (Shenzhen), Ltd. was subject to an absorption-type merger in October 2016, with Brother Technology (Shenzhen) Ltd. as the surviving company.