



Environmental Accounting Kikkoman Corporation

Company Profile

Noda Head Office	250 Noda, Noda-shi, Chiba
Factories	Noda-shi, Chiba, and Takasago-shi, Hyogo
Founded	1917
Paid-in Capital	¥11,599,000,000
Major Products	Kikkoman soy sauce, soy sauce-related food seasonings and flavorings, etc.
Web site	http://www.kikkoman.com/

Evaluation and Analysis for FY 2005

Investment in Environmental Preservation

For FY 2005, Kikkoman Corp. invested ¥436 million in environmental preservation, an increase of ¥271 million from the previous fiscal year. Contributing factors were increases of ¥109 million in investments for pollution control measures such as wastewater treatment and ¥153 million in R&D-related investments such as methane fermentation testing facilities.

Expenditures for Environmental Preservation

Kikkoman Corp.'s environmental preservation expenditures

for FY 2005 were ¥2,145 million, almost equivalent to those for FY 2004 (¥2,284 million).

Environmental Preservation Benefits

The environmental preservation benefits of Kikkoman Corp. for FY 2005 rose ¥89 million from the previous year to ¥692 million.

This increase was mainly attributable to the improved wastes and byproducts control (recycling) benefit in such areas as soy sauce cake, plant residue and garbage.

Environmental Accounting

Investment and Expenditure for Environmental Preservation

(Millions of yen : Amounts less than a unit are rounded off.)

Category	Investment	Expenditure
Business Area Costs	277	1,559
Pollution Prevention	241	484
Global Environmental Conservation	25	201
Resource Circulation	11	874
Upstream/Downstream Costs	0	204
Distribution		204
Administration Costs	0	240
Environmental Preservation		240
R&D Costs	159	119
R&D	159	119
Social Activities Costs	0	23
Nature Preservation, Supporting Environmental Preservation Organizations and Local Communities		23
Environmental Remediation Costs	0	0
Restoration Costs of Environmental Damage, Payments for Settlements, Reserve Funds		
Total	436	2,145

Environmental Preservation Benefits

● Energy Use Reduction Benefit (Environmental loads by energy type in terms of CO₂)

Energy	Discharge coefficient	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Consumption	in CO ₂ t/y	Consumption	in CO ₂ t/y		
Heavy oil (A)	2.710 CO ₂ t/kℓ	10,533 kℓ	28,544	9,960 kℓ	26,992	1,553	105.8
Kerosene	2.492 CO ₂ t/kℓ	7 kℓ	17	7 kℓ	17	0	100.0
Electricity	0.378 CO ₂ t/1,000kwh	51,757,000 kwh	19,564	51,436,000 kwh	19,443	121	100.6
LPG	3.002 CO ₂ t/t	1,817 t	5,455	1,884 t	5,656	-201	96.4
Gas	2.108 CO ₂ t/1,000m ³	3,737,000 m ³	7,878	3,215,000 m ³	6,777	1,100	116.2
Total			61,458		58,885	2,573	104.4

● Wastes and Byproducts Reduction Benefit (Environmental loads by waste and byproduct type in terms of CO₂)

Excluding those effectively re-used

Wastes and byproducts	Discharge Coefficient CO ₂ t/t	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Discharge t/y	in CO ₂ t/y	Discharge t/y	in CO ₂ t/y		
Plastics	2.600	168	437	199	517	-81	84.4
Cardboard, wood chips	1.650	174	287	217	358	-71	80.2
Waste oil	2.900	130	377	61	177	200	213.1
Sludge	1.100	3,583	3,941	4,120	4,532	-591	87.0
Plant residues	2.442	741	1,810	293	716	1,094	252.9
Garbage	2.442	786	1,919	163	398	1,521	482.2
Unburnable wastes	0.000	251	—	260	—	—	96.5
Total		5,833	8,771	5,313	6,698	2,073	131.0

● Waste and Byproducts Control (Recycling) Benefit (Volume of recycled wastes and byproducts in terms of CO₂)

Wastes and byproducts	Discharge Coefficient* CO ₂ t/t	FY 2005				
		Discharge t/y	in CO ₂ t/y	Recycled t/y	Recycling rate %	Recycling volume in CO ₂ t/y
Plastics	2.600	168	437	168	100.0	437
Cardboard, wood chips	1.650	174	287	174	100.0	287
Waste oil	2.900	130	377	130	100.0	377
Soy sauce cake (feed)	1.180	16,382	19,331	16,382	100.0	19,331
Soy sauce oil (fish feed, other use)	2.700	945	2,552	945	100.0	2,552
Sweet sake cake (feed)	1.080	524	566	524	100.0	566
Sludge	1.100	3,583	3,941	3,583	100.0	3,941
Plant residues	2.442	741	1,810	741	100.0	1,810
Garbage	2.442	786	1,919	785	99.9	1,917
Unburnable wastes	0.000	251	—	210	83.7	—
Total		23,684	31,219	23,642	99.8	31,217

When the wastes used as energy sources are added

Soy sauce cake (fuel)		6,844		6,844	100.0	
Soy sauce oil (fuel)		1,375		1,375	100.0	
Aggregate total		31,903		31,861	99.9	

*Discharge coefficient of soy sauce cake, soy sauce oil and sweet sake cake are determined by the Kikkoman Group.

Other Environmental Loads (Volumes of water usage and air pollutants discharge (NO_x and SO_x))

The Production Sector

	FY 2005	FY 2004	Rise and fall	FY 2005/FY 2004 %
Water	3,554,000 kℓ	3,513,000 kℓ	41,000 kℓ	101.2
NO _x *	38,668 kg	37,244 kg	1,424 kg	103.8
SO _x	12,587 kg	11,903 kg	684 kg	105.7

*Excluding soy sauce cake and soy sauce oil burned as fuel.



Environmental Accounting Nippon Del Monte Corporation

Company Profile

Head Office	4-13, Nihonbashi Koamicho, Chuo-ku, Tokyo
Factories	Ninohe-shi, Iwate; Minamisoma-shi, Fukushima; Numata-shi, Gunma; Chikuma-shi, Nagano; and Shimotakai-gun, Nagano
Founded	1961
Paid-in Capital	¥900,000,000
Major Products	Del Monte products, Kikkoman sauce, "Kikko Tomato" products, etc.
Web site	http://www.delmonte.co.jp/

Evaluation and Analysis for FY 2005

Investment in Environmental Preservation

For FY 2005, Nippon Del Monte Corp. invested ¥17 million in environmental preservation, a decrease of ¥4 million from the previous fiscal year. A major investment item was pollution control measures such as wastewater treatment and sound-proof walls.

Expenditures for Environmental Preservation

Nippon Del Monte Corp.'s environmental preservation expenditures for FY 2005 decreased ¥54 million to ¥334 million from ¥388 million for FY 2004.

Environmental Preservation Benefits

The environmental preservation benefits of Nippon Del Monte Corp. for FY 2005 rose ¥87 million from the previous year to ¥142 million.

This increase was mainly attributable to improvements in the wastes and byproducts reduction benefit and the wastes and byproducts control (recycling) benefit relative to FY 2004.

Environmental Accounting

Investment and Expenditure for Environmental Preservation

(Millions of yen: Amounts less than a unit are rounded off.)

Category	Investment	Expenditure
Business Area Costs	17	302
Pollution Prevention	11	207
Global Environmental Conservation	5	5
Resource Circulation	1	90
Upstream/Downstream Costs	0	0
Distribution		
Administration Costs	0	32
Environmental Preservation		32
R&D Costs	0	0
R&D		
Social Activities Costs	0	0
Nature Preservation, Supporting Environmental Preservation Organizations and Local Communities		
Environmental Remediation Costs	0	0
Restoration Costs of Environmental Damage, Payments for Settlements, Reserve Funds		
Total	17	334

Environmental Preservation Benefits

● Energy Use Reduction Benefit (Environmental loads by energy type in terms of CO₂)

Energy	Discharge coefficient	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Consumption	in CO ₂ t/y	Consumption	in CO ₂ t/y		
Heavy oil (A)	2.710 CO ₂ t/kl	10,646 kl	28,851	10,429 kl	28,263	588	102.1
Light oil	2.624 CO ₂ t/kl	16 kl	42	14 kl	37	5	114.3
Kerosene	2.492 CO ₂ t/kl	48 kl	120	45 kl	112	7	106.7
Electricity	0.378 CO ₂ t/1,000kwh	19,452,000 kwh	7,353	18,789,000 kwh	7,102	251	103.5
LPG	3.002 CO ₂ t/t	1 t	3	1 t	3	0	100.0
Gasoline	2.322 CO ₂ t/kl	45 kl	104	59 kl	137	-33	76.3
Total			36,473		35,654	819	102.3

● Wastes and Byproducts Reduction Benefit (Environmental loads by waste and byproduct type in terms of CO₂)

Wastes and byproducts	Discharge Coefficient* CO ₂ t/t	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Discharge t/y	in CO ₂ t/y	Discharge t/y	in CO ₂ t/y		
Plastics	2.600	276	718	291	757	-39	94.8
Cardboard, wood chips	1.650	614	1,013	578	954	59	106.2
Waste oil	2.900	42	122	4	12	110	1,050.0
Pressed apple lees	1.470	490	720	264	388	332	185.6
Pressed tomato lees	2.149	210	451	241	518	-67	87.1
Used green tea leaves	1.789	639	1,143	848	1,517	-374	75.4
Sludge	1.100	1,374	1,511	1,815	1,997	-485	75.7
Plant residues	2.442	777	1,897	1,044	2,549	-652	74.4
Garbage	2.442	18	44	27	66	-22	66.7
Unburnable wastes	0.000	1,133	—	1,088	—	—	104.1
Total		5,573	7,620	6,200	8,757	-1,137	87.0

*Coefficient of pressed apple lees, pressed tomato lees and used green tea leaves are determined by the Kikkoman Group.

● Waste and Byproducts Control (Recycling) Benefit (Volume of recycled wastes and byproducts in terms of CO₂)

Wastes and byproducts	Discharge Coefficient* CO ₂ t/t	FY 2005				
		Discharge t/y	in CO ₂ t/y	Recycled t/y	Recycling rate %	Recycling volume in CO ₂ t/y
Plastics	2.600	276	718	269	97.5	699
Cardboard, wood chips	1.650	614	1,013	607	98.9	1,002
Waste oil	2.900	42	122	42	100.0	122
Pressed apple lees (feed)	1.470	490	720	490	100.0	720
Pressed tomato lees (feed)	2.149	210	451	210	100.0	451
Used green tea leaves (compost)	1.789	639	1,143	639	100.0	1,143
Sludge	1.100	1,374	1,511	1,371	99.8	1,508
Plant residues	2.442	777	1,897	777	100.0	1,897
Garbage	2.442	18	44	3	16.7	7
Unburnable wastes	0.000	1,133	—	1,130	99.7	—
Total		5,573	7,620	5,538	99.4	7,550

*Discharge coefficient of pressed apple lees, pressed tomato lees and used green tea leaves are determined by the Kikkoman Group.

Other Environmental Loads (Volumes of water usage and air pollutants discharge (NO_x and SO_x))

	FY 2005	FY 2004	Rise and fall	FY 2005/FY 2004 %
Water	2,997,000 kl	2,976,000 kl	21,000 kl	100.7
NO _x	21,783 kg	21,379 kg	404 kg	101.9
SO _x	12,734 kg	12,473 kg	261 kg	102.1



Environmental Accounting Mann's Wine Co., Ltd.

Company Profile

Head Office	1-1, Nishishimbashi 2-chome, Minato-ku, Tokyo
Factories	Koshu-shi, Yamanashi, and Komoro-shi, Nagano
Founded	1962
Paid-in Capital	¥900,000,000
Major Products	Mann's wine (SOLARIS series), sparkling wine, etc.
Web site	http://www.kikkoman.co.jp/manns/

Evaluation and Analysis for FY 2005

Investment in Environmental Preservation

For FY 2005, Mann's Wine Co., Ltd., invested ¥25 million in environmental preservation, an increase of ¥7 million from the previous fiscal year.

A major investment item was pollution control measures such as the construction of oil (liquid)-proof dikes along the southern fence, a project to raise the wastewater pipes that separate the channels between rainwater and plant drainage and the construction of a waste storage building in the Katsunuma Winery, as well as the installation of a purification tank (with capacity for use by 400 persons) in the Komoro Winery.

Expenditures for Environmental Preservation

Mann's Wine Co., Ltd.'s environmental preservation expenditures for FY 2005 were ¥46 million, almost equivalent to those for FY 2004 (¥47 million).

Environmental Preservation Benefits

The environmental preservation benefits of Mann's Wine Co., Ltd., for FY 2005 rose ¥6 million from the previous year to ¥27 million.

This increase was mainly attributable to the improved wastes and byproducts control (recycling) benefit.

Environmental Accounting

Investment and Expenditure for Environmental Preservation

(Millions of yen : Amounts less than a unit are rounded off.)

Category	Investment	Expenditure
Business Area Costs	25	33
Pollution Prevention	25	16
Global Environmental Conservation		
Resource Circulation		17
Upstream/Downstream Costs	0	0
Distribution		
Administration Costs	0	13
Environmental Preservation		13
R&D Costs	0	0
R&D		
Social Activities Costs	0	0
Nature Preservation, Supporting Environmental Preservation Organizations and Local Communities		
Environmental Remediation Costs	0	0
Restoration Costs of Environmental Damage, Payments for Settlements, Reserve Funds		
Total	25	46

Environmental Preservation Benefits

● Energy Use Reduction Benefit (Environmental loads by energy type in terms of CO₂)

Energy	Discharge coefficient	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Consumption	in CO ₂ t/y	Consumption	in CO ₂ t/y		
Heavy oil (A)	2.710 CO ₂ t/kℓ	268 kℓ	726	267 kℓ	724	3	100.4
Electricity	0.378 CO ₂ t/1,000kwh	3,040,000 kwh	1,149	3,055,000 kwh	1,155	-6	99.5
Total			1,875		1,878	-3	99.8

● Wastes and Byproducts Reduction Benefit (Environmental loads by waste and byproduct type in terms of CO₂)

Wastes and byproducts	Discharge Coefficient CO ₂ t/t	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Discharge t/y	in CO ₂ t/y	Discharge t/y	in CO ₂ t/y		
Plastics	2.600	27	70	35	91	-21	77.1
Cardboard, wood chips	1.650	56	92	44	73	20	127.3
Waste oil	2.900	0	0	1	3	-3	0.0
Sludge	1.100	336	370	353	388	-19	95.2
Plant residues	2.442	385	940	423	1,033	-93	91.0
Garbage	2.442	3	7	3	7	0	100.0
Unburnable wastes	0.000	173	—	179	—	—	96.6
Total		980	1,480	1,038	1,595	-115	92.8

● Waste and Byproducts Control (Recycling) Benefit (Volume of recycled wastes and byproducts in terms of CO₂)

Wastes and byproducts	Discharge Coefficient CO ₂ t/t	FY 2005				
		Discharge t/y	in CO ₂ t/y	Recycled t/y	Recycling rate %	Recycling volume in CO ₂ t/y
Plastics	2.600	27	70	0	0.0	0
Cardboard, wood chips	1.650	56	92	56	100.0	92
Waste oil	2.900	0	0	0	—	0
Sludge	1.100	336	370	336	100.0	370
Plant residues	2.442	385	940	383	99.5	935
Garbage	2.442	3	7	0	0.0	0
Unburnable wastes	0.000	173	—	171	98.8	—
Total		980	1,480	946	96.5	1,397

Other Environmental Loads (Volumes of water usage and air pollutants discharge (NO_x and SO_x))

	FY 2005	FY 2004	Rise and fall	FY 2005/FY 2004 %
Water	334,000 kℓ	340,000 kℓ	-6,000 kℓ	98.2
NO _x	1,282 kg	1,285 kg	-3 kg	99.8
SO _x	320 kg	319 kg	1 kg	100.3



Environmental Accounting

Tone Coca-Cola Bottling Co., Ltd.

Company Profile

Head Office	310 Nakane, Noda-shi, Chiba
Founded	1962
Paid-in Capital	¥1,600,000,000
Major Products	Coca-Cola, AQUARIUS, Georgia Coffee, So-ken-bi-cha, etc.
Web site	http://www.tone.ccbc.co.jp/

Evaluation and Analysis for FY 2005

Investment in Environmental Preservation

For FY 2005, Tone Coca-Cola Bottling Co., Ltd., invested ¥699 million in environmental preservation, an increase of ¥69 million from the previous fiscal year. Major investment items were asbestos splash prevention work (¥15 million), the installation such waste water treatment facility as a purification tank at a new establishment (¥11 million), greenery management (¥9 million) and the construction of a rainwater collection and utilization facility (¥22 million). Furthermore, a first-year acquisition cost of ¥17 million relative to pollution control facilities was incurred with regard to the acquisition of a subsidiary's assets.

Expenditures for Environmental Preservation

Tone Coca-Cola Bottling Co., Ltd.'s environmental preser-

vation expenditures for FY 2005 increased ¥153 million from the previous year to ¥1,052 million.

Contributing factors were an increase of ¥86 million in depreciation expense for newly implemented automatic vending machines using an energy-saving refrigerant and an apparent increase of ¥52 million in a related expense due to a review of the waste treatment cost calculation method.

Environmental Preservation Benefits

The environmental preservation benefits of Tone Coca-Cola Bottling Co., Ltd., for FY 2005 rose ¥32 million to ¥92 million from ¥60 million for FY 2004.

This increase was mainly attributable to the improved wastes control (recycling) benefit as most of the increased waste was recycled for reuse.

Environmental Accounting

Investment and Expenditure for Environmental Preservation

(Millions of yen: Amounts less than a unit are rounded off.)

Category	Investment	Expenditure
Business Area Costs	690	591
Pollution Prevention	48	35
Global Environmental Conservation	620	476
Resource Circulation	22	80
Upstream/Downstream Costs	0	415
Distribution		415
Administration Costs	9	38
Environmental Preservation	9	38
R&D Costs	0	0
R&D		
Social Activities Costs	0	8
Nature Preservation, Supporting Environmental Preservation Organizations and Local Communities		8
Environmental Remediation Costs	0	0
Restoration Costs of Environmental Damage, Payments for Settlements, Reserve Funds		
Total	699	1,052

Environmental Preservation Benefits

● Energy Use Reduction Benefit (Environmental loads by energy type in terms of CO₂)

Energy	Discharge coefficient	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Consumption	in CO ₂ t/y	Consumption	in CO ₂ t/y		
Light oil	2.624 CO ₂ /kℓ	1,194 kℓ	3,133	1,197 kℓ	3,141	-8	99.7
Electricity	0.378 CO ₂ /1,000kwh	7,827,000 kwh	2,959	7,873,000 kwh	2,976	-17	99.4
Gasoline	2.322 CO ₂ /kℓ	1,008 kℓ	2,341	990 kℓ	2,299	42	101.8
Total			8,432		8,416	17	100.2

● Wastes and Byproducts Reduction Benefit (Environmental loads by waste and byproduct type in terms of CO₂)

Wastes and byproducts	Discharge Coefficient CO ₂ t/t	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Discharge t/y	in CO ₂ t/y	Discharge t/y	in CO ₂ t/y		
Plastics	2.600	600	1,560	426	1,108	452	140.8
Cardboard, wood chips	1.650	3,159	5,212	3,113	5,136	76	101.5
Plant residues	2.442	231	564	0	0	564	—
Garbage	2.442	1,314	3,209	1,598	3,902	-694	82.2
Unburnable wastes	0.000	11,609	—	6,907	—	—	168.1
Total		16,913	10,545	12,044	10,146	399	103.9

● Waste and Byproducts Control (Recycling) Benefit (Volume of recycled wastes and byproducts in terms of CO₂)

Wastes and byproducts	Discharge Coefficient CO ₂ t/t	FY 2005				
		Discharge t/y	in CO ₂ t/y	Recycled t/y	Recycling rate %	Recycling volume in CO ₂ t/y
Plastics	2.600	600	1,560	7	1.2	18
Cardboard, wood chips	1.650	3,159	5,212	3,159	100.0	5,212
Plant residues	2.442	231	564	119	51.5	291
Garbage	2.442	1,314	3,209	0	0.0	0
Unburnable wastes	0.000	11,609	—	9,315	80.2	—
Total		16,913	10,545	12,600	74.5	5,521

Other Environmental Loads (Volumes of water usage and air pollutants discharge (NO_x and SO_x))

	FY 2005	FY 2004	Rise and fall	FY 2005/FY 2004 %
Water	30,000 kℓ	30,000 kℓ	0 thousand kℓ	100.0
NO _x	12,425 kg	12,296 kg	129 kg	101.0
SO _x	598 kg	600 kg	-2 kg	99.7



Company Profile

Head Office	Kawatsuma Gokamachi, Sashima-gun, Ibaraki
Founded	1973
Paid-in Capital	¥50,000,000
Major Products	So-ken-bi-cha in 500ml PET bottles, other canned beverage, sherbet, regular coffees, etc.
Web site	http://www.eatsia.co.jp/

Evaluation and Analysis for FY 2005

Investment in Environmental Preservation

Eatsia Co., Ltd., made no specific environmental preservation investments for FY 2005.

In FY 2006, Eatsia intends to more proactively commit itself to environmental preservation activities in line with the acquisition of the ISO 14001 certification for environment management systems.

Expenditures for Environmental Preservation

Eatsia Co., Ltd.'s environmental preservation expenditures for FY 2005 decreased ¥4 million to ¥71 million from ¥75 million for FY 2004.

This decline in expenditures was mainly due to the non-accural of renewal-related expenses relative to FY 2005 al-

though underwater aerators were renewed to promote further energy conservation in the wastewater treatment process, but the renewal was completed during FY 2004.

Environmental Preservation Benefits

The environmental preservation benefits of Eatsia Co., Ltd., for FY 2005 amounted to ¥138 million.

This performance was mainly attributable to the improved wastes and byproducts control (recycling) benefit because a quarter of the residue of tea leaves (2,800 tons annually) used for the production of So-ken-bi-cha was reused as feed (a valuable nutrient-rich resource) despite the lower wastes and byproducts reduction benefit.

Environmental Accounting

Investment and Expenditure for Environmental Preservation

(Millions of yen: Amounts less than a unit are rounded off.)

Category	Investment	Expenditure
Business Area Costs	0	61
Pollution Prevention		30
Global Environmental Conservation		
Resource Circulation		31
Upstream/Downstream Costs	0	4
Distribution		4
Administration Costs	0	6
Environmental Preservation		6
R&D Costs	0	0
R&D		
Social Activities Costs	0	0
Nature Preservation, Supporting Environmental Preservation Organizations and Local Communities		
Environmental Remediation Costs	0	0
Restoration Costs of Environmental Damage, Payments for Settlements, Reserve Funds		
Total	0	71

Environmental Preservation Benefits

● Energy Use Reduction Benefit (Environmental loads by energy type in terms of CO₂)

Energy	Discharge coefficient	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Consumption	in CO ₂ t/y	Consumption	in CO ₂ t/y		
Heavy oil (A)	2.710 CO ₂ t/kℓ	3,321 kℓ	9,000	3,303 kℓ	8,951	49	100.5
Light oil	2.624 CO ₂ t/kℓ	58 kℓ	152	70 kℓ	184	-31	82.9
Electricity	0.378 CO ₂ t/1,000kwh	14,780,000 kwh	5,587	14,380,000 kwh	5,436	151	102.8
LPG	3.002 CO ₂ t/t	41 t	123	44 t	132	-9	93.2
Gasoline	2.322 CO ₂ t/kℓ	155 kℓ	360	152 kℓ	353	7	102.0
Total			15,222		15,055	166	101.1

● Wastes and Byproducts Reduction Benefit (Environmental loads by waste and byproduct type in terms of CO₂)

Wastes and byproducts	Discharge Coefficient CO ₂ t/t	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Discharge t/y	in CO ₂ t/y	Discharge t/y	in CO ₂ t/y		
Plastics	2.600	177	460	116	302	159	152.6
Cardboard, wood chips	1.650	117	193	113	186	7	103.5
Waste oil	2.900	0	0	1	3	-3	0.0
Sludge	1.100	244	268	356	392	-123	68.5
Plant residues	2.442	3,377	8,247	2,875	7,021	1,226	117.5
Garbage	2.442	29	71	31	76	-5	93.5
Unburnable wastes	0.000	39	—	59	—	—	66.1
Total		3,983	9,239	3,551	7,979	1,260	115.8

● Waste and Byproducts Control (Recycling) Benefit (Volume of recycled wastes and byproducts in terms of CO₂)

Wastes and byproducts	Discharge Coefficient CO ₂ t/t	FY 2005				
		Discharge t/y	in CO ₂ t/y	Recycled t/y	Recycling rate %	Recycling volume in CO ₂ t/y
Plastics	2.600	177	460	149	84.2	387
Cardboard, wood chips	1.650	117	193	117	100.0	193
Waste oil	2.900	0	0	0	—	0
Sludge	1.100	244	268	244	100.0	268
Plant residues	2.442	3,377	8,247	3,377	100.0	8,247
Garbage	2.442	29	71	0	0.0	0
Unburnable wastes	0.000	39	—	39	—	—
Total		3,983	9,239	3,926	98.6	9,095

Other Environmental Loads (Volumes of water usage and air pollutants discharge (NO_x and SO_x))

	FY 2005	FY 2004	Rise and fall	FY 2005/FY 2004 %
Water	737,000 kℓ	722,000 kℓ	15,000 kℓ	102.1
NO _x	10,641 kg	10,498 kg	143 kg	101.4
SO _x	3,998 kg	3,982 kg	16 kg	100.4



Environmental Accounting KIKKOMAN FOODS, INC. (KFI)

Company Profile

Head Office	N1365 Six Corners Road, Walworth, WI 53184, U.S.A.
Factories	
• Wisconsin Plant (State of Wisconsin, United States)	
Founded	1972
Major Products	Kikkoman soy sauce, teriyaki sauce, memmi and tempura sauce, etc.
• California Plant (State of California, United States)	
Founded	1998
Major Products	Kikkoman soy sauce

Evaluation and Analysis for FY 2005

Investment in Environmental Preservation

For FY 2005, KFI invested ¥194 million in environmental preservation, an increase of ¥63 million from the previous fiscal year. Major investment items were wastewater treatment and heat recovery equipment.

Expenditures for Environmental Preservation

KFI's environmental preservation expenditures for FY 2005 increased ¥19 million from the previous year to ¥131 million.

This was mainly due to an increase in consulting and em-

ployee training expenses, which were required to reinforce environmental management systems under the ISO 14001 certification.

Environmental Preservation Benefits

The environmental preservation benefits of KFI for FY 2005 increased ¥51 million from the previous year to ¥180 million.

This increase was mainly attributable to considerable improvement of the energy (fossil fuels) use reduction benefit and the wastes and byproducts control (recycling) benefit.

Environmental Accounting

Investment and Expenditure for Environmental Preservation

(Millions of yen: Amounts less than a unit are rounded off.)

Category	Investment	Expenditure
Business Area Costs	190	95
Pollution Prevention	167	78
Global Environmental Conservation	23	6
Resource Circulation	0	11
Upstream/Downstream Costs	0	0
Distribution		
Administration Costs	4	36
Environmental Preservation	4	36
R&D Costs	0	0
R&D		
Social Activities Costs	0	0
Nature Preservation, Supporting Environmental Preservation Organizations and Local Communities		
Environmental Remediation Costs	0	0
Restoration Costs of Environmental Damage, Payments for Settlements, Reserve Funds		
Total	194	131

Environmental Preservation Benefits

● Energy Use Reduction Benefit (Environmental loads by energy type in terms of CO₂)

Energy	Discharge coefficient	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Consumption	in CO ₂ t/y	Consumption	in CO ₂ t/y		
Electricity	0.378 CO ₂ t/1,000kwh	27,294,000 kwh	10,317	25,776,000 kwh	9,743	574	105.9
Gas	2.108 CO ₂ t/1,000m ³	6,477,000 m ³	13,654	6,522,000 m ³	13,748	-95	99.3
Gasoline	2.322 CO ₂ t/kℓ	7 kℓ	16	4 kℓ	9	7	175.0
Total			23,987		23,501	486	102.1

● Wastes and Byproducts Reduction Benefit (Environmental loads by waste and byproduct type in terms of CO₂)

Wastes and byproducts	Discharge Coefficient CO ₂ t/t	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Discharge t/y	in CO ₂ t/y	Discharge t/y	in CO ₂ t/y		
Plastics	2.600	88	229	46	120	109	191.3
Cardboard, wood chips	1.650	191	315	184	304	12	103.8
Waste oil	2.900	4	12	0	0	12	—
Sludge	1.100	1,823	2,005	1,226	1,349	657	148.7
Plant residues	2.442	355	867	317	774	93	112.0
Garbage	2.442	148	361	97	237	125	152.6
Unburnable wastes	0.000	147	—	616	—	—	23.9
Total		2,756	3,789	2,486	2,783	1,006	136.2

● Waste and Byproducts Control (Recycling) Benefit (Volume of recycled wastes and byproducts in terms of CO₂)

Wastes and byproducts	Discharge Coefficient* CO ₂ t/t	FY 2005				
		Discharge t/y	in CO ₂ t/y	Recycled t/y	Recycling rate %	Recycling volume in CO ₂ t/y
Plastics	2.600	88	229	54	61.4	140
Cardboard, wood chips	1.650	191	315	191	100.0	315
Waste oil	2.900	4	12	4	100.0	12
Soy sauce cake (feed)	1.180	8,947	10,557	8,947	100.0	10,557
Soy sauce oil (other use)	2.700	145	392	145	100.0	392
Sludge	1.100	1,823	2,005	0	0.0	0
Plant residues	2.442	355	867	24	6.8	59
Garbage	2.442	148	361	0	0.0	0
Unburnable wastes	0.000	147	—	147	100.0	—
Total		11,848	14,738	9,512	80.3	11,475

*Discharge coefficient of soy sauce cake and soy sauce oil are determined by the Kikkoman Group.

Other Environmental Loads (Volumes of water usage and air pollutants discharge (NO_x and SO_x))

	FY 2005	FY 2004	Rise and fall	FY 2005/FY 2004 %
Water	575,000 kℓ	636,000 kℓ	-61,000 kℓ	90.4
NO _x	15,739 kg	15,325 kg	414 kg	102.7
SO _x	0 kg	0 kg	0 kg	—



Environmental Accounting

KIKKOMAN (S) PTE. LTD. (KSP)

Company Profile

Head Office	7 Senoko Crescent, Singapore 758263
Factory	7 Senoko Crescent, Singapore 758263
Founded	1983
Major Products	Kikkoman soy sauce and teriyaki sauce

Evaluation and Analysis for FY 2005

Investment in Environmental Preservation

For FY 2005, KSP invested ¥18 million in environmental preservation, an increase of ¥10 million from the previous fiscal year.

Contributing factors were increased investments in measures such as noise reduction and wastewater load reduction.

Expenditures for Environmental Preservation

KSP's environmental preservation expenditures for FY 2005 increased ¥8 million from the previous year to ¥17 million.

This increase was mainly due to the increased expenses for wastewater load reduction and energy conservation measures.

Environmental Preservation Benefits

The environmental preservation benefits of KSP for FY 2005 increased ¥17 million from the previous year to ¥42 million.

This increase was mainly attributable to improvement of the energy use reduction benefit and the wastes and byproducts control (recycling) benefit.

Environmental Accounting

Investment and Expenditure for Environmental Preservation

(Millions of yen: Amounts less than a unit are rounded off.)

Category	Investment	Expenditure
Business Area Costs	18	14
Pollution Prevention	15	11
Global Environmental Conservation	3	1
Resource Circulation		2
Upstream/Downstream Costs	0	0
Distribution		
Administration Costs	0	2
Environmental Preservation		2
R&D Costs	0	0
R&D		
Social Activities Costs	0	1
Nature Preservation, Supporting Environmental Preservation Organizations and Local Communities		1
Environmental Remediation Costs	0	0
Restoration Costs of Environmental Damage, Payments for Settlements, Reserve Funds		
Total	18	17

Environmental Preservation Benefits

● Energy Use Reduction Benefit (Environmental loads by energy type in terms of CO₂)

Energy	Discharge coefficient	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Consumption	in CO ₂ t/y	Consumption	in CO ₂ t/y		
Light oil	2.624 CO ₂ t/kℓ	409 kℓ	1,073	529 kℓ	1,388	-315	77.3
Electricity	0.378 CO ₂ t/1,000kwh	2,633,000 kwh	995	2,803,000 kwh	1,060	-64	93.9
Total			2,068		2,448	-379	84.5

● Wastes and Byproducts Reduction Benefit (Environmental loads by waste and byproduct type in terms of CO₂)

Wastes and byproducts	Discharge Coefficient CO ₂ t/t	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Discharge t/y	in CO ₂ t/y	Discharge t/y	in CO ₂ t/y		
Cardboard, wood chips	1.650	33	54	34	56	-2	97.1
Waste oil	2.900	0	0	0	0	0	—
Garbage	2.442	271	662	271	662	0	100.0
Total		304	716	305	718	-2	99.8

● Waste and Byproducts Control (Recycling) Benefit (Volume of recycled wastes and byproducts in terms of CO₂)

Wastes and byproducts	Discharge Coefficient* CO ₂ t/t	FY 2005				
		Discharge t/y	in CO ₂ t/y	Recycled t/y	Recycling rate %	Recycling volume in CO ₂ t/y
Cardboard, wood chips	1.650	33	54	33	100.0	54
Waste oil	2.900	0	0	0	—	0
Soy sauce cake (feed)	1.180	1,048	1,237	1,048	100.0	1,237
Soy sauce oil (other use)	2.700	5	14	5	100.0	14
Garbage	2.442	271	662	271	100.0	662
Total		1,357	1,966	1,357	100.0	1,966

*Discharge coefficient of soy sauce cake and soy sauce oil are determined by the Kikkoman Group.

Other Environmental Loads (Volumes of water usage and air pollutants discharge (NO_x and SO_x))

	FY 2005	FY 2004	Rise and fall	FY 2005/FY 2004 %
Water	62,000 kℓ	73,000 kℓ	-11,000 kℓ	84.9
NO _x	1,411 kg	1,649 kg	-238 kg	85.6
SO _x	205 kg	265 kg	-60 kg	77.4



Environmental Accounting

KIKKOMAN FOODS EUROPE B.V. (KFE)

Company Profile

Head Office	De Vosholen 100, 9611 TG Sappemeer, The Netherlands
Factory	De Vosholen 100, 9611 TG Sappemeer, The Netherlands
Founded	1996
Major Products	Kikkoman soy sauce, teriyaki sauce, etc.

Evaluation and Analysis for FY 2005

Investment in Environmental Preservation

For FY 2005, KFE invested ¥1 million in environmental preservation, equivalent to that for FY 2004.

Expenditures for Environmental Preservation

KFE's environmental preservation expenditures for FY 2005 were ¥30 million, almost equivalent to those for FY 2004.

Environmental Preservation Benefits

The environmental preservation benefits of KFE for FY 2005 rose ¥7 million from the previous year to ¥23 million. This increase was mainly attributable to the improved wastes and byproducts control (recycling) benefit.

Environmental Accounting

Investment and Expenditure for Environmental Preservation

(Millions of yen: Amounts less than a unit are rounded off.)

Category	Investment	Expenditure
Business Area Costs	1	19
Pollution Prevention		15
Global Environmental Conservation		
Resource Circulation	1	4
Upstream/Downstream Costs	0	0
Distribution		
Administration Costs	0	5
Environmental Preservation		5
R&D Costs	0	0
R&D		
Social Activities Costs	0	6
Nature Preservation, Supporting Environmental Preservation Organizations and Local Communities		6
Environmental Remediation Costs	0	0
Restoration Costs of Environmental Damage, Payments for Settlements, Reserve Funds		
Total	1	30

Environmental Preservation Benefits

● Energy Use Reduction Benefit (Environmental loads by energy type in terms of CO₂)

Energy	Discharge coefficient	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Consumption	in CO ₂ t/y	Consumption	in CO ₂ t/y		
Electricity	0.378 CO ₂ t/1,000kwh	2,286,000 kwh	864	2,379,000 kwh	899	-35	96.1
Gas	2.108 CO ₂ t/1,000m ³	802,000 m ³	1,691	868,000 m ³	1,830	-139	92.4
Total			2,555		2,729	-174	93.6

● Wastes and Byproducts Reduction Benefit (Environmental loads by waste and byproduct type in terms of CO₂)

Wastes and byproducts	Discharge Coefficient CO ₂ t/t	FY 2005		FY 2004		Rise and fall in CO ₂ t/y	FY 2005/FY 2004 %
		Discharge t/y	in CO ₂ t/y	Discharge t/y	in CO ₂ t/y		
Plastics	2.600	5	13	5	13	0	100.0
Cardboard, wood chips	1.650	23	38	27	45	-7	85.2
Waste oil	2.900	1	3	1	3	0	100.0
Garbage	2.442	30	73	26	63	10	115.4
Unburnable wastes	0.000	8	—	8	—	—	100.0
Total		67	127	67	124	3	102.6

● Waste and Byproducts Control (Recycling) Benefit (Volume of recycled wastes and byproducts in terms of CO₂)

Wastes and byproducts	Discharge Coefficient* CO ₂ t/t	FY 2005				
		Discharge t/y	in CO ₂ t/y	Recycled t/y	Recycling rate %	Recycling volume in CO ₂ t/y
Plastics	2.600	5	13	5	100.0	13
Cardboard, wood chips	1.650	23	38	23	100.0	38
Waste oil	2.900	1	3	0	0.0	0
Soy sauce cake (feed)	1.180	836	986	836	100.0	986
Soy sauce oil (other use)	2.700	0	0	0	—	0
Garbage	2.442	30	73	30	100.0	73
Unburnable wastes	0.000	8	—	8	100.0	—
Total		903	1,114	902	99.9	1,111

*Discharge coefficient of soy sauce cake and soy sauce oil are determined by the Kikkoman Group.

Other Environmental Loads (Volumes of water usage and air pollutants discharge (NO_x and SO_x))

	FY 2005	FY 2004	Rise and fall	FY 2005/FY 2004 %
Water	37,000 kℓ	43,000 kℓ	-6,000 kℓ	86.0
NO _x	1,622 kg	1,728 kg	-106 kg	93.9
SO _x	0 kg	0 kg	0 kg	—